File: 660.22A S.E.





#### **ADMINISTRATIVE RECORD COVER SHEET**

AR File Number 816

Part # of #

December 2005 Revision 0

Results of Bi-Annual Groundwater Sampling – July 2005 Operable Units 6,7, and 8 Defense Supply Center Richmond

**APPENDIX A2** 

SAMPLE COLLECTION LOGS

1

Results of Bi-Annual Groundwater Sampling – July 2005 Operable Units 6,7, and 8 Defense Supply Center Richmond

December 2005 Revision 0

1

**APPENDIX A2** 

2 3

**OPERABLE UNIT 6** SAMPLE COLLECTION LOGS

JOB No. 6301-05-0016

JOB NAME DSCR - OU8- Semi-Annual Monitoring

DATE 7/12/05 TIME 0900

SAMPLING POINT: 773-07/2 0-5

DEPTH NA

					DEPTH_	NA
SAMPLE INFORMATION	ON S	AMPLE I.D. NO	.: TB-07/2	.05		
MATERIAL:	⊠ WATER	SOIL		SLUDGE	□ отн	ER (LIST)
TYPE:	⊠ GRAB	□ сомі	POSITE	OTHER (LIST)		
HAZARDOUS?:	YES	⊠ NO		UNKNOWN		
	NTAINER		NUMBER	PRESERVAT PREPARAT		COMMENTS
TYPE VOA VIAL	<u></u>	OLUME 40 ml	2	HCl to pH<2, Coo		VOCs by SW8260B
			3	HCl to pH<2, Coo		Methane, ethane, ethene by RSK-
VOA VIAL	-	40 ml	<del></del> -	Cool to 4°C		175 CO <sub>2</sub> by RSK-175
VOA VIAL		40 ml	2	Cool to 4°C	<u> </u>	CO2 by NON-175
			<del></del>			
	·					
					······	
			<u> </u>			
			· <u></u>			
COMMENTS: (WEI	LL PURGING	G VOLUME: SA	MPLE APPEA	RANCE; ODOR; CC	LOR, ETC	S.)
					-	
FIELD MEASUREMEN	VTS					
PARAMETE	R	EQUIPM	ENT I.D.	RESULTS (U	JNITS)	COMMENTS
		_				
		See asso	ciated purge for	rm for sampling deta	ail	
COMMENTS: (WE	LL PURGIN	G VOLUME: SA	MPLE APPEA	RANCE; ODOR; CC	DLOR, ETC	<b>5.</b> )
05115011 11505114	TON I	MEATHED	.,		NID TEMP	RATURE 789F
GENERAL INFORMA	IION	WEATHER	Sunny		AIR LEIVIPI	RATURE 181
SAMPLES SHIPPE	D TO: <u>Colur</u>	nbia Analytical S	Services - Califo	ornia		<del></del>
SPECIAL HANDLIN	IG: <u>FedEx</u>					
MODE OF SHIPME	NT:	CAR/TRUCK	K [] E	BUS 🖾 P	LANE	COMMERCIAL VEHICLE
QA/QC			1			
TAMBLE COLLECT		Daniel H		SAMPLING OBS	EDVED BY	<b>/</b> .
SAMPLE COLLECT	FD RA:	Dan M	"and	SAMPLING UBS	EKAED RJ	I
DISCREPANCIES:						

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/12/05 TIME 1155

SAMPLING POINT: AEHA - 1813

DEPTH 10-5

			DEPTH_	10.57
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: AEHA-18	3A - 0705	
MATERIAL:	WATER SOIL		☐ SLUDGE ☐ OTH	ER (LIST)
TYPE:	GRAB ☐ COM	POSITE	OTHER (LIST)	
HAZARDOUS?:	YES 🛛 NO		UNKNOWN	
CONT		NUMBER	PRESERVATIVE/	COMMENTS
TYPE	VOLUME		PREPARATION	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B  Methane, ethane, ethene by
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20
				,
	<u> </u>			
COMMENTS: (WELL S	PURGING VOLUME: SA	AMPLE APPEA	RANCE; ODOR; COLOR, ETC	2.)
FIELD MEASUREMENTS	3			
PARAMETER	EQUIPM	IENT I.D.	RESULTS (UNITS)	COMMENTS
	See assoc	ciated purge for	m for sampling detail	
COMMENTS: (WELL I	PURGING VOLUME: SA	AMPLE APPEA	RANCE; ODOR; COLOR, ETC	5.)
GENERAL INFORMATIO	N WEATHER #	umo/(con	AIR TEMPE	RATURE ~ 75°
SAMPLES SHIPPED T	O: Columbia Analytical	Services - Redo	ling, California/ Microseeps – F	Pittsburg, PA
SPECIAL HANDLING:				
MODE OF SHIPMENT		K DE	BUS PLANE	COMMERCIAL VEHICLE
QA/QC				
SAMPLE COLLECTED SCREPANCIES:			SAMPLING OBSERVED BY	/: OK

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/12/05 TIME 12/05

SAMPLING POINT: AFHA-18B

DEPTH

	KEPOK	1		SAMPLIN DEPTH_	IG POINT: AEHA-18B
SAMPLE INFORMATION	SAMPLE I.D. N	o: AFHA-	18B-0705		
MATERIAL:	WATER SOI	L	SLUDGE	□отн	ER (LIST)
TYPE:	GRAB CO	MPOSITE	OTHER (LIST)		
HAZARDOUS?: -	YES NO		UNKNOWN		
	AINER	NUMBER	PRESERVAT	i	COMMENTS
TYPE	VOLUME		PREPARATI		
VOA VIAL	40 ml	3	HCI to pH<2, Cool		VOCs by SW8260B  Methane, ethane, ethene by
VOA VIAL	40 ml	3	HCl to pH<2, Cool		RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Coo		TOC by E 415.1
VOA VIAL	40 mi	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	of to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	;	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
					,
COMMENTS: (WELL	PURGING VOLUME: S Purged.	AMPLE APPEA	 RANCE; ODOR; CO	LOR, ETC.	.)
FIELD MEASUREMENTS	<u> </u>				
PARAMETER	EQUIPA	MENT I.D.	RESULTS (U	NITS)	COMMENTS
	See asso	ciated purge form	n for sampling detail	!	
	purging volume: s r + colorless n	_	RANCE; ODOR; CO	LOR, ETC.	)
GENERAL INFORMATIO			mostly sumy A	IR TEMPE	RATURE ~80-85°F
SPECIAL HANDLING:					
MODE OF SHIPMENT	: CAR/TRUC	К □В	US 🛛 PL	ANE	COMMERCIAL VEHICLE
MPLE COLLECTED DISCREPANCIES:	BY: Doved Kr	land	SAMPLING OBSE	:RVED BY:	

JOB No. 6301-05-001	6
JOB NAME <u>DSCR - O</u> Monitoring	U6- Semi-Annual
DATE 7-12-05	TIME 1500
SAMPLING POINT:	FHA-25B
DEPTH Newcomet	TIMP

		REPUR	•			NG POINT: AEHA-25B
SAMPLE INFORMA	TION	SAMPLE I.D. N	ю.: ДЕНД-	25B- 0705		
MATERIAL:	<b>⊠</b> WATE			SLUDGE	□ OTŀ	IER (LIST)
TYPE:	— ⊠ GRAB	□ co	MPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES	⊠ NO				
C	ONTAINER		NUMBER	PRESERVAT	TVE/	COMMENTS
TYPE		VOLUME	NOWIDER	PREPARAT	ION	COMMENTS
VOA VIAL		40 ml	3	HCI to pH<2, Cool		VOCs by SW8260B
VOA VIAL		40 ml	3	HCl to pH<2, Cool	· · · · · · · · · · · · · · · · · · ·	Methane, ethane, ethene by RSK- 175
Amber Glass		250 mL	1	H2SO4 to pH<2,Co	ool to 4°C	TOC by E 415.1
VOA VIAL		40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly		500 ml	1	ZnAc & NaOH, Coo	of to 4°C	Sulfide by E376.1
Poly		500 ml	1	. Cool to 4°C	;	Alkalinity by E310.1 and Anions (NO <sub>3</sub> , SO <sub>4</sub> , Cl) by E300.0
Poly		500 mL	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL		20 ml	1	None Do Not	Cool	Hydrogen by AM 20
Amber Glass		250 ml	1	H₃PO₄ to pH <2;Co	ol to 4°C	Volatile Fatty Acids by D1552
•				RANCE; ODOR; CO	-	c.)
FIELD MEASUREM	ENTS					
PARAME	TER	EQUIP	MENT I.D.	RESULTS (U	NITS)	COMMENTS
		See ass	ociated purge for	m for sampling deta	il	
•				RANCE; ODOR; CO	-	;.)
JODAL VOLUM	e pubbet	> ~75 ap	mons, con	objess odd	2 <del>55</del> 5	
GENERAL INFORM	ATION	WEATHER H	ot, UumiD,	16HT PAIN A	IR TEMPE	RATURE 95-100°F
SAMPLES SHIPP	ED TO: <u>Col</u>	ımbia Analytical	Services - Califo	rnia/ <u>Microseeps F</u>	<sup>2</sup> ittsburg, F	PA
SPECIAL HANDLE	NG: <u>FedEx</u>			<del> </del>		
MODE OF SHIPM	ENT:	☐ CAR/TRUC	к □в	US 🖾 PL	ANE	COMMERCIAL VEHICLE
QA QA						
SAMPLE COLLEC	TED BY: _	TEDWITTE	MANN	SAMPLING OBSE	RVED BY	: TERREU PARKER
DISCREPANCIES	NONE					

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7-12-05 TIME 1200 PD SAMPLING POINT: AFIA - DSR

				DEPTH_	DEDICATED PUMP
SAMPLE INFORMATION	N SAMPLE I.D. N	0.: OUGO	070-4-070	5	
MATERIAL:	WATER SOIL		SLUDGE	_	ER (LIST)
TYPE:	GRAB ☐ CON	<b>IPOSITE</b>	OTHER (LIST)		
HAZARDOUS?:	] YES ⊠ NO		UNKNOWN		
	TAINER	NUMBER	PRESERVATI		COMMENTS
TYPE	VOLUME		PREPARATIO		
VOA VIAL	40 ml	3	HCl to pH<2, Cool t	<del></del> !	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to		Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Cool	to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Coo	l to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COL	OR, ETC.	)
TOTAL VOLUME	PURGED = 7.5 6	BALLONS, C	LOLOPLESS, OD	olless	
FIELD MEASUREMENT	S	•		<del></del>	
PARAMETER	EQUIPM	MENT I.D.	RESULTS (UN	IITS)	COMMENTS
	See asso	ciated purge forr	m for sampling detail		
	PURGING VOLUME: SA		•		colories odoeless $D \approx 7.5$ Aalons
GENERAL INFORMATIO	ON WEATHER F	LOT HUMID	UGHT PAIN AIR	R TEMPE	RATURE 95-100°F
SAMDI ES SHIPPED I	TO: Columbia Analytical	Services – Rodd	line California/ Micros	coene — Pi	ittehura DA
SPECIAL HANDLING:		Jei vices - i teau	IIIQ, California Micros	<u>seehs — i i</u>	manning, FA
MODE OF SHIPMENT	_	к 🗍 в	US PLA	\NE	COMMERCIAL VEHICLE
QA/QC				<del></del>	
	DBY: TED WITTE	₹MANN	SAMPLING OBSER	RVED BY:	TERREL PARKER
DISCREPANCIES:	NONE				

JOB No. 6301-05-0016.

JOB NAME DSCR - OUG- Semi-Annual Monitoring

DATE 712-05 TIME 15:00

SAMPLING POINT: #EHH-25H

DEPTH Tordicated Maddes num

				DEPTH 2	redicated bladder pring
SAMPLE INFORMATION	SAMPLE I.D. NO	DE AFHA-	25A-0705		
MATERIAL:	WATER ☐ SOIL		SLUDGE	□отн	ER (LIST)
TYPE:	GRAB □ COM	POSITE	OTHER (LIST)		
	YES NO			•	
CONT		MUMADED	PRESERVAT	ΓΙVΕ/	COMMENTS
TYPE	VOLUME	NUMBER	PREPARAT	ION	COMMENTS
VOA VIAL	40 ml	3 ,	HCI to pH<2, Coo	to 4°C	VOCs by SW8260B
VÓA VIAL	40 ml	3 ,	HCI to pH<2, Coo		Methane, ethane, ethene by RSK-175
Amber	250 ml	ر 1	H₂SO₄ to pH<2,Co		TOC by E 415.1
VOA VIAL	40 ml	3	unpresented	3	CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Co	ol to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
				<del></del>	
		· · · · · · · · · · · · · · · · · · ·			
					•
COMMENTS: (WELL F	PURGING VOLUME: SA	MPLE APPEAF	RANCE; ODOR; CC	LOR, ETC	.)
^	ycleAR NO OBOX				
FIELD MEASUREMENTS	<del>/                                    </del>				
PARAMETER	EQUIPM	ENT I.D.	RESULTS (L	JNITS)	COMMENTS
	See assoc	ciated purge for	n for sampling detai	il	
COMMENTS: (WELL F	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; CC	LOR, ETC	.)
GENERAL INFORMATIO	N WEATHER	CLOUST, 30	°C A	AIR TEMPE	RATURE 30°C
SAMPLES SHIPPED T	O: Columbia Analytical S	Services – Redd	ing, California/ Micr	oseeps – F	Pittsburg, PA
SPECIAL HANDLING:	FedEx				
MODE OF SHIPMENT	: CAR/TRUC	K □B	US 🖾 PI	LANE	COMMERCIAL VEHICLE
QA/QC		<del> </del>		<del></del>	
SAMPLE COLLECTED SCREPANCIES:	BY: 1. PARKER, O	26P	SAMPLING OBSI	ERVED BY	Tod wittemans

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/12/05 TIME 1255

SAMPLING POINT: QEHA-5

DEPTH\_

				DEPTH _	
SAMPLE INFORMATION	N SAMPLE I.D. N	IO.: QEHA-	5-0705		
MATERIAL.	WATER ☐ SOI		SLUDGE	□отн	ER (LIST)
TYPE:	GRAB CO	MPOSITE	OTHER (LIST)		
HAZARDOUS?:	] YES 🔲 NO		UNKNOWN		
CONT	TAINER	NUMBER	PRESERVATI		COMMENTS
TYPE	VOLUME	NOWBER	PREPARATION	ON	COMMILITY
· VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B
VOA VIAL	40 mi	3	HCi to pH<2, Cool t	to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Cool	to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	· 500 ml	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
COMMENTS: (WELL	PURGING VOLUME: S	SAMPLE APPEAR	RANCE; ODOR; COL 5,5 gallo		)
FIELD MEASUREMENT	S	V	J		`.
PARAMETER	EQUIP	MENT I.D.	RESULTS (UN	VITS)	COMMENTS
	See asso	ociated purge for	m for sampling detail		
COMMENTS: (WELL	PURGING VOLUME: 8	SAMPLE APPEAR	RANCE; ODOR; COL	OR, ETC.	)
GENERAL INFORMATION	ON WEATHER _	claud	Y AI	R TEMPE	RATURE 880
SAMPLES SHIPPED SPECIAL HANDLING:	TO: <u>Columbia Analytical</u> : <u>FedE</u> x	Services - Redd	ing, California/ Micro	seeps – P	ittsburg, PA
MODE OF SHIPMENT	T: CAR/TRUC	CK □B	US 🔯 PL/	ANE	COMMERCIAL VEHICLE
QA/QC		Ille			
SAMPLE COLLECTER SCREPANCIES:	ову: Му	My_	SAMPLING OBSE	RVED BY:	

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/12/05 TIME 200

SAMPLING POINT: AEHA-5

DEPTH

SAMPLE INFORMATION	SAMPLE I.D. N	0.: OU6I	UP-1-0705			
MATERIAL:	WATER SOIL	-	SLUDGE OT	HER (LIST)		
TYPE:	GRAB 🗌 COM	MPOSITE	OTHER (LIST)			
HAZARDOUS?:	YES 🖾 NO		UNKNOWN			
CONT		NUMBER	PRESERVATIVE/	COMMENTS		
TYPE	VOLUME		PREPARATION			
VOA VIAL	40 ml	13	HCl to pH<2, Cool to 4°C	VOCs by SW8260B  Methane, ethane, ethene by		
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	RSK-175		
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175		
Poly	500 ml	71	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1		
Poly	500 ml	81	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0		
Poly	500 mt	21	HNO <sub>3</sub> to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None	Hydrogen by AM 20		
COMMENTS: (WELL F	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COLOR, ET	C.)		
FIELD MEASUREMENTS			<del>J</del>			
PARAMETER	EQUIPM	IENT I.D.	RESULTS (UNITS)	COMMENTS		
COMMENTS: (WELL F	See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFORMATIO	N WEATHER	cloudy	AIR TEMP	PERATURE 66		
SAMPLES SHIPPED T	O: <u>Columbia Analytical S</u>	Services - Redd	ing, California/ Microseeps -	Pittsburg, PA		
SPECIAL HANDLING: I	FedEx					
MODE OF SHIPMENT:	☐ CAR/TRUC	K □B	US 🛛 PLANE	COMMERCIAL VEHICLE		
ANQC						
SAMPLE COLLECTED	BY: My	elly	SAMPLING OBSERVED B	Y:		
DISCREPANCIES:						

JOB No. 6301-05-0016

JOB NAME DSCR - OUG- Semi-Annual Monitoring

DATE 7/12/05 TIME 1630

SAMPLING POINT: AFMA - 248

DEPTH

SAMPLE INFORMATION	SAMPLELD NO	) · A Dal A . C	VIA 43.45	
<del></del>		=	•	ED (LICT)
<del>_</del>	WATER SOIL		<del>·</del>	ER (LIST)
	<del></del>	POSITE	OTHER (LIST)	
	YES NO		UNKNOWN	
TYPE	AINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Coal to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 mì	1	None	Hydrogen by AM 20
				. [
•	. , 🕿	MPLE APPEAF SALLIN	RANCE; ODOR; COLOR, ETC	.)
FIELD MEASUREMENTS	3	<del>'' </del>	_	
PARAMETER	EQUIPM	ENTID	RESULTS (UNITS)	COMMENTS
17,40,4112			1.200210 (011110)	1 COMMENTO
	See assoc	ciated purge forr	n for sampling detail	
COMMENTS: (WELL	PURGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COLOR, ETC	.)
SAMPLE CL	EAR, NO ODD			
GENERAL INFORMATIO	WEATHER HO	T. HUND	AIR TEMPE	RATURE <u>%</u> S
SAMPLES SHIPPED T	O: Columbia Analytical S	Services - Redd	ing, California/ Microseeps – P	ittsburg, PA
SPECIAL HANDLING:	FedEx			
MODE OF SHIPMENT	: CAR/TRUCK	С □В	US 🔀 PLANE	COMMERCIAL VEHICLE
QA/QC	_	<u> </u>		
SAMPLE COLLECTED	NBY: Da 1/2		SAMPLING OBSERVED BY	
SISCREPANCIES:	101. <u></u>		OVMLTING OBSELACO BI	•
-DISCILLY ANOILS.				

JOB No. 6301-05-0016

JOB NAME DSCR - OUG- Semi-Annual Monitoring

DATE 1-12-2005 TIME 1700

SAMPLING POINT: AFAIR-JAB

DEPTH

			•	DEPTH_	
SAMPLE INFORMATION	SAMPLE I.D. N	O. AFHA- O	14B-0705	······································	
MATERIAL:	WATER SOIL		SLUDGE	OTHE	R (LIST)
TYPE:	GRAB CON	(POSITE	OTHER (LIST)		· /
HAZARDOUS?:	YES 🔯 NO		UNKNOWN		
CONT	AINER	NUMBER	PRESERVATI	VE/	
TYPE	VOLUME	NUMBER	PREPARATION	1	COMMENTS
VOA VIAL	40 ml	3	HCI to pH<2, Cool t	to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool t	to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 mi	1	H₂SO₄ to pH<2,Cool	to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO <sub>2</sub> by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , C1 by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Coo	l to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
_	PURGING VOLUME: SA	MPLE APPEAF	RANCE; ODOR; COL	OR, ETC.)	
Hoparox. 5 Gallons t	otal purge Volume				
FIELD MEASUREMENTS	<u> </u>				
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UN	IITS)	COMMENTS
	See assoc	ciated purge form	n for sampling detail		
	PURGING VOLUME: SA No odor	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.)	
GENERAL INFORMATIO	,	+ humid ,90	S AIF	RTEMPER	ATURE 70'S
SAMPLES SHIPPED T	O: <u>Columbia Analytical S</u>	Shower Services – Reddi	ng, California/ Micros	seeps – Pit	tsburg, PA
SPECIAL HANDLING:	FedEx				
MODE OF SHIPMENT:	CAR/TRUCK	( □ВІ	JS 🛛 PLA	NE	COMMERCIAL VEHICLE
QA/QC				<del></del>	
MPLE COLLECTED	BY: LUKE CLARK		SAMPLING OBSER	RVED BY:	7.V.
DISCREPANCIES:					

JOB No. 6301-05-0016

JOB NAME DSCR — OU6- Semi-Annual Monitoring

DATE 7//3/05 TIME 0830

SAMPLING POINT:

DEPTH NA

•	KEPOK	I		SAMPLII DEPTH	NG POINT:
SAMPLE INFORMATION	SAMPLE I.D. NO	O.: ТВ - <b>07</b> [:	305		
MATERIAL: 🛛 WATE	ER ☐ SOIL	•	SLUDGE	□ OTH	IER (LIST)
TYPE: SRAE	B □ COM	IPOSITE	OTHER (LIST)		
HAZARDOUS?: YES	⊠ NO				
CONTAINER		NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME		PREPARAT		
VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B
VOA VIAL	40 mi	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK- 175
VOA VIAL	40 ml	3	Cool to 4°C	<b>;</b>	CO₂ by RSK-175
COMMENTS: (WELL PURG					
PARAMETER		ENT I.D.	RESULTS (Ui		COMMENTS
COMMENTS: (WELL PURG	NG VOLUME: SA	MPLE APPEAF	RANCE; ODOR; CO	LOR, ETC	;. <b>)</b>
GENERAL INFORMATION	WEATHER	Hot Sunn)	/ A	IR TEMPE	RATURE 80°F
SAMPLES SHIPPED TO: Col	- lumbia Analytical 9	Services - Califor	nia		
SPECIAL HANDLING: FedEx		THOUS CHIND			<del></del>
MODE OF SHIPMENT:	CAR/TRUC	(   BI	US 🛛 PL	ANF	☐ COMMERCIAL VEHICLE
QA/QC		Λ	23		
SAMPLE COLLECTED BY: _	Daniel Hm	rad	SAMPLING OBSE	RVED BY	:

JOB No. <u>6301-05-0016</u>
JOB NAME <u>DSCR OU6- Semi-Annual</u> Monitoring
DATE 7/13/05 TIME 945
SAMPLING POINT: MWA50-37

			DEPTH_		
SAMPLE INFORMATION	SAMPLE I.D. NO	D:: MWA50	-37-0705 MS/M	5 <b>0</b> .	
MATERIAL: ⊠W	VATER SOIL		SLUDGE OTH	IER (LIST)	
TYPE: 🖾 G	GRAB COM	POSITE	OTHER (LIST)		
HAZARDOUS?: 🔲 Y	ES 🛛 NO		UNKNOWN		
CONTAI		NUMBER	PRESERVATIVE/	COMMENTS	
TYPE	VOLUME	•	PREPARATION		
VOA VIAL	40 ml	9	HCl to pH<2, Cool to 4°C HCl to pH<2, Cool to 4°C	VOCs by SW8260B  Methane, ethane, ethene by	
VOA VIAL	40 ml	3		RSK-175	
VOA VIAL	40 ml	3	H₂SO₄ to pH<2,Cool to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C	CO <sub>2</sub> by RSK-175	
-Amber Poly	4t 500 ml	3	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1 Alkalinity by E310.1NO <sub>3</sub> ,	
Poly	500 ml	3	Cool to 4°C	SO <sub>4</sub> , Cl by E300.0	
Poly	76 500m	3	HNO <sub>3</sub> to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020	
Amber <del>VOA ₩ar-</del>	40mt 250ml	3	H. Pou 3Cool to 4°C	Volatile Fatty Acids by D1552	
VOA VIAL	20 mi	1	None	Hydrogen by AM 20	
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
TOTAL PUPGE GALLONS					
FIELD MEASUREMENTS				`	
PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS					
7 7 0 0, 1012 1 2.13		ENT I.D.	TREGOLIO (ONTO)	COMMENTO	
	See associa	ated purge form	for sampling detail		
COMMENTS: (WELL PL	JRGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COLOR, ETC	5.)	
SAMPLE CLEAR,	SLIGHT ODOR				
GENERAL INFORMATION		OT & HUMO	AIR TEMPE	RATURE <u>85-30</u>	
SAMPLES SHIPPED TO	· Columbia Analytical S	Services – Redd	ing, California/ Microseeps – F	Pittehura PA	
SPECIAL HANDLING: Fe			111000000 1	THE PERSON OF TH	
MODE OF SHIPMENT:		. <u>П</u> в	US 🛛 PLANE	COMMERCIAL	
MODE OF OTHER MENT.	_ OAR INOOF	, Пр	MALTUME	VEHICLE	
QA/QC					
SAMPLE COLLECTED B	SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:				
DISCREPANCIES:					
DISCINETANCIES					

JOB No. 6301-05-0016				
JOB NAME <u>DSCR - OU</u> Monitoring	6- Semi-Annual			
DATE 7-13-05	TIME 10:15			
SAMPLING POINT: MWA50-38				
DEPTH				

				DEPTH	- 1 0 1 1 5 <i>a</i>	
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: MWAS	0-38-0705	 j		
MATERIAL:	WATER SOIL		SLUDGE	OTHE	R (LIST)	
TYPE:	GRAB COM	POSITE	OTHER (LIST)			
HAZARDOUS?:	YES 🖾 NO		UNKNOWN			
	AINER	NUMBER	PRESERVATIV		COMMENTS	
TYPE	VOLUME		PREPARATIO			
VOA VIAL	40 ml	3	HCI to pH<2, Cool to		VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to		Methane, ethane, ethene by RSK-175	
Amber	250 ml	1 /	H₂SO₄ to pH<2,Cool	to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3 ~	Cool to 4°C		CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0	
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool	to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None		Hydrogen by AM 20	
	COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
CLEAR (2.8 NTU), NO ODOR OR COLOR.						
FIELD MEASUREMENTS	<del></del>				V. V.	
PARAMETER	PARAMETER / EQUIPMENT I.D. RESULTS (UNITS) COMMENTS					
	•					
	See assoc	lated purge form	for sampling detail			
COMMENTS: (WELL!	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.)		
GENERAL INFORMATIO	N WEATHER F	Pantly closes	y lightbreezeAIF	RTEMPER	ATURE 331C	
SAMPLES SHIPPED T	O: Columbia Analytical S	Services – Reddi	ng, California/ Micros	seeps – Pitt	sburg, PA	
SPECIAL HANDLING:					177	
MODE OF SHIPMENT		В	JS ⊠ PLA	NE	COMMERCIAL VEHICLE	
QA/QC	7-13-05			<u></u>		
SAMPLE COLLECTED	•		SAMPLING OBSER	VFD RY		
SAMPLE COLLECTED BY: Terrell Parker OFF SAMPLING OBSERVED BY:						

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/3/65 TIME 1020

SAMPLING POINT: AEHA-15A

DEPTH OFFICE THE PROPERTY OF THE POINTS

			Ι.	DEPTH DEGRATED PUMP	
SAMPLE INFORMATION SAMPLE I.D. NO.: GEHA- 15A-0705					
MATERIAL:	WATER SOIL		SLUDGE	OTHER (LIST)	
TYPE: ☐ GRAB ☐ COME		POSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🖾 NO		UNKNOWN		
CONTA	AINER	NUMBER	PRESERVATIV	/E/ COMMENTS	
TYPE	VOLUME	NOMPLIX	PREPARATIO	N COMMIENTS	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to		
VOA VIAL	40 ml	3	HCl to pH<2, Cool to	RSK-175	
Amber	250 mi	1	H₂SO₄ to pH<2,Cool t	0 4°C TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Cool t		
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0	
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool	to 4°C Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None	Hydrogen by AM 20	
			· · · · · · · · · · · · · · · · · · ·		
			<del></del>		
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
FIELD MEASUREMENTS					
PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS					
	See associated purge form for sampling detail				
COMMENTS: (WELL F	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLO	DR, ETC.)	
GENERAL INFORMATIO	N WEATHER O	sercost /H	mis AIR	TEMPERATURE ~~~	
SAMPLES SHIPPED TO SPECIAL HANDLING: <u>{</u>	O: <u>Columbia Analytical S</u> FedEx	iervices – Reddi	ng, California/ Micros	eeps – Pittsburg, PA	
MODE OF SHIPMENT:	CAR/TRUCK	С □В	JS ⊠ PLAI	NE COMMERCIAL VEHICLE	
QA/QC					
SAMPLE COLLECTED BY: BOX SAMPLING OBSERVED BY: DX					
JOUNE ANGLES.	7/				

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 1/13/05 TIME 105/0

SAMPLING POINT: APAR 218

			DEPTH_	NG POINT: AEHD~218
SAMPLE INFORMATION	SAMPLE I.D. N	IO.: AFHA	-218-0705 ms/m	5O.
MATERIAL:	WATER □ SOI	L 1,12 1,13	☐ SLUDGE ☐ OTH	ER (LIST)
TYPE:	GRAB CO	MPOSITE	OTHER (LIST)	
HAZARDOUS?:	YES 🛭 NO		UNKNOWN	
	AINER	NUMBER	PRESERVATIVE/	COMMENTS
TYPE	VOLUME		PREPARATION	
VOA VIAL	40 ml	9	HCl to pH<2, Cool to 4°C	VOCs by SW8260B  Methane, ethane, ethene by
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	RSK-175
Amber Glass	250 ml	3	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175
Poty	500 ml	3	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	3	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl. by E300.0
	<u> </u>			Tot. Metals by
Poly	500 ml	3	HNO <sub>3</sub> to pH<2, Cool to 4°C	6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20
		-		
COMMENTS: (WELL)		AMPLE APPEAR	RANCE; ODOR; COLOR, ETC	)
FIELD MEASUREMENTS	>			
		MENT LD.	RESULTS (LINITS)	COMMENTS
PARAMETER		MENT I.D.	RESULTS (UNITS)	COMMENTS
	EQUIPA		RESULTS (UNITS)  n for sampling detail	COMMENTS
PARAMETER	EQUIPA See asso	ciated purge form	n for sampling detail	
PARAMETER  COMMENTS: (WELL)	See asso	ciated purge form		
PARAMETER  COMMENTS: (WELL)	EQUIPA See asso PURGING VOLUME: S مر مد ردي/ نحم لدمه	ociated purge form	n for sampling detail	)
PARAMETER  COMMENTS: (WELL)	EQUIPA See asso PURGING VOLUME: S مر مد ردي/ نحم لدمه	ciated purge form	n for sampling detail	) RATURE <u>~80~85</u> %
PARAMETER  COMMENTS: (WELL I	EQUIPM See asso PURGING VOLUME: S مر مد ردي/ ضر لدمي IN WEATHER	ciated purge form	n for sampling detail	RATURE ~80~85°/F ittsburg, PA by comp
PARAMETER  COMMENTS: (WELL I	EQUIPM  See asso  PURGING VOLUME: S  A CO/GC LOD  WEATHER A	ciated purge form	n for sampling detail  RANCE; ODOR; COLOR, ETC	) RATURE ~80~85°F
PARAMETER  COMMENTS: (WELL I  Locker Clea  GENERAL INFORMATIO  SAMPLES SHIPPED T	EQUIPM See asso PURGING VOLUME: S مر مد ردي/ زمر لرمي IN WEATHER إليا O: Columbia Analytical FedEx	AMPLE APPEAR	n for sampling detail  RANCE; ODOR; COLOR, ETC  AIR TEMPE  ing, California/ Microseeps – P	RATURE ~80~85%  ittsburg, PA by comp
COMMENTS: (WELL I Leader Clea GENERAL INFORMATIO SAMPLES SHIPPED T SPECIAL HANDLING:	EQUIPM See asso PURGING VOLUME: S مر مد ردي/ زير لرمي IN WEATHER إليا O: Columbia Analytical FedEx	AMPLE APPEAR	n for sampling detail  RANCE; ODOR; COLOR, ETC  AIR TEMPE  ing, California/ Microseeps – P	RATURE ~80~85%  ittsburg, PA by completed of  COMMERCIAL
PARAMETER  COMMENTS: (WELL II  Lealer Lea  GENERAL INFORMATIO  SAMPLES SHIPPED T  SPECIAL HANDLING:  MODE OF SHIPMENT:	EQUIPM  See asso  PURGING VOLUME: S  N WEATHER A  O: Columbia Analytical  FedEx  CAR/TRUC	Services - Redd	n for sampling detail  RANCE; ODOR; COLOR, ETC  AIR TEMPE  ing, California/ Microseeps – P  US	RATURE ~80~85°/F  ittsburg, PA by comp  end of  COMMERCIAL  VEHICLE
PARAMETER  COMMENTS: (WELL I  Lealer Clea  GENERAL INFORMATIO  SAMPLES SHIPPED T  SPECIAL HANDLING:  MODE OF SHIPMENT	EQUIPM  See asso  PURGING VOLUME: S  N WEATHER A  O: Columbia Analytical  FedEx  CAR/TRUC	Services - Redd	n for sampling detail  RANCE; ODOR; COLOR, ETC  AIR TEMPE  ing, California/ Microseeps – P	RATURE ~80~85°/F  ittsburg, PA by sample of commercial vehicle

JOB No. 6301-05-001	6					
JOB NAME DSCR - C						
Monitoring						
DATE 1-13-05 TIME 200						
SAMPLING POINT: MW450-36						
DEPTH						

			DEPTH_		
SAMPLE INFORMATION SAMPLE I.D. NO.: MWA50-36-0705					
MATERIAL:	WATER SOIL			ER (LIST)	
TYPE: ⊠ GRAB □ COM		IPOSITE	OTHER (LIST)		
HAZARDOUS?:	HAZARDOUS?: ☐ YES 🖾 NO		UNKNOWN		
CONT	AINER	NUMBER	PRESERVATIVE/	COMMENTO	
TYPE VOLUME		NOMBER	PREPARATION	COMMENTS	
VOA VIAL	40 ភារ	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175	
Amber	250 ml	1	H₂SO₄ to pH<2,Cool to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0	
Poly	500 ml	1.	HNO <sub>3</sub> to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None	Hydrogen by AM 20	
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
FIELD MEASUREMENTS					
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS	
	See associated purge form for sampling detail				
	COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)				
GENERAL INFORMATIO	N WEATHER	Wy, wern	AIR TEMPE	RATURE	
SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA  SPECIAL HANDLING: FedEx					
				☐ COMMERCIAL VEHICLE	
QA/QC	1.				
AMPLE COLLECTED BY: SAMPLING OBSERVED BY:					

		·				_	POINTING DAMES OF WEN
S	MPLE INFORMATIO	N S/	AMPLE I.D. NO	DI AFHA-	26B-0705		
	MATERIAL:	WATER	SOIL		SLUDGE		ER (LIST)
	TYPE:	] GRAB	☐ COM	POSITE	OTHER (LIST)		
	HAZARDOUS?:	] YES	⊠ NO		UNKNOWN		
	CONT	TAINER		NUMBER	PRESERVAT	IVE/	COMMENTO
	TYPE	VC	LUME	NOMBEK	PREPARATI	ON	COMMENTS
Ĺ	VOA VIAL		40 ml	3	HCI to pH<2, Cool	to 4°C	VOCs by SW8260B
	VOA VIAL	·	40 ml	3	HCI to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175
	Amber	2	50 ml	1	H₂SO₄ to pH<2,Coo	ol to 4°C	TOC by E 415.1
	VOA VIAL	<u> </u>	40 ml	3	Cool to 4°C		CO₂ by RSK-175
	Poly	5	00 ml	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1
	Poly	5	00 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , C1 by E310.1, E300.0
	Poly	5	00 ml	1	HNO <sub>3</sub> to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020
	VOA VIAL	2	?0 ml	1	None		Hydrogen by AM 20
					-	<u> </u>	
T							
Γ							
_	COMMENTS: (WELL	PURGING	VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	LOR, ETC.	)
FIE	LD MEASUREMENT:	s	<del> </del>				
r	PARAMETER		EQUIPM	FNTID	RESULTS (H)	VITSI	COMMENTS
r	PARAMETER   EQUIPMENT I.D.   RESULTS (UNITS)   COMMENTS					COMMENTS	
			See assoc	iated purge form	for sampling detail		
	4.5 gas	CHAR	No DOAR				
_	COMMENTS: (WELL	, ,		MPLE APPEAR	ANCE: ODOR: COL	OR, ETC.	)
			-				,
GE	NERAL INFORMATIO	N N	/EATHER	P.G. 8	<b>8°</b> F Al	R TEMPER	RATURE 88 °F
;	SAMPLES SHIPPED T	O: <u>Columb</u>	ia Analytical S	ervices – Reddi	ng, California/ Micro	seeps – Pi	ttsbura. PA
	SPECIAL HANDLING:					Ų	
1	MODE OF SHIPMENT	: [	CAR/TRUCK	□ві	JS 🛛 PLA	ANE	COMMERCIAL VEHICLE
QA	/QC			. <u> </u>	·························		
ā			204				_
Ī	MPLE COLLECTED DISCREPANCIES:	BY:	KAD MERAN	47	SAMPLING OBSE	RVED BY:	Amy caummy

JOB No. <u>6301-05-0016</u>
JOB NAME DSCR - OU6- Semi-Annual
Monitoring
DATE 7/13/05 TIME 1250
SAMPLING POINT: AEHA -26A
DEPTH -

					DEPTH_	IG POINT: HEHH JOGH	
S	SAMPLE INFORMATION SAMPLE I.D. NO.: AEHA-26A-0705						
MATERIAL: ⊠WATER ☐ SO				SLUDGE	□отн	ER (LIST)	
	TYPE:	GRAB ☐ COM	POSITE	OTHER (LIST)			
į	HAZARDOUS?:	YES ⊠ NO		UNKNOWN			
	CONT	TAINER	NUMBER	PRESERVAT	IVE/	COMMENTS	
	TYPE	VOLUME	NOMBLIX	PREPARATI	ON	COMMENTS	
	VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B	
	VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK- 175	
	Amber Glass	250 mL	1	H2SO4 to pH<2,Co	of to 4°C	TOC by E 415.1	
	VOA VIAL	40 ml	3	Cool to 4°C	·	CO₂ by RSK-175	
	Poly	500 ml	1	ZnAc & NaOH, Coo	l to 4°C	Sulfide by E376.1	
	Poly	500 ml	1	. Cool to 4°C		Alkalinity by E310.1 and Anions (NO <sub>3</sub> , SO <sub>4</sub> , Cl) by E300.0	
:	Poly	500 mL	1	HNO <sub>3</sub> to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A, 6020	
	VOA VIAL	20 ml	1	None Do Not	Cool	Hydrogen by AM 20	
_	Amber Glass	250 mi	1	H <sub>3</sub> PO <sub>4</sub> to pH <2;Coo	I to 4°C	Volatile Fatty Acids by D1552	
F	COMMENTS: (WELL		/ M	ANCE; ODOR; COL	OR, ETC.		
•							
ı	PARAMETER	EQUIPMI	ENT I.D.	RESULTS (UI	VITS)	COMMENTS	
	See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
G	ENERAL INFORMATIO	WEATHER P	arty chud	y/humid Al	R TEMPE	rature <u>high80'S</u>	
SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps - Pittsburg, PA							
	SPECIAL HANDLING:						
	MODE OF SHIPMENT		// □BU	JS N PL	ANE	☐ COMMERCIAL VEHICLE	
7	QC	- /\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	/-	21.0	15 T E	C COMMETCOINE VERTICE	
	SAMPLE COLLECTED BY: SAMPLING OBSERVED BY: DISCREPANCIES:						
	<del></del>						

JOB No. <u>6301-05-0016</u>
JOB NAME <u>DSCR – OU6- Semi-Annual</u> Monitoring
DATE 7.13-05 TIME 1300
SAMPLING POINT: DMW-7A
DEPTH_DEDICATED

				DEPTH_	DEDICATED
SAMPLE INFORMATION	SAMPLE I.D. NO	Days	74-0705		
MATERIAL:	WATER SOIL	•	SLUDGE OTHER (LIST)		ER (LIST)
TYPE:	GRAB COM	IPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🛛 NO		UNKNOWN		
CONT	AINER	NUMBER	PRESERVAT	IVE/	COMMENTS
TYPE	VOLUME	<del></del>	PREPARATI	ON	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Coo	I to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
COMMENTS: (WELL F	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COI	LOR, ETC.	.)
2 9.5 BAL	LONS PURGED	COLOPLE	SS A DOPLE	SS	
FIELD MEASUREMENTS	<del>`</del>				
PARAMETER	EQUIPM	ENTID	DEQUITE (11	WTC)	COMMENTS
TAICAMLILIC		ĻI4 ( 1.D.	RESULTS (UI	VII S)	COMMENTS
	See assoc	ciated purge forn	n for sampling detail		
COMMENTS: (WELL P	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.	)
_	LONS PURGED		•	•	'
GENERAL INFORMATIO	<del></del>	· · · · · · · · · · · · · · · · · · ·			RATURE 05-100°F
SAMPLES SHIPPED TO		IN ATTE	ZNOON	-	RATURE 95-100°F
SPECIAL HANDLING:				<del></del>	
MODE OF SHIPMENT:	☐ CAR/TRUCK	( DB(	JS 🖾 PL	ANE	COMMEDCIAL .
MODE OF BUILDING	FT OVIN LLOOK	, M D(			☐ COMMERCIAL VEHICLE
QA/QC					
MRIE COLLECTED	DV. Ter in second		OALADI ILIO OBOSS	D. (C. D	Temps - 04 = 4=0
	MPLE COLLECTED BY: TED WITTEWANN SAMPLING OBSERVED BY: TEPPER PARKER				
DISCREPANCIES:	T-NO.				

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/14/05 TIME 0830

SAMPLING POINT:
DEPTH NA

	REPOR		SAMPLI	NA TIME <u>0830</u>	
SAMPLE INFORMATION	SAMPLE I.D. N	Ю.: ТВ - <b>07/</b>	105		
MATERIAL: W	ATER SOI	L	SLUDGE	□отн	IER (LIST)
TYPE: 🛛 GF	RAB 🔲 CO	MPOSITE	OTHER (LIST)		
HAZARDOUS?: YE	S 🛛 NO		UNKNOWN		
CONTAIN		NUMBER	PRESERVATI		COMMENTS
TYPE VOA VIAL	VOLUME 40 ml	3	PREPARATIO	<del></del>	<u> </u>
VOA VIAL	40 ml	3	HCI to pH<2, Cool I	·	VOCs by SW8260B Methane, ethane, ethene by RSK-
VOA VIAL	40 ml	3	Cool to 4°C		175 CO <sub>2</sub> by RSK-175
		<u> </u>	3007.64 0	<del> <u>-</u></del>	002 by 100/E173
		1			
COMMENTS: (WELL PUI	rging volume: s	AMPLE APPEAR	RANCE; ODOR; COL	OR, ETC	5.)
FIELD MEASUREMENTS					
PARAMETER	EQUIP	MENT I.D.	RESULTS (UN	IITS)	COMMENTS
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFORMATION	WEATHER _	Sunnu	All	R TEMPE	RATURE 80°F
CAMPLEO OLUBBED TO					
SAMPLES SHIPPED TO:		Services - Califo	rnia	<del></del>	
SPECIAL HANDLING: Fed				····	
MODE OF SHIPMENT:	☐ CAR/TRUC	K □B	US 🖾 PLA	NE	COMMERCIAL VEHICLE
QA/QC	٠, ١, ١	1			
SAMPLE COLLECTED BY DISCREPANCIES:	David H	med	SAMPLING OBSEF	RVED BY	:

JOB No. 6301-05-0016 
JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/14/05 TIME 0948

SAMPLING POINT: ATHA-288

				SAMPLIN DEPTH_	IG POINT: AEHA-28B
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: AFHA-	28B-6705		
MATERIAL:	WATER	1101111	☐ SLUDGE	OTHE	ER (LIST)
TYPE:	GRAB COM	POSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🖾 NO		UNKNOWN		
	AINER	NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME		PREPARATI		COMMINICATS
VOA VIAL	40 ml	3	HCI to pH<2, Cool		VOCs by SW8260B
VOA VIAŁ	40 mi	3	HCl to pH<2, Cool		Methane, ethane, ethene by RSK-175
Amber	250 ml	11	H₂SO₄ to pH<2,Coo	I to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1
Poły	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Coc	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 mf	1	None		Hydrogen by AM 20
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  FIELD MEASUREMENTS					
PARAMETER	EQUIPMI	ENI I.D.	RESULTS (UN	VITS)	COMMENTS
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFORMATIO	N WEATHER OV	ercost Hot	Humid Al	R TEMPER	RATURE <b>80-85°</b> F
SAMPLES SHIPPED T SPECIAL HANDLING:	O: <u>Columbia Analytical S</u> FedEx	ervices – Reddi	ng, California/ Micro	seeps – Pi	ttsburg, PA
MODE OF SHIPMENT:	☐ CAR/TRUCK	□ві	JS 🖾 PLA	ANE	COMMERCIAL VEHICLE
QA/QC					
AMPLE COLLECTED BY: Terrell Parker SAMPLING OBSERVED BY:					

JOB No. <u>6301-05-0016</u>
JOB NAME DSCR - OU6- Semi-Annual Monitoring
DATE 7-14-05 TIME 0150
SAMPLING POINT: OMW-28E
DEPTH

	MEI OIL	•			NG POINT: DMW-28E
SAMPLE INFORMATION  MATERIAL:   WATE  TYPE:   GRAE	R Soil		- 28E - 0705 □ SLUDGE □ OTHER (LIST)		IER (LIST)
HAZARDOUS?: YES	⊠ NO	5511 =			
CONTAINEF TYPE		NUMBER	PRESERVAT PREPARAT		COMMENTS
VOA VIAL	40 mi	3	HCl to pH<2, Cool	I to 4°C	VOCs by SW8260B
			101		475
2/04/44					CO_bwBSK475_
		· · · · · · · · · · · · · · · · · · ·			
				-	
				·	
				· · · · · · · · · · · · · · · · · · ·	
·					
COMMENTS: (WELL PURG	NG VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; CO	LOR, ETC	4.)
CLIOR NO ODIR					
FIELD MEASUREMENTS			•		
PARAMETER	EQUIPM	ENT I.D.	RESULTS (U	NITS)	COMMENTS
	200 0000	oisted surge form	- for one alies data	:9	
	See assu	ciated purge for	n for sampling detai	11	
COMMENTS: (WELL PURG	NG VOLUME: SA	AMPLE APPEAR	ANCE; ODOR; CO	LOR, ETC	.)
GENERAL INFORMATION	WEATHER P	c	Al	IR TEMPE	RATURE STOF
SAMPLES SHIPPED TO: Col	umbia Analytical S	Services – Reddi	ng. California		•
SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT:	☐ CAR/TRUCK	К 🗍 ВІ	JS 🛭 PL	ANE	COMMERCIAL VEHICLE
QA/QC					······································
SAMPLE COLLECTED BY: DISCREPANCIES:	Bran Mora	IONI	SAMPLING OBSE	RVED BY	

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 1-14-05 TIME 1000

SAMPLING POINT: AFHA-338

DEPTH

SAMPLE INFORMATION  SAMPLE I.D. NO.: FEHA - 338-0705  MATERIAL: WATER SOIL SLUDGE OTHER  TYPE: GRAB COMPOSITE OTHER (LIST)  HAZARDOUS?: YES NO UNKNOWN  CONTAINER NUMBER PRESERVATIVE/  TYPE VOLUME PREPARATION  VOA VIAL 40 ml 3 HCI to pH<2, Cool to 4°C	R (LIST)
MATERIAL: WATER SOIL SLUDGE OTHER  TYPE: GRAB COMPOSITE OTHER (LIST)  HAZARDOUS?: YES NO UNKNOWN  CONTAINER NUMBER PRESERVATIVE/  TYPE VOLUME PREPARATION  VOA VIAL 40 ml 3 HCI to pH<2, Cool to 4°C	R (LIST)
HAZARDOUS?: YES NO UNKNOWN  CONTAINER NUMBER PRESERVATIVE/ PREPARATION  VOA VIAL 40 ml 3 HCI to pH<2, Cool to 4°C	
CONTAINER  TYPE VOLUME  VOA VIAL  VO	
TYPE VOLUME PREPARATION  VOA VIAL 40 ml 3 HCl to pH<2, Cool to 4°C	
TYPE         VOLUME         PREPARATION           VOA VIAL         40 ml         3         HCI to pH<2, Cool to 4°C	COMMENTS
	VOCs by SW8260B
VOA VIAL 40 mt 3 HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
. Amber 250 ml 1 H₂SO₄ to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL 40 m1 3 Cool to 4°C	CO₂ by RSK-175
Poly 500 ml 1 ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly 500 ml 1 Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0
Poly 500 ml 1 HNO₃ to pH<2, Cool to 4°C	Tot. Metats by 6010B,7470A,6020
VOA VIAL 20 mi 1 None	Hydrogen by AM 20
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)	
FIELD MEASUREMENTS	
PARAMETER EQUIPMENT I.D. RESULTS (UNITS)	COMMENTS
The second court of	COMMENTO
See associated purge form for sampling detail	
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.) No odor, relatively clear	1
GENERAL INFORMATION WEATHER AIR TEMPERA	ATURE
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pitts SPECIAL HANDLING: FedEx	sburg, PA
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE	COMMERCIAL VEHICLE
QA/QC	
AMPLE COLLECTED BY: SAMPLING OBSERVED BY: DISCREPANCIES:	

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/14/05 TIME 1010

SAMPLING POINT: AFAM - 334

				DEPTH_	
SAMPLE INFORMATION	SAMPLE I.D. NO	DI AEHA -	33A-0705		
MATERIAL:	WATER SOIL		SLUDGE	☐ OTHE	ER (LIST)
TYPE:	GRAB COM	POSITE	OTHER (LIST)		· ···
HAZARDOUS?:	YES 🛛 NO		☐ ∩NKNOMN		
	AINER	NUMBER	PRESERVAT		COMMENTS
TYPE VOA VIAL	VOLUME 40 ml	3	PREPARATI HCl to pH<2, Cool		VOCs by SW8260B
VOA VIAL	40 mi	3	HCI to pH<2, Cool		Methane, ethane, ethene by
Amber	250 ml	1	H₂SO₄ to pH<2,Coo		RSK-175 TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo		Sulfide by E376.1
Date	E00 (	4			Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by
Poly	500 ml	1	Coal to 4°C		E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
					,
		<u> </u>			
- <u></u>					
	PURGING VOLUME: SA		RANCE; ODOR; CO	LOR, ETC.	)
	GE 2.5 GALLON	J		<u> </u>	
FIELD MEASUREMENTS	<u> </u>				
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UI	NITS)	COMMENTS
	See assoc	iated purge form	n for sampling detail		
	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	LOR, ETC.	)
<u>SAMPLE CL</u>	LEAR NO ODUR				
GENERAL INFORMATIO	WEATHER H	MZY, HOT É	HUMD AI	R TEMPE	RATURE 80 S
SAMPLES SHIPPED T	O: Columbia Analytical S	Services – Reddi	ng, California/ Micro	seeps – Pi	ttsburg, PA
SPECIAL HANDLING:	FedEx		·		
MODE OF SHIPMENT	: CAR/TRUCK	. □ BI	JS 🛛 PL	ANE	COMMERCIAL VEHICLE
QA/QC					<del> </del>
AMPLE COLLECTED	BY: Anton	2	SAMPLING OBSE	DVED DV:	
DISCREPANCIES:	-·· <u>-</u>	· · · · · · · · · · · · · · · · · · ·	OFWI SING ODOE	IVED BY.	
				· · · · · · · · · · · · · · · · · · ·	

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 9-14-05 TIME 1(15)

SAMPLING POINT: AEHA-28A

			DEF	TH DEDICATED TOPOF
SAMPLE INFORMATION	SAMPLE I.D. NO	DE HA-	28A-0705	FUMPE 12. Z
MATERIAL:	WATER SOIL			OTHER (LIST)
TYPE:	GRAB □ COM	POSITE	OTHER (LIST)	·
HAZARDOUS?:	YES 🖾 NO		UNKNOWN	
	AINER	NUMBER	PRESERVATIVE/	COMMENTS
TYPE	VOLUME	70000211	PREPARATION	COMMINICIALS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°0	Methane, ethane, ethene by RSK- 175
Amber Glass	250 mL	1	H2SO4 to pH<2,Cool to 4	°C TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°	C Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 and Anions (NO <sub>3</sub> , SO <sub>4</sub> , Cl) by E300.0
Poly	500 mL	1	HNO₃ to pH<2, Cool to 4	P°C Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None Do Not Cool	Hydrogen by AM 20
Amber Glass	250 ml	1	H₃PO₄ to pH <2;Cool to 4°	C Volatile Fatty Acids by D1552
COMMENTS: (WELL!	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLOR,	ETC.)
40 641	LONS, COLORI	ESS OD	ORESS	
FIELD MEASUREMENTS	6	<u></u>		
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS	COMMENTS
	See asso	ciated purge forr	n for sampling detail	
COMMENTS: (WELL	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLOR,	ETÇ.)
4.06ALLO	NS, COLORLE	<u>ss, odop</u>	ress	,
GENERAL INFORMATIO	N WEATHER L	OT, HUMIE	OVERCASTAIR TE	MPERATURE 90-95°C
SAMPLES SHIPPED T	O: Columbia Analytical S	Services - Califor	nia/ Microseeps – Pittsbi	ıra. PA
SPECIAL HANDLING:				
MODE OF SHIPMENT		C □BU	JS 🛭 PLANE	☐ COMMERCIAL VEHICLE
<b>€</b> £C				
	 BY: 丁 いれた	MANN	SAMPLING OBSERVE	DBY: T. PARKER
DISCREPANCIES:				

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7-14-05 TIME 1200

SAMPLING POINT: AEHA - 28A DEPTH DEDICATED TOP OF SAMPLE I.D. NO.: 006 00P-3-0705 SAMPLE INFORMATION **WATER** OTHER (LIST) MATERIAL: ☐ SOIL ☐ SLUDGE ☐ COMPOSITE TYPE: ☑ GRAB OTHER (LIST) HAZARDOUS?: ☐ YES ⊠ NO UNKNOWN CONTAINER PRESERVATIVE/ NUMBER **COMMENTS** TYPE VOLUME **PREPARATION VOA VIAL** 40 mi 3 HCI to pH<2, Cool to 4°C VOCs by SW8260B Methane, ethane, ethene by HCI to pH<2, Cool to 4°C **VOA VIAL** 40 ml 3 RSK-175 H<sub>2</sub>SO<sub>4</sub> to pH<2,Cool to 4°C Amber 250 ml 1 TOC by E 415.1 VOA VIAL 40 ml 3 Cool to 4°C CO<sub>2</sub> by RSK-175 Poly 500 ml ZnAc & NaOH, Cool to 4°C 1 Sulfide by E376.1 Alkalinity, NO<sub>3</sub>, SO<sub>4</sub>, Cl by Poly 500 ml 1 Cool to 4°C E310.1, E300.0 Tot. Metals by Poly 500 ml HNO<sub>3</sub> to pH<2, Cool to 4°C 1 6010B,7470A,6020 VOA VIAL 20 ml None Hydrogen by AM 20 COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.) 40 GALLONS COLDRES ODOQLESS FIELD MEASUREMENTS PARAMETER **EQUIPMENT I.D. RESULTS (UNITS)** COMMENTS See associated purge form for sampling detail COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.) Nother Denticates 40 GALLONS, COLORLESS **GENERAL INFORMATION** WEATHER OVERCAST HOT, HUMID AIR TEMPERATURE 90-950 SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA SPECIAL HANDLING: FedEx MODE OF SHIPMENT: ☐ CAR/TRUCK BUS **⊠ PLANE** ☐ COMMERCIAL **VEHICLE** QA/QC SAMPLE COLLECTED BY: T. WITTEMANN SAMPLING OBSERVED BY: T. PAPKER SCREPANCIES: NONE

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 1/4/05 TIME 245

SAMPLING POINT: AEHA - 23A

					SAMPLII	NG POINT: AEHA-23A
					DEPTH_	DEDKARN JUMP
S	AMPLE INFORMATION	SAMPLE I.D.	NO.: AEHA- D	31-0705		
	MATERIAL:	WATER SC		SLUDGE	□отн	ER (LIST)
	TYPE:	GRAB C	MPOSITE	OTHER (LIST)		
	HAZARDOUS?:	YES NO	)	UNKNOWN		
		AINER	NUMBER	PRESERVAT		COMMENTS
	TYPE	VOLUME	TOWNER	PREPARATI	ON	COMMENTS
	VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B
	VOA VIAL	40 mi	3	HCI to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK- 175
į	Amber Glass	250 mL	1	H2SO4 to pH<2,Co	ol to 4°C	TOC by E 415.1
1	VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
	Poly	500 ml	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1
	Poly	500 ml	1	Cool to 4°C		Alkalinity by E310.1 and Anions
						(NO <sub>3</sub> , SO <sub>4</sub> , CI) by E300.0
	Poly	500 mL	1	HNO₃ to pH<2, Coo		Tot. Metals by 6010B,7470A, 6020
	VOA VIAL	20 ml	1	None <u>Do Not</u> (	Cool	Hydrogen by AM 20
	Amber Glass	250 ml	1	H₃PO₄ to pH <2;Coc	ol to 4°C	Volatile Fatty Acids by D1552
	COMMENTS: (WELL F	PURGING VOLUME:	SAMPLE APPEAR	RANCE; ODOR; COL	OR, ETC	.)
						M
FI	ELD MEASUREMENTS	5				
ſ	PARAMETER	FOUIP	MENT I.D.	RESULTS (UN	UITQ)	COMMENTS
ľ	T T TO WHAT LATE	<u> </u>	MLIVI I.D.	NEGOETS (OI	1113)	COMMENTS
ļ		See ass	sociated purge for	m for sampling detail	l	
İ						
	COMMENTS: (WELL F	PURGING VOLUME: \$	SAMPLE APPEAR	ANCE; ODOR; COL	OR. ETC.	)
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
_	FUEDAL MEGABLIATIO					
Gi	GENERAL INFORMATION WEATHER OVERCOST / HUN ID AIR TEMPERATURE AIR TEMPERATURE					
	SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps - Pittsburg, PA					
	SPECIAL HANDLING: FedEx					
	MODE OF SHIPMENT:		CK 🔲 BI	JS 🛭 PL/	ANE	☐ COMMERCIAL VEHICLE
1	gc		<u> </u>			
	SAMPLE COLLECTED	BY: SAK		SAMPLING OBSE	RVED BY:	_Dx_
	DISCREPANCIES:/a_					

JOB No. 6301-05-0016

JOB NAME DSCR - OUG- Semi-Annual Monitoring

DATE --//4/05 TIME 1245

SAMPLING POINT: AEHA - 23A

					DEOCONE HEHH JSH
SAMPLE INFORMATION	SAMPLE I.D. NO	D: 01/6 () ()	2-2-0705		
MATERIAL:	WATER ☐ SOIL	·	SLUDGE	Потн	ER (LIST)
		IPOSITE	OTHER (LIST)		
<del></del>	YES NO				
	AINER		PRESERVAT	IVF/	
TYPE	VOLUME	NUMBER	PREPARATI		COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCI to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK- 175
Amber Glass	250 mL	1	H2SO4 to pH<2,Co	ol to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	l to 4°C	Suifide by E376.1
Poly	500 ml	1	. Cool to 4°C		Alkalinity by E310.1 and Anions (NO <sub>3</sub> , SO <sub>4</sub> , Cl) by E300.0
Poly	500 mL	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None Do Not	Cool	Hydrogen by AM 20
Amber Glass	250 ml	1	H <sub>3</sub> PO <sub>4</sub> to pH <2;Coo	ol to 4°C	Volatile Fatty Acids by D1552
COMMENTS: (WELL I	PURGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COL	OR, ETC	)
FIELD MEASUREMENTS	3				
PARAMETER	EQUIPM	ENTID	RESULTS (UN	JITS)	COMMENTS
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFORMATIO	N WEATHER	reacost/Hu	ulo Al	R TEMPE	RATURE ~ 70 °
SAMPLES SHIPPED T	O: Columbia Analytical S	ervices - Califor	nia/ Microseeps – Pi	ittsburg, P.	Α
SPECIAL HANDLING: J					
MODE OF SHIPMENT:		В	JS 🖾 PLA	ANE	COMMERCIAL VEHICLE
ρς					
SAMPLE COLLECTED  DISCREPANCIES:	SAMPLE COLLECTED BY: B&C SAMPLING OBSERVED BY: 134				
PICONEI ANOILSA			··· · · · · · · · · · · · · · · · · ·		

	REPORT		DATE _ SAMPL DEPTH	ING POINT: AEHA - 30 B
SAMPLE INFORMATION	SAMPLE I.D. NO	DE AEHA-	30B-0705	
MATERIAL: 🔲	WATER SOIL			HER (LIST)
TYPE:	GRAB COM	POSITE	OTHER (LIST)	
HAZARDOUS?:	YES 🖾 NO		UNKNOWN	
CONTA		NUMBER	PRESERVATIVE/	COMMENTS
TYPE	VOLUME		PREPARATION	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B  Methane, ethane, ethene by RSK-
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	175
Amber Glass	250 mL	1	H2SO4 to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 mi 500 mi	3	Cool to 4°C	CO₂ by RSK-175
Poly	SOU IIII	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Coof to 4°C	Alkalinity by E310.1 and Anions (NO <sub>3</sub> , SO <sub>4</sub> , CI) by E300.0
Poly	500 mL	1	HNO <sub>3</sub> to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None <u>Do Not Cool</u>	Hydrogen by AM 20
Amber Glass	250 ml	1	H₃PO₄ to pH <2;Cool to 4°C	Volatile Fatty Acids by D1552
COMMENTS: (WELL PI	URGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLOR, ETC	C.)
FIELD MEASUREMENTS				
PARAMETER	EQUIPMI	ENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)				
GENERAL INFORMATION WEATHER Cloudy humid AIR TEMPERATURE [Ow 90'5]				
		ervices - Califor	nia/ Microseeps - Pittsburg, I	PA
SPECIAL HANDLING: F		<del></del>	· · · · · · · · · · · · · · · · · · ·	
MODE OF SHIPMENT:	CAR/TRUCK	Λ, □ BU	IS 🛮 🖾 PLANE	COMMERCIAL VEHICLE
Q	/ \		,	
SAMPLE COLLECTED B	v: Myth	Wy	SAMPLING OBSERVED BY	<b>/</b> :
DISCREPANCIES:				

JOB No. <u>6301-05-001</u>	6
JOB NAME DSCR - O	U6- Semi-Annual
Monitoring	
DATE 7 14 05	TIME DO
SAMPLING POINT:	FHA-30R
DEPTH '	/DI317 COD

				SAMPLIN DEPTH _	G POINT: AEHA-30B
SAMPLE INFORMATION SAMPLE I.D. NO.: 00600Pt5-0705					
MATERIAL:		<del>-</del>		SLUDGE OTHER (LIST)	
TYPE:	GRAB ☐ COM	☐ COMPOSITE		<del></del>	
HAZARDOUS?:	HAZARDOUS?: ☐ YES ☑ NO		UNKNOWN		
C	AINER	NUMBER	PRESERVATIVE/		COMMENTS
TYPE VOA VIAL	VOLUME 40 ml	3	PREPARATION		
VOA VIAL	40 mt	3	HCl to pH<2, Cool to 4°C HCl to pH<2, Cool to 4°C		VOCs by SW8260B  Methane, ethane, ethene by
Amber	250 ml	1	H₂SO₄ to pH<2,Coo	I to 4°C	RSK-175 TOC by E 415.1
VOA VIAL	40 mi	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 mt	1	HNO <sub>3</sub> to pH<2, Cool to 4°C		Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
<b>———</b>		**			
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
FIELD MEASUREMENTS	<u> </u>				
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UI	VITS)	COMMENTS
See associated purge form for sampling detail					
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFORMATION WEATHER COUDY, MUNIO AIR TEMPERATURE 1 au 903					
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT		( DBI	JS 🛭 PL	ANE	COMMERCIAL VEHICLE
MPLE COLLECTED BY: SAMPLING OBSERVED BY:					

JOB No. <u>6301-05-001</u>	6
JOB NAME DSCR - O Monitoring	<u>U6- Semi-Annual</u>
DATE 7/14/05	TIME /300
SAMPLING POINT: A	EHA-30A
DEPTH	

		-		SAMPLII DEPTH_	NG POINT: AE HA-30A	
SAMPLE INFORMATIO	N SAMPLETO NO	) :		DL; 111_		
***************************************	N SAMPLE I.D. NO		SLUDGE	Поты	IED (I 19T)	
			<u> </u>	OTHER (LIST)		
	YES NO	11 00112	☐ OTHER (LIST)			
	TAINER		PRESERVAT	IVE/		
TYPE	VOLUME	NUMBER	PREPARATION		COMMENTS	
VOA VIAL	40 ml	3	HCI to pH<2, Cool to 4°C		VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C		Methane, ethane, ethene by RSK- 175	
Amber Glass	250 mL	1	H2SO4 to pH<2,Co	oi to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1	
Poly	500 ml	1	. Cool to 4°C		Alkalinity by E310.1 and Anions (NO <sub>3</sub> , SO <sub>4</sub> , Cl) by E300.0	
Poly	500 mL	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A, 6020	
VOA VIAL	20 ml	1	None Do Not	Cool	Hydrogen by AM 20	
Amber Glass	250 ml	1	H₃PO₄ to pH <2;Coo	ol to 4°C	Volatile Fatty Acids by D1552	
				-		
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEAF	RANCE; ODOR; COI	LOR, ETC	5.)	
FIELD MEASUREMENT	s					
PARAMETER EQUIPMENT I.D.		RESULTS (UI	NITS)	COMMENTS		
0011151750 04/5/1			m for sampling detai			
COMMENTS. (WELL	PURGING VOLUME: SA	WIPLE APPEAR	RANCE; ODUR; COI			
GENERAL INFORMATION	ON WEATHER _	artly cla	oudy A	IR TEMPE	ERATURE 85-90°F	
	TO: Columbia Analytical S	Services - Califo	rnia/ Microseeps – P	ittsburg, F	PA	
SPECIAL HANDLING	- <u></u>			<del></del>		
MODE OF SHIPMEN	T: CAR/TRUC	< □B	US 🗵 PL	ANE	COMMERCIAL VEHICLE	
VQC						
SAMPLE COLLECTE	DBY: Brad McA	Coight	SAMPLING OBSE	RVED BY	·:	
DISCREPANCIES:						

JOB No. 6301-05-0016

JOB NAME DSCR - OUG- Semi-Annual Monitoring

DATE 7/4/OS TIME 16/5

SAMPLING POINT: USGS-P4

DEPTH 13.5

			D	ертн <u>13.5</u>	
SAMPLE INFORMATION SAMPLE I.D. NO.: USGS-P4-0705					
MATERIAL: 🛛 W	/ATER ☐ SOIL	R □ SOIL		OTHER (LIST)	
TYPE: 🛛 G	RAB 🗌 COM	IPOSITE	OTHER (LIST)		
HAZARDOUS?: 🔲 Y	ES 🖾 NO	• • • • • • • • • • • • • • • • • • • •			
CONTAI	NER	NUMBER	PRESERVATIVE	E/ COMMENTO	
TYPE	VOLUME	NUMBER	PREPARATION	COMMENTS	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4	,	
VOA VIAL	40 ml	3	HCi to pH<2, Cool to 4	4°C Methane, ethane, ethene by RSK-175	
Amber	250 ml	1	H₂SO₄ to pH<2,Cool to	4°C TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Cool to	4°C Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0	
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None	Hydrogen by AM 20	
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.) TO TAL PURGE Z GAL					
FIELD MEASUREMENTS					
DADAMETER					
PARAMETER	PARAMETER EQUIPMENT I.D. RESULTS (UNITS)		S) COMMENTS		
See associated purge form for sampling detail					
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
SAMPLE CLEI	AR, SLIGHT O	DOR			
GENERAL INFORMATION WEATHER HAZY, HOT, + HUMID AIR TEMPERATURE 80'S					
SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA					
SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT:	☐ CAR/TRUCK	В	JS 🛛 PLAN	E COMMERCIAL VEHICLE	
QA/QC					
MPLE COLLECTED BY DISCREPANCIES:	Y: Dal		SAMPLING OBSERV	ED BY:	
	<del></del>				

JOB No. 6301-05-0016

JOB NAME DSCR - OUG- Semi-Annual Monitoring

DATE 1-14-05 TIME 1630

SAMPLING POINT: USGS-PO

DEPTH

, the one		:	SAMPLING POINT: USGS-PO		
SAMPLE INFORMATION	SAMPLE I.D. N	0: 15565	-P2-0705		
MATERIAL:				□отн	ER (LIST)
TYPE:	GRAB COM	COMPOSITE			
HAZARDOUS?:	YES 🛛 NO		☐ OTHER (LIST) ☐ UNKNOWN		
CONT	AINER	NUMBER	PRESERVAT	IVE/	
TYPE	VOLUME	NUMBER	PREPARATION		COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C		VOCs by SW8260B
VOA VIAL	40 ml	3	HCI to pH<2, Cool to 4°C		Methane, ethane, ethene by RSK-175
Amber	250 ml	1-	H₂SO₄ to pH<2,Coo	I to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO <sub>2</sub> by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	i to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°C		Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
COMMENTS: (WELL F	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.)	)
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UN	IITS)	COMMENTS
COMMENTS: (WELL P	PURGING VOLUME: SA	MPLE APPEAR	for sampling detail	OR, ETC.)	
GENERAL INFORMATION WEATHER AIR TEMPERATURE					RATURE
SAMPLES SHIPPED TO SPECIAL HANDLING: E		ervices – Reddir			
MODE OF SHIPMENT:	☐ CAR/TRUCK	□ви	S 🖾 PLA	NE	COMMERCIAL VEHICLE
PLE COLLECTED DISCREPANCIES:	BY: Luke Cla	rk	SAMPLING OBSER	RVED BY:	

JOB No. 6301-05-0016

JOB NAME DSCR - OUG- Semi-Annual Monitoring

DATE 3/14/05 TIME 09:36

SAMPLING POINT: AEHA -238

			·				DEPTH _	24.45 ft (DTW)
S	AMPLE INFORMATION	ON	SAMPLE I.	D. NO	AEHA-	238-0705		
	MATERIAL:	⊠ WATE	R 🔲	SOIL	17-1117	SLUDGE	☐ OTHE	ER (LIST)
	TYPE: [	⊠ GRAB	; <u> </u>	COMF	POSITE	OTHER (LIST)		
	HAZARDOUS?: [	☐ YES	$\boxtimes$	NO		UNKNOWN		
[	CON	NTAINER			NUMBER	PRESERVAT	IVE/	001115070
	TYPE		VOLUME		NOWDER	PREPARATI	ION	COMMENTS
	VOA VIAL		40 ml		3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B
ļ	VOA VIAL		40 ml		3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175
	Amber	_	250 ml		1	H₂SO₄ to pH<2,Coo	of to 4°C	TOC by E 415.1
	VOA VIAL		40 ml		3	Cool to 4°C		CO <sub>z</sub> by RSK-175
	Poly		500 ml		1	ZnAc & NaOH, Coo	l to 4°C	Sulfide by E376.1
	Poly		500 ml		1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
	Poly		500 ml		1	HNO <sub>3</sub> to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
	VOA VIAL		20 ml		1	None		Hydrogen by AM 20
$\int$								
J								
L	·							
	COMMENTS: (WELL	L PURGI	NG VOLUME	E SAM	MPLE APPEAR	ANCE; ODOR; CO	LOR, ETC.	
	<u>~~3</u>	yol	_ Dav	ged			<del></del>	
FII	ELD MEASUREMEN	TŚ		/			<u> </u>	
Γ	PARAMETER	₹	FOI	IIPME	NT I.D.	RESULTS (UI	MITCI	COMMENTS
f	* * * * * * * * * * * * * * * * * * *	`	1	711 IVIC	IVI 1.D.	NEGOLIS (OI	VII (3)	COMMENTS
			See a	associa	ated purge form	n for sampling detail		
L	COMMENTS: (WELL	L PURGII	NG VOLUME	: SAN	IPLE APPEAR	ANCE: ODOR: COL	OR ETC.)	
			ar + cc			-0d>c	-Ort, E10.)	
				. ,		R TEMPER	RATURE N75°F	
						*1 *		
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA					tsburg, PA			
SPECIAL HANDLING: FedEx			<u> </u>		<del> </del>		<del></del>	
	MODE OF SHIPMEN	iT: ,	☐ CAR/TR	RUCK	□ві	JS ⊠ PL/	ANE	COMMERCIAL VEHICLE
Q/	VQC		Λ					
	AMPLE COLLECTE	:D BV:	1) //			CAMBLING	D)	_ \
	DISCREPANCIES:		N pme			SAMPLING OBSE	KAFN BA:	D' K-level
						· · · · · · · · · · · · · · · · · · ·	····	

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7//5/05 TIME 0338

SAMPLING POINT:

DEPTH //#

DEDT!	SAMPLING POINT:					
SAMPLE INFORMATION SAMPLE I.D. NO.: TB - 07/505	μπ					
	4.10-					
TYPE: ☑ GRAB ☐ COMPOSITE ☐ OTHER (LIST) HAZARDOUS?: ☐ YES ☑ NO ☐ UNKNOWN						
CONTAINER PRESEDVATIVE						
TYPE VOLUME NUMBER PREPARATION	COMMENTS					
VOA VIAL 40 ml 3 HCl to pH<2, Cool to 4°C	VOCs by SW8260B					
VOA VIAL 40 ml 3 HCl to pH<2, Cool to 4°C Meth	thane, ethane, ethene by RSK- 175					
VOA VIAL 40 ml 3 Cool to 4°C	CO₂ by RSK-175					
	~					
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
FIELD MEASUREMENTS						
PARAMETER EQUIPMENT I.D. RESULTS (UNITS)	COMMENTS					
See associated purge form for sampling detail						
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
GENERAL INFORMATION WEATHER Sunay AIR TEMPERATURE 82%						
SAMPLES SHIPPED TO: Columbia Analytical Services - California						
SPECIAL HANDLING: FedEx						
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☒ PLANE ☐ COMMERCIAL VEHICLE						
QA/QC						
SAMPLE COLLECTED BY: Daniel Hower SAMPLING OBSERVED BY:						

JOB No. 6301-05-0016

JOB NAME DSCR - OUG- Semi-Annual Monitoring

DATE 7/15/05 TIME 1000

SAMPLING POINT: ACHA-16A

DEPTH

				DEPTH_	TEND-16N	
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: AEHA-1	6A-0705			
MATERIAL:	WATER SOIL		SLUDGE	□ отн	ER (LIST)	
TYPE:	GRAB COM	IPOSITE	OTHER (LIST)			
HAZARDOUS?:	YES 🛛 NO		UNKNOWN			
	AINER	NUMBER	PRESERVAT	IVE/	COMMENTO	
TYPE	VOLUME		PREPARATI	ON	COMMENTS	
VOA VIAL	40 ml	3	HCI to pH<2, Cool		VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175	
Amber	250 ml	1	H₂SO₄ to pH<2,Coo	I to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Coal to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Coo	of to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None		Hydrogen by AM 20	
					,	
COMMENTS: (WELL F	PURGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COL	OR, ETC.		
FIELD MEASUREMENTS						
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UN	VITS)	COMMENTS	
	See assoc	iated purge form	n for sampling detail			
COMMENTS: (WELL F	PURGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COL	.OR, ETC.)		
GENERAL INFORMATIO	N WEATHER_(	sverast	All	R TEMPER	RATURE 850	
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA						
SPECIAL HANDLING: I						
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☐ PLANE ☐ COMMERCIAL VEHICLE						
QA/QC	DAVQC // ///					
AMPLE COLLECTED	BY: MANY		SAMPLING OBSER	RVED BY:		
JISCREPANCIES:						

	JOB No. <u>6301-05-0016</u>
	JOB NAME <u>DSCR - OU6- Semi-Annual</u> Monitoring
1	DATE 7-15-05 TIME 10:10
	SAMPLING POINT: US65-0420

					G POINT: 0363-04
SAMPLE INFORMATION	SAMPLE I.D. NO	D:: 1.\5( <b>c.</b> s	U1 0302	<del>'</del>	CTWIE
MATERIAL:	WATER SOIL		SLUDGE	Потне	ER (LIST)
<del></del>	<del></del>	POSITE	OTHER (LIST)		
	YES NO		☐ UNKNOWN		<del></del>
CONT			PRESERVAT	IVE/	
TYPE	VOLUME	NUMBER	PREPARATI		COMMENTS
VOA VIAL	40 ml	3 /	HCI to pH<2, Cool	to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1 ,	H₂SO₄ to pH<2,Coo	ol to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3 ~	Cool to 4°C		CO₂ by RSK-175
Poly	∖-500 ml	1	ZnAc & NaOH, Coo	l to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
·	W- · · · · · · · · · · · · · · · · · · ·				
	PURGING VOLUME: SA Induster is clea			LOR, ETC.)	
FIELD MEASUREMENTS		<u> </u>			
PARAMETER	EQUIPMI	ENTID	RESULTS (UI	MITC)	COMMENTS
TOWN MALE ILLI	1 EQUITIVI	_141 1.0.	KESOLIS (OI	VII S)	COMMENTS
	See assoc	iated purge form	n for sampling detail		
COMMENTS: (WELL P	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.)	
GENERAL INFORMATIO		reasteally	cleased to Al	R TEMPER	ATURE 28°C
SAMPLES SHIPPED TO	D: Columbia Analytical S	ervices - Reddi	ng, California/ Micro	seeps Pit	tsburg, PA
SPECIAL HANDLING: F		•			
MODE OF SHIPMENT:	☐ CAR/TRUCK	B	JS 🛛 PL/	ANE	COMMERCIAL VEHICLE
QA/QC		~			
AMPLE COLLECTED BY: TEXTELL PRICES SAMPLING OBSERVED BY:  DISCREPANCIES: Name OFF					
	-271				

#### JOB No. 6301-05-0016 JOB NAME DSCR - OU6- Semi-Annual FIELD SAMPLING Monitoring TIME 1100 DATE\_子(5:05 **REPORT** SAMPLING POINT: 1)565-H2 DEPTH DEDICATED SAMPLE I.D. NO .: U565 - H2-0705 SAMPLE INFORMATION MATERIAL: **WATER** SOIL ☐ SLUDGE OTHER (LIST) TYPE: ☑ GRAB COMPOSITE OTHER (LIST) **HAZARDOUS?:** ☐ YES ⊠ NO □ UNKNOWN CONTAINER PRESERVATIVE/ NUMBER COMMENTS TYPE VOLUME PREPARATION VOA VIAL 40 ml 3 HCI to pH<2, Cool to 4°C VOCs by SW8260B **VOA VIAL** HCl to pH<2, Cool to 4°C Methane, ethane, ethene by RSK-40 ml 3 Amber Glass H2SO4 to pH<2,Cool to 4°C 250 mL TOC by E 415.1 VOA VIAL 40 ml 3 Cool to 4°C CO2 by RSK-175 Poly 500 ml 1 ZnAc & NaOH, Cool to 4°C Sulfide by E376.1 Alkalinity by E310.1 and Anions Poly 500 ml 1 Cool to 4°C (NO<sub>3</sub>, SO<sub>4</sub>, Cl) by E300.0 Tot. Metals by 60108,7470A. Poly 500 mL 1 HNO<sub>3</sub> to pH<2, Cool to 4°C 6020 VOA VIAL 20 ml 1 None Do Not Cool Hydrogen by AM 20 Amber Glass 250 ml 1 H<sub>3</sub>PO<sub>4</sub> to pH <2;Cool to 4°C Volatile Fatty Acids by D1552 COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.) ≈ 3.75 BALLONS PURGED WGHT BROWN TINT, ODOPLESS **FIELD MEASUREMENTS** PARAMETER EQUIPMENT I.D. **RESULTS (UNITS)** COMMENTS See associated purge form for sampling detail COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.) @3.75 BALLONS PURAED, LIGHT BROWN TINT, ODOPLESS **GENERAL INFORMATION** WEATHER HOT, HUMID, OVERCAST AIR TEMPERATURE 90°F ± SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps - Pittsburg, PA SPECIAL HANDLING: FedEx MODE OF SHIPMENT: ☐ CAR/TRUCK BUS ☑ PLANE ☐ COMMERCIAL VEHICLE SAMPLE COLLECTED BY: T. WITTENWANN SAMPLING OBSERVED BY: T. PARKER

DISCREPANCIES: UONE

JOB No. 6301-05-0016

JOB NAME\_DSCR - OU6- Semi-Annual Monitoring

DATE\_7//5/05\_\_\_\_\_ TIME\_(250)

SAMPLING POINT: MW-1874

			DEPTH	1 17/ WIW-8H		
SAMPLE INFORMATION	SAMPLE I.D. NO	O.: OMUN	-18A-0705			
MATERIAL:	WATER SOIL		<u> </u>	HER (LIST)		
TYPE:	GRAB COM	MPOSITE .	OTHER (LIST)	· ,		
HAZARDOUS?:	YES NO		UNKNOWN			
	AINER	NUMBER	PRESERVATIVE/	COMMENTO		
TYPE	VOLUME	NOMIDER	PREPARATION	COMMENTS		
VOA VIAL	40 ml	3	HCI to pH<2, Cool to 4°C	VOCs by SW8260B		
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175		
Amber	250 mi	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175		
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1		
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0		
Poly	500 ml	1	HNO₃ to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None	Hydrogen by AM 20		
COMMENTS: (WELL!	PURGING YOLUME ISA	MPLE APPEAR	ANCE; ODOR; COLOR, ET	C.)		
unter sout	s cloudy & beco	mes clea	A color less.	~ 3 gal purged		
FIELD MEASUREMENTS	3	-				
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS		
	See assoc	iated purge form	n for sampling detail			
COMMENTS: (WELL I	COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFORMATIO	N WEATHER O	reached.	HOT/HUMD AIR TEMP	ERATURE ~85°		
SAMPLES SHIPPED T	 O: Columbia Analytical S	iervices – Reddii	no California/ Microseens –	Pitteburg DA		
	SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA SPECIAL HANDLING: FedEx					
	MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE					
QA/QC						
AMPLE COLLECTED	AMPLE COLLECTED BY: DX SAMPLING OBSERVED BY: BAX					
	AMPLE COLLECTED BY: TX SAMPLING OBSERVED BY: BALL DISCREPANCIES: LL					
DISORETAINGES LL						

JOB No. 6301-05-0016					
JOB NAME DSCR - OU6- Semi-Annual					
Monitoring					
DATE_	1/15/05	_ TIME 1315			
SAMPLIN	NG POINT:GE	eha-124			
DEPTH	DEDWATED	amp			

					DEPTH_	DEDUNTED AMP
S	AMPLE INFORMATION	SAMPLE I.I	D. NO .: GEHA-	124-0705		
	MATERIAL:		SOIL	SLUDGE	□отн	ER (LIST)
	TYPE:	GRAB []	COMPOSITE	OTHER (LIST)		
	HAZARDOUS?:	YES 🔯	NO	UNKNOWN		
1	CONTA		NUMBER	PRESERVATI		COMMENTS
	TYPE	VOLUME		PREPARATIO	NC	COMMENTS
	VOA VIAL	40 ml	3	HCl to pH<2, Cool t		VOCs by SW8260B
	VOA VIAL	40 ml	3	HCl to pH<2, Cool t	o 4°C	Methane, ethane, ethene by RSK-175
-	Amber	250 ml	1	H₂SO₄ to pH<2,Cool	to 4°C	TOC by E 415.1
	VOA VIAL	40 ml	3	Cool to 4°C		CO <sub>z</sub> by RSK-175
	Poly	500 ml	1	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1
	Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
	Poly	500 ml	1	HNO₃ to pH<2, Coo	I to 4°C	Tot. Metals by 6010B,7470A,6020
Ì	VOA VIAL	20 ml	1	None		Hydrogen by AM 20
Ì						
ا						
Ę						
	CUAR I		: SAMPLE APPEAR	RANCE; ODOR; COL	OR, ETC.	)
FI	ELD MEASUREMENTS					
ſ	PARAMETER	FOU	JIPMENT I.D.	RESULTS (UN	ITS)	COMMENTS
l	7700 1012 7213		WEIGHT I.D.	1 1200210 (014	110)	COMMENTS
		See a	ssociated purge forn	n for sampling detail		
	COMMENTS: (WELL P	URGING VOLUME	: SAMPLE APPEAR	RANCE; ODOR; COL	OR, ETC.	)
_						
G	ENERAL INFORMATION	WEATHER	OVERCAST	AIF	RTEMPE	RATURE 92°
	SAMPLES SHIPPED TO	D: <u>Columbia Analyti</u>	cal Services – Redd	ng, California/ Micros	seeps – Pi	ttsburg, PA
SPECIAL HANDLING: FedEx						
	MODE OF SHIPMENT:	☐ CAR/TR	UCK B	US 🔲 PLA	NE	COMMERCIAL VEHICLE
Q	A/QC					, <u>, , , , , , , , , , , , , , , , , , </u>
	AMPLE COLLECTED	BY: TOUR ACC	1/200-	SAMDLING ODGE	WED DV:	4.0
	AMPLE COLLECTED BY: TRAN ASCALATE SAMPLING OBSERVED BY: A.C.  DISCREPANCIES:					

JOB No. <u>6301-05-001</u> 6	<u> </u>
JOB NAME <u>DSCR - OI</u> <u>Monitoring</u>	U6- Semi-Annual
DATE 1-15-05	TIME 1500
SAMPLING POINT:	_  S€5-C2
DEPTH	

	NZI OIL	S.	SAMPLING POINT: USGS-C2 DEPTH			
SAMPLE INFORMATION	SAMPLE I.D. NO	o.: ()SGS	-C2-0705			
MATERIAL: 🛛 V	WATER SOIL			OTHER (LIST)		
TYPE:	GRAB 🔲 COM	IPOSITE	OTHER (LIST)			
HAZARDOUS?:	YES 🛛 NO		UNKNOWN	-		
CONTA		NUMBER	PRESERVATIVE			
TYPE	VOLUME		PREPARATION	Y	_	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4		4	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4	RSK-175	_	
Amber	250 ml	1	H₂SO₄ to pH<2,Cool to	TOC by E 415.1	_	
VOA VIAL Poly	40 ml	3	Cool to 4°C	CO₂ by RSK-175	_	
FOIY	300 111		ZnAc & NaOH, Cool to		_	
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0		
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to	Tot, Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None	Hydrogen by AM 20	7	
				,	]	
COMMENTS: (WELL PI	URGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLO	R, ETC.)		
~4 gallons					_	
FIELD MEASUREMENTS						
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNIT	S) COMMENTS		
	See assoc	ciated purge form	n for sampling detail			
	COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.) No odor deferted, relatively Clear					
GENERAL INFORMATION	WEATHER /	artly Sunni	a humid AIR	TEMPERATURE 86° E		
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT:   CAR/TRUCK  BUS  PLANE  COMMERCIAL						
				VEHICLE		
QA/QC						
SAMPLE COLLECTED B	SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:					

JOB No. 6301-05-001	6
JOB NAME DSCR - O	U6- Semi-Annual
DATE 7/15/05	TIME 1520
SAMPLING POINT:	5565-BRZ
DEPTH	

		•			NG POINT: USGS-BR 2	
SAMPLE INFORMATION	SAMPLE I.D. N	0.: 1.)5(55-	BR2-0705			
MATERIAL: 🛛 WATE			SLUDGE		ER (LIST)	
TYPE: 🛛 GRAB	СОМ	POSITE	OTHER (LIST)			
HAZARDOUS?: YES	⊠ NO		UNKNOWN			
CONTAINER		NUMBER	PRESERVAT		COMMENTS	
TYPE	VOLUME		PREPARAT			
VOA VIAL	40 ml	3	HCl to pH<2, Coo	to 4°C	VOCs by SW8260B	
V/O4.V/44						
COMMENTS: (WELL PURGI	NG VOLUME: SA	MPLE APPEAF	RANCE; ODOR; CO	LOR, ETC.	)	
TOTAL PURGE	2.5 GALLON	<u>J</u>				
FIELD MEASUREMENTS						
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UI	NITS)	COMMENTS	
	C	atawa at a		•		
	See asso	ciated purge fori	n for sampling detai	t		
COMMENTS: AMELL BURGO	10.10.10.10.10.10.10.10.10.10.10.10.10.1	<del> 2 . 2</del>				
	COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
SAMPLE CLERR, N						
GENERAL INFORMATION	GENERAL INFORMATION WEATHER HAY, HOT + KUMID AIR TEMPERATURE 85-90°F					
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California						
SPECIAL HANDLING: FedEx						
MODE OF SHIPMENT:						
QA/QC	<u> </u>			<del></del>		
SAMPLE COLLECTED BY:	10 a - 11/ mm	_	CAMPI NO ODOT	DVED 51:		
SAMPLE COLLECTED BY: DISCREPANCIES:	por /		SAMPLING OBSE	KVED BY:		
DIOTALI ANOILO.						

		010 203					
	JOB No.	6301-05-0016					
	JOB NAME_DSCR - OU6- Semi-Annual Monitoring						
	Monitoring  DATE 7/15/05 TIME 1520						
	SAMPLING POINT: USGS-BK2						
	DEPTH_						
5	□отн	ER (LIST)					
ST)		· · · · · · · · · · · · · · · · · · ·					
ر ا							
TAV TAS	IVE/	COMMENTS					
Cool	lo 4°C	VOCs by SW8260B					
-							
7							
COL	OR, ETC.	.)					
	·	,					
	· · · · · · · · · · · · · · · · · · ·						
71 IN	UTC	COLANGENTO					
(01	VITS)	COMMENTS					
etail	l						
COLOR, ETC.)							
Αl	R TEMPF	RATURE 85-90°F					
PL	ANE	COMMERCIAL VEHICLE					
	······································						

		·			DEPTH	
SAMPLE INFORMATION	1	SAMPLE I.D. NO	D: 0060	JP-6-0705		
MATERIAL: 🛛	WATE	R SOIL		SLUDGE	□оті	HER (LIST)
TYPE:	GRAB	СОМ	IPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES	⊠ NO		UNKNOWN		
CONT	AINER		NUMBER	PRESERVAT	ΓΙVΕ/	COMMENTO
TYPE		VOLUME	HOWBER	PREPARAT	ION	COMMENTS
VOA VIAL		40 ml	3	HCl to pH<2, Coo	l to 4°C	VOCs by SW8260B
COA VIAI				HCIA-LU-0		
				00010-10	,	
·   .						
	<del></del>		·		<del></del>	
					·	
	-			<u> </u>	····	
COMMENTS: (WELL	DIBCII	NC VOLUME: CA	MDI E ADDEAG	DANIOF ODOD OD		
COMMENTS: (WELL F	OKGII	25 GALL	MPLE APPEAR	RANCE; ODOR; CO	LOR, ETC	C.)
		2.5 5 Au	3/0		· · · · · · · · · · · · · · · · · · ·	
FIELD MEASUREMENTS						
PARAMETER		EQUIPMI	ENT I.D.	RESULTS (U	NITS)	COMMENTS
		See assoc	ciated purge for	m for sampling detai	i	
			<u> </u>			,
COMMENTS: (WELL F			MPLE APPEAR	RANCE; ODOR; CO	LOR, ETC	S.)
SAMPLE CLEI	ir, L	10 DOOR			<u> </u>	
GENERAL INFORMATION	N	WEATHER H	AZY, HOT, A	no Humo A	IR TEMPE	RATURE 85-90 F
SAMPLES SHIPPED TO	O: Coli	ımbia Analytical S	ervices — Raddi	ing California		_
SPECIAL HANDLING: F			STAINTO IVENUI	nig, Camorria		
MODE OF SHIPMENT:		☐ CAR/TRUCK		ie Ste	A B 15	
QA/QC		CARVIRUCK	BI	US 🛛 PL	ANE	COMMERCIAL VEHICLE
SAMPLE COLLECTED	BY:	Da VC		SAMPLING OBSE	RVED BY	·-
DISCREPANCIES:		-	,			
	•••					

JOB No. 6301-05-0016

JOB NAME DSCR - OUG- Semi-Annual Monitoring

DATE 7-15-05 TIME 15:43

SAMPLING POINT: USGS- W157

				DEPTH_		
SAMPLE INFORMATION	SAMPLE I.D. NO	0:: USGS-	NI-0705	<del>"</del>		
MATERIAL: 🛛	WATER SOIL	•	SLUDGE	□ ОТНЕ	ER (LIST)	
TYPE:	GRAB ☐ COM	POSITE	OTHER (LIST)			
HAZARDOUS?:	YES 🖾 NO		UNKNOWN			
CONT	AINER	NUMBER	PRESERVAT	IVE/	00111151150	
TYPE	VOLUME	MOMBEK	PREPARATI	ON	COMMENTS	
VOA VIAL	40 ml	3	HCI to pH<2, Cool	to 4°C	VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Coal	to 4℃	Methane, ethane, ethene by RSK-175	
Amber	250 ml	1	H₂SO₄ to pH<2,Coo	to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None	-	Hydrogen by AM 20	
COMMENTS: (WELL P	URGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.)	·	
Grandwater	Samples AR	e clear,	colorless +	odorles	3	
FIELD MEASUREMENTS		<del></del>				
PARAMETER	EQUIPME	NT I.D.	RESULTS (UN	IITS)	COMMENTS	
,					- COMMENTO	
	See associ	ated purge form	for sampling detail			
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
GENERAL INFORMATION	WEATHER PM	ZTUSUMOU	bus clade AIF	R TEMPER	ATURE 1274C	
SAMPLES SUIDDED TO	Ano 7	hunder AT	16:45		ATURE 1279C lin the shade	
SAMPLES SHIPPED TO		ervices – Reddir	ig, California/ Micros	seeps – Pitt	sburg, PA	
SPECIAL HANDLING: F	•					
MODE OF SHIPMENT:	☐ CAR/TRUCK		S ⊠PLA	NE	COMMERCIAL VEHICLE	
QA/QC						
PLE COLLECTED E	ove Terrell Park	ler	SAMPLING OBSER	EVED BY: _		

JOB No. <u>6301-05-001</u>	6
JOB NAME DSCR - O Monitoring	U6- Semi-Annual
DATE 7-15-05	TIME 1550
SAMPLING POINT:	Abdmw-Q
DEPTH DEDICATE	

			SAMPLI DEPTH	DEDICATED
SAMPLE INFORMATIO	N SAMPLE I.D. N	0.: I M. 1M	w-Q-0705	
MATERIAL:	 ]WATER ☐ SOIL	- <del>UJ</del> WIII	SLUDGE TOTH	IER (LIST)
TYPE:	_	MPOSITE	OTHER (LIST)	
HAZARDOUS?:	YES NO		☐ UNKNOWN	
CON	TAINER		PRESERVATIVE/	
TYPE	VOLUME	NUMBER	PREPARATION	COMMENTS
VOA VIAL	40 m!	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	,40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20
COMMENTS: (WELL	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLOR, ETC	.) SAMPLE
~ 60 G	ALLONS PURGED (	1=2.75 GAL	LONS OF HIGHLY BIOTH	PBATED HO) ODDELESS
FIELD MEASUREMENTS				
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS
				TOO WANTER TO
ľ	See assoc	iated purge form	n for sampling detail	
COMMENTS: (WELL	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLOR, ETC.	SAMPLE
			HIGHLY BIOTURPATED	
GENERAL INFORMATIO			T HOMID AIR TEMPE	
SAMPLES SHIPPED T	··-	•	•	1
SPECIAL HANDLING:		ervices - Reddir	ng, California/ Microseeps – P	ittsburg, PA
MODE OF SHIPMENT	CAR/TRUCK	BU	JS 🛮 PLANE	COMMERCIAL VEHICLE
QA/QC				
AMPLE COLLECTED	BY: T. WITTEN	1ANN	SAMPLING OBSERVED BY:	T Ducero
	NONE		OF WILLIAM ODGERAED BY:	1 PARKEE

#### FIELD SAMPLING

JOB No. 6301-05-0016 JOB NAME DSCR - OU6- Semi-Annual

		D- (1011			MOURION	
	RE	POR <sub>1</sub>	<b>T</b>			7/15/05 TIME 1650
					SAMPLI	ING POINT: MWA 50-3
					DEPTH	DECICACION PUMP
AMPLE INFORMATIO	ON SAMI	PLE I.D. NC	.: MUDA F	50-35 - 070		
MATERIAL: [	■ WATER	SOIL		SLUDGE		HED (LICT)
	⊠ GRAB	☐ COM		<del></del>		HER (LIST)
	-		POSITE	OTHER (LIST)		
	YES	⊠ NO		UNKNOWN		
TYPE	ITAINER VOLU	ME	NUMBER	PRESERVAT PREPARATI		COMMENTS
VOA VIAL	40 m	<del>-</del>	3	HCI to pH<2, Cool		WOC- L. GMOSOS
VOA VIAL	40 m		3	HCI to pH<2, Cool		VOCs by SW8260B  Methane, ethane, ethene by RSK
Amber Glass						175
	250 m		1	H2SO4 to pH<2,Co		TOC by E 415.1
VOA VIAL Poly	40 m		3	Cool to 4°C		CO₂ by RSK-176
Foly	500 n	11	1	ZnAc & NaOH, Coo	ol to 4°C	Sulfide by E376.1
Poly	500 n	ก) ∫	1	. Cool to 4°C		Alkalinity by E310.1 and Anions
		<del></del>				(NO <sub>3</sub> , SO <sub>4</sub> , CI) by E300.0
Poly	500 m		1	HNO <sub>3</sub> to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 m	1	1	None Do Not	Cool	Hydrogen by AM 20
Amber Glass	250 m	11	1	H <sub>3</sub> PO <sub>4</sub> to pH <2;Coo	i to 4°C	Volatile Fatty Acids by D1552
			· · · · · · · · · · · · · · · · · · ·			
			······································		·	
			· · · · · · · · · · · · · · · · · · ·		<del></del>	
COMMENTS: (WELL	PURGING VOI	UME SAL	MPLE APPEAR	PANCE: ODOR: COL	OP ETC	1
•				winder opon, cor	ON, ETC	· <i>J</i>
10 117 101071						
LD MEASUREMENT	S					
PARAMETER		EQUIPME	NT I.D.	RESULTS (UN	UTS)	COMMENTS
				1,200210 (01)		1 COMMENTS
		See associ	ated purge for	m for sampling detail		
COMMENTS: (WELL	PURGING VOI	UME: SAN	APLE APPEAR	ANCE: ODOR: COL	OD ETC	\ .
( )			22741 274	Dittoe, Oboit, COE	ON, ETC	.)
NERAL INFORMATION	ON WEA	THER HOT	-/144MD	ΔΙ	2 TEMPE	RATURE ~ 85°
		11-1	/11-13-1		· · FIAIL F	101101/E <u>~ 66</u>
SAMPLES SHIPPED	TO: <u>Columbia A</u>	nalytical Se	rvices - Califor	nia/ Microseeps – Pi	ttsburg, P	'A
PECIAL HANDLING:						
ODE OF SHIPMENT	: □ CA	R/TRUCK	□Bt	JS 🛭 PLA	NE	COMMERCIAL VEHICL
				2.0		O COMMENCIAL VEHICL
<u> </u>						
AMPLE COLLECTED	BY: BAK		<del></del>	SAMPLING OBSER	RVED BY:	DK
ISCREPANCIES:	1/L					
· · · · · · · · · · · · · · · · · · ·	· · · ·					

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/5/05 TIME 1700

SAMPLING POINT: AFHA-278

DEPTH N/A

					SAMPLIN DEPTH_	N/A HEHA-278		
9	AMPLE INFORMATION	SAMPLE I.D. N	D.: AFHA-	778-0705				
	MATERIAL:	WATER SOIL	. (10 ()1) C	SLUDGE	□отн	ER (LIST)		
	TYPE:	GRAB ☐ COM	IPOSITE	OTHER (LIST)				
	HAZARDOUS?:	YES 🖾 NO		UNKNOWN				
	CONT		NUMBER	PRESERVAT	VE/			
	TYPE	VOLUME	HOMBEN	PREPARATION	ON	COMMENTS		
	VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B		
	VOA VIAL	40 ml	3	HCI to pH<2, Cool i	to 4°C	Methane, ethane, ethene by RSK-175		
	Amber	250 ml	1	H₂SO₄ to pH<2,Cool	to 4°C	TOC by E 415.1		
	VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175		
	Poly	500 ml	1	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1		
	Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0		
	Poly	500 ml	1	HNO₃ to pH<2, Coo	to 4°C	Tot. Metals by 6010B,7470A,6020		
-	VOA VIAL	20 ml	1	None		Hydrogen by AM 20		
7								
L								
	COMMENTS: (WELL P	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.)			
FI	ELD MEASUREMENTS							
	PARAMETER	EQUIPME	ENT I.D.	RESULTS (UN	ITS)	COMMENTS		
1	-		·			COMMENTS		
1		See associ	iated purge form	for sampling detail	,			
L	·							
	COMMENTS: (WELL P	URGING VOLUME: SA	MPLE APPEARA	ANCE; ODOR; COLO	OR, ETC.)			
GI	NERAL INFORMATION	WEATHER	overast.	affeirm Air	TEMPER	RATURE high 80's		
	CAMPI TO OURDED TO	<del></del>	7-1	Munderstores		J		
	SAMPLES SHIPPED TO		ervices - Reddin	g, California/ Micros	eeps – Pit	tsburg, PA		
	SPECIAL HANDLING: F							
_	MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☐ PLANE ☐ COMMERCIAL VEHICLE							
Q/	DAVQC							
	MPLE COLLECTED E	BY: My W	m	SAMDI ING OBSER	VED DV:			
	DISCREPANCIES:			SAMPLING OBSER	AED RA:			

JOB No. <u>6301-05-0016</u>

JOB NAME <u>DSCR - OU6- Semi-Annual Monitoring</u>

DATE 7//6/05 TIME <u>0800</u>

DATE 7/16/05 TIME 0800 SAMPLING POINT:

				DEPTH_	NA
SAMPLE INFORMATION	SAMPLE I.D. N	O.: TB - 07/	605		
MATERIAL: 🛛 WAT	ER SOI	L	SLUDGE	□ отн	ER (LIST)
TYPE: 🛛 GRA	B □ CON	<b>MPOSITE</b>	OTHER (LIST)	<del></del>	
HAZARDOUS?: YES	MO ⊠		UNKNOWN		
CONTAINE		NUMBER	PRESERVAT		COMMENTS
TYPE VOA VIAL	VOLUME		PREPARATI		COMMENTS
VOAVIAL	40 ml	3	HCI to pH<2, Cool		VOCs by SW8260B
	40 ml	3	HCl to pH<2, Coal		Methane, ethane, ethene by RSK- 175
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
	· · · · · · · · · · · · · · · · · · ·				
	···				
			<u> </u>		
COMMENTS: (WELL PURG	ING VOLUME: SA	MPLE APPEAR	ANCE: ODOR: COL	OR ETC	
			, ,		
FIELD MEASUREMENTS	ſ				
DADAMETED	]				
PARAMETER	EQUIPMI	ENT I.D.	RESULTS (UN	IITS)	COMMENTS
	See assoc	ciated purge forn	n for sampling detail		
COMMENTS: (WELL PURG	NG VOLUME: SA	MPI E APPEAR	ANCE: ODOB: COL	OD ETO	
(			ANCE, ODOR, COL	OR, E1C.)	
GENERAL INFORMATION	WEATHER	<u> </u>			
		Sunny		RIEMPER	ATURE 78°F
SAMPLES SHIPPED TO: Cot		ervices - Califorr	nia	·	
SPECIAL HANDLING: FedEx	· · · · · · · · · · · · · · · · · · ·				
MODE OF SHIPMENT:	☐ CAR/TRUCK	B∪	S ⊠ PLA	NE	☐ COMMERCIAL VEHICLE
QA/QC	^ ^				
SAMPLE COLLECTED BY:	Dail Home	<u>. 0</u>	CANADI INIO 000		
DISCREPANCIES:	round 1.00		SAMPLING OBSER	VED BY: _	
JONES ANDIES.					

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/16/05 TIME 1015

SAMPLING POINT:
DEPTH NA

	SAI	TE <u> </u>					
SAMPLE INFORMATION	SAMPLE I.D. N	O.: OU6 BLAD-	The second secon				
MATERIAL:	WATER SOI	L,	SLUDGE	OTHER (LIST)			
TYPE:	GRAB COM	MPOSITE	OTHER (LIST)				
HAZARDOUS?:	YES 🛛 NO		UNKNOWN				
CONT	AINER	NUMBER	PRESERVATIVE/				
TYPE	VOLUME	NOWBER	PREPARATION	COMMENTS			
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°0	C VOCs by SW8260B			
VOA VIAL	40 mi	3	HCl to pH<2, Cool to 4°0	Methane, ethane, ethene by RSK-175			
Amber	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°	TOC by E 415.1			
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175			
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°	C Sulfide by E376.1			
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0			
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4	Tot. Metals by 6010B,7470A,6020			
		AMPLE APPEAF	RANCE; ODOR; COLOR,	ETC.)			
FIELD MEASUREMENTS							
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS	COMMENTS			
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)							
GENERAL INFORMATION	GENERAL INFORMATION WEATHER Sunny AIR TEMPERATURE 85°F						
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT:   CAR/TRUCK  BUS  PLANE  COMMERCIAL							
SAMPLE COLLECTED BY: Daniel X Homen SAMPLING OBSERVED BY: DISCREPANCIES:							

JOB No. 6301-05-0016

JOB NAME DSCR - OUG- Semi-Annual Monitoring

DATE 7/16/05 TIME 850

SAMPLING POINT: AFHA- 22A

DEPTH \_\_\_\_\_

				DEPTH_	G FOINT. HETHER JOH	
SAMPLE INFORMATION	SAMPLE I.D. NO	D. AFHA	-22A - 0703	5		
MATERIAL:	  WATER		SLUDGE		ER (LIST)	
TYPE:	GRAB COM	IPOSITE	OTHER (LIST)			
HAZARDOUS?:	YES 🛛 NO		UNKNOWN			
	AINER	NUMBER	PRESERVATI		COMMENTS	
TYPE	VOLUME		PREPARATIO	ON	COMMENTS	
VOA VIAL	40 ml	3	HCl to pH<2, Cool I		VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool t	to 4°C	Methane, ethane, ethene by RSK-175	
Amber	250 ml	1	H₂SO₄ to pH<2,Cool	to 4°C	TOC by E 415.1	
VOA VIAL	40 mi	3	. Cool to 4°C		CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None		Hydrogen by AM 20	
					,	
<u> </u>						
COMMENTS: (WELL	PURGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COL	OR, ETC.	)	
FIELD MEASUREMENTS	3			•		
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UN	IITS)	COMMENTS	
See associated purge form for sampling detail						
COMMENSS: (WELL)	PURGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COL	OR, ETC.		
GENERAL INFORMATIO	WEATHER	Clar, Si	DONY AII	R TEMPE	RATURE high 8005	
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx						
MODE OF SHIPMENT	: CAR/TRUC	( □ B	US 🖾 PLA	ANE	☐ COMMERCIAL VEHICLE	
QA/QC	1/	111				
<b>*************************************</b>	- I day	11/1/				
AMPLE COLLECTED  DISCREPANCIES:	DRA: WARE	WW	SAMPLING OBSEF	RVED BY:		
······································						

JOB No. 6	301-05-0016	
JOB NAM Monitoring	E <u>DSCR - OU</u>	l6- Semi-Annual
DATE	1/16/05	TIME 0930
SAMPLIN	G POINT:	EHA-34A
DEPTH	DEDICATED	em

					DEDICATED PHAR
SAMPLE INFORMATION	SAMPLE I.D. N	о.: Д= ЦД	34A-0705		
MATERIAL:	WATER SOIL	- 197⊆ 111) - -	SLUDGE	□отн	ER (LIST)
TYPE:	GRAB COM	IPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🖾 NO		UNKNOWN		
	AINER	NUMBER	PRESERVAT	IVE/	001445170
TYPE	VOLUME	NOMBEN	PREPARATI		COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B
VOA VIAL:	40 ml	3	HCI to pH<2, Gool	to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Coo	l to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0
Poly	500 mi	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
	PURGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COL	.OR, ETC.	)
FIELD MEASUREMENTS					
PARAMETER	EQUIPM	ENT LD.	RESULTS (UN	IITS)	COMMENTS
	1 245.11	2.44	I KEGOETO (ON	1110)	COMMENTS
	See assoc	iated purge form	n for sampling detail		
COMMENTS: (WELL P	URGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COL	OR, ETC.	)
GENERAL INFORMATIO	WEATHER	CLEAR	All	R TEMPE	RATURE 94°F
SAMPLES SHIPPED TO	D: <u>Columbia Analytical S</u>	ervices – Reddi	ng, California/ Micros	seeps – Pi	ttsburg, PA
SPECIAL HANDLING: F	edEx	<del></del>			
MODE OF SHIPMENT:	☐ CAR/TRUCK	: □ BI	US 🖾 PLA	NE	☐ COMMERCIAL VEHICLE
QA/QC			<u> </u>		
MPLE COLLECTED DISCREPANCIES:	BY: BRAD MORNING	<u> </u>	SAMPLING OBSEF	RVED BY:	A. cohiaman
DIOUNCE ANOIES.					

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 1/16 05 TIME 1000

SAMPLING POINT: USGS-F4

DEPTH 3-6

			DI	ЕРТН <u>3.6</u>
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: US G.	S-F4-0705	
MATERIAL:	WATER SOIL		☐ SLUDGE [	OTHER (LIST)
TYPE:	GRAB COM	POSITE	OTHER (LIST)	
HAZARDOUS?:	YES 🖾 NO		□ UNKNOWN	
	AINER	NUMBER	PRESERVATIVE	+ COMMUNITY I
TYPE	VOLUME		PREPARATION	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4	RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Cool to	4°C TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to	
Poly	500 mł	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to	70t. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20
			-	
_ '	PURGING VOLUME: SA		RANCE; ODOR; COLO	R, ETC.)
TOTAL POI	age 2.0 GALL	JN		
FIELD MEASUREMENTS	5			
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNIT	S) COMMENTS
	See associated purge form for sampling detail			
<u>-</u>	PURGING VOLUME: SA		RANCE; ODOR; COLOR	R, ETC.)
>AMPLE SLIGH	THE CLOUDY, NO			
GENERAL INFORMATIO	N WEATHER H	124, HOT +	HUNIO AIRT	TEMPERATURE 805
SAMPLES SHIPPED T	O: Columbia Analytical S	ervices – Redd	ing, California/ Microsee	eps – Pittsburg, PA
SPECIAL HANDLING:				
MODE OF SHIPMENT		В	US 🖾 PLAN	E COMMERCIAL
MODE OF GIAL MENT			DO MILAN	VEHICLE
QA/QC				
MOLE COLLECTED	BY: Dalva		CAMPING OBOTTO	ED DV
DISCREDANCIES	DI. Alex		SAMPLING OBSERV	ED BA:
DISCREPANCIES:				

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7-16-05 TIME 1015

SAMPLING POINT: USGS-KD

					IG POINT: USGS-KO DEDICATED
SAMPLE INFORMATION	N SAMPLE I.D. N	0:1156.	-K2-0705	<u> </u>	- CONTRACTOR
	WATER SOIL		SLUDGE		ED /LICT)
	_	- 1POSITE	OTHER (LIST)		ER (LIST)
	YES NO	552		<del></del>	
	TAINER		PRESERVAT	N/E/	
TYPE	VOLUME	NUMBER	PREPARATION		COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCI to pH<2, Coal	to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool	to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO <sub>2</sub> by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Coo	l to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
		-			
	PURGING VOLUME: SA			OR, ETC.)	
27.5 BALLON	IS PURGED, CO	locuess, a	DORLESS		
FIELD MEASUREMENTS	<b>.</b>				
PARAMETER	EQUIPME	NT LD.	RESULTS (UN	ITCI	COMMENTS
			NEODE 13 TON	113)	COMMENTS
	See associ	ated purge form	for sampling detail		
COMMENTS: (WELL P	PURGING VOLUME: SA	MPLE APPEARA	ANCE; ODOR; COLO	OR, ETC.)	
~7.5 GAUD	NS PURGED, C	DLOPLESS	ODORLESS	· ,	
GENERAL INFORMATIO				TEMPER	ATURE 90-95°F
SAMPLES SHIPPED TO	D: Columbia Analytical Se			oone Diff	Inhues DA
SPECIAL HANDLING: F	edEx		21 - STATES INICIOS	ceps - Fill	opuly, FA
MODE OF SHIPMENT	☐ CAR/TRUCK	□ BU	S 🛛 PLAI	NE	COMMERCIAL VEHICLE
QA/QC				···	V GI HIVEL
ADI E COLLECTES				-	
	BY: T. WITTEM	40N	SAMPLING OBSER	VED BY: ]	· PARKER
DISCREPANCIES: N	ONE				

JOB No. <u>6301-05-00</u>	16
JOB NAME <u>DSCR - C</u> Monitoring	OU6- Semi-Annual
DATE 7/10/05	TIME KXS
SAMPLING POINT:	7mw-98
DEPTH _ ~ 46.51	

					~16.51
SAMPLE INFORMATION	SAMPLE I.D. NO	Di: OMID	-9B-0705		
MATERIAL:	WATER SOIL		SLUDGE	OTHE	ER (LIST)
TYPE:	GRAB □ COM	IPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES NO		UNKNOWN	<del></del>	
CONT			PRESERVAT	IVE/	
TYPE	VOLUME	NUMBER	PREPARATI		COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B
VOA VIAL	40 mt	3	HCI to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Coo	to 4°C	TOC by E 415_1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
					,
	PURGING VOLUME: SA		ANCE; ODOR; COL	OR, ETC.)	
Upper is cu	cok ; to soon	0.0 ppm	(PID#4449)	<del></del> -	
FIELD MEASUREMENTS		". " " " " " " " " " " " " " " " " " "			
PARAMETER	EQUIPMI	ENT I.D.	RESULTS (UI	JITS)	COMMENTS
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1120210 (01		OOMINICIVIO
	See assoc	iated purge form	for sampling detail		
COMMENTS: (WELL P	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.)	
GENERAL INFORMATIO	N WEATHER	ESQ HOT/HU	MD All	R TEMPER	ATURE ~ 60°
CAMPLES SUIDDED TO	<del></del>	•			
	D: Columbia Analytical S	<u>ervices – Reddir</u>	ig, California/ Micros	seeps – Pit	sburg, PA
SPECIAL HANDLING: F			·		
MODE OF SHIPMENT:	☐ CAR/TRUCK	BU	IS ⊠PLA	NE	☐ COMMERCIAL VEHICLE
QA/QC		· ·· · · <del>· · · · · · · · · · · · · · ·</del>			
MPLE COLLECTED	BY: DAL		SAMPLING OBSER	SVED BV:	NC
DISCREPANCIES:	NA		LIIIO ODOLI	.VED D1	
				<u> </u>	

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7-16-05 TIME 1100

SAMPLING POINT: USC-5-F2

			DEP	TH
SAMPLE INFORMATION	SAMPLE I.D. NO	o.: US65-	F2-0705	
MATERIAL: 🛛	WATER SOIL			OTHER (LIST)
TYPE:	GRAB □ COM	POSITE	OTHER (LIST)	
HAZARDOUS?:	YES 🛛 NO		UNKNOWN	
	AINER	NUMBER	PRESERVATIVE/	COMMENTO
TYPE	VOLUME	HOWBER	PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCI to pH<2, Cool to 4°C	
VOA VIAL	40 ml	3	HCI to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK- 175
Amber Glass	250 mL	1	H2SO4 to pH<2,Cool to 4°	C TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 and Anions (NO <sub>3</sub> , SO <sub>4</sub> , CI) by E300.0
Poly	500 mL	1	HNO <sub>3</sub> to pH<2, Cool to 4°	Tol Metals by 6010B,7470A, 6020
VOA VIAL	20 mi	1	None Do Not Cool	Hydrogen by AM 20
Amber Glass	250 ml	1	H <sub>3</sub> PO <sub>4</sub> to pH <2;Cool to 4°C	Volatile Fatty Acids by D1552
·				
	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLOR, E	ETC.)
~ Oballons				
FIELD MEASUREMENTS				2
PARAMETER	EQUIPMI	ENT I.D.	RESULTS (UNITS)	COMMENTS
	0			
	See assoc	clated purge torn	n for sampling detail	
COMMENTS: (WELL P	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLOR, E	ETC.)
Noodor dete	cted, Relativel	y clear		
GENERAL INFORMATIO	N WEATHER			
,	WEATHER		AIR IEN	MPERATURE
SAMPLES SHIPPED TO	D: Columbia Analytical S	ervices - Californ	nia/ Microseeps – Pittsbur	g, PA
SPECIAL HANDLING: F	edEx			
MODE OF SHIPMENT:	☐ CAR/TRUCK	☐ BU	S 🖾 PLANE	COMMERCIAL VEHICLE
24				
SAMPLE COLLECTED	- Marchan	,		.*
SAMPLE COLLECTED	BY: - LUKE CUIT		SAMPLING OBSERVED	BY:
DISCREPANCIES:				

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/6/05 TIME 1/16

SAMPLING POINT: DMW-9A

DEPTH

				DEPTH_	- WILL TIME THE
SAMPLE INFORMATION	SAMPLE I.D. N	o.: DMW.	-9A-0705		
MATERIAL:	WATER SOIL		SLUDGE	□отн	ER (LIST)
TYPE:	GRAB CON	IPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🛛 NO		UNKNOWN		
CONT	AINER	NUMBER	PRESERVATIV	VE/	
TYPE	VOLUME	NUMBER	PREPARATIO		COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to	o 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to	4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Cool	to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool (	to 4°C	Sulfide by E376.1
Poly	500 m1	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool	to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
					,
COMMENTS: (WELL)	PURGING VOLUME: SA DUNGKA	MPLE APPEAR	ANCE; ODOR; COLO	OR, ETC.)	
FIELD MEASUREMENTS					
PARAMETER	EQUIPM	ENTID	DECIR TO (LINE	TO	001111
7743 (416.16.14		LINT I.D.	RESULTS (UNI	15)	COMMENTS
	See assoc	iated purge form	for sampling detail		٠
COMMENTS: (WELL F	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLO	OR, ETC.)	
_ water ha	is glight broa	un cola	L became	clears	Loborless
GENERAL INFORMATIO					ATURE ~80-90°F
SAMPLES SHIPPED TO	O: <u>Columbia Analytical S</u>	ervices – Reddii	ng, California/ Microse	eps – Piti	tsburg, PA
SPECIAL HANDLING: I					
MODE OF SHIPMENT:	☐ CAR/TRUCK	□ви	IS 🖾 PLAN	NE	COMMERCIAL VEHICLE
QA/QC		· · · · · · · · · · · · · · · · · · ·		_	
AMPLE COLLECTED	BY: D. Knaul		SAMPLING OBSERV	VED BY: _	B. Keny
DISCREPANCIES:					

#### FIELD SAMPLING

JOB No. 6301-05-0016 JOB NAME DSCR - OU6- Semi-Annual Monitoring

	DATE 7//7/ SAMPLING PO DEPTH //	OINT:			
SAMPLE INFORMATION	SAMPLE I.D.	NO.: TB - 07/	705		
MATERIAL:	WATER S	OIL	SLUDGE	OTHER (L	₋IST)
TYPE:	GRAB □ C	OMPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🛛 N	o	UNKNOWN		
	AINER	NUMBER	PRESERVATI		COMMENTO
TYPE VOA VIAL	VOLUME		PREPARATIO		COMMENTS
VOA VIAL	40 ml	3	HCI to pH<2, Cool t		VOCs by SW8260B
	40 ml	3	HCl to pH<2, Cool t	0 4°C	ane, ethane, ethene by RSK- 175
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
	· · · · · · · · · · · · · · · · · · ·	_			
	<u> </u>				
		-			
COMMENTS: (WELL F	PURGING VOLUME:	SAMPLE APPEAR	RANCE; ODOR; COLO	OR, ETC.)	
FIELD MEASUREMENTS	i	-			
PARAMETER	EQUIF	PMENT I.D.	RESULTS (UNI	ITQ)	COMMENTO
			1 1200210 (011	110)	COMMENTS
	See as	sociated purge for	m for sampling detail		
COMMENTS: (WELL P	URGING VOLUME:	SAMPLE APPEAR	RANCE; ODOR; COLO	OR, ETC.)	
GENERAL INFORMATION	WEATHER_	Sunny 4	#at AIR	TEMPERATU	RE 80°F
SAMPLES SHIPPED TO	D: Columbia Analytica	Services - Califor	mia		
SPECIAL HANDLING: F			1119		
MODE OF SHIPMENT:	☐ CAR/TRU	CK 🗆 BI	JS 🛛 PLAI	NE DO	CAMATROLAL VICTOR
QA/QC			Z Z PEAL	<u> </u>	OMMERCIAL VEHICLE
SAMPLE COLLECTED	BY: Daniel Hi	ward	SAMPLING OBSERV	VED BY:	
SCREPANCIES:				<del></del> .	
<u> </u>					

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/17/05 TIME 0803

SAMPLING POINT: USGS-KU

			DEPTH_	77 600
SAMPLE I.D. NO	D: USGS-	K4-0705		
		SLUDGE	□ отн	ER (LIST)
GRAB ☐ COM	IPOSITE	OTHER (LIST)		
YES 🖾 NO		UNKNOWN		
AINER	NUMBER			COMMENTO
				COMMENTS
		<del> </del>		VOCs by SW8260B
	3			Methane, ethane, ethene by RSK-175
	1	H₂SO₄ to pH<2,Coo	to 4°C	TOC by E 415.1
	3	Cool to 4°C		CO <sub>2</sub> by RSK-175
500 119	1	ZnAc & NaOH, Coo	to 4°C	Sulfide by E376.1
500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0
500 ml	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020
<del>20 ml</del>	1			Hydrogen by AM 20
		Hydrogen was n	ot colle	sted due to
		insufficient rock	arg E	
turging volume: sa Llue to insuffic	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.	) !+b bl.
		Jo, semple co	incer w	TH DAILEF
EQUIPME	ENT I.D.	RESULTS (UN	IITS)	COMMENTS
See associated purge form for sampling detail				
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)				
WEATHER P	ently sun.	Alf	R TEMPER	RATURE 75°F
D: <u>Columbia Analytical S</u> edEx	ervices – Reddii	ng, California/ Micros	seeps – Pit	itsburg, PA
☐ CAR/TRUCK	□BU	JS 🖾 PLA	NE	☐ COMMERCIAL VEHICLE
Daniel H	oward 4	· · · · · · · · · · · · · · · · · · ·		
BY: Torrell P.	ko-	SAMDI NO ODOTO	WED DY	
J. I Cit I ar	1,0.	SAWIPLING OBSER	WED BY:	
	WATER SOIL GRAB COM YES NO AINER VOLUME 40 ml 40 ml 500 ml 500 ml 500 ml 500 ml Caption Caption WEATHER Properties Columbia Analytical Steel edex CAR/TRUCK	WATER SOIL GRAB COMPOSITE YES NO AINER NUMBER  VOLUME NUMBER  40 ml 3  250 ml 1  40 ml 3  500 ml 1  500 ml 1  500 ml 1  500 ml 1  EQUIPMENT I.D.  See associated purge form  URGING VOLUME: SAMPLE APPEAR  URGING VOLUME: SAMPLE APPEAR  EQUIPMENT I.D.  See associated purge form  URGING VOLUME: SAMPLE APPEAR  CECOLUMBIA Analytical Services — Redding edex  CAR/TRUCK BUTTER  Daniel Howard 4	WATER SOIL SLUDGE  GRAB COMPOSITE OTHER (LIST)  YES NO UNKNOWN  AINER PRESERVAT  40 ml 3 HCI to pH<2, Cool  40 ml 3 HCI to pH<2, Cool  40 ml 3 Cool to 4°C  500 ml 1 FisO, to pH<2, Cool  500 ml 1 Cool to 4°C  500 ml 1 Cool to 4°C  500 ml 1 HNO3 to pH<2, Cool  40 ml 3 Cool to 4°C  500 ml 1 None  Hydragen was n  Insufficient recharge, sample co	SAMPLE I.D. NO: USGS - KY-0705  WATER SOIL SLUDGE OTHER (LIST)  GRAB COMPOSITE OTHER (LIST)  VES NO UNKNOWN  AINER PREPARATION  PRESERVATIVE!  PREPARATION  40 ml 3 HCl to pH-2, Cool to 4°C  40 ml 3 HCl to pH-2, Cool to 4°C  40 ml 3 Cool to 4°C  250 ml 1 HsO4 to pH-2, Cool to 4°C  40 ml 3 Cool to 4°C  500 ml 1 Cool to 4°C  500 ml 1 None  Hydragen was not collection in set felicet we have as a set collection of the collectio

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/17/OS TIME 0908

SAMPLING POINT: USGS-GY

						6.3
SAMPLE INFORMATION	1	SAMPLE I.D. NO	D.: US 65	- G4-07	05 M	15/MSD
MATERIAL:	WATE			SLUDGE		ER (LIST)
TYPE:	GRAB	□сом	IPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES	⊠ NO		UNKNOWN		
	AINER		NUMBER	PRESERVAT	—	COMMENTS
TYPE VOA VIAL	<u> </u>	VOLUME		PREPARATI		
	-	40 ml	9	HCI to pH<2, Cool		VOCs by SW8260B  Methane, ethane, ethene by
VOA VIAL		40 ml	3			RSK-175
Amber Glass		250 ml	3	H <sub>2</sub> SO <sub>4</sub> to pH<2,Co	ol to 4°C	TOC by E 415.1
VOA VIAL		40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly		500 ml	3	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1
Poly		500 ml	3	Cool to 4°C		Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl. by E300.0
Poly		500 ml	3	HNO <sub>3</sub> to pH<2, Cod	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL		20 ml	1	None		Hydrogen by AM 20
					_	
				<u> </u>		
COMMENTS: (WELL)	PURGIN	IG VOLUME: SA ろのでない	MPLE APPEAR	ANCE; ODOR; COL	.OR, ETC.	)
FIELD MEASUREMENTS						
PARAMETER		EQUIPME	ENT LD	DECULTO (III	WTO)	T COMMENTS
FANAMETER		EQUIFIVIE	EN 1 1.D.	RESULTS (UI	VIIS)	COMMENTS
		See associ	iated purge forπ	n for sampling detail		,
COMMENTS: (WELL F	PURGIN	IG VOLUME: SA	MPLE APPEAR	ANCE: ODOR: COL	OR ETC	
SAMPLE CL				, , , , , , , , , , , , , , , , , , , ,	,	, 
GENERAL INFORMATIO	<del>/,</del>	WEATHER H	OT - HUMO	Al	R TEMPE	RATURE 85-90 F
SAMPLES SHIPPED TO		mbia Apolytical S	oniose Doddi			
SPECIAL HANDLING:		mbia Analytical O	ervices - Redui	ng, Camornia/ Wilcro	seeps - Pr	tisburg, PA
MODE OF SHIPMENT:		☐ CAR/TRUCK	□в	JS 🖾 PL/	ANE	COMMERCIAL
ac	T	<u></u>	<del></del>			VEHICLE
	l	10 17				
SAMPLE COLLECTED	BY: 🚣	you Va		SAMPLING OBSEI	RVED BY:	
DISCREPANCIES:					· · · · · · · · · · · · · · · · · · ·	

ļ	JOB No. <u>6301-05-0016</u>
	JOB NAME <u>DSCR - OU6- Semi-Annual</u> Monitoring
	DATE 717 65 TIME 0425
	SAMPLING POINT: USGS-LD
	DEPTH DEPEND PMP

		•		SAMPLIN	GPOINT: USGS-LJ
				DEPTH _	DPORNED LWB
SAMPLE INFORMATION	SAMPLE I.D. N	o.: U565-	12-0705		
MATERIAL:	WATER SOI	_	SLUDGE	OTHE	ER (LIST)
TYPE:	GRAB CON	MPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES NO		UNKNOWN		
	AINER	AU MARCED	PRESERVAT	IVE/	COMMENTS
TYPE	VOLUME	NUMBER	PREPARATI	ON	COMMENTS
VOA VIAL	40 mł	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCI to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Coc	ol to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	l to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
•	PURGING VOLUME: S.	AMPLE APPEAR	RANCE; ODOR; CO	LOR, ETC.	)
FIELD MEASUREMENT	S	,			
PARAMETER	EQUIPM	IENT I.D.	RESULTS (U	NITS)	COMMENTS
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFORMATION	N WEATHER	SMMY &	r°F A	IR TEMPE	RATURE F47
SAMPLES SHIPPED T SPECIAL HANDLING:	Fot <u>Columbia Analytical</u> FedEx	Services – Redd	ing, California/ Micro	oseeps – Pi	ttsburg, PA
MODE OF SHIPMENT	: CAR/TRUC	К 🔲 В	US 🛭 PL	ANE	COMMERCIAL VEHICLE
QA/QC					
IPLE COLLECTED DISCREPANCIES:	BY: BAD MALLE	<b>M</b>	SAMPLING OBSE	RVED BY:	

JOB No. <u>6301-05-0016</u>
JOB NAME DSCR OU6- Semi-Annual
Monitoring
DATE 7-17-05 TIME 6930
SAMPLING POINT: USGS-G3
DEDTU

SAMPLE INFORMATION         SAMPLE I.D. NO.: USGS ~G3~C705           MATERIAL:         ⊠ WATER         □ SOIL         □ SLUDGE         □ OTHER (LIST)           TYPE:         ☑ GRAB         □ COMPOSITE         □ OTHER (LIST)           HAZARDOUS?:         □ YES         ☒ NO         □ UNKNOWN           CONTAINER         NUMBER         PRESERVATIVE/PREPARATION         COMMENTS           TYPE         VOLUME         NUMBER         PREPARATION         COMMENTS           VOA VIAL         40 ml         3         HCI to pH<2, Cool to 4°C         VOCs by SW8260B           VOA VIAL         40 ml         3         HCI to pH<2, Cool to 4°C         Methane, ethane, ethane by four stream of the properties of the pH           VOA VIAL         40 ml         3         Cool to 4°C         TOC by E 415.1           VOA VIAL         40 ml         3         Cool to 4°C         CO2 by RSK-175           Poly         500 ml         1         ZnAc & NaOH, Cool to 4°C         Sulfide by E376.1           Poly         500 ml         1         Cool to 4°C         Alkalmity by E310 1 and Antic (NO3, SO4, Cl) by E300.0           Poly         500 ml         1         HNO3 to pH<2, Cool to 4°C         Tot. Metals by 6010B,7470 6020           VOA VIAL<					SAMPLI DEPTH	NG POINT: UJGJ-G3	
MATERIAL:         ☑ WATER         ☐ SOIL         ☐ SLUDGE         ☐ OTHER (LIST)           TYPE:         ☑ GRAB         ☐ COMPOSITE         ☐ OTHER (LIST)           HAZARDOUS?:         ☐ YES         ☒ NO         ☐ UNKNOWN           CONTAINER         NUMBER         PRESERVATIVE/ PREPARATION         COMMENTS           VOA VIAL         400 ml         3         HCI to pH<2, Cool to 4°C	SAMPLE INFORMATION	TION SAMPLE I.D. N	10.: USGS	-63-0705	· · · · · · · · · · · · · · · · · · ·		
TYPE:	MATERIAL:		•			IER (LIST)	
CONTAINER   NUMBER   PRESERVATIVE/ PREPARATION   COMMENTS	TYPE:	⊠ GRAB □ CO	MPOSITE	OTHER (LIST)			
TYPE         VOLUME         NUMBER         PREPARATION         COMMENTS           VOA VIAL         40 ml         3         HCl to pH<2, Cool to 4°C	HAZARDOUS?:	☐ YES 🖾 NO					
TYPE			NUMBER	1		COMMENTS	
VOA VIAL   40 ml   3		<del></del>					
Amber Glass 250 mL 1 H2SO4 to pH<2,Cool to 4°C TOC by E 415.1  VOA VIAL 40 ml 3 Cool to 4°C CO <sub>2</sub> by RSK-175  Poly 500 ml 1 ZnAc & NaOH, Cool to 4°C Sulfide by E376.1  Poly 500 ml 1 Cool to 4°C Alkalnity by E310 1 and Anti (NO <sub>2</sub> , SO <sub>4</sub> , CI) by E300.0  Poly 500 mL 1 HNO <sub>3</sub> to pH<2, Cool to 4°C 6020  VOA VIAL 20 ml 1 None Do Not Cool Hydrogen by AM 20  Amber Glass 250 ml 1 H <sub>3</sub> PO <sub>4</sub> to pH<2;Cool to 4°C Volatile Fatty Acids by D15:  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  PARAMETER EQUIPMENT 1.D. RESULTS (UNITS) COMMENTS	VOA VIAL	40 ml	3			<u> </u>	
VOA VIAL         40 ml         3         Cool to 4°C         CO₂ by RSK-175           Poly         500 ml         1         ZnAc & NaOH, Cool to 4°C         Sulfide by E376.1           Poly         500 ml         1         Cool to 4°C         Alkalnity by E310 1 and Ania (NO₃, SO₄, CI) by E300.0           Poly         500 mL         1         HNO₃ to pH<2, Cool to 4°C	VOA VIAL	40 ml	3				
Poly         500 ml         1         ZnAc & NaOH, Cool to 4°C         Sulfide by E376.1           Poly         500 ml         1         Cool to 4°C         Alkalinity by E310 1 and Ania (NO <sub>3</sub> , SO <sub>4</sub> , Cl) by E300.0           Poly         500 mL         1         HNO <sub>3</sub> to pH<2, Cool to 4°C	Amber Glass	250 mL	1	H2SO4 to pH<2,Coo	ol to 4°C	TOC by E 415.1	
Poly 500 ml 1 Cool to 4°C Alkalinity by E310 1 and Ania (NO <sub>3</sub> , SO <sub>4</sub> , Cl) by E300.0  Poly 500 mL 1 HNO <sub>3</sub> to pH<2, Cool to 4°C Tot. Metals by 6010B,7470 6020  VOA VIAL 20 ml 1 None <u>Do Not Cool</u> Hydrogen by AM 20  Amber Glass 250 ml 1 H <sub>3</sub> PO <sub>4</sub> to pH <2;Cool to 4°C Volatile Fatty Acids by D15:  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  2.5 get (on)  FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS				<u> </u>		CO₂ by RSK-175	
Poly 500 ml 1 HNO3 to pH<2, Cool to 4°C (NO3, SO4, CI) by E300.0  Poly 500 ml 1 HNO3 to pH<2, Cool to 4°C 6020  VOA VIAL 20 ml 1 None Do Not Cool Hydrogen by AM 20  Amber Glass 250 ml 1 H <sub>3</sub> PO <sub>4</sub> to pH <2; Cool to 4°C Volatile Fatty Acids by D15:  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS	. Poly	500 ml	1	ZnAc & NaOH, Coo	l to 4°C		
VOA VIAL  20 ml  1 None Do Not Cool  Hydrogen by AM 20  Amber Glass  250 ml  1 H <sub>3</sub> PO <sub>4</sub> to pH <2;Cool to 4°C  Volatile Fatty Acids by D15:  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  2.5 gallons  FIELD MEASUREMENTS  PARAMETER  EQUIPMENT I.D. RESULTS (UNITS)  COMMENTS	Poly	500 ml	1	Cool to 4°C		Alkalinity by E310 1 and Anions (NO <sub>3</sub> , SO <sub>4</sub> , CI) by E300.0	
Amber Glass  250 ml  1 H <sub>3</sub> PO <sub>4</sub> to pH <2;Cool to 4°C Volatile Fatty Acids by D15:  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  2.5 gellons  FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS	Poly	500 mL	1	HNO <sub>3</sub> to pH<2, Coo	of to 4°C	Tot. Metals by 6010B,7470A, 6020	
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  2.5 gclons  FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS	VOA VIAL	20 ml	1	None Do Not (	Cool	Hydrogen by AM 20	
FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS	Amber Glass	250 ml	1	H <sub>3</sub> PO <sub>4</sub> to pH <2;Coo	ol to 4°C	Volatile Fatty Acids by D1552	
PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS	4		SAMPLE APPEAF	RANCE; ODOR; COL	LOR, ETC	.)	
	FIELD MEASUREMENTS	ENTS					
	PARAMETER	TER EQUIP	MENT I.D.	RESULTS (UN	VITS)	COMMENTS	
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)	See associated purge form for sampling detail						
No odor detected, relatively Clear.	,						
GENERAL INFORMATION WEATHER SUNNY, hot, light breeze AIR TEMPERATURE 90'S	SENERAL INFORMATIO	ATION WEATHER S	unny, hot,	light brize A	R TEMPE	RATURE 90'S	
SAMPLES SHIPPED TO: Columbia Analytical Services - California/ Microseeps - Pittsburg, PA  SPECIAL HANDLING: FedEx	SPECIAL HANDLING: F	NG: FedEx				_	
		ENT. CARTRUC	<u> </u>	us KIPL/	ANE	COMMERCIAL VEHICLI	
SAMPLE COLLECTED BY: UKe CLEYK SAMPLING OBSERVED BY:		TED BY: LUKE ( le	(K	SAMPLING OBSE	RVED BY	<b>:</b>	
\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\							

JOB No. 6301-05-0016

JOB NAME DSCR - OUG- Semi-Annual Monitoring

DATE 7/705 TIME 0930

SAMPLING POINT: USGS-BD

		•		TH 17.0 M		
SAMPLE INFORMATION	SAMPLE I.D. N	o.: USGS	-82-0705			
MATERIAL:	WATER SOIL			OTHER (LIST)		
TYPE:	GRAB ☐ COM	B COMPOSITE				
HAZARDOUS?:	YES 🖾 NO	⊠ NO				
	AINER	NUMBER	PRESERVATIVE/	COMMENTS		
TYPE	VOLUME		PREPARATION			
VOA VIAL	40 ml	3	HCl to pH<2, Coal to 4°C			
VOA VIAL	40 ml	3	HCi to pH<2, Cool to 4°C	RSK-175		
Amber	250 ml	1	H₂SO₄ to pH<2,Cool to 4°(	700 Gy E 416.1		
VOA VIAL Poly	40 ml	3	Cool to 4°C ZnAc & NaOH, Cool to 4°C	CO <sub>2</sub> by RSK-175		
Fully	3001111	'	ZIMC & NAOH, COULD 4*C	Sulfide by E376.1  Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by		
Poly	500 ml	1	Cool to 4°C	E310.1, E300 0		
Poly	500 mf	1	HNO₃ to pH<2, Cool to 4	°C Tot. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None	Hydrogen by AM 20		
				,		
	PURGING VOLUME: SA		ANCE; ODOR; COLOR,	ETC.)		
FIELD MEASUREMENTS		1, NO 0	2004			
PARAMETER		ENT : D	DEOLUTO (HAUTO)	001115170		
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS		
	See assoc	ciated purge form	n for sampling detail			
COMMENTS: (WELL I	PURGING VOLUME: SA	AMPLE APPEAR	ANCE; ODOR; COLOR,	ETC.)		
~ 3,5	gol Dung	ed				
GENERAL INFORMATIO	N WEATHER 1	ot a humoid	samy AIR TE	MPERATURE ~95-90F		
SAMPLES SHIPPED T	O: Columbia Analytical S	<u> Services – Reddi</u>	ng, California/ Microseeps	s – Pittsburg, PA		
SPECIAL HANDLING:	SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT:	☐ CAR/TRUC	< □BI	JS 🔀 PLANE	COMMERCIAL VEHICLE		
QA/QC		-	**************************************			
MBI E COLLECTED	BY: D. Knard	1	CAMBUNO ODOCOVE	DV.		
DISCREPANCIES:	BIKAAQUQ	<u>*</u>	SAMPLING OBSERVED	JBT:		

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/7/05 TIME 0950

SAMPLING POINT: USGS - AY

DEPTH ~5.5'

				DEPTH_	~5.5'
SAMPLE INFORMATION	SAMPLE I.D. N	0:: USG-S-	A4-0705		
MATERIAL:	WATER SOIL		SLUDGE	□ отн	ER (LIST)
TYPE:	GRAB COM	IPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🖾 NO		UNKNOWN		
CONT	AINER	NUMBER	PRESERVAT	IVE/	COMMENTO
TYPE	VOLUME	NOMBER	PREPARATI	ON	COMMENTS
VOA VIAL	40 ml	3	HCI to pH<2, Cool	lo 4°Ç	VOCs by SW8260B
VOA VIAL	40 ml	3	HCI to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H₂SO₄ ta pH<2,Coo	l to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
		<u>,,</u>			
COMMENTS: (WELL I	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.	)
			( OME # SSA)	•	
FIELD MEASUREMENTS					
DADAMETER		PART I C	BEOLUTO (1)		
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UN	VIIS)	COMMENTS
	See assoc	iated purge form	for sampling detail		
COMMENTS: (WELL F	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.	)
GENERAL INFORMATIO	N WEATHER	usom/HemiD	All	R TEMPE	RATURE ~ %0°
SAMPLES SHIPPED TO	O: Columbia Analytical S	Services – Reddi	ng California/ Micro	seens Pi	ittehura PA
SPECIAL HANDLING: I					incomment of the second
MODE OF SHIPMENT:		ζ □Βι	JS 🖾 PLA	ANE	☐ COMMERCIAL VEHICLE
QA/QC		· <u>·</u>			
AMBUT COLUTER			A		~
MPLE COLLECTED	,		SAMPLING OBSER	RVED BY:	TH
DISCREPANCIES: W/A					

JOB No. 6301-05-0016

JOB NAME DSCR - OUG- Semi-Annual Monitoring

DATE 7-17-05 TIME 1015

SAMPLING POINT: USG-S-MO
DEPTH DEDICATED DEPTH

	1121 011	•		SAMPLIN	IG POINT:USGS-MO
,				DEPTH_	DEDICATED DEPTH
SAMPLE INFORMATION	N SAMPLE I.D. N	o.: U5G5	-M2-0705		
MATERIAL:	WATER SOI	Ĺ	SLUDGE	□отн	ER (LIST)
TYPE:	GRAB CO	MPOSITE	OTHER (LIST)		
HAZARDOUS?:	] YES 🖾 NO		UNKNOWN		
<u> </u>	TAINER	NUMBER	PRESERVAT	IVE/	COMMENTS
TYPE	VOLUME	TOMBER	PREPARATI	ON	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool		Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Coc	ol to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poty	500 mt	1	ZnAc & NaOH, Coo	ol to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°C		Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
,					
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COL	LOR, ETC.	)
≈ 6.0 GAUD	NS PURSED, S	AMPLE CO	LOPLESS AND	D ODO	2655
FIELD MEASUREMENT:	S			7.7.4	
PARAMETER	EOUBPM	IENT I.D.	RESULTS (U	MTC	COMMENTS
1700 WILLICH	EQUIT	ILIVI I.D.	<u>                                      </u>	NI FOJ	COMMENTS
	See asso	ciated purge forn	n for sampling detail		
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEAR	ANCE; ODOR; COL	OR. ETC.	)
	NS PURGED, S				
GENERAL INFORMATIO		TOH, YUNG			RATURE 90-95°F
SAMPLES SHIPPED T	O: Columbia Analytical S	, .			
SPECIAL HANDLING:				<u> </u>	Model g, 171
MODE OF SHIPMENT		< □в	JS ⊠ PL/	ANE	COMMERCIAL VEHICLE
QA/QC			<u> </u>		
IDLE COLLECTED	DV: TIN	A (	CAMPULATO ODGO		The
	BY: T. WITTEM		SAMPLING OBSEI	KVED BY:	I. PALKER
DISCREPANCIES:	アのひと				

JOB No. 6301-05-0016

JOB NAME DSCR - OUG- Semi-Annual Monitoring

DATE 717105 TIME 1050

SAMPLING POINT: USGS-J4

DEPTH 10504

				DEPTH	16-feet	
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: USGS-J	J4-0705			
MATERIAL:	WATER 🗌 SOIL		SLUDGE	OTHE	R (LIST)	
TYPE:	GRAB ☐ COM	POSITE	OTHER (LIST)			
HAZARDOUS?:	YES 🖾 NO		UNKNOWN		-	
CONT		NUMBER	PRESERVATI		COMMENTS	
TYPE	VOLUME		PREPARATIO		COMMENTS	
VOA VIAL	40 ml	3	HCl to pH<2, Cool t		VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool t		Methane, ethane, ethene by RSK-175	
Amber	250 ml	1	H₂SO₄ to pH<2,Cool	to 4°C	TOC by E 415.1	
VOA VIAL	40 mi	3	Cool to 4°C		CO₂ by RSK-175	
Poty	500 ml	11	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310 1, E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Coo	l to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None		Hydrogen by AM 20	
					· · · · · · · · · · · · · · · · · · ·	
COMMENTS: (WELL P	URGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.)		
FIELD MEASUREMENTS						
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UN	ITS)	COMMENTS	
See associated purge form for sampling detail						
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
GENERAL INFORMATION	WEATHER	clear ho	mid AIF	RTEMPER	ATURE Mid 90'5	
SAMPLES SHIPPED TO	): <u>Columbia Analytical</u> S	ervices – Reddi	na. California/ Micros	eeps – Pitt	sburg PA	
SPECIAL HANDLING: F						
MODE OF SHIPMENT:	☐ CAR/TRUCK	□в	J\$ ⊠PLA	NE	COMMERCIAL	
0.4.0.0	$\bigcap$				VEHICLE	
QA/QC	-41 ////	1/1				
AMPLE COLLECTED I	BY AMAN		SAMPLING OBSER	VED BY:		
DISCREPANCIES:						
	<i>v</i> – – – – – – – – – – – – – – – – – – –					

	JOB No. <u>6301-05-0016</u>	
	JOB NAME DSCR - OU6- Monitoring	Semi-Annual
1	DATE 777-05	TIME 10:23
	SAMPLING POINT: US	5S-M4
ł	DEPTH	

				DEPTH_	101011110363-1119	
SAMPLE INFORMATION	SAMPLE I.D. NO	DI USGS	-M4-0705			
MATERIAL:	WATER SOIL		SLUDGE	□отн	ER (LIST)	
TYPE:	GRAB ☐ COM	IPOSITE	OTHER (LIST)			
HAZARDOUS?:	YES 🖾 NO		UNKNOWN		-	
	AINER	NUMBER	PRESERVAT		COMMENTS	
TYPE	VOLUME		PREPARATI			
VOA VIAL	40 ml	3	HCI to pH<2, Cool		VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Coot		Methane, ethane, ethene by RSK-175	
Amber	250 ml	1	H₂SO₄ to pH<2,Coo		TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Coo	ol to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None		Hydrogen by AM 20	
					,	
COMMENTS: (WELL F	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	LOR, ETC.	)	
Gromdweter	Samples mec	deme calo	Messand od	on less.		
FIELD MEASUREMENTS		···				
PARAMETER	EQUIPM	FNTID	RESULTS (UI	UITC)	COMMENTO	
, , , , , , , , , , , , , , , , , , , ,	LGOII W	LIVI I.D.	I KLOOLIO (DI	VIII 3)	COMMENTS	
	See assoc	iated purge form	n for sampling detail			
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
GENERAL INFORMATIO	WEATHER H	TiSunan h	umid Al	R TEMPER	RATURE 89°F	
SAMDLES SUIDDED TO		,				
	O: <u>Columbia Analytical S</u>	ervices – Reddi	ng, California/ Micro	<u>seeps – Pi</u>	ttsburg, PA	
SPECIAL HANDLING: F						
MODE OF SHIPMENT:	☐ CAR/TRUCK	□ BU	JS ⊠ PL⁄ —	ANE	☐ COMMERCIAL VEHICLE	
QA/QC		•				
MPLE COLLECTED	BY: Terrell Pan	Ken	SAMPI ING ORSE	5//EU bv.	Ted WITTEMMUN	
DISCREPANCIES:	NONE DAN	1 · V Z	CHANG CHAO OFFICE	MAED DI!	120 WILLIAM	

JOB No. 6301-05-0016

JOB NAME DSCR — OU6- Semi-Annual Monitoring

DATE 7//8/05 TIME 0800

SAMPLING POINT:
DEPTH NA

	NEP O	K I		LING POINT:
SAMPLE INFORMATION	N SAMPLE I.C	. NO.: 071805	-	
MATERIAL:	WATER S	SOIL	SLUDGE 01	HER (LIST)
TYPE:	] GRAB 🔲 C	COMPOSITE	OTHER (LIST)	
HAZARDOUS?:	YES 🖾 N	10	UNKNOWN	
<u> </u>	TAINER	NUMBER	PRESERVATIVE/	COMMENTS
TYPE	VOLUME		PREPARATION	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B  Methane, ethane, ethene by RSK-
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	175
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175
-				
		<del></del>		
	<del> </del>			
COMMENTS: (WELL	PURGING VOLUME:	SAMPLE APPEA	RANCE; ODOR; COLOR, ET	C.)
FIELD MEASUREMENT	s			
PARAMETER	FQU	IPMENT I.D.	RESULTS (UNITS)	COMMENTS
,			11.000.10 (0.010)	OOMMENTO
,	See a	ssociated purge for	m for sampling detail	
L		SAMPLE APPEAR	RANCE; ODOR; COLOR, ET	C.)
COMMENTS: (WELL	PURGING VOLUME:			
				PERATURE 78°F
GENERAL INFORMATIO	ON WEATHER	Sunny	AIR TEMF	PERATURE 78°F
GENERAL INFORMATION	ON WEATHER O: Columbia Analytic	Sunny	AIR TEMF	PERATURE 78°F
GENERAL INFORMATION SAMPLES SHIPPED TO SPECIAL HANDLING:	ON WEATHER  O: Columbia Analytic  FedEx	Zunny cal Services – Redd	AIR TEMF	
GENERAL INFORMATION	ON WEATHER  O: Columbia Analytic	Zunny cal Services – Redd	AIR TEMF	PERATURE 78°F

JOB No. 6301-05-0016

JOB NAME DSCR - OUG- Semi-Annual Monitoring

DATE 7/19/05 TIME 910

SAMPLING POINT: ACHA-328

				DEPTH_	G POINT: HEHH-32B
SAMPLE INFORMATIO	ON SAMPLE I.D. NO	DI AFHA3	2B-0705	· ····	
MATERIAL:			SLUDGE	□ отне	ER (LIST)
TYPE:	⊠ GRAB ☐ COM	POSITE	OTHER (LIST)		` ,
HAZARDOUS?: [	]YES ⊠NO		UNKNOWN		
	ITAINER	NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME		PREPARATI		COMMENTS
VOA VIAL	40 ml	3	HCI to pH<2, Cool		VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool		Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Coo	I to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
COMMENTS: (WELI	L PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.)	
FIELD MEASUREMEN	rs			····	
PARAMETER	R EQUIPM	ENT I.D.	RESULTS (UN	NITS)	COMMENTS
See associated purge form for sampling detail					
COMMENTS: (WELL	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.)	3
SAMPLE C	LEAR, NO OBOR	TRACE	OF BROWN PA	KTICULA	TES )
GENERAL INFORMATI	ON WEATHER KA	124 HOTO HO	)MID All	R TEMPER	RATURE <u>D'S</u>
SAMPLES SHIPPED	TO: Columbia Analytical S	ervices - Reddii	ng, California/ Micro	seeps – Pit	tsburg, PA
SPECIAL HANDLING	: FedEx				
MODE OF SHIPMEN	T: CAR/TRUCK	∷ ⊟в∟	JS ⊠PLA	ANE	COMMERCIAL VEHICLE
QA/QC		······································		<del></del>	
AMPLE COLLECTE	DBY: Da Vas		SAMPLING OBSER	RVED BY:	
DISCREPANCIES:					

JOB No. 6301-05-0016

JOB NAME DSCR — OU6- Semi-Annual Monitoring

DATE 7/18/05 TIME 9335

SAMPLING POINT: AEHA-31A

	•	-		SAMPLIN	G POINT: AEHA-31A		
	·			DEPTH_	DEDICORD PUMP		
SAMPLE INFORMATION	SAMPLE I.D. N	o.: AEHA -:	31A-0705				
MATERIAL:	WATER SOIL		SLUDGE	OTHE	ER (LIST)		
TYPE:	GRAB CON	POSITE	OTHER (LIST)		,		
HAZARDOUS?:	YES NO		☐ UNKNOWN				
CONT	TAINER	NUMBER	PRESERVAT	IVE/	0014451450		
TYPE	VOLUME	NUMBER	PREPARATI	ON	COMMENTS		
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B		
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175		
Amber	250 ml	1	H₂SO₄ to pH<2,Coo	I to 4°C	TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175		
Poly	500 ml	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1		
Poly	500 ml	1	Cool to 4°C		Alkatinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0		
Poly	500 ml	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None		Hydrogen by AM 20		
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  410122 IS CLERR; NO COOR (O.O.O.M. on PLD)  FIELD MEASUREMENTS							
PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)							
GENERAL INFORMATIO	WEATHER		Al	R TEMPER	RATURE		
SAMPLES SHIPPED T SPECIAL HANDLING:	SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx						
MODE OF SHIPMENT		∶ ∏ві	JS 🛭 PL/	ANE	COMMERCIAL VEHICLE		
QA/QC							
JAMPLE COLLECTED DISCREPANCIES:			SAMPLING OBSE	RVED BY:	ØK		
					<del></del>		

JOB No. 6301-05-0016

JOB NAME DSCR - OU6- Semi-Annual Monitoring

DATE 7/18/05 TIME 10-00

SAMPLING POINT: HA-318

			DEPTH	10 wake 22.43	
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: AEHA-	318-0705   SLUDGE   OTH		
MATERIAL: 🛛	WATER ☐ SOIL		SLUDGE DOTH	IER (LIST)	
TYPE:	GRAB □ COM	POSITE	OTHER (LIST)	···· <u>-</u> -	
HAZARDOUS?:	YES 🖾 NO		UNKNOWN		
	AINER	NUMBER	PRESERVATIVE/	COMMENTS	
TYPE	VOLUME		PREPARATION	COMMENTS	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175	
Amber	250 ml	1	H₂SO₄ to pH<2,Cool to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175	
Poty	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None	Hydrogen by AM 20	
				,	
	PURGING VOLUME: SA		RANCE; ODOR; COLOR, ETC	Ç.)	
FIELD MEASUREMENTS			2000)		
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS	
	See assoc	ciated purge form	n for sampling detail		
COMMENTS: (WELL I	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLOR, ETC	5.)	
n2590	of purged	<u>,</u>			
GENERAL INFORMATIO	N WEATHER MO	the sunay b	humid AIR TEMPE	RATURE ~850F	
SAMPLES SHIPPED T	O: Columbia Analytical S	Services – Reddi	ng, California/ Microseeps – F	Pittsburg, PA	
SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT:	☐ CAR/TRUCK	K □ B(	JS 🖾 PLANE	COMMERCIAL VEHICLE	
QA/QC			<del> </del>		
SAMPLE COLLECTED	PV: TV A		CAMPINO ODOCOVED DI		
	ormaul_	· · · · · · · · · · · · · · · · · · ·	SAMPLING OBSERVED BY	- Depends	
DISCREPANCIES:					

JOB No. <u>6301-05-0016</u>
JOB NAME DSCR - OU6- Semi-Annual
Monitoring
DATE 7-18-05 TIME 1000
SAMPLING POINT: AEHA-32A
LOCATU

	KLPOK	, <b>t</b>		SAMPLI	NG POINT: AEHA-32A
				DEPTH_	
SAMPLE INFORMATION	<u>-                                      </u>	•	32A - 0705		
MATERIAL:	WATER SO	L	SLUDGE		ER (LIST)
TYPE:	GRAB ☐ CO	MPOSITE	$\square$ other (List) $\_$		
HAZARDOUS?:	YES 🛛 NO		UNKNOWN		
	AINER	NUMBER	PRESERVATION		COMMENTS
TYPE	VOLUME		PREPARATIO		
VOA VIAL	40 mi	3	HCl to pH<2, Cool to		VOCs by SW8260B  Methane, ethane, ethene by RSK-
VOA VIAL	40 ml	3	HCl to pH<2, Cool to		175
Amber Glass	250 mL	1	H2SO4 to pH<2,Cool	to 4°C	TOC by E 415.1
VOA VIAL	40 mł	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1
Poly	500 ml	1	. Cool to 4°C		Alkalinity by E310.1 and Anions (NO <sub>3</sub> , SO <sub>4</sub> , CI) by E300.0
Poly	500 mL	1	HNO <sub>3</sub> to pH<2, Cool	to 4°C	Tot. Metals by 6010B,7470A, 6020
VOA VIAL	20 ml	1	None Do Not C	ool	Hydrogen by AM 20
Amber Glass	250 ml	1	H₃PO₄ to pH <2;Cool	to 4°C	Volatile Fatty Acids by D1552
					,
comments: (WELL F ~ 2 ye (lons	PURGING VOLUME: S	AMPLE APPEAR	RANCE; ODOR; COLO	OR, ETC	.)
FIELD MEASUREMENTS				·	
PARAMETER	EQUIP	MENT I.D.	RESULTS (UN	ITS)	COMMENTS
	See ass	ociated purge for	m for sampling detail		
COMMENTS: (WELL F No octor det	purging volume: s rectad, relative		RANCE; ODOR; COLO	OR, ETC	.)
GENERAL INFORMATIO	N WEATHER	Sunny hut	pm Starms AIR	TEMPE	RATURE 90'S
SAMPLES SHIPPED TO SPECIAL HANDLING: I	FedEx				
MODE OF SHIPMENT:	☐ CAR/TRUC	K □B	US 🖾 PLA	NE 	COMMERCIAL VEHICLE
Q		•			
SAMPLE COLLECTED	BY: Luke C	ark	SAMPLING OBSER	VED BY:	
DISCREPANCIES:					

Results of Bi-Annual Groundwater Sampling – July 2005 Operable Units 6,7, and 8 Defense Supply Center Richmond

December 2005 Revision 0

1

APPENDIX A2

2

OPERABLE UNIT 7
SAMPLE COLLECTION LOGS

	JOB No. <u>6301-05-0016</u>
ĺ	JOB NAME DSCR - OU7- Semi-Annual Monitoring
	DATE 7/18/05 TIME 08/5
	SAMPLING POINT:
	DEPTH NA

				SAMPLING DEPTH		
SAMPLE INFORMATION	SAMPLE I.D. NO	O.: TB'-	805-02			
MATERIAL: ⊠ WA  TYPE: ⊠ GR  HAZARDOUS?: □ YE	ATER SOIL		SLUDGE OTHER (LIST) UNKNOWN		ER (LIST)	
CONTAIN		1	PRESERVAT	N/C/		
TYPE	VOLUME	NUMBER	PREPARATI		COMMENTS	
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175	
VOA VIAL	40 ml	3	Cool to 4°C		CO <sub>2</sub> by RSK-175	
COMMENTS: (WELL PUF	RGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COI	LOR, ETC.)		
FIELD MEASUREMENTS						
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UI	NITS)	COMMENTS	
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
GENERAL INFORMATION	GENERAL INFORMATION WEATHER SUMMY AIR TEMPERATURE 78°F					
SAMPLES SHIPPED TO: <u>(</u> SPECIAL HANDLING: <u>Fed</u> MODE OF SHIPMENT:	Columbia Analytical S	/ Services – Reddi	ng, California		☐ COMMERCIAL	
SAMPLE COLLECTED BY: Daniel Home Sampling Observed By:						

JOB No. <u>6301-05-0016</u>						
JOB NAN Monitoring		SCR -	OU7- Semi-Annual			
DATE _		05	TIME 1000			
SAMPLING POINT: MWF05-3						
DEPTH_	14	<u>.5</u>				

	IXEI OIX	,	SAMPL DEPTH	ING POINT: MWFOS-3	
SAMPLE INFORMATION SAMPLE I.D. NO.: MWF05-3-0705					
MATERIAL: 🛛 WA				HER (LIST)	
TYPE: 🛛 GR	AB COM	POSITE	OTHER (LIST)		
HAZARDOUS?: YE	s ⊠ NO		UNKNOWN		
CONTAIN		NUMBER	PRESERVATIVE/	COMMENTS	
TYPE	VOLUME		PREPARATION		
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B  Methane, ethane, ethene by	
VOA VIAL	40 ml	3	HCI to pH<2, Cool to 4°C	RSK-175	
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1	
VOA VIAL	40 mi	3	Cool to 4°C	CO₂ by RSK-175	
Poly	500 ml	<sub>j</sub> <b>1</b>	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0	
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None	Hydrogen by AM 20	
Amber Glass	250 ml	1	H <sub>3</sub> PO <sub>4</sub> to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552	
·		AMPLE APPEAI	RANCE; ODOR; COLOR, ET	C.)	
FIELD MEASUREMENTS	LIENT ODER				
PARAMETER	FOLUEM	IENT I.D.	RESULTS (UNITS)	COMMENTS	
TANAMETER	L LQOII IV	ERT I.D.	TALSOLIS (ONTS)	COMMENTS	
	See assoc	ciated purge form	n for sampling detail		
COMMENTS: (WELL PUR		AMPLE APPEAR	RANCE; ODOR; COLOR, ET	C.)	
GENERAL INFORMATION	WEATHER	HAZY / CU	AIR TEMP	ERATURE 90°	
SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA					
SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☑ PLANE ☐ COMMERCIAL VEHICLE					
VQC				· · · · · · · · · · · · · · · · · · ·	
SAMPLE COLLECTED BY DISCREPANCIES:	: BRAO MEKNI WE	144	SAMPLING OBSERVED B	Y: A Consummy	
DISCRET ANOILS, POUR					

JOB No. <u>6301-05-001</u>	6
JOB NAME DSCR - O Monitoring	U7- Semi-Annual
DATE 7-18-05	TIME 10:10
SAMPLING POINT:	w Fos-1
DEPTH	

			DEPTH_		
SAMPLE INFORMATION	SAMPLE I.D. N	0.: MW FO:	5-1-0705		
MATERIAL: 🛛 WA	TER SOIL	_	SLUDGE OTH	ER (LIST)	
TYPE: 🛛 GR	AB COM	/POSITE	OTHER (LIST)		
HAZARDOUS?: [] YE	s ⊠ NO		UNKNOWN		
CONTAIN	ER	NUMBER	PRESERVATIVE/	COMMENTS	
TYPE	VOLUME	NOMBER	PREPARATION	COMMENTS	
VOA VIAL	40 ml ,	3 ~	HCl to pH<2, Cool to 4°C	VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175	
Amber Glass	250 ml	1 .	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175	
Poly	500 ml	1 .	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1 ,	None	Hydrogen by AM 20	
			712		
· · · · · · · · · · · · · · · · · · ·			RANCE; ODOR; COLOR, ETC	.)	
Groundwater	is colorless	, odarless	mid clear		
FIELD MEASUREMENTS					
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS	
	See asso	ciated purge forn	n for sampling detail		
COMMENTS: (WELL PUR	RGING VOLUME: S	AMPLE APPEAR	ANCE; ODOR; COLOR, ETC	.)	
GENERAL INFORMATION WEATHER Hor, humid, clear, Sunny AIR TEMPERATURE 950F					
SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA					
SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT:	☐ CAR/TRUCI	К ∏ВІ	JS 🖾 PLANE	COMMEDIA	
MODE OF STREWENT.	L] CAIVITOCI		DS MIPLAINE	∐ COMMERCIAL VEHICLE	
A/QC					
SAMPLE COLLECTED BY: Terrell Parker SAMPLING OBSERVED BY:					
DISCREPANCIES:					
DIOUNCI MIOILU.	······································				

JOB No. 6301-05-0016

JOB NAME DSCR - OU7- Semi-Annual Monitoring

DATE 7/18/05 TIME 1020

SAMPLING POINT: DMW-274

DEPTH

			DEPTH_	FUE MANA	
SAMPLE INFORMATION	SAMPLE I.D. N	D.: DMW	-27A-0705		
MATERIAL:	WATER SOIL	•	☐ SLUDGE ☐ OTH	ER (LIST)	
TYPE:	GRAB COM	IPOSITE	OTHER (LIST)	<u> </u>	
HAZARDOUS?:	YES 🖾 NO		UNKNOWN		
CONT	AINER	NUMBER	PRESERVATIVE/	COMMENTS	
TYPE	VOLUME	NOWBER	PREPARATION	COMMENTS	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175	
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1	
VOA VIAL	40 mi	3	Cool to 4°C	CO₂ by RSK-175	
Poly	500 m1	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1	
Poly	500 mł	1	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , CI by E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None	Hydrogen by AM 20	
Amber Glass	250 ml	13	H <sub>3</sub> PO <sub>4</sub> to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552	
COMMENTS: (WELL)	PURGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COLOR, ETC	·)	
FIELD MEASUREMENTS	5		,		
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS	
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFORMATION WEATHER SUNNIGHTON AIR TEMPERATURE high 80's					
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT:   CAR/TRUCK  BUS  PLANE  COMMERCIAL					
VEHICLE					
SAMPLE COLLECTED BY: SAMPLING OBSERVED BY: DISCREPANCIES:					

JOB No. 6301-05-0016

JOB NAME DSCR - OUT- Semi-Annual Monitoring

DATE 1/19/05 TIME 1450

SAMPLING POINT: MWFT A-23

DEPTH PEDICARD PUMP 10 WELL

				DEPTH_	DEDICATED DOMP to well	
SAMPLE INFORMATION	SAMPLE I.D. NO	O. MWFT	A-23-0705			
MATERIAL: 🛛 W	VATER ☐ SOIL		☐ SLUDGE	□ отн	ER (LIST)	
TYPE: 🛛 G	GRAB COM	IPOSITE	OTHER (LIST)	<del></del>		
HAZARDOUS?: 🔲 Y	ES 🛛 NO		UNKNOWN			
CONTAI TYPE	INER VOLUME	NUMBER	PRESERVAT PREPARATI		COMMENTS	
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175	
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Co	ol to 4°C	TOC by E 415.1	
VOA VIAL	40 mi	3	Cool to 4°C		CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Coo	l to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C		Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl. by E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None		Hydrogen by AM 20	
				· · · · · · ·		
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
YATER CIGOR	, no open (	0.0 pan - 91	(a)			
FIELD MEASUREMENTS						
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UI	NITS)	COMMENTS	
	See associated purge form for sampling detail					
COMMENTS: (WELL PL	JRGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COI	LOR, ETC	.)	
GENERAL INFORMATION	WEATHER \	= / Home	AI	IR TEMPE	RATURE ~95°	
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA						
SPECIAL HANDLING: Fe						
MODE OF SHIPMENT:	☐ CAR/TRUCK	K . ∏ B\	JS ⊠PL	ANE	☐ COMMERCIAL VEHICLE	
A/QC						
SAMPLE COLLECTED BY: BAV SAMPLING OBSERVED BY: DV						
DISCREPANCIES:			CHIMI LING OBSE	MACD DI		
DIOUNEI INTOILO.	1 - V-					

1 44 mil 1 mil

JOB No. 6301-05-0016

JOB NAME DSCR - 0U7- Semi-Annual Monitoring

DATE 7-18-05 TIME 1020

SAMPLING POINT: MW112-2

DEPTH 23.0'

			<u></u>	25.0°	
SAMPLE INFORMATION	SAMPLE I.D. NO	o:: MWII	2-2-0705		
MATERIAL: 🔯	WATER SOIL		☐ SLUDGE ☐ OTH	ER (LIST)	
TYPE:	GRAB COM	IPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES ⊠ NO		UNKNOWN		
CONTA		NUMBER	PRESERVATIVE/	COMMENTS	
TYPE	VOLUME		PREPARATION		
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B  Methane, ethane, ethene by	
VOA VIAL	40 mi	3	HCl to pH<2, Cool to 4°C	RSK-175	
Amber Glass	250 ml	1	· II <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None	Hydrogen by AM 20	
			,		
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
2 4.0 GAW	ONS PUBBED TO	TAL, GAR	MPLE COLORLESS AN	DODOBLESS	
FIELD MEASUREMENTS					
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS	
	See assoc	ciated purge form	n for sampling detail		
COMMENTS: (WELL P	URGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COLOR, ETC	.)	
24.0 BALLON	US PURGED TO	STAL SAN	PLE COLOPLESS AND	ODOPLESS	
GENERAL INFORMATION		unny ver		RATURE 100-105	
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA					
SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT:	☐ CAR/TRUCK	( □BI	US ⊠ PLANE	COMMERCIAL VEHICLE	
A/QC					
CAMPLE COLLECTE			0111011110	Then -	
SAMPLE COLLECTED BY: T. WITTEMANN SAMPLING OBSERVED BY: T. PAPICE					
DISCREPANCIES: NONE					

JOB No. 6301-05-001	6
JOB NAME DSCR - O	U7- Semi-Annual
Monitoring	
DATE 7/05	TIME 15/0
SAMPLING POINT:	mw-25A
	pmp

					G POINT: DMW-25A	
SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-254-0705						
MATERIAL: 🛛 W	 ATER ☐ SOIL		SLUDGE OTHER (LIST)		ER (LIST)	
TYPE: 🛛 GI	RAB 🗀 COM	IPOSITE	OTHER (LIST)			
HAZARDOUS?:   YE	S ⊠NO		UNKNOWN			
CONTAIL		NUMBER	PRESERVAT		COMMENTS	
TYPE	VOLUME		PREPARAT			
VOA VIAL	40 mt	3	HCl to pH<2, Cool		VOCs by SW8260B  Methane, ethane, ethene by	
VOA VIAL	40 ml	3			RSK-175	
Amber Glass	250 mł	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Co		TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C		CO <sub>2</sub> by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Co	DI 10 4-C	Sulfide by E376.1  Alkalinity by E310.1	
Poly	500 ml	1	Cool to 4°C	;	NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None		Hydrogen by AM 20	
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
FIELD MEASUREMENTS		4ENT LD	DECUSTO (1)	NUTC)	COMMENTS	
PARAMETER		MENT I.D.	RESULTS (U	14115)	COMMENTS	
	See asso	ciated purge for	m for sampling detai	<b>.</b>		
COMMENTS: (WELL PU	RGING VOLUME: S	AMPLE APPEAI	RANCE; ODOR; CO	LOR, ETC.	)	
GENERAL INFORMATION	WEATHER	om 10 a	CHR PE. A	IR TEMPE	RATURE 45°C	
SAMPLES SHIPPED TO: SPECIAL HANDLING: Fe		Services - Redd	ling, California/ Micro	oseeps – P	ittsburg, PA	
MODE OF SHIPMENT:	☐ CAR/TRUC	K 🗆 B	SUS 🛭 PL	ANE	COMMERCIAL VEHICLE	
A/QC						
SAMPLE COLLECTED B'	Y: B. M. KNIONE NONE		SAMPLING OBSE	ERVED BY:	A. CALIRMON	

JOB No. 6301-05-0016

JOB NAME DSCR - OUT- Semi-Annual Monitoring

DATE 7-18-05 TIME 1510

SAMPLING POINT: DWW-JJA

DEPTH DEDICATED DEPTH

						G POINT: DIVIOUS AA				
					<u> </u>	EDICATED DEPTH				
SAMPLE INFORMA	TION	SAMPLE I.D. NO	DMW-	22A-0705	•					
MATERIAL:	<b>⊠</b> WATER	R 🗍 SOIL		SLUDGE	□ отні	R (LIST)				
TYPE:	⊠ GRAB	□сом	POSITE	OTHER (LIST)	)					
HAZARDOUS?:	YES	⊠ NO		UNKNOWN						
	ONTAINER		NUMBER	PRESERVAT		COMMENTS				
TYPE		VOLUME	-	PREPARAT		VOCs by SW8260B				
VOA VIAL		40 ml	3	HCl to pH<2, Coo		Methane, ethane, ethene by				
VOA VIAL		40 ml	3			RSK-175				
Amber Glass		250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Co		TOC by E 415.1				
VOA VIAL		40 ml	3	Cool to 4°C		CO₂ by RSK-175				
Poly		500 ml	1	ZnAc & NaOH, Co	ol to 4°C	Sulfide by E376.1 Alkalinity by E310.1				
Poly		500 ml	1	Cool to 4°C	c '	NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0				
Poly		500 ml	1	HNO₃ to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020				
VOA VIAL		20 ml	1	None		Hydrogen by AM 20				
				<u> </u>						
		<u> </u>		1						
COMMENTS: (W	/ELL PURGIT	NG VOLUME: SA	AMPLE APPEA	RANCE; ODOR; CC	LOR, ETC	.)				
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)										
250 AL	ALLANS	PURSED 9	SAMPLE 10	# 5.0 GALLONS PURGED, SAMPLE COLORLESS AND ODORESS						
		Pubber, s	sample co	coees no	<del></del>					
FIELD MEASUREM	IENTS				· <del></del> ·					
	IENTS		MENT I.D.	RESULTS (L	· <del></del> ·	COMMENTS				
FIELD MEASUREM	IENTS	EQUIPM	MENT I.D.	RESULTS (L	JNITS)					
FIELD MEASUREM	IENTS	EQUIPM	MENT I.D.		JNITS)					
FIELD MEASUREM PARAME	TER	EQUIPM See asso	MENT I.D. ciated purge for	RESULTS (t	JNITS) il	COMMENTS				
PARAME  COMMENTS: (W	TER VELL PURGI	See asso	MENT I.D. ciated purge for	RESULTS (Um for sampling deta	JNITS) il DLOR, ETC	COMMENTS				
PARAME  COMMENTS: (W. 2.5.0 GAL	VELL PURGII	See asso	MENT I.D.  ciated purge for  AMPLE APPEA	RESULTS (Left of the sampling detains of the sampling	JNITS)  II  DLOR, ETC	COMMENTS  .) ESS				
PARAME  COMMENTS: (W. 2.5.0 GAU  GENERAL INFORM	VELL PURGII	See asso  NG VOLUME: Source So	MENT I.D.  ciated purge for  AMPLE APPEA  AMPLE CO	RESULTS (Longues of the Results of the Results (Longues of the Results of the Results (Longues of the Results of the Results of the Results (Longues of the Results o	JNITS)  JOLOR, ETC  ADAPA  AIR TEMPE	COMMENTS  .)  ESS  RATURE (66-105°F				
PARAME  COMMENTS: (W. 2.5.0 GAU  GENERAL INFORM	VELL PURGII	See asso  NG VOLUME: Source So	MENT I.D.  ciated purge for  AMPLE APPEA  AMPLE CO	RESULTS (Left of the sampling detains of the sampling	JNITS)  JOLOR, ETC  ADAPA  AIR TEMPE	COMMENTS  .)  ESS  RATURE (66-105 °F				
PARAME  COMMENTS: (W. 2.5.0 GAU  GENERAL INFORM	VELL PURGII	See asso  NG VOLUME: S.  SPEED , S  WEATHER &	MENT I.D.  ciated purge for  AMPLE APPEA  AMPLE CO	RESULTS (Longues of the Results of the Results (Longues of the Results of the Results (Longues of the Results of the Results of the Results (Longues of the Results o	JNITS)  JOLOR, ETC  ADAPA  AIR TEMPE	COMMENTS  .)  ESS  RATURE (66-105 °F				
PARAME  COMMENTS: (W. 2.5.0 GAL  GENERAL INFORM  SAMPLES SHIPE	VELL PURGII LONG P MATION PED TO: Colu	See asso  NG VOLUME: S.  SPEED , S  WEATHER &	MENT I.D.  ciated purge for  AMPLE APPEA  AMPLE CO  SUNNY, Ho  Services – Red	RESULTS (Long detainment of the sampling detains and the sampling detains).	JNITS)  JOLOR, ETC  ADAPA  AIR TEMPE	COMMENTS  .)  ESS  RATURE (66-105°F				
PARAME  COMMENTS: (W. 2.5.0 GAL  GENERAL INFORM  SAMPLES SHIPE  SPECIAL HANDLE	VELL PURGII LONG P MATION PED TO: Colu	See asso  NG VOLUME: S  WEATHER   umbia Analytical	MENT I.D.  ciated purge for  AMPLE APPEA  AMPLE CO  SUNNY, Ho  Services – Red	RESULTS (Longon Services of Control of Contr	JNITS)  JOLOR, ETC  ADAQU  AIR TEMPE	COMMENTS  .)  ESS  ERATURE 100-105°F  Pittsburg, PA				
PARAME  COMMENTS: (W. 2.5.0 GAL  GENERAL INFORM  SAMPLES SHIPP  SPECIAL HANDL  MODE OF SHIPM  A/QC	VELL PURGII LONG P MATION PED TO: Colo LING: FedEx MENT:	EQUIPM See asso  NG VOLUME: S.  WEATHER S.  Umbia Analytical  CAR/TRUC	MENT I.D.  ciated purge for  AMPLE APPEA  AMPLE CO  Services - Red  K	RESULTS (Em for sampling deta  RANCE; ODOR; CO  LOPLESS AND  ding, California/ Microsus	JNITS)  JOLOR, ETC  AIR TEMPE  Toseeps - F	COMMENTS  COMMENTS  COMMENTS  COMMENTS  COMMENTS  COMMENTS				
PARAME  COMMENTS: (W. 2.5.0 GAL  GENERAL INFORM  SAMPLES SHIPP  SPECIAL HANDL  MODE OF SHIPM	VELL PURGII LONG P MATION PED TO: Colu LING: FedEx MENT:	EQUIPM See asso  NG VOLUME: S.  WEATHER   Umbia Analytical  CAR/TRUC	MENT I.D.  ciated purge for  AMPLE APPEA  AMPLE CO  Services - Red  K	RESULTS (Em for sampling deta  RANCE; ODOR; CO  LOPLESS AND  ding, California/ Microsus	JNITS)  JOLOR, ETC  AIR TEMPE  Toseeps - F	COMMENTS  .)  ESS  ERATURE 100-105°F  Pittsburg, PA				

JOB No. <u>6301-05-0016</u>
JOB NAME DSCR - OU7- Semi-Annual
Monitoring
DATE 7/18/05 TIME 1515
SAMPLING POINT: MWFTA-29B
DEDTU

REPURI				SAMPLING POINT: MWFTA-298			
SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA-298-0705							
MATERIAL: 🛛	WATER ☐ SOIL		SLUDGE OTHER (LIST)				
<del>-</del>	GRAB □ COM	POSITE	OTHER (LIST)				
<del>-</del>	YES 🖾 NO		UNKNOWN				
CONTA		NUMBER	PRESERVAT	IVE/	COMMENTS		
TYPE	VOLUME	NUMBER	PREPARAT	ION			
VOA VIAL	40 ml	3	HCl to pH<2, Coo		VOCs by SW8260B		
VOA VIAL	40 ml	3	HCl to pH<2, Coo		Methane, ethane, ethene by RSK-175		
Amber Glass	250 mt	1	H₂SO₄ to pH<2,Co	ool to 4°C	TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175		
Poly	500 ml	1	ZnAc & NaOH, Co	ol to 4°C	Sulfide by E376.1		
Poly	500 ml	1	Cool to 4°C		Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Ct by E300.0		
Poly	500 mi	1	HNO <sub>3</sub> to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None		Hydrogen by AM 20		
					<u> </u>		
				- "	'		
COMMENTS: (WELL F	COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
TOTAL PULCE 2.5 GALLON							
FIELD MEASUREMENTS							
PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS							
	See asso	ciated purge for	m for sampling deta	il			
COMMENTS: (WELL I			RANCE; ODOR; CO	DLOR, ETC	:.)		
SAMPLE CL	EAR, NO OD	OR					
GENERAL INFORMATIO	N WEATHER L	IAZY, HOT +	HUMIP /	AIR TEMPE	ERATURE 905		
SAMPLES SHIPPED T	O: Columbia Analytical	Services - Redo	ding, California/ Mici	roseeps - F	Pittsburg, PA		
SPECIAL HANDLING:	FedEx	<u>.</u>					
MODE OF SHIPMENT	: CAR/TRUC	K 🗌 E	BUS 🛚 🖺 P	LANE	☐ COMMERCIAL VEHICLE		
A/QC							
SAMPLE COLLECTED DISCREPANCIES:	BY: Der Ha		SAMPLING OBS	ERVED BY	<b>/</b> :		
DISCREPANCIES:		<del></del>					
L							

JOB No. <u>6301-05-0016</u>

JOB NAME <u>DSCR - OU7- Semi-Annual Monitoring</u>

DATE <u>7-/8-05</u> TIME <u>/538</u>

SAMPLING POINT: MW FTA - 7

			DEPTH			
SAMPLE INFORMATION	SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA -7-0705					
MATERIAL:	WATER   SOI			HER (LIST)		
TYPE:	GRAB COM	<b>MPOSITE</b>	OTHER (LIST)			
HAZARDOUS?: ☐ YES ☐ NO ☐ UNKNOWN						
CONT	AINER	NUMBER	PRESERVATIVE/	COMMENTS		
TYPE	VOLUME	NOMBER	PREPARATION	COMMENTS		
VOA VIAL	40 ml	3	HCI to pH<2, Cool to 4°C	VOCs by SW8260B		
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175		
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1		
VOA VIAL,	40 mř	3	Cool to 4°C	CO₂ by RSK-175		
Poly	500 mt	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1		
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1		
				NO <sub>3</sub> , SO <sub>4</sub> , CI by E300.0		
Poly	500 mt	1	HNO <sub>3</sub> to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None	Hydrogen by AM 20		
	PURGING VOLUME: S	AMPLE APPEAR	RANCE; ODOR; COLOR, ET	C.)		
13 Gallons						
FIELD MEASUREMENTS	S					
PARAMETER	EQUIPN	MENT I.D.	RESULTS (UNITS)	COMMENTS		
:	See asso	ciated purge forr	m for sampling detail			
COMMENTS: /WELL	DUDGING VOLLIME: S	AMDLE ADDEAS	RANCE; ODOR; COLOR, ET			
011.	No odor de	1.26	water, open, colon, et	o.,		
			<i>M</i> -c 1 C			
GENERAL INFORMATIO	WEATHER #	ot, rumick,	MOSTY SUMMY AIR TEMP	ERATURE 705		
SAMPLES SHIPPED T	O: Columbia Analytical	<u>Services – Redd</u>	ing, California/ Microseeps –	Pittsburg, PA		
SPECIAL HANDLING:	FedEx					
MODE OF SHIPMENT	: CAR/TRUC	к 🗆 в	US 🛛 PLANE	COMMERCIAL VEHICLE		
WQC			<u> </u>			
	BY: LUK Clar	-te				
SAMPLE COLLECTED	BY: LVLL CLAI	<u></u>	SAMPLING OBSERVED B	Y:		
DISCREPANCIES:						

JOB No. 6301-05-0016

JOB NAME DSCR - OUT- Semi-Annual Monitoring

DATE 4/18/05 TIME 1630

SAMPLING POINT: MWFTA-18

DEPTH\_\_\_\_\_

REPORT					SAMPLING POINT: MWF7A-18	
				DEPTH_		
SAMPLE INFORMATION SAMPLE I.D. NO.: MWFTA-18-0705						
MATERIAL: WATER SOIL SLUDGE OTHER (LIST)				ER (LIST)		
TYPE:	GRAB □ COM	IPOSITE	OTHER (LIST)			
HAZARDOUS?:	res ⊠ NO		UNKNOWN			
CONTA	INER	NUMBER	PRESERVAT		COMMENTS	
TYPE	VOLUME		PREPARAT			
VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B  Methane, ethane, ethene by	
VOA VIAL	40 ml	3	HCl to pH<2, Cool		RSK-175	
Amber Glass	250 ml	- 1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Co	ol to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Coo	ol to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C	;	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None		Hydrogen by AM 20	
	•					
COMMENTS: (WELL P	URGING VOLUME: SA	AMPLE APPEAF	RANCE; ODOR; CO	LOR, ETC.	)	
FIELD MEASUREMENTS				***************************************		
PARAMETER	EQUIPM	IENT I.D.	RESULTS (U	NITS)	COMMENTS	
	See assoc	ciated purge form	n for sampling detai	Ī		
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
GENERAL INFORMATION	WEATHER 1	Jartly clouds	Ч A	IR TEMPE	RATURE high 90's	
SAMPLES SHIPPED TO	): Columbia Analytical S	Services – Reddi	J		$\checkmark$	
SPECIAL HANDLING: F		Joi Hoos - INGUU	AND ACTUALITIES MICH	ooccha – L	MODULY, F.A.	
MODE OF SHIPMENT:	CAR/TRUC		US. 🛛 PL	ΔNF		
WODE OF SHIFMENT.		<u>ì/</u>		./U YL	VEHICLE	
A/QC	1/1 /4	11/				
SAMPLE COLLECTED I	BY: MACH	<i>W</i>	SAMPLING OBSE	ERVED BY:		
DISCREPANCIES:						

JOB No. <u>6301-05-0016</u>
JOB NAME <u>DSCR – OU7- Semi-Annual</u> Monitoring
DATE 7/18/65 TIME 16:30
SAMPLING POINT: MWFTA-16
DEDTH

SAMPLE INFORMATION	SAMPLE I.D. N	o.: MWF	TA-16-0705		
MATERIAL:	WATER SOIL			IER (LIST)	
TYPE:	GRAB COM	MPOSITE .	OTHER (LIST)		
HAZARDOUS?:	YES ⊠ NO		UNKNOWN		
1	AINER	NUMBER	PRESERVATIVE/	COMMENTS	
TYPE	VOLUME		PREPARATION	·	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175	
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , CI by E300.0	
Poly	500 mt	1	HNO <sub>3</sub> to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None	Hydrogen by AM 20	
Amber Glass	250 ml	1	H <sub>3</sub> PO <sub>4</sub> to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552	
COMMENTS; (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
water de	a vooloiles				
FIELD MEASUREMENTS		. —			
PARAMETER	EQUIPM	IENT I.D.	RESULTS (UNITS)	COMMENTS	
COMMENTS: (WELL F			n for sampling detail . RANCE; ODOR; COLOR, ETO	;.)	
~ 3 gal	Purged				
GENERAL INFORMATIO	N WEATHER 14	st humid	Sanny AIRTEMPE	RATURE 980F	
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL					
VQC		<u>.                                      </u>		VEHICLE	
SAMPLE COLLECTED BY: D. Knawl SAMPLING OBSERVED BY: B. Keener  DISCREPANCIES:					

JOB No. 6301-05-0016

JOB NAME DSCR - OUT- Semi-Annual Monitoring

DATE 7-18-05 TIME 16:45

SAMPLING POINT: MWFT4-20

DEPTH

				DEPTH_	
SAMPLE INFORMATION	SAMPLE I.D.	NO.: MWFT	A-20-070	<b>र्</b> ट	
MATERIAL:	WATER SC	DIL	SLUDGE	OTHE	ER (LIST)
TYPE:	GRAB □ C	OMPOSITE	OTHER (LIST)		
HAZARDOUS?: ☐ YES ☐ NO ☐ UNKNOWN					
	AINER	NUMBER	PRESERVATI	i	COMMENTS
TYPE	VOLUME		PREPARATION		
VOA VIAL	40 mi	3	HCl to pH<2, Cool		VOCs by SW8260B  Methane, ethane, ethene by
VOA VIAL	40 mi	3			RSK-175
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Coc	01 10 4*C	TOC by E 415.1
VOA VIAL Poly	40 ml	3	Cool to 4°C ZnAc & NaOH, Cool	10.490	CO₂ by RSK-175
	<u> </u>	'	ZIIAC & NaOH, Cool	1004-0	Sulfide by E376.1  Alkalinity by E310.1
Poly	500 ml	1	Cool to 4°C		NO <sub>3</sub> , SO <sub>4</sub> , CI by E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Coo	of to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
Amber Glass	250 ml	1	H <sub>3</sub> PO <sub>4</sub> to pH<2, Coo	of to 4°C	Volatile Fatty Acids by D1552
2360 ml warez = 118 min. (60 = 2 hours for one SET OF BOTTLES  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
WATER 15 S	clear + coloviess	, NO ODOR.	•	<del> </del>	
PARAMETER	EQUIF	PMENT I.D.	RESULTS (UN	IITS)	COMMENTS
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFORMATIO	N WEATHER_	Sunay, Her,	Humis All	R TEMPER	RATURE 95°F
SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA  SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  CC  SAMPLE COLLECTED BY: 1 ervel Parker SAMPLING OBSERVED BY: Ted WITTEMANK!  DISCREPANCIES: NO NE					
2.001(E1.7010)E0.	77974		· · · · · · · · · · · · · · · · · · ·		

# FIELD SAMPLING REPORT Dup of MUFTA-20

JOB No. <u>6301-05-0016</u>						
JOB NAME <u>DSCR QU7- Semi-Annual</u> Monitoring						
DATE 7-13-65 TIME 12:00						
SAMPLING POINT: MWFTA-20						
DEDTU						

		_ V.	Di	EPTH		
SAMPLE INFORMATION	SAMPLE I.D. N	0: OU7D	UP-3-0705	5		
MATERIAL:	WATER SOI	_	·	OTHER (LIST)		
TYPE:	GRAB □ COM	MPOSITE	OTHER (LIST)			
HAZARDOUS?:	YES 🖾 NO		UNKNOWN			
	AINER	NUMBER	PRESERVATIVE	i ('/\www.kije i		
TYPE	VOLUME	NOMBER	PREPARATION	COMMENTS		
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4			
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4	RSK-175		
Amber Glass	250 ml	1	H₂SO₄ to pH<2,Cool to	4°C TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175		
Poly	500 ml	1	ZnAc & NaOH, Cool to			
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , CI by E300.0		
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to	7 of the Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None	Hydrogen by AM 20		
			· · · · · · · · · · · · · · · · · · ·			
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
	is clear + co			· , 210-)		
FIELD MEASUREMENTS			ZO DOR			
<u></u>						
PARAMETER	<u> </u>	MENT I.D.	RESULTS (UNIT	S) COMMENTS		
	See asso	ciated purge forr	n for sampling detail			
COMMENTS: (WELL I	PURGING VOLUME: S	AMPLE APPEAR	RANCE; ODOR; COLOR	R, ETC.)		
GENERAL INFORMATIO	N WEATHER S	unny, HoT	Humin AIRT	TEMPERATURE <u>95°F</u>		
SAMPLES SHIPPED T	O: Columbia Analytical	, Services – Redd	ing, California/ Microsee	eps – Pittsbura. PA		
SPECIAL HANDLING:				- In the second		
MODE OF SHIPMENT		к 🗀 в	US 🖾 PLAN	E COMMERCIAL VEHICLE		
WQC						
SAMPLE COLLECTED		Ker	SAMPLING OBSERV	ED BY: Ted WITTEMANN		
DISCREPANCIES:	NONE					

JOB No. 6301-05-0016

JOB NAME DSCR - OUT- Semi-Annual Monitoring

DATE 7/19/05 TIME 0800

SAMPLING POINT:

DEPTH NA

	REPORT				
SAMPLE INFORMATION	SAMPLE I.D. N	O.: TB- 0719	05		
MATERIAL: 🛛 WAT	ER SOI	L	SLUDGE	□отн	ER (LIST)
TYPE: SRA	B □ COM	MPOSITE	OTHER (LIST)	)	
HAZARDOUS?: YES	⊠ NO		□ UNKNOWN		
CONTAINE		NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME		PREPARAT		
VOA VIAL	40 ml	3	HCI to pH<2, Coo		VOCs by SW8260B  Methane, ethane, ethene by
VOA VIAL	40 ml	3	HCl to pH<2, Coo		RSK-175
VOA VIAL	40 mł	3	Cool to 4°C	;	CO₂ by RSK-175
COMMENTS: (WELL PURC	GING VOLUME: S.	AMPLE APPEAF	 RANCE; ODOR; CO	LOR, ETC.	.)
FIELD MEASUREMENTS				•	
PARAMETER	EQUIPM	MENT I.D.	RESULTS (U	NITS)	COMMENTS
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFORMATION	WEATHER	Sunny	A	IR TEMPE	RATURE 75°F
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California					
SPECIAL HANDLING: FedE		CONTINUE INCUM	нід, Фаногла		
MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE					
SAMPLE COLLECTED BY: David Homand SAMPLING OBSERVED BY:					

JOB No. 6301-05-0016

JOB NAME DSCR - OUT- Semi-Annual Monitoring

DATE 7/19/05 TIME //100

SAMPLING POINT:

DEPTH

	REPORT					
SAMPLE INFORMATION	SAMPLE INFORMATION SAMPLE I.D. NO.: OU7-BLAD-EQB-0705					
MATERIAL: 🛛 WATE	R □ SOIL	_	SLUDGE	∏ отн	ER (LIST)	
TYPE: 🔯 GRAE	B □ COM	MPOSITE	OTHER (LIST)	i		
HAZARDOUS?: ☐ YES	⊠ NO		UNKNOWN			
CONTAINER		NUMBER	PRESERVAT		COMMENTS	
TYPE VOA VIAL	VOLUME 40 ml	3	PREPARAT			
VOA VIAL	40 ml	3	HCl to pH<2, Cool HCl to pH<2, Cool		VOCs by SW8260B  Methane, ethane, ethene by	
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Co		RSK-175 TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Coo		Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C		Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020	
					- Llydrogon hundred	
			H-PO	atto.48C		
COMMENTS: (WELL PURG	ING VOLUME: SA	AMPLE APPEAF	I RANCE; ODOR; CO	LOR, ETC	.)	
FIELD MEASUREMENTS						
PARAMETER	EQUIPM	IENT I.D.	RESULTS (U	NITS)	COMMENTS	
	See asso	ciated purge forn	n for sampling detail	1		
COMMENTS: (WELL PURG	NG VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; CO	LOR, ETC.	)	
GENERAL INFORMATION	WEATHER	Sunny	A	IR TEMPE	RATURE SS'F	
	SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA					
SPECIAL HANDLING: <u>FedEx</u>						
MODE OF SHIPMENT:	☐ CAR/TRUC	К 📗 ві	US 🖾 PL	ANE	COMMERCIAL VEHICLE	
vqc	L	0				
SAMPLE COLLECTED BY: _ DISCREPANCIES:	Daniel Ho	wand	SAMPLING OBSE	RVED BY:		
		•				

JOB No. 6301-05-0016

JOB NAME DSCR - OUT- Semi-Annual Monitoring

DATE 7/19/05 TIME 1020

SAMPLING POINT: OUT PZ - 2

DEPTH

SAMPLE INFORMATION SAMPLE I.D. NO.: 047PZ-7-0705					
MATERIAL: 🛛	WATER SOI	L	SLUDGE OTH	IER (LIST)	
TYPE:	GRAB CO	MPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🖾 NO		UNKNOWN		
CONT TYPE	AINER VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS	
VOA VIAL	40 mi	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175	
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , CI by E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None	Hydrogen by AM 20	
				-	
COMMENTS: (WELL I	PURGING VOLUME: S	AMPLE APPEAR	PANCE; ODOR; COLOR, ETC	.)	
FIELD MEASUREMENTS	5				
PARAMETER	EQUIPM	MENT I.D.	RESULTS (UNITS)	COMMENTS	
	See asso	ociated purge forn	n for sampling detail		
COMMENTS: (WELL I	PURGING VOLUME: S	AMPLE APPEAR	RANCE; ODOR; COLOR, ETC	.)	
GENERAL INFORMATIO	N WEATHER _	Hota Humid	AIR TEMPE	RATURE 80-85°F	
SAMPLES SHIPPED T	O: Columbia Analytical	Services – Reddi	ng, California/ Microseeps – P	Pittsburg, PA	
SPECIAL HANDLING:					
MODE OF SHIPMENT:	CAR/TRUC	K □BI	JS 🖾 PLANE	COMMERCIAL VEHICLE	
A/QC					
	SAMPLE COLLECTED BY: Ted Wittemann SAMPLING OBSERVED BY:				
DISCREPANCIES:					

1	JOB No.	6301-05-0016	<u> </u>
	JOB NAM		J7- Semi-Annual
	DATE_	18/05	TIME <b>1030</b>
	SAMPLIN	NG POINT: //	WFTA-5
	DEPTH_	Depigeno	PWP

		-	SAMF	PLING POINT: MWF7A-5		
				H Deorgemo Pure		
SAMPLE INFORMATION	SAMPLE I.D. N	O.: MWF	TA-5-0705			
MATERIAL:	 ]WATER ☐ SOIL	•		OTHER (LIST)		
TYPE:	GRAB CON	MPOSITE	OTHER (LIST)			
HAZARDOUS?:	YES NO					
	AINER	Lunases	PRESERVATIVE/	001115150		
TYPE	VOLUME	NUMBER	PREPARATION	COMMENTS		
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B		
VOA VIAL	40 mi	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175		
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175		
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1		
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1		
<u> </u>				NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0		
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°0	Tot. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None	Hydrogen by AM 20		
,						
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEAF	RANCE; ODOR; COLOR, E	ETC.)		
	CLOOR NAW		, ,	,		
FIELD MEASUREMENT						
	<u> </u>			······		
PARAMETER	EQUIPM	IENT I.D.	RESULTS (UNITS)	COMMENTS		
	See asso	ciated purge forr	n for sampling detail			
	Char Nove	-	_			
			RANCE; ODOR; COLOR, E	TC.)		
	· · · · · · · · · · · · · · · · · · ·			··· <del>-·</del> /		
GENERAL INFORMATION	N WEATHER_		AID TEM	IPERATURE		
	**************************************					
SAMPLES SHIPPED 1	SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA					
SPECIAL HANDLING:	FedEx		<u> </u>			
MODE OF SHIPMENT	: ☐ CAR/TRUCI	< □в	US 🛛 PLANE	COMMERCIAL VEHICLE		
A/QC				- <del></del>		
CAMBLE COLLECTE	R Mar		0.44m n.o. 000000:	DV		
	BY: B. MEKNIGHT		SAMPLING OBSERVED	RA: Negaby		
DISCREPANCIES:	MONE		****			

JOB No. 6301-05-0016

JOB NAME DSCR - OUT- Semi-Annual Monitoring

DATE 71905 TIME 1030

SAMPLING POINT: MWFT/4-2808

·			DEPTH		
SAMPLE INFORMATION	SAMPLE I.D. NO	DEMWETA.	2813-0705		
MATERIAL:	WATER ☐ SOIL			HER (LIST)	
TYPE:	GRAB 🔲 COM	POSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🛛 NO		UNKNOWN		
TYPE CONTA	VOLUME	NUMBER	PRESERVATIVE/ PREPARATION	COMMENTS	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175	
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1	
VOA VIAL	40 mł	3	Cool to 4°C	CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None	Hydrogen by AM 20	
COMMENTS: (WELL P	URGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COLOR, ETC	0.)	
FIELD MEASUREMENTS					
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS	
	See assoc	ciated purge form	n for sampling detail		
COMMENTS: (WELL P	URGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COLOR, ET	C.)	
GENERAL INFORMATION	WEATHER h	unid, hot, ;	Da/Hy Claudy AIR TEMP	ERATURE high 80's	
SAMPLES SHIPPED TO	D: Columbia Analytical S	Services – Reddi	ing California/ Microseens —	<b>√</b> Pittsburg PA	
SPECIAL HANDLING: F	SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA				
MODE OF SHIPMENT:	CAR/TRUC	( Пв	US 🖾 PLANE	COMMERCIAL	
MODE OF SHIFMENT.	E CANTROCE	`- //	US MIPLANE	∐ COMMERCIAL VEHICLE	
A/QC					
	in set 1/1//				
SAMPLE COLLECTED BY:					
DISCREPANCIES:			**************************************		

JOB No. 6301-05-0016
JOB NAME <u>DSCR - OU7- Semi-Annual</u> Monitoring
DATE 7/19/05 TIME 1032
SAMPLING POINT: MWF74-19
DEPTH

			DEPTH	NG POINT: MUOF 14-17	
SAMPLE INFORMATION	N SAMPLE I.D. N	o.: mwF	A-19-0705		
MATERIAL:	WATER ☐ SOI			IER (LIST)	
TYPE:	GRAB COM	MPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🖾 NO				
CONT	TAINER	NUMBER	PRESERVATIVE/	COMMENTS	
TYPE	VOLUME	NUMBER	PREPARATION	COMMENTS	
VOA VIAL	40 ml	9	HCl to pH<2, Cool to 4°C	VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175	
Amber Glass	250 ml	3	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175	
Poly	500 ml	3	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1	
Poly	500 ml	3	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , CI by E300.0	
				Tot. Metals by	
Poly	500 ml	3	HNO₃ to pH<2, Cool to 4°C	6010B,7470A,6020	
VOA VIAL	20 ml	1	None	Hydrogen by AM 20	
			,		
		<u> </u>			
COMMENTS: (WELL	THE RESERVE OF THE PARTY OF THE	AMPLE APPEAI	RANCE; ODOR; COLOR, ETC	<b>5.</b> )	
FIELD MEASUREMENT	The same of the sa				
PARAMETER	Į EQUIPN	MENT I.D.	RESULTS (UNITS)	COMMENTS	
	See asso	ciated purge for	m for sampling detail		
COMMENTS: (WELL	PURGING VOLUME: S	AMPLE APPEAF	RANCE; ODOR; COLOR, ETC	5.)	
GENERAL INFORMATION	N WEATHER	Hot + Humic	AIR TEMPE	RATURE 85%	
SAMPLES SHIPPED T	CO: Columbia Analyticat	Services _ Pedd	ling California/Microscopa -	Pittehura PA	
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE					
A/QC		· · · · ·		VELIVEE	
		L	•		
	BY: 10 rell Par	-ке-	SAMPLING OBSERVED BY		
DISCREPANCIES:					

JOB No. <u>6301-05-0016</u>	3				
JOB NAME DSCR - OUT- Semi-Annual					
Monitoring					
DATE 7/19/05	TIME <u>(OSS)</u>				
SAMPLING POINT	47-PZ-4				
DEPTH_~#.5					

				DEPTH_	~115'
SAMPLE INFORMATION	SAMPLE I.D. NO	o.: 0U7	PZ-4-070	25	· · · · · · · · · · · · · · · · · · ·
MATERIAL:	WATER SOIL	•	SLUDGE		ER (LIST)
TYPE:	GRAB □ COM	1POSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🛛 NO		UNKNOWN		
CONT TYPE	AINER VOLUME	NUMBER	PRESERVAT PREPARATI		COMMENTS
VOA VIAL	40 mt	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Co	ol to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1
Poly	500 mt	1	Cool to 4°C	;	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
		<u> </u>			
	PURGING VOLUME: SA			LOR, ETC.	.)
,	(१०० क्य वर्गतेर)	UPTER IS CL	ENR/NO DOR		
FIELD MEASUREMENTS	S				
PARAMETER	EQUIPM	ENT I D.	RESULTS (UI	NITS)	COMMENTS
	Caa aaaa	-i-t-d			
	See assoc	sated purge for	n for sampling detail		
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEAF	RANCE; ODOR; COI	LOR, ETC.	)
GENERAL INFORMATIO	N WEATHER 4	et/Gumo	AI	IR TEMPE	RATURE ~ 90°
SAMPLES SHIPPED T	O: <u>Columbia Analytical S</u>	Services – Redd	ing. California/ Micro	seeps – P	ittsburg PA
SPECIAL HANDLING:					
MODE OF SHIPMENT		< □B	U\$ 🛛 PL	ANE	COMMERCIAL VEHICLE
A/QC					
CAMDLE COLLECTED			CAMPINO ODGE	D) (CD 5) :	~
1	SAMPLE COLLECTED BY: BALL SAMPLING OBSERVED BY:				
DISCREPANCIES:	MA				

J7- Semi-Annual
TIME _//00
U7PZ-8

•			DEPTH	NG POINT: DUTPE B		
SAMPLE INFORMATIO	N SAMPLELD.	NO: 07/17 I	PZ -8-0705			
	WATER ☐ SO			ER (LIST)		
_		MPOSITE	OTHER (LIST)	•		
_	]YES ⊠NC			,		
	TAINER		PRESERVATIVE/			
TYPE	VOLUME	NUMBER	PREPARATION	COMMENTS		
VOA VIAL	40 mt	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B		
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175		
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175		
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1		
· Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1		
	<i>ν</i> π. + π + −			NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0		
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None	Hydrogen by AM 20		
\						
			***************************************			
<del></del>						
COMMENTS: (M/ELL	PURGING VOLUME:	SAMDI E ADDEAS	RANCE; ODOR; COLOR, ETC	<u> </u>		
OOMMENTO. (WEEL	TORONIO VOLONIE.	SAMI EL AFFLA	IVANCE, ODON, COEON, ETC	·.)		
FIELD MEASUREMENT	S					
PARAMETER	EQUIP	MENT I.D.	RESULTS (UNITS).	COMMENTS		
			<u> </u>			
	See ass	ociated purge for	m for sampling detail	,		
COMMENTS: (WELL	PURGING VOLUME:	SAMPLE APPEA	RANCE; ODOR; COLOR, ETC			
				•		
GENERAL INFORMATI	ON WEATHER	Hot & Hum	AIR TEMPE	RATURE 85-90°F		
	••• •• •• •• •• •• •• •• •• •• •• •• ••	1100	AUX LIVII C	1011 ONL 101		
SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA						
SPECIAL HANDLING	: FedEx	······································	**************************************			
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☑ PLANE ☐ COMMERCIAL VEHICLE						
NQC						
SAMPLE COLLECTE	DBY: <u>U: Knaub</u>		SAMPLING OBSERVED BY	•		
DISCREPANCIES:						

1	JOB No. 6301-05-0016
	JOB NAME <u>DSCR - OU7- Semi-Annual</u> Monitoring
	DATE 7/19/05 TIME 1[.10
	SAMPLING POINT: MWFTA-14
	DEPTH

	REPURI					SAMPLING POINT: MWFTA-19 DEPTH		
SAMPLE INFORM	ATION	SAMPLE I.D. N	o.: MWP	TA-14-070				
MATERIAL:	⊠ WATE			SLUDGE	_	ER (LIST)		
TYPE: ☐ GRAB ☐ COMPOSITE		/POSITE	OTHER (LIST)					
HAZARDOUS?:	YES	⊠ NO		UNKNOWN				
	CONTAINER		NUMBER	PRESERVAT		COMMENTS		
TYPE		VOLUME		PREPARAT				
VOA VIAL		40 ml	3	HCl to pH<2, Coo	<del></del>	VOCs by SW8260B  Methane, ethane, ethene by		
VOA VIAL		40 ml	3	· · · · · · · · · · · · · · · · · · ·		RSK-175		
Amber Glass		250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Co		TOC by E 415.1		
VOA VIAL		40 ml	3	Cool to 4°C		CO₂ by RSK-175		
Poly		300 fm	1	ZnAc & NaOH, Co	DI to 4°C	Sulfide by E376.1  Alkalinity by E310.1		
Poly		500 ml	1	Cool to 4°C		NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0		
Poly	,	500 ml	1	HNO₃ to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020		
VOA VIAL		20 ml	1	None		Hydrogen by AM 20		
		NG VOLUME: SA		RANCE; ODOR; CO	LOR, ETC.	)		
TELD MEASUREN	MENTS							
PARAME	TER	EQUIPM	MENT I.D.	RESULTS (U	NITS)	COMMENTS		
		See asso	ciated purge forr	n for sampling detai	l			
		NG VOLUME: SA		RANCE; ODOR; CO	LOR, ETC.	)		
SENERAL INFORM	MATION	WEATHER F	127, HOTO	HUMIP A	IR TEMPE	RATURE 905		
SAMPLES SHIP	PED TO: <u>Col</u> e	umbia Analytical	Services – Redd	ing, California/ Micro	oseeps – P	ittsburg, PA		
SPECIAL HAND	LING: <u>FedEx</u>							
MODE OF SHIP	MENT:	CAR/TRUCI	к ∏в	US ⊠PL	ANE	☐ COMMERCIAL VEHICLE		
A/QC		·	·		·			
SAMPLE COLLE	CTED BY: _	Dar Vr		SAMPLING OBSE	ERVED BY:			
DISCREPANCIE	S:							

JOB No. 6301-05-0016

JOB NAME DSCR - OUT- Semi-Annual Monitoring

DATE 7-9-05 TIME 1/30

SAMPLING POINT: DMW-33A

DEPTH

			DEPT	H			
SAMPLE INFORMATION	SAMPLE I.D. N	0::DMW -	-33A-0705				
MATERIAL:	  WATER ☐ SOII	-		THER (LIST)			
TYPE:	GRAB COM	MPOSITE	OTHER (LIST)	, ,			
HAZARDOUS?:	YES NO		☐ UNKNOWN				
CONT	AINER	NUMBER	PRESERVATIVE/	COLUMBATIO			
TYPE	VOLUME	NOMBER	PREPARATION	COMMENTS			
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B			
VOA VIAL	40 ml	3	HCI to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175			
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1			
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175			
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1			
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0			
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020			
VOA VIAL	20 ml	1	None	Hydrogen by AM 20			
Amber Glass	250 ml	1	H <sub>3</sub> PO <sub>4</sub> to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552			
comments; (well)	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COLOR, E	TC.)			
FIELD MEASUREMENTS	3	•					
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS			
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  O odor detected. Celatively Cloar							
GENERAL INFORMATIO	N WEATHER	ronny hot	humdel AIRTEM	PERATURE 90'S			
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA							
•	SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL  VEHICLE						
NQC		<u> </u>					
SAMPLE COLLECTED	BY: Luke (1	erK	SAMPLING OBSERVED I	BY:			
DISCREPANCIES:							

JOB No. <u>6301-05-0016</u>	3	1
JOB NAME_DSCR - OR Monitoring	J7- Semi-Annual	
DATE 7-19-05	TIME 15:16	Į
SAMPLING POINT:	mw-26A 3	ľ
DEDTH		1

			•		SAMPLIN	NG POINT: DMW-26A
					DEPTH_	
SAMPLE INFORMA	ATION	SAMPLE I.D. N	0.: 7 MU	-26A-070	5	·····
MATERIAL:	⊠ WATE			SLUDGE		ER (LIST)
TYPE: S GRAB			MPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES	⊠ NO	00/12		' <del></del>	
	CONTAINER		Ī	PRESERVAT	IVE/	<u> </u>
TYPE		VOLUME	NUMBER	PREPARATI		COMMENTS
VOA VIAL		40 ml	3	HCl to pH<2, Cool	lo 4°C	VOCs by SW8260B
VOA VIAL		40 ml	3	HCl to pH<2, Cool	l to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass		250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Co	ol to 4°C	TOC by E 415.1
VOA VIAL		40 ml	3	Cool to 4°C	;	CO₂ by RSK-175
Poly		500 ml	1	ZnAc & NaOH, Coo		Sulfide by E376.1
Dete		F00l		5 11 400		Alkalinity by E310.1
Poly		500 ml	1	Cool to 4°C	;	NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0
Poly		500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL		20 ml	1	None		Hydrogen by AM 20
		· · · · · · · · · · · · · · · · · · ·				
				<del> </del>		
COMMENTO (	(ELL DUDO)	NO VOLUME O	1			
COMMENTS: (V	VELL PURGI	NG VOLUME: SA	AMPLE APPEA	RANCE; ODOR; CO	LOR, ETC.	.)
ELD MEASUREN	IENTS					
PARAME	TER	EQUIPM	ENT I.D.	RESULTS (UI	NITS)	COMMENTS
		See assoc	ciated purge form	n for sampling detail	ļ	
COMMENTS: (W	/ELL PURGII	NG VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COI	LOR, ETC.	.)
ENERAL INFORM	IATION	WEATHER	Hot & Hum	<i>i d</i> A	IR TEMPE	RATURE 90°F
SAMPLES SHIPE	PED TO: Colu	umbia Analytical S	Services - Redd	ing, California/ Micro	<u>seeps – P</u>	ittsburg, PA
SPECIAL HANDL	.ING: <u>FedEx</u>		<u> </u>			
MODE OF SHIPM	MENT:	CAR/TRUCK	< □ B	US 🛛 PL	ANE	☐ COMMERCIAL
	<u>1</u>					VEHICLE
A/QC		_				
SAMPLE COLLE	CTED BY:	Terrell Pa	-Ker	SAMPLING OBSE	RVED BY:	:
DISCREPANCIES				·· * -	_ • •	

JOB No. 6301-05-0016

JOB NAME DSCR - OUT- Semi-Annual Monitoring

DATE 7/19/05 TIME 1604

		1	SAMPLING POINT: MWFTA-9		
				DEPTH_	
SAMPLE INFORMATION	SAMPLE I.D. NO	O.: MWF	TA-9-070	<del>5</del>	
MATERIAL: WATE	_		SLUDGE		ER (LIST)
TYPE: SRA		MPOSITE	OTHER (LIST)		,
HAZARDOUS?: YES	⊠ NO				
CONTAINER	₹	NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME	<u> </u>	PREPARATI		COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool		Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Co	ol to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	of to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	;	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , CI by E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
	:-				
	<u> </u>				
COMMENTS: (WELL PURG	ING VOLUME: SA	AMPLE APPEAF	RANCE; ODOR; CO	LOR, ETC.	.)
FIELD MEASUREMENTS	1				
FIELD MEASUREMENTS	<u> </u>				
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UI	NITS)	COMMENTS
	See assor	cisted purge form	m for sampling detail	1	
	000 assuc	adted purge rom	л юг затряну чесан		
COMMENTS: (WELL DIDG	INC VOLUME: 8/	ANADI E ADDEAL	24NOE: ODOD: CO		
COMMENTS: (WELL PURG	ING VOLUME, SA	MMPLE APPEAR	(ANCE; ODUK; COL	LOR, ETC.	•)
OCNEDAL INCODMATION	T	1 20	1.12.4		1 Ook
GENERAL INFORMATION	MEATHER TO	OT, NEUT OF	duisory in al	IR TEMPE	RATURE <u>high 90's</u>
SAMPLES SHIPPED TO: Col	lumbia Analytical S	<u> Services – Reddi</u>	ing, California/ Micro	seeps – P	ittsburg, PA
SPECIAL HANDLING: FedEx	<u>(</u>				
MODE OF SHIPMENT:	CAR/TRUCK	К ∏ві	US 🛭 PL	ANE	COMMERCIAL VEHICLE
A/QC			) <del></del>		
SAMPLE COLLECTED BY: _	A-N Call	1	OMADI NA ODČE	יייי יייי פייי	
	$f_{1my} = \omega_{11}$	away	SAMPLING OBŠE	KAFO RA:	·
DISCREPANCIES:					

JOB No. 6301-05-0016						
JOB NAME DSCR - OU7- Semi-Annual Monitoring						
DATE 1/9/05	TIME 1430					
SAMPLING POINT: MUD FTA-10						
DEPTH DEDINGS	Perp					

		SAM	IPLING POINT: MUD FTA-10			
				TH DEDINGSO Pump		
SAMPLE INFORMATION	SAMPLE I.D. N	O. MWF	TA-10-0705			
MATERIAL: WA	<del></del>	- ·		OTHER (LIST)		
TYPE: SRA	AB CON	//POSITE	OTHER (LIST)			
HAZARDOUS?: YES						
CONTAINE		NUMBER	PRESERVATIVE/	COMMENTO		
TYPE	VOLUME	NOWDER	PREPARATION	COMMENTS		
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C			
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175		
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°	C TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175		
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1		
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310,1		
		1		NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0 Tot. Metals by		
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°	°C 6010B,7470A,6020		
VOA VIAL	20 ml	1	None	Hydrogen by AM 20		
COMMENTS: (WELL PUR	,	AMPLE APPEAF	RANCE; ODOR; COLOR,	ETC.)		
	Clear None					
FIELD MEASUREMENTS						
PARAMETER	EQUIPM	IENT I.D.	RESULTS (UNITS)	COMMENTS		
	C	alata da				
	See assor	ciateo purge ion	n for sampling detail			
COMMENTS: (WELL PUR	SING VOLUME: S	AMDLE ADDEAD	PANCE, ODOD, COLOD I	FTC)		
	_		•	•		
GENERAL INFORMATION			3 fm AIR TEI			
	_					
SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA						
SPECIAL HANDLING: FedE						
MODE OF SHIPMENT:	CAR/TRUC	< □B	US 🖾 PLANE	COMMERCIAL VEHICLE		
A/QC		<u> </u>				
SAMPLE COLLECTED BY:	BRAD MEKNINE		SAMPLING OBSERVED	BY: A COLLANS		
DISCREPANCIES:	SAMPLE COLLECTED BY: RAO MEMBER SAMPLING OBSERVED BY: A COLLECTED BY: A COLLEC					

JOB No. 6301-05-0016 JOB NAME <u>DSCR - OU7- Semi-Annual</u> <u>Monitoring</u> TIME 1710

DATE 7.05 SAMPLING POINT: MWFTA-17

			DEPTH_	DEDICATED DEPTH			
SAMPLE INFORMATION	SAMPLE I.D. N	O.: MWF	TA-17-0705				
MATERIAL: 🛛	WATER SOIL		•	IER (LIST)			
TYPE:	GRAB CON	MPOSITE	OTHER (LIST)				
HAZARDOUS?:	YES ⊠ NO		UNKNOWN				
<u> </u>	AINER	NUMBER	PRESERVATIVE/	COMMENTS			
TYPE	VOLUME		PREPARATION				
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B			
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175			
Amber Glass	250 mł	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1			
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175			
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1			
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0			
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020			
VOA VIAL	20 ml	1	None	Hydrogen by AM 20			
				·.			
COMMENTS: (WELL I	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COLOR, ETC	.)			
23.0 GAUD	NS TOTAL PURE	E SAMP	E COLOPIESS, ODO	eless			
FIELD MEASUREMENTS	3	•	•				
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS			
	See assoc	ciated purge form	n for sampling detail				
_	_		RANCE; ODOR; COLOR, ETC.	•			
23.0 GAUNN	<u> </u>	· +	E COLOPIESS, OD				
GENERAL INFORMATIO	N WEATHER S	onny, Ho	AIR TEMPE	RATURE <u>95-100°F</u>			
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA							
SPECIAL HANDLING: I	SPECIAL HANDLING: FedEx						
MODE OF SHIPMENT:	CAR/TRUCK	К ∏ві	JS 🛛 PLANE	COMMERCIAL VEHICLE			
VQC							
SAMPLE COLLECTED	 ВҮ: Тьюыт≠т	MNA	SAMPLING OBSERVED BY:	T PORCED.			
DISCREPANCIES:		<u> </u>	U CITO ODOCTIVED DT.	1. 1.			

JOB No. 6301-05-0016

JOB NAME DSCR - OUT- Semi-Annual Monitoring

DATE 7/20/05 TIME 0800

SAMPLING POINT:
DEPTH NA

SAMPLING POINT: DEPTH NA								
SAMPLE INFORMATION	SAMPLE I.D.	. NO.: TB - 07つ	005					
MATERIAL: ⊠ V	VATER S	OIL	SLUDGE		ER (LIST)			
TYPE:	OMPOSITE	OTHER (LIST)						
HAZARDOUS?:	res 🔯 N	О	UNKNOWN					
CONTA		NUMBER	PRESERVAT		COMMENTS			
TYPE VOA VIAL	VOLUME 40 ml	3	PREPARAT HCI to pH<2, Coo		VOCs by SW8260B			
VOA VIAL	40 ml	3	HCl to pH<2, Coo		Methane, ethane, ethene by			
	······	<del></del>			RSK-175			
VOA VIAL	40 ml	3	Cool to 4°C	;	CO₂ by RSK-175			
COMMENTS: (WELL PI	URGING VOLUME:	SAMPLE APPEA	RANCE; ODOR; CO	LOR, ETC.	)			
FIELD MEASUREMENTS								
PARAMETER	EQUI	PMENT I.D.	RESULTS (U	NITS)	COMMENTS			
	See associated purge form for sampling detail							
COMMENTS: (WELL PI	URGING VOLUME:	SAMPLE APPEAR	RANCE; ODOR; CO	LOR, ETC.)	) 			
GENERAL INFORMATION	WEATHER	Clear	A	IR TEMPER	RATURE 75°F			
SAMPLES SHIPPED TO	SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California							
SPECIAL HANDLING: F	edEx		· · · · · · · · · · · · · · · · · · ·					
MODE OF SHIPMENT:	☐ CAR/TRU	JCK B	US 🛚 🖾 PL	ANE	☐ COMMERCIAL VEHICLE			
QA/QC	11.	1			-			
SAMPLE COLLECTED E	BY: David How	vand	SAMPLING OBSE	RVED BY:				
DISCREPANCIES:					******			

JOB No. <u>6301-05-001</u>	6
JOB NAME DSCR - C	0U7- Semi-Annual
DATE 1/20/05	TIME 1050
SAMPLING POINT:	NWFTA-3
DEPTH DEDICAGO	Rumo

				hedreway Armo
SAMPLE INFORMATION	SAMPLE I.D. NO	DE MWET	A-3-0705	
MATERIAL:	WATER SOIL			HER (LIST)
TYPE:	GRAB ☐ COM	POSITE	OTHER (LIST)	
HAZARDOUS?:	YES 🛛 NO		□ UNKNOWN	
CONT		NUMBER	PRESERVATIVE/	COMMENTS
TYPE	VOLUME		PREPARATION	COMINICIATO
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 mi	3	Cool to 4°C	CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Ct by E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 mi	1	None	Hydrogen by AM 20
/		·········		
-				
COMMENTS: (WELL F	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLOR, ETC	).)
WARED HAS A	VEIDO TUT: NO CO	0000	new Pin	
FIELD MEASUREMENTS				
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS
	See assoc	iated purge forn	n for sampling detail	
COMMENTS: (WELL F	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLOR, ETC	; <u>)</u>
GENERAL INFORMATIO	N WEATHER	ter/14mm	AIR TEMPI	ERATURE ~ 85°
SAMPLES SHIPPED TO	O: Columbia Analytical S	ervices – Reddi	ng, California/ Microseeps - I	Pittsburg, PA
SPECIAL HANDLING: I				
MODE OF SHIPMENT:			JS 🖾 PLANE	☐ COMMERCIAL
			<u>V.</u> y · be/ 11.7 be	VEHICLE
AAQC				
SAMPLE COLLECTED	BY: BOY		SAMPLING OBSERVED BY	. N
DISCREPANCIES:	A.		SAME LING ODSERVED BY	· _ <del> </del>
DIOUNCE ANOIES.				

JOB No. 6301-05-0016

JOB NAME DSCR - OUT- Semi-Annual Monitoring

DATE 7/20/05 TIME 1200

SAMPLING POINT: MW FTA-3

DEPTH OF 1200 MAP

		•	i i	EPTH DEDICACED PUMP		
	Lawrence			LEGIZO MAD		
SAMPLE INFORMATION SAMPLE I.D. NO.: 0U7 DUP-2 -0705						
_	WATER SOIL		SLUDGE [ OTHER (LIST)	OTHER (LIST)		
TYPE:	GRAB ☐ COM	☐ COMPOSITE				
HAZARDOUS?:	YES 🖾 NO	⊠ NO				
	AINER	NUMBER	PRESERVATIVE	: ( : 18/8/M=10.1 >		
TYPE	VOLUME	3	PREPARATION			
VOA VIAL	40 ml		HCl to pH<2, Cool to 4			
VOA VIAL	40 ml	3		RSK-175		
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to			
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175		
Poly	500 ml	1	ZnAc & NaOH, Cool to	4°C Sulfide by E376.1  Alkalinity by E310.1		
Poly	500 ml	1	Cool to 4°C	NO <sub>3</sub> , SO <sub>4</sub> , Ct by E300.0		
Poly	500 ml	1	HNO₃ to pH<2, Cool to	70t. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None	Hydrogen by AM 20		
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEA	RANCE; ODOR; COLOI	R, ETC.)		
WARD HAS	D YOUR TINT; No	-DOR 0.	oup as pub			
FIELD MEASUREMENTS	s					
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNIT	S) COMMENTS		
TATIONNETER EGON MENT I.D.   ILLOCATO (DIVITO)   OCIMINACIATO						
	See assoc	ciated purge for	m for sampling detail			
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEA	RANCE; ODOR: COLO	R, ETC.)		
				,		
GENERAL INFORMATION	N WEATHER	tr/Hung	AIR	TEMPERATURE _~85 °		
CAMDI EC CUIDDED	CO: Columbia Analytical S	Consisse Bode	ling California/Microso	one Ditteburg DA		
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA						
SPECIAL HANDLING: FedEx						
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☑ PLANE ☐ COMMERCIAL VEHICLE						
WQC			-			
SAMPLE COLLECTED BY: BAY SAMPLING OBSERVED BY: DX						
DISCREPANCIES:						
DIOCINEI AIVOILO.						

JOB No. <u>6301-05-0016</u>
JOB NAME DSCR - OU7- Semi-Annual
Monitoring
DATE 7/20/05 TIME 11/0
SAMPLÍNG POINT: MWFTA-1
DEDTH

REPORT				SAMPLING POINT: MWFTA-1 DEPTH			
SAMPLE INFORMATION SAMPLE I.D. NO.: WWFTA-1-0705							
MATERIAL: 🛛 V			SLUDGE OTHER (LIST)				
TYPE:			OTHER (LIST)				
HAZARDOUS?:			UNKNOWN				
CONTA		NUMBER	PRESERVATIVE/		COMMENTS		
TYPE	VOLUME		PREPARATION				
VOA VIAL	40 ml	9	HCl to pH<2, Cool to 4°C		VOCs by SW8260B  Methane, ethane, ethene by		
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C		RSK-175		
Amber Glass	250 ml	3	H <sub>2</sub> SO <sub>4</sub> to pH<2,Co		TOC by E 415.1		
VOA VIAL Poly	40 ml	3 3	Cool to 4°C ZnAc & NaOH, Coo		CO <sub>2</sub> by RSK-175 Sulfide by E376.1		
Poly .	300 mi	· · · · · · · · · · · · · · · · · · ·	ZNAC & NaOH, COO	31040	Alkalinity by E310.1		
Poly	500 ml	3	Cool to 4°C	;	NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0		
Poly	500 ml	3	HNO₃ to pH<2, Cool to 4°C		Tot. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None		Hydrogen by AM'20		
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  Strong  Sulfur  FIELD MEASUREMENTS  And Froth 4"							
PARAMETER	EQUIPI	EQUIPMENT I.D.		NITS)	COMMENTS		
. See associated purge form for sampling detail							
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)							
GENERAL INFORMATION WEATHER hot, sunny humid AIR TEMPERATURE ~930F							
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA							
SPECIAL HANDLING: FedEx							
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☑ PLANE ☐ COMMERCIAL VEHICLE							
A/QC	011						
SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:							

JOB No. <u>6301-05-0016</u>
JOB NAME DSCR - OU7- Semi-Annual
Monitoring
DATE 7/20 /05 TIME 1145
SAMPLING POINT: DMW-354
DEPTH

		-			GPOINT: DMW-35}		
SAMPLE INFORMATION	SAMPLE I.D. N	0.: DIM W:	<del></del>				
SAMPLE INFORMATION SAMPLE I.D. NO.: DMW-35A-07-05  MATERIAL:   WATER □ SOIL □ SLUDGE □ OTHER (LIST)							
TYPE: ☐ GRAB ☐ COMPOSITE		OTHER (LIST)					
i =							
·	AINER		PRESERVATIVE/				
TYPE	VOLUME	NUMBER	PREPARATION		COMMENTS		
VOA VIAL	40 m)	3	HCl to pH<2, Cool to 4°C		VOCs by SW8260B		
VOA VIAL	40 ml	3	HCl to pH<2, Cool t	to 4°C	Methane, ethane, ethene by RSK-175		
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Coo	I to 4°C	TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175		
Poly	500 ml	1	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1		
Poly	500 ml	1	Cool to 4°C		Alkalinity by E310.1		
				<u> </u>	NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0		
Poly	500 ml	1	HNO₃ to pH<2, Cool to 4°C		Tot. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None		Hydrogen by AM 20		
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COL	OR, ETC.	)		
FIELD MEASUREMENTS	S						
PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS					COMMENTS		
	See assoc	ciated purge forn	n for sampling detail		1		
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)							
GENERAL INFORMATION WEATHER 50114 AIR TEMPERATURE 1015							
J							
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA							
SPECIAL HANDLING: FedEx							
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☐ PLANE ☐ COMMERCIAL VEHICLE							
AQC							
SAMPLE COLLECTED	BY: Myg Cull		SAMPLING OBSEF	RVED BY:			
DISCREPANCIES:							

JOB No. 6301-05-0016						
JOB NAME	DSCR - C	0U7- Semi-Annual				
DATE	20 05	TIME (150				
SAMPLING POINT: DWW-13A						
DEPTH	DE0194740	purp				

			D	EPTH	DEDIAGNO PURP
SAMPLE INFORMATION	SAMPLE I.D. NO	DMW.	-13A-0705		
MATERIAL:	WATER SOIL		SLUDGE	OTHE	R (LIST)
TYPE:	GRAB COM	IPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES NO		UNKNOWN		
CONT	AINER	NUMBER	PRESERVATIV		COMMENTS
TYPE	VOLUME		PREPARATIO		
VOA VIAL	40 ml	3	HCl to pH<2, Cool to	<del></del>	VOCs by SW8260B  Methane, ethane, ethene by
VOA VIAL	40 ml	3	HCl to pH<2, Cool to		RSK-175
Amber Glass	250 ml	1	Il <sub>2</sub> SO <sub>4</sub> to pH<2,Cool t	to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO <sub>2</sub> by RSK-175
Poly	500 m)	1	ZnAc & NaOH, Cool to	0 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool	to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
	, , , , , , , , , , , , , , , , , , ,				
,	PURGING VOLUME: SA	AMPLE APPEAF	RANCE; ODOR; COLO	OR, ETC.)	)
FIELD MEASUREMENT					
PARAMETER	EQUIPM	IENT I.D.	RESULTS (UNI	ITS)	COMMENTS
			m for sampling detail		
` .	PURGING VOLUME: SI	AMPLE APPEA	RANCE; ODOR; COLO	OR, ETC.)	)
		Da / Way 4 10	7 16 AID	TEMPE	RATURE 90°
GENERAL INFORMATION	WEATHER	TO PHEAT W	OT- HUMB AIR	C I CIVIL ET	WHORL ID
SAMPLES SHIPPED	ΓΟ: Columbia Analytical :	Services – Redd	ing, California/ Micros	eeps – Pi	ttsburg, PA
SPECIAL HANDLING:	FedEx	· · ·	, -		
MODE OF SHIPMENT	: CAR/TRUC	K □B	US 🛛 PLAI	NE	COMMERCIAL VEHICLE
A/QC					
SAMPLE COLLECTE	BY: Bradwelet		SAMPLING OBSER	VED BY:	
DISCREPANCIES:				<del>_</del> ,,	

JOB No. 6301-05-0016	
JOB NAME DSCR - OL	J7- Semi-Annual
Monitoring DATE 7-24-05	TIME 12100
SAMPLING POINT: A	
DEPTH	

	ILLI OIL	•	SAMPL	ING POINT: AEHADG-10		
			DEPTH			
SAMPLE INFORMATION	SAMPLE I.D N	0.: OU 7DU	P-1-0705			
MATERIAL:	WATER ☐ SOIL	_	SLUDGE OT	HER (LIST)		
TYPE:	GRAB 🗌 CON	MPOSITE	OTHER (LIST)			
HAZARDOUS?:	YES 🛭 NO		UNKNOWN			
CONT	AINER	NUMBER	PRESERVATIVE/	COMMENTS		
TYPE	VOLUME	NOWBER	PREPARATION			
VOA VIAL	40 ml	3 ~	HCl to pH<2, Cool to 4°C	VOCs by SW8260B		
VOA VIAL	40 ml	3 /	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175		
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175		
Poly	500 ml	1 /	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1		
Poly	500 ml	1	Cool to 4°C	Alkalinity by E310.1 NO <sub>3</sub> , SO <sub>4</sub> , Cl by E300.0		
Poly	500 ml	1 -	HNO₃ to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1 /	None	Hydrogen by AM 20		
Amber Glass	250 ml	1	H <sub>3</sub> PO <sub>4</sub> to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552		
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  FIELD MEASUREMENTS						
PARAMETER	FOHIPA	MENT I.D.	RESULTS (UNITS)	COMMENTS		
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
Samples me clear, color less, But have heavy Sulfur odor  GENERAL INFORMATION WEATHER HOT, Sunny, Chund AIR TEMPERATURE 96070						
	O: <u>Columbia Analytical</u> FedEx	Services – Reddi	ng, California/ Microseeps -			
				VEHICLE		
QA/QC						
SAMPLE COLLECTED		nkex	SAMPLING OBSERVED B	Y Ted WITTEMANN		
DISCREPANCIES:	VO/VC					

JOB No. 6301-05-0016

JOB NAME DSCR — OUT- Semi-Annual Monitoring

DATE 7-20-05 TIME 1240

SAMPLING POINT: DYNW - 204

DEPTH DEDICATED DEPTH

					DEDICATED DEPTH
SAMPLE INFORMATION	SAMPLE I.D. N	O::DMW.	-20A-0705	_	
MATERIAL:	WATER ☐ SOIL		SLUDGE		R (LIST)
TYPE:	GRAB CON	MPOSITE	OTHER (LIST) _		
HAZARDOUS?:	YES NO		UNKNOWN		
! <del> </del>	AINER	NUMBER	PRESERVATIV		COMMENTS
TYPE	VOLUME		PREPARATIO	<del></del>	
VOA VIAL	40 ml	3	HCI to pH<2, Cool to		VOCs by SW8260B  Methane, ethane, ethene by
VOA VIAL	40 ml	3	HCl to pH<2, Cool to		RSK-175
Amber Glass	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool	10 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO <sub>2</sub> by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool t	04%	Sulfide by E376.1  Alkalinity by E310.1
Poly	500 mł	1	Cool to 4°C		NO <sub>3</sub> , SO <sub>4</sub> , CI by E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool	to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
		-			
	SUBSING VISUANE A	11015 10051		2D 570 \	
i '	PURGING VOLUME: S			•	
FIELD MEASUREMENT		er iir ce cou	JAKESS KING O		
		A			001015150
PARAMETER	EQUIPA	MENT I.D.	. RESULTS (UN	ITS)	COMMENTS
	See asso	ciated purge for	m for sampling detail		
001415150 31151	5) IDONIO 1:0:		DANGE OF OF OF		
`	PURGING VOLUME: S		·	•	
	INS PURSED, SI				<del></del>
GENERAL INFORMATION	ON WEATHER S	nunx, Ho	T AIR	RTEMPER	ATURE <u>95-100°F</u>
SAMPLES SHIPPED	TO: Columbia Analytical	Services - Redo	ling, California/ Micros	eeps – Pit	tsburg, PA
SPECIAL HANDLING:	FedEx			· · · · · · · · · · · · · · · · · · ·	
MODE OF SHIPMENT	f: ☐ CAR/TRUC	K 🗍 E	BUS 🛛 PLA	NE	COMMERCIAL VEHICLE
A/QC					
SAMPLE COLLECTE	 DBY: <u>Т. ФПТЕМ</u>	ANN)	SAMPLING OBSER	RVED BY	T. PARKER
DISCREPANCIES:	·			·· · · ·	
	, ( ¬				

JOB No. <u>6301-05-0016</u>	l
JOB NAME DSCR - OU7- Semi-Annual	
Monitoring	ļ
DATE 7-20-05 TIME 12:56	Į,
SAMPLING POINT: A EHA DG-10	ľ

	SAMPLING POINT: AEHADG-70					
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: AEHADO	-10-0705			
MATERIAL: ⊠ WATE	-		SLUDGE	□отн	ER (LIST)	
TYPE: S GRAE	TYPE: S GRAB COMPOSITE OTHER		OTHER (LIST)	l		
HAZARDOUS?: YES	— ⊠ NO		☐ UNKNOWN			
CONTAINER		AUMADED	PRESERVAT	IVE/	COMMENTS	
TYPE	VOLUME	NUMBER	PREPARAT	ION	COMMENTS	
VOA VIAL	40 ml	3 🗸	HCl to pH<2, Cool	l to 4°C	VOCs by SW8260B	
VOA VIAL	40 ml	3 ~	. HCl to pH<2, Cool	l to 4°C	Methane, ethane, ethene by RSK-175	
Amber Glass	250 ml	1 /	H <sub>2</sub> SO <sub>4</sub> to pH<2,Co	ool to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3 /	Cool to 4°C	;	CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Cod	ol to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C	;	Alkalinity by E310.1	
		ļ			NO <sub>3</sub> , SO <sub>4</sub> , CI by E300.0  Tot. Metals by	
Poly	500 mf	1	HNO₃ to pH<2, Co	ol to 4°C	6010B,7470A,6020	
VOA VIAL	20 ml	1	None	,	Hydrogen by AM 20	
Amber Glass	250 ml	1	H₃PO₄ to pH<2, Co	ool to 4°C	Volatile Fatty Acids by D1552	
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
FIELD MEASUREMENTS						
PARAMETER	EQUIPM	IENT I.D.	RESULTS (U	INITS)	COMMENTS.	
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  Alear, color less heavy Suffer and R						
<u> </u>	<del>//</del>		<del></del>	ID TEMPE	DATIDE GA.O.C	
GENERAL INFORMATION WEATHER HOT, Sunny AIR TEMPERATURE 9606						
SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA						
SPECIAL HANDLING: FedEx						
MODE OF SHIPMENT:	CAR/TRUC	< □ BI	US ⊠PL	_ANE	COMMERCIAL VEHICLE	
A/QC	_					
SAMPLE COLLECTED BY:	Terrell 1	PARKER	SAMPLING ORSE	RVED RY	Ted WITTEMMUN	
DISCREPANCIES:		¥ ¥ 2 - 2 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 -	CAMILLING ODGE		· · · · · · · · · · · · · · · · · · ·	
DIGUILE ANOIES. NO						

Results of Bi-Annual Groundwater Sampling – July 2005 Operable Units 6 ,7, and 8 Defense Supply Center Richmond

December 2005 Revision 0

1

3

#### **APPENDIX A2**

OPERABLE UNIT 8
SAMPLE COLLECTION LOGS

JOB No. <u>6301-05-0016</u>	3
JOB NAME DSCR - OI	J8- Semi-Annual
Monitoring	
DATE 7/2 0/05	_ TIME <u>0830</u> _
SAMPLING POINT:	
DEPTH NA	

	REPORT				
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: TB- 072	005-02		
MATERIAL: ⊠WAT	ER SOIL	•	SLUDGE	□отн	ER (LIST)
TYPE: 🛛 GRA	B □ COM	IPOSITE	OTHER (LIST)	)	
HAZARDOUS?: ☐ YES	⊠ NO		☐ NNKNOWN		
CONTAINEI TYPE	VOLUME	NUMBER	PRESERVAT PREPARAT		COMMENTS
VOA VIAL	40 ml	2	HCl to pH<2, Cool	I to 4°C	VOCs by SW8260B
VOA VIAL	40 mi	3	HCI to pH<2, Cool	I to 4°C	Methane, ethane, ethene by RSK- 175
VOA VIAL	40 ml	2	Cool to 4°C		CO₂ by RSK-175
COMMENTS: (WELL PURG	SING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; CO	DLOR, ETC	
PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFORMATION	WEATHER	Sunny	A	IR TEMPE	RATURE 350F
SAMPLES SHIPPED TO: Columbia Analytical Services - California  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT:   CAR/TRUCK   BUS   PLANE   COMMERCIAL VEHICLE					
QA/QC					
SAMPLE COLLECTED BY: DISCREPANCIES:	Daniel Ho	ward	SAMPLING OBSE	ERVED BY	

JOB No. 6301-05-0016

JOB NAME DSCR - OU8- Semi-Annual Monitoring

DATE 7/20/05 TIME 0900

SAMPLING POINT:
DEPTH NA

			DEP.	PLING POINT: TH NA	
SAMPLE INFORMATION	SAMPLE I.D. N	O.: OUR-RL	AD-EQB-0705		
MATERIAL: ⊠	WATER SOIL	-		OTHER (LIST)	
_		MPOSITE	OTHER (LIST)		
	YES NO		UNKNOWN		
TYPE	AINER VOLUME	NUMBER	PRESERVATIVE/	COMMENTS	
VOA VIAL	40 ml	3	PREPARATION		
VOA VIAL	40 ml	3	HCI to pH<2, Cool to 4°C HCI to pH<2, Cool to 4°C	VOCs by SW8260B  Methane, ethane, ethene by	
Amber	250 mi	1	H₂SO₄ to pH<2,Cool to 4°C	RSK-175 TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C	CO <sub>2</sub> by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C		
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Cool to 4°	C Tot. Metals by 60108,7470A,6020	
	-20			Live	
COMMENTS: (WELL I	PURGING VOLUME: SA	AMPLE APPEAR	L RANCE; ODOR; COLOR, E	ETC.)	
FIELD MEASUREMENTS					
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS	
COMMENTS			n for sampling detail		
COMMENTS: (WELL)	ORGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLOŘ, E	TC.)	
GENERAL INFORMATIO	N WEATHER	Sunny	AIR TEM	IPERATURE 75°F	
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT:	☐ CAR/TRUCK	□ві	JS 🛛 PLANE	COMMERCIAL VEHICLE	
QA/QC		<del></del>	······································		
SAMPLE COLLECTED	BY: Daniel Ho	wal	SAMPLING OBSERVED	BY:	

JOB No. <u>6301-05-0016</u>
JOB NAME DSCR - QU8- Semi-Annual Monitoring
DATE 720-05 TIME 1/30
SAMPLING POINT: DMW-23A
DEPTH

,				DEPTH_	IG POINT: D(1100-034
SAMPLE INFORMATION	SAMPLEID NO	-(MMC . C	23A-07C		
MATERIAL:	WATER SOIL		SLUDGE OTHER (LIST)	□ отн	ER (LIST)
	YES NO	IFUSHE	UNKNOWN	·	
	AINER		PRESERVAT	IVE/	
TYPE	VOLUME	NUMBER	PREPARATI		COMMENTS
VOA VIAL	40 ml	9	HCl to pH<2, Cool	l to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool		Methane, ethane, ethene by RSK-175
Amber	250 ml	3	H₂SO₄ to pH<2,Coo	ol to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO <sub>2</sub> by RSK-175
Poly	500 ml	3	ZnAc & NaOH, Coo	ol to 4°C	Sulfide by E376.1
Poly	500 ml	3	Cool to 4°C	;	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1,300.0
Poly	500 ml	3	HNO <sub>3</sub> to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
comments, (WELL - 3 gallons	PURGING VOLUME: SA	AMPLE APPEAI	RANCE; ODOR; CO	LOR, ETC	.)
FIELD MEASUREMENT	S				
PARAMETER	EQUIPM	ENT I.D.	RESULTS (U	NITS)	COMMENTS
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  Collect MS/MSD // Odor, YC(a lively Clay					
GENERAL INFORMATION	N WEATHER S	unny lot	- Munich A	IR TEMPE	RATURE 95°
	FedEx	Services – Redo	ling, California/ Micro	oseeps – F	
QA/QC					
SAMPLE COLLECTED DISCREPANCIES:	DBY: Luke Clar	<u>K</u>	SAMPLING OBSE	RVED BY	-

JOB No. 6301-05-0016				
JOB NA Monitori			SCR -	OU8- Semi-Annual
DATE		•	05	TIME_115
		-	·	MWANP-40
DEDTH			GAZZA	Deen

							DESIGNES PUMP
SAM	PLE INFORMATION	ON	SAMPLE I.D. NO	D. MUANO	B40-070	5	
M	ATERIAL:	<b>⊠</b> WATE			SLUDGE		ER (LIST)
ΤY	PE: (	⊠ GRAB	□сом	POSITE	OTHER (LIST)		
HA	AZARDOUS?: [	YES	⊠ NO		UNKNOWN		
		TAINER		NUMBER	PRESERVAT		COMMENTS
<del>                                   </del>	TYPE		VOLUME		PREPARATI		
<b> </b>	VOA VIAL		40 mt	3	HCl to pH<2, Cool		VOCs by SW82608  Methane, ethane, ethene by RSK-
	VOA VIAL		40 ml	3	HCI to pH<2, Cool		175
·	Amber		250 ml	181	H₂SO₄ to pH<2,Coc	ol to 4°C	TOC by E 415.1
<u> </u>	VOA VIAL		40 ml	3	Cool to 4°C		CO₂ by RSK-175
$\vdash$	Poly		500 ml	1	ZnAc & NaOH, Coo	ol to 4°C	Sulfide by E376.1
	Poly		500 ml		Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1,E300.0
	Poly		500 ml	1	HNO <sub>3</sub> to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
	Amber		250 ml	1	H₃PO₄ to pH<2, Coo	ol to 4°C	Volatile Fatty Acids by D1552
	VOA VIAL		20 ml	1	None		Hydrogen by AM 20
<b>-</b>							
7_							
<u> </u>	·-	<u> </u>					
CC	DMMENTS: (WEL	L PURGII		,	ANCE; ODOR; CO	LOR, ETC	-)
			close	No osok			
FIELI	D MEASUREMEN	TS					
	PARAMETER	₹	EQUIPMI	ENT I.D.	RESULTS (UI	NITS)	COMMENTS
	See associated purge form for sampling detail						
CC	MMENTS: (WELL	L PURGIN	NG VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.	.)
			2 9AL.	CLEARING	0008		,
GENE	RAL INFORMATI	ION	WEATHER	- 77		R TEMPE	RATURE 92°F
SA	MPLES SHIPPED	TO: Colu	ımbia Analyticat S	ervices – Reddir	no California/ Micro	seens P	ittshura PA
•	SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA SPECIAL HANDLING: FedEx						
MODE OF SHIPMENT:			☐ CAR/TRUCK	□BU	JS 🖾 PL/	 ΔΝΕ	☐ COMMERCIAL VEHICLE
QA/Q							OCIMINENCIAL VEHICLE
C A	MPLE COLLECTE	:D 8V:	BOAN MERIL	**	CANADI INIC ODOCI	מארב פיי	
	CREPANCIES: _	.U U I	EIGHT MINO	~1	SAMPLING OBSE	KVED BY:	
10	ONLI ANGIES						

JOB No.	6301-05-0016	3	
JOB NAM	ME DSCR - OL	J8- Semi-A	Annual
Monitoring	1		
DATE_	1/20/05	TIME	1615
SAMPLIN	IG POINT: Y	MAW	N2-4D
DEPTH	Denication	PUMO	

						DEPTH	IG POINT: YNW H-NP-4P Nedicated Parp
SAMPL	E INFORMATIO	N	SAMPLE I.D. N	0.: MY 18 (	DUP-4-0705	_	
MAT	ERIAL:	WATE			SLUDGE		ER (LIST)
TYP		GRAB	<del>_</del>	- MPOSITE	OTHER (LIST)		Crr(CiO1)
		] YES	⊠ NO	00.1.2	☐ UNKNOWN		<del>*************************************</del>
		TAINER	<u> </u>		PRESERVAT	IVF/	
	TYPE		VOLUME	NUMBER	PREPARAT		COMMENTS
	VOA VIAL		40 ml	3	HCl to pH<2, Cool	l to 4°C	VOCs by SW8260B
	VOA VIAL		40 mt	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175
	Amber		250 ml	1	H₂SO₄ to pH<2,Coo	ol to 4°C	TOC by E 415.1
	VOA VIAL		40 ml	3	Cool to 4°C	;	CO₂ by RSK-175
	Poly		500 ml	1	ZnAc & NaOH, Coo	ol to 4°C	Sulfide by E376.1
	Poly		500 ml	1	Cool to 4°C	:	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
	Poly		500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
	VOA VIAL		20 ml	1	None		Hydrogen by AM 20
<b>-</b>					-		
7			· · · · · · · · · · · · · · · · · · ·				
	· · · · · · · · · · · · · · · · · · ·	1					
COM			NG VOLUME: SA		RANCE; ODOR; CO	LOR, ETC.	.)
FIELD	WEASUREMENT		<u> </u>	CLEAR	The aroun	. ,	
	PARAMETER		EQUIPM	ENT LO	DECLUTE (LI	MITTO)	COMMENTS
	PARAMETER	·····	1 EQUIPM	IEINT I.D.	RESULTS (UI	NITS)	COMMENTS
			See asso	ciated purge for	n for sampling detail	ł	
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)							
CENED	AL INCOMMENT		2 686.	14 4			
GENER	AL INFORMATIO	אכ	WEATHER	1424 HOT	HVNG VI	IR TEMPE	RATURE 92°F
SAM	SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA						
SPEC	CIAL HANDLING:	FedEx			····		
MODE OF SHIPMENT:		7:	☐ CAR/TRUCK	< □ B	US ⊠PL	ANE	COMMERCIAL VEHICLE
QA/QC			· · · · · · · · · · · · · · · · · · ·				
	SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:						

JOB No. 6301-05-0016

JOB NAME DSCR - QU8- Semi-Annual Monitoring

DATE 7/20/05 TIME 1100

SAMPLING POINT: MUANP-22

				DEPTH_	G POINT: MMANA-93
SAMPLE INFORMATION	SAMPLE I.D. N	D.: MWANP	-22-0705		
MATERIAL:				Потн	ER (LIST)
TYPE:	GRAB CON	AB COMPOSITE			
HAZARDOUS?:	YES NO		UNKNOWN		
	AINER	NUMBER	PRESERVAT	IVE/	0011111111
TYPE	VOLUME	HOWBER	PREPARATI	ON	COMMENTS
VOA VIAL	40 ml	3	HCI to pH<2, Cool	to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 mi	#1	H₂SO₄ to pH<2,Cool	to 4°C	TOC by E 415.1
VOA VIAL	40 mł	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1
Poły	500 mt	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Coo	of to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
COMMENTS: (WELL F	PURGING VOLUME: SA PGE 256A	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.)	
FIELD MEASUREMENTS					·
PARAMETER	EQUIPM	EQUIPMENT I.D.		IITS)	COMMENTS
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  SAMPLES CLERR, NO ODOR					
GENERAL INFORMATIO	N WEATHER HA	ex, Hor, +Ho	MΦ AIF	RIEMPER	RATURE 30'S
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx					
QA/QC	L CANTILOCK		IS 🛛 PLA	IIAC	COMMERCIAL VEHICLE
_	BY: Jal/n		SAMPLING OBSER	RVED BY:	

JOB No. <u>6301-05-0016</u>	
JOB NAME DSCR - OU8- Semi-Annua	į
Monitoring	
DATE 7/20 /05 TIME 12	d
SAMPLING POINT: DMW-31A	
DEPTH	٠

SAMPLE INFORMATION  SAMPLE ID. NO.: OU S DUP-2-070S  MATERIAL:							DEPTH_	,
TYPE:	S	AMPLE INFORMATION	SAMP	LE I.D. NO	D:OUS DU	1P-2-0705	,	
HAZARDOUS7:		MATERIAL:	WATER	SOIL		SLUDGE	□ отні	ER (LIST)
HAZARDOUS?:		TYPE:	GRAB	□сом	POSITE	OSITE OTHER (LIST)		
TYPE		HAZARDOUS?:	YES	⊠ NO	_ ,		,	
TYPE		CONT	AINER		AUIMOED	PRESERVA	ΓΙVΕ/	0011117170
VOA VIAL   40 ml   3   HCI to pH-2, Cool to 4°C   Methane, ethene by RSK-175   Amber   250 ml   1   H <sub>2</sub> SQ, to pH-2, Cool to 4°C   TOC by £ 415.1		TYPE	VOLUM	1E	NUMBER	PREPARAT	ION	COMMENTS
Amber 250 ml 3 H <sub>2</sub> SO <sub>4</sub> to pHc2,Cool to 4°C TOC by E 415.1  VOA VIAL 40 ml 3 Cool to 4°C CO <sub>2</sub> by RSK-175  Poly 500 ml 1 ZnAc & NaOH, Cool to 4°C Sulfide by E376.1  Poly 500 ml 1 Cool to 4°C Sulfide by E376.1  Poly 500 ml 1 Cool to 4°C Sulfide by E376.1  Poly 500 ml 1 Cool to 4°C Sulfide by E376.1  Poly 500 ml 1 HNO <sub>3</sub> to pH-2, Cool to 4°C E310.1, E300.0  Tot. Metals by 60108,7470A,6020  VOA VIAL 20 ml 1 None Hydrogen by AM 20  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER APPEARANCE; ODOR; COLOR, ETC.)  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  GA/IQC  SAMPLES COLLECTED BY: SAMPLING OBSERVED BY:		VOA VIAL	40 ml		3	HCl to pH<2, Coo	l to 4°C	
VOA VIAL  40 ml  3		VOA VIAL	40 ml		3	HCl to pH<2, Coo	l to 4°C	
Poly 500 ml 1 Znac & NaOH, Cool to 4°C Sulfide by E376.1  Poly 500 ml 1 Cool to 4°C Alkalimity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, 200.0  Poly 500 ml 1 HNO <sub>3</sub> to pH<2, Cool to 4°C Oct 0.4°C Bulliating, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, 200.0  Poly 500 ml 1 HNO <sub>3</sub> to pH<2, Cool to 4°C Gotto 4°C Gott		Amber	250 m		18	H₂SO₄ to pH<2,Co	ol to 4°C	TOC by E 415.1
Poly 500 ml 1 Coot to 4°C Alkalinity, No., SO., CI by E310.1, E300.0  Poly 500 ml 1 HNOs to pH<2, Cool to 4°C 8010B,7470A,6020  VOA VIAL 20 ml 1 None Hydrogen by AM 20  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER CATTLY COUNTY AIR TEMPERATURE 95°  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CARTRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLING OBSERVED BY: SAMPLING OBSERVED BY:		VOA VIAL	40 ml		3	Cool to 4°0	3	CO₂ by RSK-175
Poly 500 ml 1 HNO3 to pH<2, Cool to 4°C Fot Metals by 6010B,7470A,6020  Poly 500 ml 1 HNO3 to pH<2, Cool to 4°C Fot Metals by 6010B,7470A,6020  VOA VIAL 20 ml 1 None Hydrogen by AM 20  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER CAPTURE APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER CAPTURE APPEARANCE; ODOR; COLOR, ETC.)  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: Many Columbia Collected By: SAMPLING OBSERVED BY: SAMPLING OBSERVED BY:		Poly	500 ml		1	ZnAc & NaOH, Co	ol to 4°C	Sulfide by E376.1
Poly SUU mil 1 HNO <sub>3</sub> to pH-2, Cool to 4°C 6010B,7470A,6020  VOA VIAL 20 mil 1 None Hydrogen by AM 20  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER DATE APPEARANCE; ODOR; COLOR, ETC.)  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: Many Columbia Columbi		Poly	500 ml		1	Cool to 4°	C	· I
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER CAPTURE APPEARANCE; ODOR; COLOR, ETC.)  SAMPLES SHIPPED TO: Columbia Analytical Services — Redding, California/ Microseeps — Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CARATRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: May SAMPLING OBSERVED BY:		Poly	500 m	1	1	HNO₃ to pH<2, Co	ol to 4°C	· · · · · · · · · · · · · · · · · · ·
FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER DATLY Cloudy AIR TEMPERATURE 95°  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: May All SAMPLING OBSERVED BY:		VOA VIAL	20 ml		1	None		Hydrogen by AM 20
FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER DATLY Cloudy AIR TEMPERATURE 95°  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: May All SAMPLING OBSERVED BY:								
FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER DATLY Cloudy AIR TEMPERATURE 95°  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: May All SAMPLING OBSERVED BY:								
FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER DATLY Cloudy AIR TEMPERATURE 95°  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: May All SAMPLING OBSERVED BY:		•						
FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER DATLY Cloudy AIR TEMPERATURE 95°  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: May All SAMPLING OBSERVED BY:	1							
PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER Dartly Cloud AIR TEMPERATURE 95P  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: Many SAMPLING OBSERVED BY:		COMMENTS: (WELL	PURGING VOL	UME: SA	AMPLE APPEA	RANCE; ODOR; CO	LOR, ETC.	)
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER CAPPUAL CLOUDY AIR TEMPERATURE 95°  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: May All SAMPLING OBSERVED BY:	F							
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  GENERAL INFORMATION WEATHER Darty Clause Air Temperature 95°  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: May Air SAMPLING OBSERVED BY:		PARAMETER		EQUIPM	ENT I.D.	RESULTS (U	INITS)	COMMENTS
GENERAL INFORMATION  WEATHER DOTHY Cloudy AIR TEMPERATURE 950  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: May SAMPLING OBSERVED BY:								
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:		COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:	G	ENERAL INFORMATIC	N WEAT	THER	partly of	oudy A	IR TEMPE	RATURE 95°
SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:		SAMPLES SHIPPED TO: Columbia Analytical Services - Podding California/Microscope - Bittchurg BA						
MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:								
SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:				D/TDLICK	, De	ue Mo	ANIC	C COMMEDOIAL VEHICLE
SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:	_		CA	- CIROCA	\	05 <u>M</u> Pt	AINE	COMMERCIAL VEHICLE
	<u> </u>							

JOB No. <u>6301-05-0016</u>
JOB NAME <u>DSCR - OU8- Semi-Annual</u> Monitoring
DATE 7/20/65 TIME 1515
SAMPLING POINT: Dmw-31A
DEPTH

SAMPLING POINT: Dmw-31A					
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: DMW-3	11A-0705		
MATERIAL: 🛛 W	ATER ☐ SOIL		SLUDGE	□ отн	IER (LIST)
TYPE: 🛛 GI	POSITE	OTHER (LIST)	l		
HAZARDOUS?: TYE	s 🛛 NO		UNKNOWN		
CONTAIN		NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME	;	PREPARAT		
VOA VIAŁ	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool		Methane, ethane, ethene by RSK- 175
Amber	250 ml	18	H₂SO₄ to pH<2,Coo	ol to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	;	CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	of to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	•	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1,E300.0
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 mi	1	H <sub>3</sub> PO <sub>4</sub> to pH<2, Co	ol to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
COMMENTS: (WELL PU	RGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; CO	LOR, ETC	2.)
FIELD MEASUREMENTS					
PARAMETER	EQUIPM	ENT I.D.	RESULTS (U	NITS)	COMMENTS
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFORMATION	WEATHER_	Zartly clou	dy A	IR TEMPE	RATURE 950
SAMPLES SHIPPED TO: SPECIAL HANDLING: Fe		J Services – Redd	J		
MODE OF SHIPMENT:	MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☐ PLANE ☐ COMMERCIAL VEHICLE				
QA/QC	$\Lambda$	,			
SAMPLE COLLECTED BY: Why SAMPLING OBSERVED BY:					

JOB No. <u>6301-05-0016</u>
JOB NAME <u>DSCR – OU8- Semi-Annual</u> Monitoring
DATE 7/20/05 TIME 1530
SAMPLING POINT: DMW-30A
DEPTH

				DEPTH		
SAMPLE INFORMATION	N SAMPLE I.D. N	0.: DMW - 30	7A-0705			
MATERIAL: 🗵	WATER SOIL	ER SOIL		🗌 ОТН	IER (LIST)	
TYPE:	GRAB CON	//POSITE	OTHER (LIST)		·	
HAZARDOUS?:	YES NO		UNKNOWN			
	TAINER	NUMBER	PRESERVAT	IVE/	COMMENTO	
TYPE	VOLUME	NOMBER	PREPARATI	ON	COMMENTS	
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK- 175	
Amber	250 ml	10	H₂SO₄ to pH<2,Coo	ol to 4°C	TOC by E 415.1	
VOA VIAL	40 mł	3	Cool to 4°C		CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1,E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020	
Amber	250 ml	1	H <sub>3</sub> PO <sub>4</sub> to pH<2, Co	ol to 4°C	Volatile Fatty Acids by D1552	
VOA VIAL	20 ml	1	None		Hydrogen by AM 20	
	PURGING VOLUME: SA		RANCE; ODOR; COI	LOR, ETC	5.)	
TOTAL PUR	GE 4.5 GALLON	J				
FIELD MEASUREMENTS	s					
PARAMETER	FOUNDA	IENT LD	DECL!! 70 (1)	UTO)	1	
PARAMETER	EQUIPIV	IENT I.D.	RESULTS (UI	VIIS)	COMMENTS	
	See asso	ciated purge for	m for sampling detai	I		
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COL	OR, ETC	.)	
SAMPLES CL	EAR, NO ODOR					
GENERAL INFORMATION WEATHER HAZY, HOTO HUMID AIR TEMPERATURE 90'S					RATURE 90 S	
SAMPLES SHIPPED T	SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA					
	SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT		< □ B	JS 🛛 PL	ANF	COMMERCIAL VEHICLE	
QA/QC						
	SAMPLE COLLECTED BY: Dan Vun SAMPLING OBSERVED BY:					
	BY: Na Van	<del>-</del>	SAMPLING OBSE	RVED BY	·	
DISCREPANCIES:	DISCREPANCIES:					
•			<del></del>			

JOB No. <u>6301-05-0016</u>
JOB NAME DSCR — OU8- Semi-Annual Monitoring
DATE 1-20-05 TIME 1545
SAMPLING POINT: DMW -24A
DEPTH

				DEPTH	IG BOINT: DWM - 971	
SAMPLE INFORMATIO	N SAMPLE I.D. N	0.: DMW-24	A-0705			
<u> </u>	WATER SOIL		SLUDGE OTHER (LIST)		ER (LIST)	
_	YES NO	MF OOTTE		<del></del>		
	TAINER	<b> </b>	PRESERVAT	IVE/	·	
TYPE	VOLUME	NUMBER	PREPARATI		COMMENTS	
VOA VIAL	40 ml	3	HCI to pH<2, Cool	to 4°C	VOCs by SW8260B	
VOA VIAŁ	40 mł	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175	
Amber	250 ml	21	H₂SO₄ to pH<2,Coo	to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Coo	to 4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0	
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None		Hydrogen by AM 20	
comments: (well ~2 Gallons	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COI	LOR, ETC.	)	
FIELD MEASUREMENT	S					
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UI	VITS)	COMMENTS	
	See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFORMATION	N WEATHER S	mry hot, h	azy, homie Al	R TEMPE	RATURE Mid-90'S	
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT:   CAR/TRUCK  BUS  PLANE  COMMERCIAL VEHICLE						
QA/QC	<u> </u>				tan a serious	
SAMPLE COLLECTED DISCREPANCIES:	DBY: Luke Cla	<u> </u>	SAMPLING OBSE	RVED BY:		

JOB No. 6301-05-0016 JOB NAME DSCR - OU8- Semi-Annual

Monitoring

DATE 7/21/05 TIME 0800

				SAMPLIN DEPTH_	IG POINT:	
SAMPLE INFORMATION	SAMPLE I.D. N	O.: TB - <i>ბ</i> 72	105			
[	WATER SOIL		SLUDGE OTHER (LIST)			
	YES 🗵 NO		UNKNOWN		_	
TYPE	AINER	NUMBER	PRESERVAT		COMMENTS	
VOA VIAL	VOLUME 40 mi	2	PREPARATI HCl to pH<2, Cool			
VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B  Methane, ethane, ethene by RSK- 175	
VOA VIAL	40 ml	2	Cool to 4°C		CO <sub>2</sub> by RSK-175	
COMMENTS: (WELL F	PURGING VOLUME: SA	AMPLE APPEAR	ANCE; ODOR; COL	LOR, ETC.		
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UI	NITS)	COMMENTS	
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
GENERAL INFORMATIO	N WEATHER	Sunny	AI	R TEMPE	RATURE 75°F	
SAMPLES SHIPPED TO SPECIAL HANDLING: <u>F</u> MODE OF SHIPMENT:	O: <u>Columbia Analytical S</u> FedEx	Services - Califor		ANE	COMMERCIAL VEHICLE	
QA/QC		<u>.</u>				
SAMPLE COLLECTED DISCREPANCIES:	BY: Daniel Ho	wand_	SAMPLING OBSE	RVED BY:		

JOB No. 6301-05-0016

JOB NAME DSCR - OU8- Semi-Annual Monitoring

DATE 7/21/05 TIME 9/0

SAMPLING POINT: OS72 MW-1

DEPTH

				DEPTH .	
SAMPLE INFORMATION	ON SAMPLE I.D. NO	D. OSFAM	W-1-0705	·	
MATERIAL:	X WATER ☐ SOIL		SLUDGE	□ ot⊦	IER (LIST)
TYPE:	☐ GRAB ☐ COM	IPOSITE	OTHER (LIST)		
HAZARDOUS?: [	]YES ⊠NO		UNKNOWN		
	TAINER	NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME		PREPARATI	ION	
VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK- 175
Amber	250 ml	11	H₂SO₄ to pH<2,Coo	ol to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	ol to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1,E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 mt	1	H₃PO₄ to pH<2, Co	ol to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 mł	1	None		Hydrogen by AM 20
1					
COMMENTS: (WELI	L PURGING VOLUME: SA	AMPLE APPEAR	L RANCE; ODOR; CO	LOR, ETC	5.)
PARAMETER	R EQUIPM	ENT I.D.	RESULTS (UI	NITS)	COMMENTS
	See asso	ciated purge for	m for sampling detai	ł	
COMMENTS: (WELL	L PURGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COI	LOR, ETC	.)
GENERAL INFORMATI	ON WEATHER 5	wany, de	Par A	IR TEMPE	RATURE Low 90's
SAMPLES SHIPPED	TO: Columbia Analytical S	∫' Services – Boddi	ina California/Missa	rooma F	Dittohura DA
SPECIAL HANDLING		reivices - Negai	rig, Gamornia/ IVICEO	iseeps – F	nisburg, PA
MODE OF SHIPMEN		·	10 M	A N I I	
QA/QC	1. GCANTROCK	:в	JS 🔀 PL	ANE	COMMERCIAL VEHICLE
			•		
SAMPLE COLLECTE	DBY: AND	V/	SAMPLING OBSE	RVED BY	•
DISCREPANCIES:		<u>//</u>			
		72			

JOB No. 6301-05-0016

JOB NAME DSCR - OUS Semi-Annual Monitoring

DATE 1-21-05 TIME 1930

SAMPLING POINT: NWA WP-7

				DEPTH_	
SAMPLE INFORMAT	FION SAMPLE I.D. I	901 AWM::04	-7-0705		
MATERIAL:	☑ WATER ☐ SO	•	SLUDGE	□отн	IER (LIST)
TYPE:	⊠ GRAB □ CO	MPOSITE	OTHER (LIST)		
HAZARDOUS?:	☐ YES ☑ NO	1	UNKNOWN		
Co	ONTAINER	NUMBER	PRESERVAT	IVE/	COMMENTS
TYPE	VOLUME	HOMBER	PREPARATI	ON	COMMENTS
VOA VIAL	40 mi	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCI to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK- 175
Amber	250 ml	ا هر	H₂SO₄ to pH<2,Coo	I to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1
Poly	500 ml	1	Coof to 4°C		Alkalınity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1,E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Coo	of to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 ml	1	H <sub>3</sub> PO <sub>4</sub> to pH<2, Coo	of to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
3 gallons +		SAMPLE APPEAI	RANCE; ODOR; COI	LOR, ETC	;.) 
FIELD MEASUREME	NTS				
PARAMET	ER EQUIP	MENT I.D.	RESULTS (UI	NITS)	COMMENTS
			rm for sampling detai		
	etected, relatively		RANCE; ODOR; COI	LOR, ETC	·.)
GENERAL INFORMA	ATION WEATHER	Sunny, hot	hazy Al	IR TEMPE	RATURE 903
SAMDLES SUIDD		' '	/		
	ED TO: Columbia Analytica	i Services – Kedo	шу, Сашогліа/ МІСГО	seeps – F	riusburg, PA
SPECIAL HANDLI		~··			
MODE OF SHIPM	ENT: CAR/TRU	CK DB	SUS 🖾 PL	ANE	COMMERCIAL VEHIC
SAMPLE COLLEC		lark	SAMPLING OBSE	RVED BY	;
DISCREPANCIES:					

JOB No. <u>6301</u>	-05-00	116			
JOB NAME DSCR - OU8- Semi-Annual					
Monitoring 1					
DATE 721	05	_ TIME 0945			
	·	4440 15			
SAMPLING PO	DINT:	mwanp-15			
DEDTH MALE	ATTYO	DUMA			

	KEPUK	l			NG POINT: MUDANP-15		
SAMPLE INFORMATION	SAMPLE LD NO	2:00:00		DEPTH_	DOMUMBO BUMP		
	SAMPLE I.D. NO	•		[ <sup>m</sup> ] 0711	,		
MATERIAL: WAT	_		SLUDGE		ER (LIST)		
. TYPE: ⊠ GRA		POSITE	OTHER (LIST)				
HAZARDOUS?: YES	<del></del>		UNKNOWN				
CONTAINE TYPE	R VOLUME	NUMBER	PRESERVAT PREPARAT		COMMENTS		
VOA VIAL	40 ml	9	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B		
VOA VIAL	40 ml	3	HCl to pH<2, Coo		Methane, ethane, ethene by RSK-175		
Amber	2500 ml	3	H₂SO₄ to pH<2,Coo	ol to 4°C	10C by E 415.1		
VOA VIAL	40 ml	3	Coof to 4°C		CO₂ by RSK-175		
Poly	500 ml	13	ZnAc & NaOH, Ced	ol to 4°C	Sulfide by E376.1		
Poly	500 ml	13	Cool to 4°C	:	Alkalinity,NO <sub>3</sub> , SO <sub>4</sub> , C by E310.1, E300.0		
Poly	500 ml	13	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020		
Amber	250 ml	23	Cool to 4°C	:	Volatile Fatty Acids by D1552		
VOA VIAL	20 mt	1	None		Hydrogen by AM 20		
COMMENTS: (WELL PURG	COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
FIELD MEASUREMENTS			· · · · · · · · · · · · · · · · · · ·				
PARAMETER	EQUIPM	ENT I.D.	RESULTS (U	NITS)	COMMENTS		
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)							
36AL		Char News					
GENERAL INFORMATION	WEATHER	HAZY HAT HE	A CHM	IR TEMPE	RATURE 92°		
SAMPLES SHIPPED TO: CC		<u> Services – Reddi</u>	ing, California/ Micro	oseeps – F	Pittsburg, PA		
SPECIAL HANDLING: FedE	X						
MODE OF SHIPMENT:	☐ CAR/TRUCK	K 🔲 BI	US 🛛 PL	ANE	☐ COMMERCIAL VEHICLE		
QA/QC	1						
SAMPLE COLLECTED BY: DISCREPANCIES:	B, MEKNIGHT		SAMPLING OBSE	RVED BY	+. CALLMAN		

JOB No. 6301-05-0016

JOB NAME DSCR - OU8- Semi-Annual Monitoring

DATE 7.21.05 TIME 0950

SAMPLING POINT: MWANP-21

						DEPTH_	DEDICATED DEPTH
SA	MPLE INFORMATION	1	SAMPLE I.D. NO	D.: MWAN	1P-21-0705		
	MATERIAL:	WATE	R ☐ SOIL		SLUDGE	□отн	ER (LIST)
	TYPE:	GRAB	□сом	POSITE	OTHER (LIST)		
	HAZARDOUS?:	YES	⊠ NO		□ NKNOMN		
		AINER		NUMBER	PRESERVAT		COMMENTS
-	TYPE VOA VIAL		VOLUME 40 mł	3	PREPARAT		
$\vdash$	VOA VIAL	<u> </u>	40 ml	3	HCI to pH<2, Coo		VOCs by SW8260B  Methane, ethane, ethene by
-	Amber		250 ml		H₂SO₄ to pH<2,Co		RSK-175
┢	VOA VIAL		40 ml	3	Cool to 4°C		TOC by E 415.1
$\vdash$	Poly		500 ml	1	ZnAc & NaOH, Coo		CO₂ by RSK-175 Sulfide by E376.1
卜	Dalu		500 1	4			Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by
	Poly		500 ml	1	Cool to 4°C	•	E310.1, E300.0
	Poly		500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
	VOA VIAL		20 ml	1	None		Hydrogen by AM 20
4				-			
Ų		ļ					
-	<del> </del>						
L							
(					ARANCE; ODOR; CO		•
			peged, sav	MPLE COU	press and o	polices	<u> </u>
FIE	LD MEASUREMENTS	<u> </u>					
	PARAMETER		EQUIPM	ENT I.D.	RESULTS (U	NITS)	COMMENTS
			See assoc	iated purge f	orm for sampling detail	l	
(					ARANCE; ODOR; CO		•
_	≈4.0 GALLON	5 P.	PAGED , X	tmpce co	DIDBLESS AND	opoeu	FSS
GE	NERAL INFORMATIO	N	WEATHER 5	OF YOUNG	HAZY A	IR TEMPE	RATURE <u>95-100 °F</u>
5	AMPLES SHIPPED T	O: Colu	ımbia Analytical S	<b>ਮਿਲ</b> ervices – Re	dding, California/ Micro	seens – Pi	ittshura PA
	SPECIAL HANDLING:				, , , , , , , , , , , , , , , , , , ,	ососро т	MODERA, 171
	ODE OF SHIPMENT:		☐ CAR/TRUCK		BUS 🖾 PL	ANF	COMMERCIAL VEHICLE
QA						·	
_							
	AMPLE COLLECTED	RA:	I. WITTEN	in Pu	_ SAMPLING OBSE	RVED BY:	
U	ISCREPANCIES:			·		···	

JOB No. <u>6301-05-0016</u>	
JOB NAME <u>DSCR - OUB</u> Monitoring	- Semi-Annual
DATE 7/21/05	TIME 0946
SAMPLING POINT: Mu	14-901AC
DEPTH DEDICATED DUMP	io well

					TED DUMP 10 WELL	
SAMPLE INFORMATION	N SAMPLETON	0:00:00		<u> </u>	100 party to cert	
MATERIAL:	WATER ☐ SOIL	•	P- 14-0705 □ SLUDGE [ □ OTHER (LIST)_	•	_IST)	
HAZARDOUS?: [	]YES ⊠ NO		UNKNOWN			
TYPE	TAINER VOLUME	NUMBER	PRESERVATIVE PREPARATION		COMMENTS	
VOA VIAL	40 mi	3	HCl to pH<2, Cool to 4	4°C	VOCs by SW8260B	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to	4°C Me	ethane, ethane, ethene by RSK-175	
Amber	250 mi	@x	H₂SO₄ to pH<2,Cool to	4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Cool to	4°C	Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C	A	Ralinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0	
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to	o 4°C	Tot. Metals by 6010B,7470A,6020	
VOA VIAL	20 ml	1	None		Hydrogen by AM 20	
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  WATER IS CLOSED / FO ONDER.  FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS						
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
GENERAL INFORMAT	ON WEATHER!	tox/HUMID	AIR	TEMPERAT	URE <u>~ 90°</u>	
	SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE					
QA/QC		· · · · · · · · · · · · · · · · · · ·	<u></u>	\ \		
SAMPLE COLLECTE DISCREPANCIES:			SAMPLING OBSERV	ED BY:	<u> </u>	

JOB No. <u>6301-05-0016</u>	
JOB NAME DSCR - OU8- Semi-A	nnual
Monitoring	
DATE 7/21/05 TIME !	
SAMPLING POINT: MWANP-	100
DEPTH 43' NWAN	DU

			DEPTH	43
SAMPLE INFORMATION	SAMPLE I.D. NO	D. MWAN	1P-12D-0705	
MATERIAL:	WATER	-	SLUDGE OTH	HER (LIST)
TYPE:	GRAB COM	POSITE	OTHER (LIST)	
HAZARDOUS?:	YES 🔲 NO		UNKNOWN	
·	AINER	NUMBER	PRESERVATIVE/	COMMENTS
TYPE	VOLUME		PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 mi	3	Cool to 4°C	CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	Hydrogen by AM 20
COMMENTS: (WELL!	PURGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COLOR, ETC	:.)
107AL PO	IRUE 4.0 GALL	<u>ans</u>	<del></del>	
FIELD MEASUREMENTS	S			
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS
	See assoc	piated purge form	n for sampling detail	
_	PURGING VOLUME: SA LEAR WITH NO (		RANCE; ODOR; COLOR, ETC	.)
GENERAL INFORMATIO	· · · · · · · · · · · · · · · · · · ·	24. HOT + HU.	M D AIR TEMPE	ERATURE 90'S
SAMPLES SHIPPED T	O: Columbia Analytical S	Services – Reddi	ng, California/ Microseeps – P	
SPECIAL HANDLING:	FedEx			
MODE OF SHIPMENT:	: CAR/TRUCK	С □В∪	JS 🛛 PLANE	COMMERCIAL VEHICLE
QA/QC				
SAMPLE COLLECTED	BY: Der Vo		SAMPLING OBSERVED BY	=

JOB No. <u>6301-05-0016</u>	
JOB NAME DSCR - OU8- Semi-Annua	al .
Monitoring	-
DATE TIME 101	11

DATE <u>+/2//65</u> SAMPLING POINT: MWANP-3 DEPTH SAMPLE I.D. NO .: MWANP-13-0705 SAMPLE INFORMATION **⊠** WATER MATERIAL: SOIL OTHER (LIST) ☐ SLUDGE TYPE: **⊠** GRAB ☐ COMPOSITE OTHER (LIST) ☐ YES HAZARDOUS?: ⊠ NO ■ UNKNOWN CONTAINER PRESERVATIVE/ NUMBER **COMMENTS** TYPE VOLUME **PREPARATION VOA VIAL** 40 ml HCl to pH<2. Cool to 4°C VOCs by SW8260B Methane, ethane, ethene by **VOA VIAL** HCl to pH<2, Cool to 4°C 40 ml 3 RSK-175 H<sub>2</sub>SO<sub>4</sub> to pH<2,Cool to 4°C Amber 250 ml × 1 TOC by E 415.1 **VOA VIAL** 40 ml 3 Cool to 4°C CO2 by RSK-175 Poly 500 ml ZnAc & NaOH, Cool to 4°C Sulfide by E376.1 Alkalinity, NO3, SO4, Cl by Poly 500 ml 1 Cool to 4°C E310.1, E300.0 Tot. Metals by Poly 500 ml 1 HNO<sub>3</sub> to pH<2, Cool to 4°C 6010B,7470A,6020 VOA VIAL 20 ml None Hydrogen by AM 20 COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.) I water close a colonless in **FIELD MEASUREMENTS PARAMETER EQUIPMENT I.D.** RESULTS (UNITS) COMMENTS See associated purge form for sampling detail COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.) WEATHER hot sunny hund AIR TEMPERATURE ~920 F **GENERAL INFORMATION** SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA SPECIAL HANDLING: FedEx MODE OF SHIPMENT: CAR/TRUCK BUS □ PLANE COMMERCIAL VEHICLE QA/QC D. Knaul SAMPLING OBSERVED BY: SAMPLE COLLECTED BY: \_\_\_ DISCREPANCIES:

JOB No. <u>6301-05-0016</u>	
JOB NAME DSCR - OUR Monitoring	3- Semi-Annual
DATE :7.21.05	TIME [4]
SAMPLING POINT: nu	JANP-10
DEPTH DEDICATE	> DEPTH

					DEDICATED DEPTH
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: M., 7.A./ ) F	2-10-0705	_	
	WATER SOIL	- •	SLUDGE	[] ОТНІ	ER (LIST)
TYPE:	GRAB COM	IPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🖾 NO		UNKNOWN		
CONT	AINER	NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME	TAOMBEN	PREPARATI	ON	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	<i>J8</i> ' l	H₂SO₄ to pH<2,Coo	ol to 4°C	TOC by E 415.1
VOA VIAL	40 mt	3	Cool to 4°C	,	CO <sub>2</sub> by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	-	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; CO	LOR, ETC	.)
270 GALLO	NS PURGED YOTH	the coud	PLESS AND	ODOPI	<b>ESS</b>
FIELD MEASUREMENTS	S	•			
PARAMETER	EQUIPM	ENT I.D.	RESULTS (U	NITS)	COMMENTS
	See asso	ciated purge form	n for sampling detail	1	
	PURGING VOLUME: SA				
~ 7.0 GAW	NS PUBBED TO	TAL, COL	oriess ant	> ODOP	JESS
GENERAL INFORMATIO		unny, Ho			RATURE 95-100°F
SAMDI ES SHIDDED I	O: Columbia Analytical S	' Sandaas Daddi	ina California/Miara	noone D	ittohura DA
SPECIAL HANDLING:		<u> ⊃ei Airēs — L/sdai</u>	ing, Camornia/ WICIL	occus - P	mspuig, FA
	•		10 🖾 🖂		
MODE OF SHIPMENT	: CAR/TRUC	< ☐ BI	JS 🗵 PL	ANE	COMMERCIAL VEHICLE
QA/QC					
SAMPLE COLLECTED	BY: TED WITTE	MANN	SAMPLING OBSE	RVED BY:	
DISCREPANCIES:	•				

	JOB No. <u>6301-05-0016</u>
	JOB NAME <u>DSCR – OU8- Semi-Annual</u> Monitoring
	DATE 1-21-05 TIME 1500
	SAMPLING POINT: MWANP-17
ı	DEDTU

	ILLI OIL	•			NG POINT: MWANP-17
SAMPLE INFORMATION	SAMDLE LD NO		2 17 2205	DEPTH_	
			7-17-0705	o	
	VATER SOIL		SLUDGE		IER (LIST)
	<del></del>	IPOSITE		)	
HAZARDOUS?: Y		····	UNKNOWN		<del></del>
CONTAI TYPE	VOLUME	NUMBER	PRESERVAT PREPARAT		COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Coo	I to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Coo	I to 4°C	Methane, ethane, ethene by RSK- 175
Amber	250 ml	81	H₂SO₄ to pH<2,Co	ol to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	;	CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cod	ol to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	;	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1,E300.0
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 ml	1	H <sub>3</sub> PO <sub>4</sub> to pH<2, Co	of to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
	<b></b>				
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  ~ B Gra / ons tota/					
FIELD MEASUREMENTS					
PARAMETER	EQUIPM	ENT I.D.	RESULTS (U	NITS)	COMMENTS
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME; SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  No clor detected relatively clear.					
			1 2 1 2 2/2		90'6
GENERAL INFORMATION	WEATHER _3	smy hat	MAZY, NUMICIA	JR TEMPE	RATURE
SAMPLES SHIPPED TO	: Columbia Analytical S	Services – Redd	ing, California/ Micro	oseeps – F	Pittsburg, PA
SPECIAL HANDLING: Fe	edEx	·		<u></u>	
MODE OF SHIPMENT:	☐ CAR/TRUCK	⟨ □В	US 🛛 PL	.ANE	COMMERCIAL VEHICLE
QA/QC	1. 2.				
SAMPLE COLLECTED B	IV: Luke Cla	erk	SAMPLING OBSE	RVED BY	÷
DISCREPANCIES:					
· · · · · · · · · · · · · · · · · · ·	<del></del>	····			

JOB No. 6301-05-0016				
JOB NAM Monitoring	E <u>D</u>	SCR -	OU8- Semi-Annual	
DATE 1		86	TIME 1520	
	G F	OINT:	MWA <b>NP</b> - 23	
DEPTH DEGICATIO AMP				

,	IXEI OIX	•		SAMPLIN DEPTH_	DEGINATION PARP 23
SAMPLE INFORMATION	SAMPLE I.D. NO	O. MWANP	-23-0705		
MATERIAL:	WATER SOIL	-	SLUDGE	□ отн	ER (LIST)
TYPE:	GRAB COM	POSITE	OTHER (LIST)		
HAZARDOUS?:	YES ⊠ NO		UNKNOWN		
CONT		NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME		PREPARAT		
VOA VIAL	40 m!	3	HCl to pH<2, Cool		VOCs by SW8260B  Methane, ethane, ethene by
VOA VIAL	40 ml	3	HCl to pH<2, Cool		RSK-175
Amber	250 ml	1 21	H₂SO₄ to pH<2,Coo		TOC by E 415.1
VOA VIAL Poly	40 ml	3	Cool to 4°C ZnAc & NaOH, Coo		CO <sub>2</sub> by RSK-175 Sulfide by E376.1
1 3.7		·	2.000 0 100011, 000		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by
Poty	500 mt	1	Cool to 4°C	; 	E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None	<del>-</del>	Hydrogen by AM 20
			<u> </u>		
COMMENTS: (WELL F	apos	•	L RANCE; ODOR; CO	LOR, ETC	.)
FIELD MEASUREMENTS					
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UI	NITS)	COMMENTS
See associated purge form for sampling detail  N 3 (MELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFORMATION	N WEATHER		Al	R TEMPE	RATURE
SAMPLES SHIPPED TO	D: <u>Columbia Analytical S</u>	Services - Redd	ing, California/ Micro	seeps – P	ittsburg, PA
SPECIAL HANDLING: F	FedEx				
MODE OF SHIPMENT:	☐ CAR/TRUCK	С □В	US 🛛 PL	ANE	COMMERCIAL VEHICLE
QA/QC					
AMPLE COLLECTED DISCREPANCIES:	BY: BRAD MSKU	<del>&gt;</del>	SAMPLING OBSE	RVED BY:	

JOB No. 6301-05-0016
JOB NAME DSCR - OU8- Semi-Annual
Monitoring
DATE 7/21/05 TIME 1535
SAMPLING POINT: MUDANP-18
DEPTH 22'

				DEPTH_	22
SAMPLE INFORMATION	SAMPLE I.D. NO	OAWM:C	P-18-0705		
MATERIAL:	WATER SOIL		SLUDGE	OTH	ER (LIST)
TYPE:	GRAB COM	POSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🛛 NO		UNKNOWN		
	AINER	NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME	HOWBER	PREPARATI	ON	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	81	H₂SO₄ to pH<2,Coo	l to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 mt	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cod	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COI	LOR, ETC.	)
TOTAL PURGE 5.5 GALLON					
FIELD MEASUREMENTS					
PARAMETER	FOLIPM	ENT I.D.	RESULTS (UI	WITC)	COMMENTS
TANAMETER	L COILIN	ENT I.D.	RESULTS (UI	NII O)	COMMENTS
	See assoc	ciated purge form	n for sampling detail		
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COL	OR, ETC.	)
SAMPLES CO	EAR WITH NO OD	OR			,
GENERAL INFORMATIO	WEATHER H	AZ-1, HOT - HO	UMID AI	R TEMPEI	RATURE 90'S
SAMPLES SHIPPED T	O: Columbia Analytical S	Services – Redd	ino. California/ Micro	seens – Pi	ittsburg PA
SPECIAL HANDLING:			,		
MODE OF SHIPMENT		(	US 🖾 PL/	^NE	☐ COMMERCIAL VEHICLE
QA/QC		, <u>, , , , , , , , , , , , , , , , , , </u>	23 ZJFL/	TI VL	COMMENCIAL VEHICLE
	- Dar M				
	BY: DN Vn		SAMPLING OBSE	RVED BY:	American Ame
DISCREPANCIES:				····	

JOB No. <u>6301-05-0016</u>
JOB NAME <u>DSCR - OU8- Semi-Annual</u> Monitoring
DATE 7-24-05 TIME 1535
SAMPLING POINT: MWANP-3
DEPTH

<u></u>			DEPTH_	
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: MWAN	P-3-0705	
MATERIAL:	WATER ☐ SOIL	•	SLUDGE OTH	IER (LIST)
TYPE:	GRAB COM	IPOSITE	OTHER (LIST)	
HAZARDOUS?:	YES 🛛 NO		UNKNOWN	
CONT	AINER	NUMBER	PRESERVATIVE/	COMMENTO
TYPE	VOLUME	NOWBER	PREPARATION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK- 175
Amber	250 ml	احر	H₂SO₄ to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1
Poly	500 mt	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by .E310.1,E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 ml	1	H₃PO₄ to pH<2, Cool to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 mł	1	None	Hydrogen by AM 20
			,	
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)				
FIELD MEASUREMENTS	3	<del>-</del>		
PARAMETER	PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS			
See associated purge form for sampling detail				
	······································			
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)				
GENERAL INFORMATIO	N WEATHER	sunny, k	nat AIR TEMPE	RATURE high 90'5
SAMPLES SHIPPED T	O: Columbia Analytical 9	J' Services – Reddi	ing, California/ Microseeps P	) Dittabura DA
SPECIAL HANDLING:		DETVICES - INCOM	ing, Camorna Microsceps - F	misburg, FA
			71 D. A.F.	
MODE OF SHIPMENT	CAR/TRUCK	BI	US PLANE	COMMERCIAL VEHICLE
QA/QC	/			
SAMPLE COLLECTED	BY: My CU	20	SAMPLING OBSERVED BY	·
DISCREPANCIES:				

JOB No. 6301-05-0016

JOB NAME DSCR - OU8- Semi-Annual Monitoring

DATE 7-21-05 TIME 1200

SAMPLING POINT: MWANP-3

				SAMPLII DEPTH	NG POINT: MWANP-3
SAMPLE INFORMATION	SAMPLELD N	J: NI 8 7/	JP-1-0705	DEF III	
MATERIAL: 🔲 V	WATER SOIL	Ū	SLUDGE		ER (LIST)
HAZARDOUS?:	_	" OOME			
CONTA			PRESERVAT	IVF/	
TYPE	VOLUME	NUMBER	PREPARATI		COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK- 175
Amber	250 ml	#1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Coo	I to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1 ,	ZnAc & NaOH, Coo	to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1,E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cod	ol to 4°C	Tot. Metals by 6010B,7470A,6020
Amber	250 ml	1	H₃PO₄ to pH<2, Coo	l to 4°C	Volatile Fatty Acids by D1552
VOA VIAL	20 m!	1	None		Hydrogen by AM 20
COMMENTS: (WELL PI	URGING VOLUME: SA	AMPLE APPEAF	RANCE; ODOR; COL	.OR, ETC	.)
FIELD MEASUREMENTS					
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UN	VITS)	COMMENTS
COMMENTS: (WELL PO			m for sampling detail		)
GENERAL INFORMATION	WEATHER N	เอ๋ารบกกน	All	R TEMPE	RATURE high 90's
SAMPLES SHIPPED TO		7			V
SPECIAL HANDLING: FO	edEx				
MODE OF SHIPMENT:	☐ CAR/TRUCK	(	JS ⊠ PLA	ANE	COMMERCIAL VEHICLE
QA/QC		$\cap$			
SAMPLE COLLECTED E	BY: hong (	Wy .	SÀMPLING OBSER	RVED BY:	

JOB No. 6301-05-0016
JOB NAME_DSCR - OU8- Semi-Annual
Monitoring
DATE 1/2/05 TIME 1615
SAMPLING POINT: USGS-5
DEPTH <u>Wo'</u>

				DEPTH_	Wa'		
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: 1/SC S	5 0705				
MATERIAL:	———I WATER ☐ SOIL	0000	☐ SLUDGE	Потн	ER (LIST)		
		IPOSITE	OTHER (LIST)				
	YES NO						
	AINER		PRESERVAT	IVF/			
TYPE	VOLUME	NUMBER	PREPARATI		COMMENTS		
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B		
VOA VIAL	40 mi	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175		
Amber	250 ml	1	H₂SO₄ to pH<2,Cool to 4°C		TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175		
Poly	500 ml	1	ZnAc & NaOH, Coo	I to 4°C	Sulfide by E376.1		
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Ci by E310.1, E300.0		
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Coo	of to 4°C	Tot. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None		Hydrogen by AM 20		
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)							
FIELD MEASUREMENTS	3						
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UN	VITS)	COMMENTS		
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)							
GENERAL INFORMATIO	N WEATHER	HOT / HUMD		R TEMPER	RATURE ~/bo*		
SAMPLES SHIPPED T SPECIAL HANDLING:	O: <u>Columbia Analytical S</u> FedEx	ervices – Reddi	ng, California/ Micro	seeps - Pi	ttsburg, PA		
MODE OF SHIPMENT:	☐ CAR/TRUCK	В	JS 🖾 PL/	ANE	COMMERCIAL VEHICLE		
QA/QC							
SAMPLE COLLECTED DISCREPANCIES:	BY: BAL		SAMPLING OBSE	RVED BY:	DK		

JOB No. <u>6301-05-0016</u>	
JOB NAME <u>DSCR – OU8- Semi-Annua</u> Monitoring	<u>ii</u>
DATE 7/21/05 TIME /6:	27
SAMPLING POINT: USGS-2	
1	

				DEPTH_	0262-2		
SAMPLE INFORMATION	SAMPLE I.D. NO	D: USGS-2	-0705				
MATERIAL:	WATER SOIL		SLUDGE	□ отн	ER (LIST)		
TYPE:	GRAB ☐ COM	IPOSITE	OTHER (LIST)				
HAZARDOUS?:	YES 🛛 NO	-	UNKNOWN				
	AINER	NUMBER	PRESERVAT		COMMENTS		
TYPE	VOLUME		PREPARATI				
VOA VIAL	40 mt	3	HCl to pH<2, Cool		VOCs by SW8260B		
VOA VIAL	40 ml	3	HCl to pH<2, Cool		Methane, ethane, ethene by RSK-175		
Amber	250 ml	1	H₂SO₄ to pH<2,Coo	I to 4°C	TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175		
Poly	500 ml	<u>1</u> 	ZnAc & NaOH, Coo	to 4°C	Sulfide by E376.1		
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0		
. Poly	500 ml	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None		Hydrogen by AM 20		
COMMENTS: (WELL I	PURGING VOLUME: SI w/ slight ye	MPLE APPEAR	RANCE; ODOR; COL	LOR, ETC.	)		
FIELD MEASUREMENTS							
PARAMETER	EQUIPM	ENTID	RESULTS (UI	UITQ\	COMMENTS		
See associated purge form for sampling detail							
COMMENTS: (WELL F	COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
GENERAL INFORMÁTIO	N WEATHER H	OT hum	id Sunny Al	R TEMPE	RATURE <u>~ 95°</u> F		
SAMPLES SHIPPED T SPECIAL HANDLING: MODE OF SHIPMENT:		<del></del>			itsburg, PA		
QA/QC		,		44	- COMMENCIAL VEHICLE		
	BY: D. Knaul		SAMPLING OBSEI	RVED BY:			

JOB No. 6301-05-0016

JOB NAME DSCR - OU8- Semi-Annual Monitoring

DATE 7/22/05 TIME-0800

DATE 7/22/05 TIME 0800 SAMPLING POINT:

				DEPTH_	NA			
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: TB - 072	205					
MATERIAL: ⊠ V	VATER SOIL		☐ SLUDGE	□ отн	ER (LIST)			
TYPE:	GRAB COM	POSITE	OTHER (LIST)					
HAZARDOUS?: 🔲 Y	res 🛛 No		UNKNOWN					
CONTA		NUMBER	PRESERVAT		COMMENTS			
TYPE	VOLUME		PREPARAT					
VOA VIAL	40 ml	2	HCi to pH<2, Cool		VOCs by SW8260B  Methane, ethane, ethene by RSK-			
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	175			
VOA VIAL	40 ml	2	Cool to 4°C		CO₂ by RSK-175			
				,				
					···········			
COMMENTS: (WELL PI	IRGING VOLUME: SA	MOLE ADDEAD	ANCE ODOP CO	LOB ETC	\			
OOMMENTO. (WEEL)	ONGING VOLUME. OF	WIFEE AFFEAR	WHOE, ODON, CO	LON, ETC.	;			
FIELD MEASUREMENTS								
I ILLU INLAGUNEMEN 19								
PARAMETER	EQUIPM	ENT I.D.	RESULTS (U	NITS)	COMMENTS			
	Soo neco	oisted surse for	m for nompling data:	,	·			
See associated purge form for sampling detail								
0011151170 011511 01					,			
COMMENTS: (WELL PL	JRGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COI	LOR, ETC.	)			
GENERAL INFORMATION	WEATHER	Sunny	Al	IR TEMPE	RATURE 75°F			
SAMPLES SHIPPED TO	: Columbia Analytical S	ervices - Califor	nia					
SPECIAL HANDLING: Fe								
MODE OF SHIPMENT:	☐ CAR/TRUCK	: В	JS 🔻 🛛 PL	ΔNE	COMMERCIAL VEHICLE			
QA/QC			ZYIE.	7 11 <b>7</b> Lp.	C COMMENCIAL VEHICLE			
	-JQ -1141	$\cap$						
SAMPLE COLLECTED B	BY: Daniel Ho	way	SAMPLING OBSE	RVED BY:				
DISCREPANCIES:								

JOB No. 6301-05-0016	
JOB NAME_DSCR - OL Monitoring	J8- Semi-Annual
DATE 7.22-05	TIME 1040
SAMPLING POINT: MI	WANP-27

				DEPTH_	22' BTOC		
SAMPLE INFORMATION	SAMPLE I.D. N	O.: MWAN	P-27-0705				
MATERIAL: ⊠WATER ☐ SOIL					ER (LIST)		
TYPE:	GRAB COM	MPOSITE	OTHER (LIST)				
HAZARDOUS?:	YES NO		UNKNOWN				
<del></del>	AINER	NUMBER	PRESERVATI	VE/	004445450		
TYPE	VOLUME		PREPARATIO	ON	COMMENTS		
VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B		
VOA VIAL	40 m)	3	HCI to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175		
Amber	250 ml	1	H₂SO₄ to pH<2,Cool	10 4°C	TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175		
Poly	500 ml	1	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1		
Pofy	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0		
Poly	500 mt	1	HNO₃ to pH<2, Cool to 4°C		Tot. Metals by 60108,7470A,6020		
VOA VIAL	20 ml	1	None		Hydrogen by AM 20		
					```		
	COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
& 6.5 GALLONS PURGED TOTAL, SAMPLE SUGHTLY TURBID, ODORUSS							
FIELD MEASUREMENTS							
PARAMETER	EQUIPMI	ENT I.D.	RESULTS (UN	ITS)	COMMENTS		
. See associated purge form for sampling detail							
COMMENTS: (WELL P	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLO	OR, ETC.)			
	S PURGED TOTA						
GENERAL INFORMATION					MATURE 10-95°F		
SAMPLES SHIPPED TO	D: <u>Columbia Analytical S</u>	, ervices – Reddir	og California/ Micros	eens - Pit	tshura PA		
SPECIAL HANDLING: F				oopo ik	100019,17		
MODE OF SHIPMENT:	☐ CAR/TRUCK	BU	IS ⊠ PLAI	NF I	COMMERCIAL VEHICLE		
QA/QC			- EXILA	{			
SAMPLE COLLECTED I		IA-NN	SAMPLING ODGED	VED DV	1 5-11		
	NONE	h- / 1	SAMPLING OBSER	AED RA: "	L. DONALD		

JOB N	o. <u>6</u>	301-	05-001	6
JOB Na Monitori		E <u>DS</u>	CR - 0	U8- Semi-Annual
DATE.		22	05	TIME 1030
SAMPL	IN	G PO	INT:-A	IWANP-25
DEPTH	ł	14.	82	

				DEPTH_	14.82			
SAMPLE INFORMATION	SAMPLE I.D. N	O.: MWANP	-2 <b>5</b> -0705					
MATERIAL:		<del></del>		ОТН	ER (LIST)			
TYPE:	GRAB COM	MPOSITE	OTHER (LIST)					
HAZARDOUS?:	YES 🛛 NO		UNKNOWN					
	AINER	NUMBER	PRESERVAT	IVE/	COMMENTS			
TYPE	VOLUME	NOMBER	PREPARATI	ON	COMMENTS			
VOA VIAL	40 mi	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B			
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175			
Amber	250 ml	1	H₂SO₄ to pH<2,Coo	I to 4°C	TOC by E 415.1			
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175			
Poly	500 ml	1	ZnAc & NaOH, Coot to 4°C		Sulfide by E376.1			
Poly	500 ml	1	Cool to 4°C		Alkatinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0			
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°C		Tot. Metals by 6010B,7470A,6020			
VOA VIAL	20 ml	20 ml 1 None			Hydrogen by AM 20			
	PURGING VOLUME: SA			OR, ETC.	)			
MATTER STARTED SARK BROWN CLEARED UP N 20 MW NO ODOR FRIM WITE								
FIELD MEASUREMENTS	FIELD MEASUREMENTS							
PARAMETER	EQUIPM	EQUIPMENT I.D.		viTS)	COMMENTS			
See associated purge form for sampling detail								
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)								
GENERAL INFORMATIO	N WEATHER P	C HAZY	MMID AIM	R TEMPER	RATURE 90°F			
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA								
		ervices – Regai	ng, California/ Micros	seeps – Pil	tsburg, PA			
SPECIAL HANDLING:								
MODE OF SHIPMENT:	☐ CAR/TRUCK	С В	JS ⊠PLA	NE	COMMERCIAL VEHICLE			
QA/QC								
SAMPLE COLLECTED	BY: BRAD MS NO	B4T	SAMPLING OBSER	RVED BY:	A awaway			

JOB No. 6301-05-0016

JOB NAME DSCR - OU8- Semi-Annual Monitoring

DATE 7-22-05 TIME 030

SAMPLING POINT: MWA NP-24

		-		Samplin Depth_	19.5		
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: MLJANI	2-24-0705				
MATERIAL: WATER SOIL			SLUDGE OTHER (LIST)		ER (LIST)		
TYPE:	GRAB COM	IPOSITE	OTHER (LIST)		, · · · · /		
HAZARDOUS?:	The state of the s		UNKNOWN				
	AINER	NUMBER	PRESERVAT	IVE/	COMMENTS		
TYPE	VOLUME	NOMBER	PREPARATI	ON	COMMENTS		
VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B		
VOA VIAL	40 mt	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175		
Amber	250 ml	71	H₂SO₄ to pH<2,Coo	I to 4°C	TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175		
Poly	500 ml	1	ZnAc & NaOH, Coo	l to 4°C	Sulfide by E376.1		
Poty	500 mł	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0		
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020		
VOA VIAL	20 ml	1	None		Hydrogen by AM 20		
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  FIELD MEASUREMENTS							
PARAMETER	EQUIPMI	ENT I.D.	RESULTS (UN	NTS)	COMMENTS		
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)							
GENERAL INFORMATIO	WEATHER	Sunny, h	1974 AH	R TEMPER	RATURE high 80's		
SAMPLES SHIPPED TO SPECIAL HANDLING: <u>F</u> MODE OF SHIPMENT:							
QA/QC	- CARVIROCK	□ BU	S 🛭 PLA	W/F	COMMERCIAL VEHICLE		
AMPLE COLLECTED DISCREPANCIES:	BY: Juny Co		SAMPLING OBSEF	RVED BY:			

JOB No. 6301-05-0016

JOB NAME\_DSCR - OU8- Semi-Annual Monitoring

DATE \_7/2z/os TIME \_645

SAMPLING POINT: MWANP-20

DEPTH\_DEDKAZED (LUMD IN WEIL

					DEDICATED DUMP IN WHIL
SAMPLE INFORMATION	N SAMBLELD	NO : MI = A : 10	00.0765	DEI III	EUCALED TOURS TO WELL
·····		NO.:MWANP-			
	WATER SC		SLUDGE		ER (LIST)
TYPE:	]GRAB □ CC	OMPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES NO		□ NNKNOMN		
	FAINER	NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME		PREPARATION		
VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B  Methane, ethane, ethene by
VOA VIAL	40 ml	3	HCl to pH<2, Cool		RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Coo	ol to 4°C	TOC by E 415.1
VOA VIAŁ	40 mJ	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Coo	ol to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C	:	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA VIAL	20 ml	1	None		Hydrogen by AM 20
<del></del>		<del> </del>			
	PURGING VOLUME:	SAMPLE APPEAR	RANCE; ODOR; CO	LOR, ETC	.)
FIELD MEASUREMENT	3				
PARAMETER	EQUIF	PMENT I.D.	RESULTS (U	NITS)	COMMENTS
COMMENTS, (MCI)			m for sampling detail		
•	PURGING VOLUME:		RANCE; ODOR; CO	LUR, EIC	.)
	<del></del> -				
GENERAL INFORMATION	WEATHER_	HOT/HEMID	A	IR TEMPE	RATURE ~85°
SAMPLES SHIPPED	ΓΟ: <u>Columbia Analytica</u>	l Services – Redd	ing, California/ Micro	oseeps – P	ittsburg, PA
0050141 (141101 010					
SPECIAL HANDLING:					
SPECIAL HANDLING: MODE OF SHIPMENT		СК 🔲 В	US 🛭 PL	ANE	COMMERCIAL VEHICLE
		СК 🗆 В	US 🛚 🖾 PL	ANE	COMMERCIAL VEHICLE
MODE OF SHIPMENT	: CAR/TRU	СК 🗍 В	US NPL		COMMERCIAL VEHICLE

JOB No. 6301-05-0016

JOB NAME DSCR - OU8- Semi-Annual Monitoring

DATE 7-22-05 TIME //00

SAMPLING POINT: MWANP-26

						DEPTH_	10 LOUAT MOHIMA-90
S	AMPLE INFORMATIO	N	SAMPLE I.D. N	D::MWAN	7-26-0705		
	MATERIAL:	WATE	R □ SOIL	-	☐ SLUDGE	□ отн	ER (LIST)
	TYPE:	] GRAB	☐ COM	MPOSITE	OTHER (LIST)		
	HAZARDOUS?:	] YES	⊠ NO		UNKNOWN		
		TAINER		NUMBER	PRESERVAT		COMMENTS
ŀ	TYPE		VOLUME		PREPARATI		COMMENTS
ŀ	VOA VIAL		40 ml	3	HCI to pH<2, Cool		VOCs by SW8260B
	VOA VIAL	<u> </u>	40 mt	3	HCl to pH<2, Cool		Methane, ethane, ethene by RSK-175
	Amber		250 ml	1	H₂SO₄ to pH<2,Coo	l to 4°C	TOC by E 415.1
-	VOA VIAL		40 ml	3	Cool to 4°C		CO₂ by RSK-175
-	Poly	<del>-</del>	500 ml	1	ZnAc & NaOH, Coo	l to 4°C	Sulfide by E376.1
	Poly		500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
	· Poly		500 ml	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020
1	VOA VIAL	<u> </u>	20 ml	1	None		Hydrogen by AM 20
_		<u> </u>					
Ŧ	<u> </u>	<del> </del>					
ŀ		-					
_	comments: (Well 4 gallons -	total	IG VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COL	OR, ETC.	)
FII	ELD MEASUREMENT	S					
	PARAMETER		EQUIPM	ENT I.D.	RESULTS (UN	VITS)	COMMENTS
		<u>.</u>			n for sampling detail		
	comments: (Well Noodor det	purgin t <u>ect-c</u>	G VOLUME: SA	, r	ANCE; ODOR; COL	OR, ETC.	
ĢE	NERAL INFORMATIO	NC	WEATHER 5	unny luty	humid All	R TEMPER	RATURE 90 S
,	SAMPLES SHIPPED T SPECIAL HANDLING: MODE OF SHIPMENT	<u>FedEx</u>		ervices – Reddii			
	VQC	· 	L. O. II VIIIOON	<u></u>			COMMERCIAL VEHICLE
	SAMPLE COLLECTED BY: UVe CLARK SAMPLING OBSERVED BY:						

JOB No. <u>6301-05-0016</u>
JOB NAME <u>DSCR – OU8- Semi-Annual</u> Monitoring
DATE 7/22/05 TIME 1/25
SAMPLING POINT: MWANP-19
DEPTH

					DEPTH_		
S	AMPLE INFORMATION	SAMPLE I.D. NO	D.: MWAN	P-19-0705			
	MATERIAL:	WATER SOIL		SLUDGE	OTH	ER (LIST)	
	TYPE:	GRAB COM	POSITE	OTHER (LIST)			
	HAZARDOUS?:	YES 🛛 NO		UNKNOWN			
	·	AINER	NUMBER	PRESERVAT		COMMENTS	
ŀ	TYPE	VOLUME	HOMBER	PREPARATI	ON	COMMENTS	
-	VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B	
	VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK-175	
	Amber	250 mi	21	H₂SO₄ to pH<2,Coc	ol to 4°C	TOC by E 415.1	
	VOA VIAL	40 mi	3	Cool to 4°C		CO₂ by RSK-175	
	Poly	500 ml	1	ZnAc & NaOH, Coo	l to 4°C	Sulfide by E376.1	
	Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>5</sub> , SO <sub>4</sub> , CI by E310.1, E300.0	
	Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°C		Tot. Metals by 6010B,7470A,6020	
	VOA VIAL	20 ml	1	None		Hydrogen by AM 20	
	COMMENTS: (WELL F	PURGING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; COI	LOR, ETC.	) unged	
FI	ELD MEASUREMENTS			•	•		
	PARAMETER	EQUIPM	ENT I.D.	RESULTS (UI	VITS)	COMMENTS	
	See associated purge form for sampling detail  COMMENTS: (WELL PURGING YOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
GI	ENERAL INFORMATIO	N WEATHER _	+ sunuv	humid Al	R TEMPE	RATURE N 90°F	
	SAMPLES SHIPPED TO SPECIAL HANDLING: MODE OF SHIPMENT:	O: <u>Columbia Analytical S</u> FedEx	ervices – Redd	ing, California/ Micro	seeps – Pi	•	
Q.	A/QC			67,0		L. COMMENCIAL VEHICLE	
)	SAMPLE COLLECTED BY: SAMPLING OBSERVED BY: DISCREPANCIES:						

JOB No. 6301-05-0016

JOB NAME DSCR - OU8- Semi-Annual Monitoring

DATE 7/22/05 TIME 1445

SAMPLING POINT: MWANP-16

DEPTH

DEPTH					0 / O.N. ( . ( ) O. ( ) NO ( )	
SAMPLE INFO	RMATION	SAMPLE I.D. NO	D.: MWANP-	16-0705		•
MATERIAL:	⊠ wati	ER 🗌 SOIL		SLUDGE		ER (LIST)
TYPE:	🖾 GRAI	В □сом	POSITE	OTHER (LIST)		
HAZARDOU	S?: TYES	⊠ NO		UNKNOWN		
	CONTAINER		NUMBER	PRESERVAT		COMMENTS
TYP	<del></del>	VOLUME		PREPARATI		
VOA VI		40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B  Methane, ethane, ethene by
VOA VI		40 m)	3	HCl to pH<2, Cool		RSK-175
Ambe	<del></del>	250 ml	81	H₂SO₄ to pH<2,Coo		TOC by E 415.1
VOA VI		40 mt 500 ml	3	Cool to 4°C		CO₂ by RSK-175
		300 ///		ZnAc & NaOH, Coo	N 10 4 C	Sulfide by E376.1  Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by
Poly		500 ml	1	Cool to 4°C		E310.1, E300.0
Poly		500 ml	1	HNO <sub>3</sub> to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020
VOA V	AL	20 ml	1	None		Hydrogen by AM 20
COMMENTS	: (WELL PURG	ING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COI	LOR, ETC.)	
FIELD MEASU	REMENTS				" <del></del>	
PAR	AMETER	EQUIPMI	ENT I.D.	RESULTS (UI	VITS)	COMMENTS
COMMENTS	See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)					
GENERAL INFO	ORMATION	WEATHER う	2004, hat	AI	R TEMPER	RATURE Mid-905
SPECIAL HA	SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRYCK BUS PLANE COMMERCIAL VEHICLE					
QA/QC		n 🗸		- 231.67		COMMERCIAL VEHICLE
SAMPLE CO.	SAMPLE COLLECTED BY May SAMPLING OBSERVED BY: DISCREPANCIES:					

	JOB No. <u>6301-05-0016</u>
	JOB NAME <u>DSCR - OU8- Semi-Annuəl</u> Monitoring
l	DATE 7/22/05 TIME 1000
	SAMPLING POINT: DO
	DEPTH

				DEPTH	IG POINT: DPJ
SAMPLE INFORMATION	SAMPLE I.D. N	0.: 00.1-	Λ3.05		
MATERIAL: X	ATER SOIL	L	SLUDGE	□отн	ER (LIST)
TYPE: ⊠ G	RAB CON	/POSITE	OTHER (LIST)		
HAZARDOUS?: Y	ES 🔯 NO		UNKNOWN		
CONTAI		NUMBER	PRESERVAT		COMMENTS
TYPE VOA VIAL	VOLUME 40 ml	3	PREPARATI		
	<del></del>		HCl to pH<2, Cool		VOCs by SW8260B  Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by
Poly	500 ml	1	Cool to 4°C	;	E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
	<del></del>				
COMMENTS: (WELL PU	RGING VOLUME: SA	AMPLE APPEAR	RANCE: ODOR: CO	LOR, ETC.	)
TOTAL PU	RGE 46 GA	CONS			
FIELD MEASUREMENTS		<del></del>			
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UI	NITS)	COMMENTS
	Son once	-i-1-d	· · · · · · · · · · · · · · · · · · ·	——————————————————————————————————————	
	See assor	ciateo purge forr	n for sampling detail		
COMMENTS: (WELL PU	RGING VOLUME: SA	AMPLE APPEAR	RANCE: ODOR: COL	OR ETC	<u> </u>
SAMPLE	CLEAR, NO	2000			,
GENERAL INFORMATION	WEATHER \	or- Humes	AI	R TEMPE	RATURE 90'S
SAMPLES SHIPPED TO:	Columbia Analytical S	Servicas — Raddi	ina Colifornia/Micro	ooona Di	Hohium DA
SPECIAL HANDLING: Fee		ZCI VIOCO TICCIO	ing, Calibrilla Micro	зеерз гі	asburg, PA
MODE OF SHIPMENT:	☐ CAR/TRUCK	< □ BI	US 🛭 PL	ANF	COMMERCIAL VEHICL
QA/QC					ONWELTONE ATURE
SAMPLE COLLECTED BY	10, 1/-		04400 0:0 000		
DISCREPANCIES:	· Now Vou		SAMPLING OBSE	KVED BY:	***
DIOUNEI / NOILO.	M				

JOB No. <u>6301-05-0016</u>
JOB NAME_DSCR — OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 1010
SAMPLING POINT: DP-2
DEPTH

SAMPLE INFORMATION  SAMPLE I.D. NO.: PP-2-0705  MATERIAL:		ILI OK			SAMPLIN DEPTH_	IG POINT: DP-2
MATERIAL:  WATER	SAMPLE INFORMATION	SAMPLE I.D. N	10.: DP-2-	0705	<b></b>	
TYPE: S GRAB COMPOSITE OTHER (LIST)  HAZARDOUS?: YES NO UNKNOWN  CONTAINER NUMBER PRESERVATIVE/ TYPE VOLUME NUMBER PRESERVATIVE/ PREPARATION COMMENTS  VOA VAL 40 ml 3 HC16 pH-2, Cool to 4°C VOCs by SW62606  Poly 500 ml 1 Cool to 4°C Alkalnity, NOs, SO, CI by E310.1, E300.0  Poly 500 ml 1 HNOs to pH-2, Cool to 4°C Tot. Metals by 60108,74704,6020  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR: COLOR, ETC.)  FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  SAMPLE CLEAR, NO DOOR  GENERAL INFORMATION WEATHER LOTE HOMO. AIR TEMPERATURE 90'S  SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA  SPECIAL HANDLING: Fedex  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  GA/QC  SAMPLE COLLECTED BY: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  GA/QC  SAMPLE COLLECTED BY: COMMERCIAL VEHICLE	MATERIAL: 🛛 WA	 ATER ☐ SON	L VI G		ОТНІ	ER (LIST)
CONTAINER TYPE	TYPE: 🛛 GF	RAB □ CON	MPOSITE	OTHER (LIST)		· · · · · · · · · · · · · · · · · · ·
TYPE VOLUME NUMBER PREPARATION COMMENTS  VOA VIAL 40 ml 3 HCl to pH-2, Cool to 4°C VOCs by SW82080B  Poly 500 ml 1 Cool to 4°C Akainity, No., Soc, Cl by E310.1, E300.0  Poly 500 ml 1 HNO3 to pH-2, Cool to 4°C Tot. Metals by 6010B,7470A,6020  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  TOTAL PURGE GO, GALLS NS  FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  SAMPLE CLEAR, NO DOOR  GENERAL INFORMATION  WEATHER LIGTE HUMO AIR TEMPERATURE 90'S  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CARATRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: SAMPLE COLLECTED BY: SAMPLE COLLECTED BY:	HAZARDOUS?: 🔲 YE	S ⊠NO		UNKNOWN		
PREPARATION   PREPARATION   PREPARATION   PREPARATION   Proly   South   3			NUMBER			COMMENTS
Poly 500 ml 1 Cool to 4°C Alkalinity, NO, SO, Cl by E310.1, E300.0  Poly 500 ml 1 HNOs to pH<2, Cool to 4°C Tot. Metals by 60108,7470A,6020  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  TOTAL PURGE GO, GALLENS  FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  SAMPLE CLEAR, NO DOOR  GENERAL INFORMATION WEATHER HOTE HOLD AIR TEMPERATURE 90'S  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: PARAMETER SAMPLE OBSERVED BY:				-		
Poly 500 ml 1 HNO <sub>3</sub> to pH<2, Cool to 4°C 6010B,7470A,6020  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  SAMPLE CLEAR, NO DOOR  GENERAL INFORMATION WEATHER HOTO HOMEON AIR TEMPERATURE 90'S  SAMPLES SHIPPED TO: Columbia Analytical Services — Redding, California/ Microseeps — Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: A. W. SAMPLING OBSERVED BY:					o 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by
FIELD MEASUREMENTS  PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  SAMPLE CLEAR, NO ODOR  GENERAL INFORMATION WEATHER HOTO HOME  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: PARAMETER SAMPLING OBSERVED BY:	Poly	500 ml	1	HNO₃ to pH<2, Cool	to 4°C	Tot. Metals by
PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  SAMPLE CLEAR, NO ODOR  GENERAL INFORMATION WEATHER HOTE HUMID AIR TEMPERATURE 90'S  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: PAR Var SAMPLING OBSERVED BY:	COMMENTS: (WELL PUR	RGING VOLUME: S	AMPLE APPEAR	RANCE; ODOR; COL	OR, ETC.	)
See associated purge form for sampling detail  COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  SAMPLE CLEAR, NO ODOR  GENERAL INFORMATION  WEATHER HOTH HUMD  AIR TEMPERATURE 90'S  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT:  CAR/TRUCK  BUS  PLANE  COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY:  SAMPLING OBSERVED BY:	FIELD MEASUREMENTS		····			
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  SAMPLE CLEAR, NO ODOR  GENERAL INFORMATION  WEATHER HOTO HUMD  AIR TEMPERATURE 90'S  SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: PAR Value SAMPLING OBSERVED BY:	PARAMETER	EQUIPM	MENT I.D.	RESULTS (UN	ITS)	COMMENTS
GENERAL INFORMATION  WEATHER HOTHUMD  AIR TEMPERATURE 90'S  SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: PAR SAMPLING OBSERVED BY:		See asso	ciated purge forr	m for sampling detail		
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: Daw Var SAMPLING OBSERVED BY:	COMMENTS: (WELL PUR	RGING VOLUME: S.	AMPLE APPEAR	RANCE; ODOR; COLO	OR, ETC.	)
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: PAR SAMPLING OBSERVED BY:	SAMPLE CLI	EAR, NO ODOF				
SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:	GENERAL INFORMATION	WEATHER _	loto HUMID	AIR	TEMPE	RATURE 90'S
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☐ PLANE ☐ COMMERCIAL VEHICLE  QA/QC  SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:					ttsburg, PA	
SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:			-	uc Sin a		
SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:	·		r IB	US KI PLA	NE	U COMMERCIAL VEHICLE
	SAMPLE COLLECTED BY	- Pau Vu		SAMPLING OBSER	VED BY:	

JOB No. <u>6301-05-0016</u>
JOB NAME <u>DSCR - OU8- Semi-Annual</u> Monitoring
DATE 7/22/05 TIME 1020
SAMPLING POINT: 0P-3
DEPTH

				AMPLING POIN EPTH	T: UP-3	
SAMPLE INFORMATION	SAMPLE I.D. NO	0.: 00-3-	0705		·	
MATERIAL: 🖾 🕻	WATER SOIL			OTHER (LIST	")	
TYPE:	GRAB 🗌 COM	POSITE	OTHER (LIST)			
HAZARDOUS?:			UNKNOWN		•	
TYPE CONTA	INER VOLUME	NUMBER	PRESERVATIVI PREPARATION		COMMENTS	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to	4°C VO	Cs by SW8260B	
Poly	500 ml	1	Cool to 4°C	ł	ity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by 310.1, E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Cool to	04°C I	Tot. Metals by 10B,7470A,6020	
COMMENTS: (WELL P	URGING VOLLIME: SA	MDI E ADDEAE	ANCE: ODOB: COLO	P ETC)		
	- PURLE 65			K, ETC.)		
FIELD MEASUREMENTS						
PARAMETER	EQUIPM		DEOLUTO (LOUT			
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNIT	<u>s)   C</u>	COMMENTS	
	See assoc	ciated purge form	n for sampling detail			
COMMENTS: (WELL P	URGING VOLUME: SA	MPLE APPEAR	ANCE: ODOR: COLO	R. ETC.)	<u></u>	
_	LEAR, NO OPO			, - : • .,		
GENERAL INFORMATION	WEATHER H	07-HWMW	AIR	TEMPERATURE	90'5	
SAMPLES SHIPPED TO	SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA					
SPECIAL HANDLING: F						
MODE OF SHIPMENT:	☐ CAR/TRUCK	∷ ∏ві	JS 🛛 PLAN	Е 🗆 СОМ	MERCIAL VEHICLE	
QA/QC				<del></del> .		
SAMPLE COLLECTED E	34: <u>Dan V</u> 2		SAMPLING OBSERV	ED BY:		

JOB No. 6301-05-0016	3
JOB NAME DSCR - OI	J8- Semi-Annual
Monitoring DATE 7/22/05	TIME 1030
SAMPLING POINT: (	<del>-</del>
DEPTH	-1 - 1

		•		SAMPLII DEPTH_	NG POINT: DP-4
SAMPLE INFORMATION	SAMPLE I.D. N	0.: DO-4-0	705		
MATERIAL: X WATE			SLUDGE	□ отн	ER (LIST)
TYPE: 🔯 GRAE	B COMPOSITE		OTHER (LIST)	)	
HAZARDOUS?: YES	⊠ NO		UNKNOWN		
CONTAINER		NUMBER	PRESERVAT	IVE/	COMMENTO
TYPE	VOLUME		PREPARAT	ION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Coo	I to 4°C	VOCs by SW82608
Poly	500 ml	1	Cool to 4°C	<b>;</b>	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020
COMMENTS: (WELL PURGI TOTAL PURGO FIELD MEASUREMENTS	= 75. GA	ENT I.D.	RESULTS (U	NITS)	.) COMMENTS
COMMENTS: (WELL PURGI	NG VOLUME: SA	AMPLE APPEAR	ANCE; ODOR; CO	LOR, ETC.	
SAMPLE CLEA	R, NO ODO	a			
GENERAL INFORMATION	WEATHER H	OT - HUMU	DA	IR TEMPE	RATURE 30'S
SAMPLES SHIPPED TO: Col	umbia Analytical S	Services - Reddi	ng, California/ Micro	seeps – P	ittsburg. PA
SPECIAL HANDLING: FedEx	-				
MODE OF SHIPMENT:	☐ CAR/TRUCK	С	JS 🖾 PL	ANE	COMMERCIAL VEHICLE
QA/QC	<del></del>	· · · · · · · · · · · · · · · · · · ·		<del></del> <u>-</u> -	
SAMPLE COLLECTED BY: DISCREPANCIES:	Dur Vr	<u> </u>	SAMPLING OBSE	RVED BY:	
	·				

·	010 333								
JOB No.	JOB No. 6301-05-0016								
Monitoring	JOB NAME DSCR - OU8- Semi-Annual Monitoring								
DATE_	1/12/05 TIME 1040								
SAMPLIN	NG POINT: OP-5								
DEPTH_									
Отн ST)	ER (LIST)								
1 .									
ATIVE/ ATION COMMENTS									
Cool to 4°C	VOCs by SW8260B								
4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by								
	E310.1, E300.0								
Cool to 4°C	Tot. Metals by								

				DE/ 111 -			
SAMPLE INFORMATION	SAMPLE I.D. NO	o.: DP-5-	0705				
MATERIAL:	WATER SOIL		SLUDGE	□отн	IER (LIST)		
TYPE:	GRAB □ COM	MPOSITE	OTHER (LIST)				
HAZARDOUS?:	YES 🛛 NO		UNKNOWN				
	AINER	NUMBER	PRESERVAT	IVE/	201111110		
TYPE	VOLUME	INCIVIDEIX	PREPARATI		COMMENTS		
VOA VIAL	40 ml	3	HCl to pH<2, Cool	i to 4°C	VOCs by SW8260B		
Poly	. 500 mt	1	Cool to 4°C	;	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0		
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020		
COMMENTS: (WELL F	PURGING VOLUME: SA	ANADI E ADDEAI	PANCE: ODOP: CO				
TOTAL P	Purce 80 GA	AMPLE ALL LA	VANCE; ODOR, COL	LOK, ETC.	.)		
FIELD MEASUREMENTS							
PIELD MEASUREMENTS	<u>'</u>						
PARAMETER	EQUIPM	MENT I.D.	RESULTS (UN	NITS)	COMMENTS		
. 1	See associated purge form for sampling detail						
.	<b>366 9290</b> 0	plated purge form	n for sampling detail				
COLUMN TO AMELLE		- :					
COMMENTS: (WELL P	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COL	LOR, ETC.	.)		
	LEAR, NO ODO						
GENERAL INFORMATION	N WEATHER H	toto Humi	AI	R TEMPE	RATURE		
SAMPLES SHIPPED TO	O: Columbia Analytical S	Services – Redd	fino California/ Micro	seens – Pi	ittshura PA		
SPECIAL HANDLING: F			1191 -	SOOPC	RISDUIN, I A		
MODE OF SHIPMENT:		<	US ØPL	ANIE	COMMERCIAL VEHICLE		
QA/QC		,	10 M.C	4140	UCONNINERCIAL VEHICLE		
SAMPLE COLLECTED	BY: Dar Vie	<del></del>	SAMPLING OBSER	RVED BY:			
DISCREPANCIES:							

#### FIELD SAMPLING

JOB No. <u>6301-05</u> -0016											
	JOB NAME DSCR - OU8- Semi-Annual										
	DATE 7/22/05 TIME 1050										
	SAMPLING POINT: OP-6										
	DEPTH										
	DEP18										
E	E OTHER (LIST)										
R (LIST)											
NWC											
ERVAT PARATI		COMMENTS									
t<2, Cool	to 4°C	VOCs by SW8260B									
ool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by									
		E310.1, E300.0									
H<2, Co	ol to 4°C	Tot. Metals by									
		6010B,7470A,6020									
DR; COI	LOR, ETC	.)									
LTS (UI	NITS)	COMMENTS									
g detail											
PR; COLOR, ETC.)											
AI	R TEMPE	RATURE <u></u> タンら									
a/ Micro	seeps – Pi	ittsburg, PA									

	NEPUK			SAMPLIN DEPTH_	NG POINT: DP-6
SAMPLE INFORMATION	SAMPLE I.D. N	o.: DP-6-	0705	-	
MATERIAL: WATE	ER SOIL		SLUDGE	□отн	ER (LIST)
TYPE: SRAE	B □ COM	POSITE	OTHER (LIST)		
HAZARDOUS?: YES	⊠ NO		UNKNOWN		
CONTAINER		NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME		PREPARAT	ION	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool	l to 4°C	VOCs by SW8260B
Poly	500 mt	1	Cool to 4°C	:	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
	<u></u>				
COMMENTS: (WELL PURG	ING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; CO	LOR, ETC.	.)
TOTAL PURGE	100.0 GA	LONS			
FIELD MEASUREMENTS					
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UI	NITS)	COMMENTS
	See assoc	ciated purge form	n for sampling detail		
COMMENTS: (WELL PURGI	NG VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COI	LOR, ETC.	)
SAMPLE WE	AR, NO DI	DOR.			,
GENERAL INFORMATION	WEATHER H	101 + HUMIS	> Al	R TEMPE	RATURE <u></u> タン ム
SAMPLES SHIPPED TO: Col	umbia Analytical S	ervices – Reddi	ng, California/ Micro	seeps – Pi	ittsbura. PA
SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT:	☐ CAR/TRUCK	В	JS 🛛 PL	ANE	☐ COMMERCIAL VEHICLE
QA/QC	,			· · · · · · · · · · · · · · · · · · ·	
SAMPLE COLLECTED BY:,	Den Va		SAMPLING OBSE	RVFD RV-	
DISCREPANCIES:					

JOB No. <u>6301-05-0016</u>
JOB NAME DSCR - OU8- Semi-Annual Monitoring
DATE 7/22/05 TIME 12:30
SAMPLING POINT: $027$
DEPTH

		ILLI OIL			li .	NG POINT:
SAMPLE INFORMAT	TION	SAMPLE I.D. NO	DD-7	- 0705	<u> </u>	
MATERIAL:	<b>⊠</b> WATE	=		SLUDGE	Потн	HER (LIST)
TYPE:	⊠ GRAB	□сом	POSITE	OTHER (LIST)		
HAZARDOUS?:	YES	⊠ NO			, <u></u>	
C	ONTAINER		NUMBER	PRESERVAT	ΓΙVΕ/	
TYPE		VOLUME	NUMBER	PREPARAT	ION	COMMENTS
VOA VIAL		40 ml	3	HCl to pH<2, Coo	I to 4°C	VOCs by SW8260B
Poly		500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0
Poly		500 ml	1	HNO₃ to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020
TOTAL PL	INTS	5. GALLO	in2	RANCE; ODOR; CO		2.)
PARAMET	ER	See assoc		RESULTS (U		COMMENTS
COMMENTS: (WE	LL PURGII	NG VOLUME: SA NO DODR	MPLE APPEAF	RANCE; ODOR; CO	LOR, ETC	5.)
GENERAL INFORMA	TION	WEATHER_₩	OT - HUMI	<b>A</b>	IR TEMPE	RATURE 90'S
SPECIAL HANDLII	NG: <u>FedEx</u>	umbia Analytical S	ervices – Redd	ing, California/ Micro	oseeps – F	Pittsburg, PA
MODE OF SHIPME	:NI:	CAR/TRUCK	В	US 🔯 PL	ANE	COMMERCIAL VEHICLE
QA/QC SAMPLE COLLEC DISCREPANCIES:		Da Vin		SAMPLING OBSE	RVED BY	;

JOB No. 6301-05	-0016
JOB NAME DSCR	. – OU8- Semi-Annual
Monitoring	

DATE 7/22/65 TIME 1245
SAMPLING POINT: DP-8

			·	DEPTH_	——————————————————————————————————————		
SAMPLE INFORMATION	ON SAMPLE I.D. N	10:: OP-8-	0705				
MATERIAL:	WATER ☐ SOI	LOPO	SLUDGE	□ отн	ER (LIST)		
TYPE:	⊠ GRAB □ COI	MPOSITE	OTHER (LIST)				
HAZARDOUS?: [	☐ YES NO		UNKNOWN				
	TAINER	NUMBER	PRESERVAT		COMMENTS		
TYPE VOA VIAL	- VOLUME	<del> </del>	PREPARATI				
<del></del>	40 ml	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B		
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0		
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020		
COMMENTS: (WEL	L PURGING VOLUME: S	AMPLE APPEAR	RANCE: ODOR: COL	OR ETC			
	PURCE 60. G		0,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	.ON, ETO.	,		
FIELD MEASUREMEN	TS						
PARAMETER	R EQUIPM	MENT I.D.	RESULTS (UN	NITS)	COMMENTS		
	See asso	ciated purge form	n for sampling detail				
COMMENTS: (WELI	PURGING VOLUME: S.	AMPLE APPEAF	RANCE; ODOR; COL	.OR, ETC.	)		
GENERAL INFORMATI	ON WEATHER }	toT+ HUME	O Al	R TEMPE	RATURE <u> </u>		
SAMPLES SHIPPED	SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Microseeps - Pittsburg, PA						
SPECIAL HANDLING: FedEx							
MODE OF SHIPMEN		K 🛭 BI	US 🛛 PLA	NE.	COMMERCIAL VEHICLE		
QA/QC							
SAMPLE COLLECTE DISCREPANCIES:	SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:						

JOB No. <u>6301-</u>	05-001 <u>6</u>	
JOB NAME DS	CR – OU	8- Semi-Annual
Monitoring DATE 7/22	105	TIME 1105
SAMPLING PO	<del>,                                     </del>	
DEPTH		r- 1

				DEPTH_	IC POINT: DP-4		
SAMPLE INFORMATION	SAMPLE I.D. N	o: DD-9-	0705				
MATERIAL: ⊠WA		<b>—</b> ,	SLUDGE	□ отн	ER (LIST)		
TYPE: ⊠ GR	AB COM	MPOSITE	OTHER (LIST)	· · · · · · · · · · · · · · · · · · ·			
HAZARDOUS?: 🗌 YE	s ⊠ NO		UNKNOWN				
CONTAIN		NUMBER	PRESERVAT		COMMENTS		
TYPE	VOLUME		PREPARATI	<del></del>			
VOA VIAL	40 ml	3	HCl to pH<2, Cool	to 4°C	VOCs by SW8260B Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by		
Poly	500 ml	1	Cool to 4°C		E310.1, E300.0		
Poly	500 ml	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot Metals by 6010B,7470A,6020		
COMMENTS (MELL DUE		11.51.5.155.5					
COMMENTS: (WELL PUR	rging volume: Si lue 50, G		RANCE; ODOR; COL	JOR, ETC	.)		
FIELD MEASUREMENTS							
PARAMETER		IENT I.D.	DECLITE (III	HTC	COMMENTS		
PARAIVIETER	EQUIPIV	IENT I.U.	RESULTS (UN	NII S)	COMMENTS		
	See asso	ciated purge forr	n for sampling detail				
COMMENTS: (WELL PUR	GING VOLUME: SA	AMPLE APPEAR	RANCE: ODOR: COL	OR ETC	1		
	LEAR, NO OF			, 2. 0.	,		
GENERAL INFORMATION	WEATHER	HOTH HUN	NO AI	R TEMPE	RATURE <u></u> 少しら		
SAMPLES SHIPPED TO: Q	Columbia Analytical :	Services – Redd	ing, California/ Micro	seeps – P	ittsburg, PA		
	SPECIAL HANDLING: FedEx						
MODE OF SHIPMENT:	CAR/TRUC	K	US 🛛 PLA	ANE	☐ COMMERCIAL VEHICLE		
QA/QC							
SAMPLE COLLECTED BY:	- Dar V ~		SAMPLING OBSE	RVED RY:			
DISCREPANCIES:							

## FIELD SAMPLING

ł	JOB No. <u>6301-05-0016</u>
	JOB NAME_DSCR — OU8- Semi-Annual Monitoring
	DATE 7/22/65 TIME 1115
	SAMPLING POINT: OP-10
	DEPTH

	REPORT					
SAMPLE INFORMATION	SAMPLE I.D. NO	D.: DP-10-	070 <del>5</del>			
MATERIAL: 🛛 W	ATER SOIL		SLUDGE	□ отн	ER (LIST)	
TYPE: ⊠ GI	RAB 🗆 COM	POSITE	OTHER (LIST)			
HAZARDOUS?: YE	s 🛭 NO		UNKNOWN			
CONTAIN		NUMBER	PRESERVAT	I	COMMENTS	
TYPE VOA VIAL	VOLUME 40 ml	3	PREPARATI HCl to pH<2, Cool		VOCs by SW8260B	
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020	
	RGING VOLUME: SA UE 40 G-AU		RANCE; ODOR; CO	LOR, ETC.	)	
FIELD MEASUREMENTS		· · · · · · · · · · · · · · · · · · ·				
PARAMETER	EQUIPM	ENT I.D.	RESULTS (U	NITS)	COMMENTS	
	See assoc	ciated purge forn	n for sampling detail	İ		
COMMENTS: (WELL PU SAMPLE: CLE	RGING VOLUME: SA					
GENERAL INFORMATION	WEATHER H	07+ HUMI	D A	IR TEMPEI	RATURE 905	
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA SPECIAL HANDLING: FedEx						
MODE OF SHIPMENT:	☐ CAR/TRUCK	С □ВІ	JS 🛛 PL	ANE	☐ COMMERCIAL VEHICLE	
QA/QC						
SAMPLE COLLECTED BY DISCREPANCIES:	r: pu var		SAMPLING OBSE	RVED BY:		

	JOB No. 6301-05-0016
	JOB NAME <u>DSCR - OU8- Semi-Annual</u> Monitoring
	DATE 7/22/05 TIME 1138
	SAMPLING POINT: DP-11
	DEPTH
_	

IXEF OIX I					NG POINT: DP-11
SAMPLE INFORMATION	SAMPLE I.D. NO	D:: OP-11	-0705		
MATERIAL: 🔯 WATE	R ☐ SOIL	•	SLUDGE	[] ОТН	ER (LIST)
TYPE: 🛛 GRAB	□ con	IPOSITE	OTHER (LIST)	)	
HAZARDOUS?: YES	⊠ NO		UNKNOWN		
CONTAINER		NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME		PREPARAT		
VOA VIAL Poly	40 ml	1	HCI to pH<2, Coo		VOCs by SW8260B  Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by  E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020
COMMENTS: (WELL PURGI	NG VOLUME: SA		RANCE; ODOR; CO	LOR, ETC	.)
PARAMETER	FOLIPM	IENT LD	PESILTS /LI	MITS)	COMMENTS
TAVAMETER	PARAMETER EQUIPMENT I.D. RESULTS (UNITS) COMMENTS  See associated purge form for sampling detail				
COMMENTS: (WELL PURGI			RANCE; ODOR; CO	LOR, ETC	.)
GENERAL INFORMATION	WEATHER _	tot-Huma	ρ Α	IR TEMPE	RATURE 903
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT: CAR/TRUCI		< □ BI	US ⊠ PL	.ANE	COMMERCIAL VEHICLE
QA/QC	h n/				
SAMPLE COLLECTED BY: DISCREPANCIES:	pull a		SAMPLING OBSE	RVED BY	

JOB No. 6301-05-0016

<b>F</b>	FIELD SAMP REPORT	Monitoring DATE	IE DSCR - 0U8- Semi-Annual  1/2.2/05 TIME 1/30  IG POINT: DP.			
SAMPLE INFORMATION	SAMPLE I.D. NO	P-3-0705				
MATERIAL:	WATER SOIL		SLUDGE	□отн	ER (LIST)	
TYPE:	]GRAB □ COM	MPOSITE .	OTHER (LIST)	·	·	
	YES 🛛 NO		UNKNOWN			
TYPE	TAINER VOLUME	NUMBER	PRESERVAT PREPARATI		COMMENTS	
VOA VIAL	40 ml	3	HCl to pH<2, Cool		VOCs by SW8260B	
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Ct by E310.1, E300.0	
Poly	500 ml	· 1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020	
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  Total purge 60 gal						
FIELD MEASUREMENT	5					
PARAMETER	EQUIPM	IENT I.D.	RESULTS (U	NITS)	COMMENTS	
	See associated purge form for sampling detail					
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)						
GENERAL INFORMATION	WEATHER	Hot + Hum	id A	IR TEMPE	RATURE 90 3	
SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA  SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE						
	1	<u>,                                    </u>				
	SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:					

	JOB No. <u>6301-05-0016</u>
	JOB NAME_DSCR - OU8- Semi-Annual Monitoring
i	DATE 7/22/05 TIME 1145
	SAMPLING POINT: DP-12
	DEPTH

				DEPTH_		
SAMPLE INFORMATION	SAMPLE INFORMATION SAMPLE I.D. NO.: DP-12-0705					
MATERIAL:					ER (LIST)	
TYPE:	GRAB COM	POSITE	OTHER (LIST)			
HAZARDOUS?:	YES 🛚 NO		UNKNOWN			
	AINER	NUMBER	PRESERVAT		COMMENTS	
TYPE VOA VIAL	VOLUME		PREPARATION			
	40 ml	3	HCl to pH<2, Cool	10 4 4	VOCs by SW8260B  Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by	
Poly	500 ml	1	Cool to 4°C		E310.1, E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020	
			-			
· ·						
	PURGING VOLUME: SA		RANCE; ODOR; COL	OR, ETC.	)	
TOTAL PU	PRGE 50. GA	بدمى				
FIELD MEASUREMENT	s					
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UN	VITS)	COMMENTS	
	See asso	ciated purge form	n for sampling detail			
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEAR	RANCE: ODOR: COL	OR ETC		
	LEAR, NO DOG		5 W 10 E, 0 D 0 1 V, 0 O E	-ON, LTO.	,	
GENERAL INFORMATION		LOT - HOM	(D AI	R TEMPE	RATURE 90'S	
SAMPLES SHIPPED 1	SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeps – Pittsburg, PA					
SPECIAL HANDLING: FedEx						
MODE OF SHIPMENT		< []В	US 🛛 PL/	ANE	☐ COMMERCIAL VEHICLE	
QA/QC						
SAMPLE COLLECTED	BY: Du Vu	_	SAMPLING OBSE	RVFD RV:		
DISCREPANCIES:			J. 3411 21110 ODOLI	.v 01.		
			· · · · · · · · · · · · · · · · · · ·			

				DEPTH _	· · · · · · · · · · · · · · · · · · ·
SAMPLE INFORMATION	SAMPLE I.D. N	o: mwho	P-16-0705		
MATERIAL:	WATER SOIL		SLUDGE OTHER (LIST)		R (LIST)
TYPE:	GRAB COM	<b>MPOSITE</b>	OTHER (LIST)		
HAZARDOUS?:	YES NO				
CONT	AINER	MUNICED	PRESERVATI	VE/	COMMENTS
TYPE	VOLUME	NUMBER	PREPARATION	NC	COMMENTS
VOA VIAL	40 ml	3	HCl to pH<2, Cool t	to 4°C	VOCs by SW8260B
VOA VIAL	40 ml	3	HCI to pH<2, Cool t	to 4°C	Methane, ethane, ethene by RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Cool	to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C		CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool	to 4°C	Sulfide by E376.1
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by
		<u> </u>			E310.1, E300.0
Poly	500 mt	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020
		ŀ			
COMMENTS: (WELL	PURGING VOLUME: S	AMPLE APPEAI	RANCE; ODOR; COL	OR, ETC.	)
SAMPLE C	LEAR, NO DI	DOR			
FIELD MEASUREMENTS	5 .	- · · · · · · · · · · · · · · · · · · ·			
PARAMETER	EQUIPM	MENT I.D.	RESULTS (UN	IITS)	COMMENTS
	See asso	ciated purge for	m for sampling detail		
	PURGING VOLUME: S. RGG 2.5 G		RANCE; ODOR; COL	OR, ETC.	)
GENERAL INFORMATIO	N WEATHER_	lot, CUEA,	All	R TEMPE	RATURE 80'S
SAMPLES SHIPPED T	O: Columbia Analytical	Services – Redd	ing California/ Missa		
SPECIAL HANDLING:		23. 1.203	men comprise to		
MODE OF SHIPMENT:		. Пв	ue Man	NAC	COMMEDIAL VEHICLE
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☑ PLANE ☐ COMMERCIAL VEHICLI					COMMERCIAL VEHICLE
		18.11.	}		
SAMPLE COLLECTED DISCREPANCIES:	BY: Da Ve	- INAN VASS	SAMPLING OBSER	RVED BY:	

JOB No. 6301-05-0016

JOB NAME DSCR - OU8- Semi-Annual Monitoring Resample

DATE 6.2.65 TIME 1005

SAMPLING POINT: MWANP-19

DEPTH 18.99' TOP OF POMP

·			DEP	TH 18.99 70P OF FUMP	
SAMPLE INFORMATION	SAMPLE I.D. NO	DE MWAN	P-19-0705		
MATERIAL:	WATER SOIL		SLUDGE []	OTHER (LIST)	
TYPE:	GRAB COM	POSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🖾 NO		UNKNOWN		
CONT	AINER	NUMBER	PRESERVATIVE/	COMMENTS	
TYPE	VOLUME	IVOIVIBLI	PREPARATION	COMMENTS	
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C		
VOA VIAL	40 mi	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175	
Amber	250 ml	1	H₂SO₄ to pH<2,Cool to 4°C	TOC by E 415.1	
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175	
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	, , , , , , , , , , , , , , , , , , ,	
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Cool to 4	°C Tot. Metals by 6010B,7470A,6020	
COMMENTS: (WELL F	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLOR,	ETC.)	
				SUBHT SOLPHUR ODOR	
FIELD MEASUREMENTS	·				
PARAMETER	EQUIPM	ENTID	RESULTS (UNITS)	COMMENTS	
V 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		2.47 7.0.	ALCOLIO (CINTO)	1 COMMENTO	
	See assoc	ciated purge forn	n for sampling detail		
				1 1	
COMMENTS: (WELL F	PURGING VOLUME: SA	MPLE APPEAR	ANCE; ODOR; COLOR,	ETC.)	
~ 3.0 GALLO	NS PURCED TOTAL	AL SAMPI	E COLDRIES W/S	SUBJET SOUPHUR ODOR	
GENERAL INFORMATIO		HOVERCUST		MPERATURE 80-90°F	
SAMPLES SHIPPED T	MOSTLY GONDY SAMPLES SHIPPED TO: Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Redding, California/ Minimum Columbia Analytical Services - Columbia Analytical Services - Redding Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Services - Columbia Analytical Service				
SPECIAL HANDLING:					
MODE OF SHIPMENT:			JS 🛛 PLANE	COMMERCIAL VEHICLE	
QA/QC	CANTIOCE	, 100	DO MELANC	COMMENCIAL ATTRICT	
04450					
	BY: IED WITTE	MANN	SAMPLING OBSERVED	) BY:	
DISCREPANCIES:					

JOB No. 6301-05-0016

JOB NAME DSCR - OU8- Semi-Annual Monitoring Resample

DATE 8-2-05 TIME 1215

SAMPLING POINT: MW AUP-20

			DEPTH	19.47 e TOP OF		
SAMPLE INFORMATION	SAMPLE INFORMATION SAMPLE I.D. NO.: MWANP-20-0705					
MATERIAL:	WATER SOIL	-	SLUDGE OT	HER (LIST)		
TYPE:	GRAB COM	1POSITE	OTHER (LIST)			
HAZARDOUS?:	YES 🛛 NO		UNKNOWN			
CONT	AINER	NUMBER	PRESERVATIVE/	COMMENTS		
TYPE	VOLUME	HOWBER	PREPARATION	COMMILITIS		
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B		
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	Methane, ethane, ethene by RSK-175		
Amber	250 ml	1	H <sub>2</sub> SO <sub>4</sub> to pH<2,Cool to 4°C	TOC by E 415.1		
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175		
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	Sulfide by E376.1		
Poly	500 mÌ	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0		
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°C	Tot. Metals by 6010B,7470A,6020		
			70.0			
L			,			
•			RANCE; ODOR; COLOR, ET	C.)		
= 5.0 GALLONS	PORGED TOTAL	SAMPLE	e coupless odi	PLESS		
FIELD MEASUREMENTS	S					
PARAMETER	EQUIPM	IENT I.D.	RESULTS (UNITS)	COMMENTS		
	See assor	ciated purge forn	n for sampling detail			
COMMENTS: (WELL)	PURGING VOLUME: S/	AMPLE APPEAR	ANCE; ODOR; COLOR, ET	<u></u>		
			E COLDRIESS, OD	-		
GENERAL INFORMATIO		igh overece	· · · · · · · · · · · · · · · · · · ·	PERATURE 80-90°F E		
		MOSTLY SUN	MA	ENTONE JOS		
	O: Columbia Analytical S	Services - Reddi	ng, California/ Missos			
SPECIAL HANDLING:	FedEx	·				
MODE OF SHIPMENT	: CAR/TRUC	< □ BI	JS PLANE	COMMERCIAL VEHICLE		
QA/QC		· · · · · · · · · · · · · · · · · · ·				
SAMPLE COLLECTED	BY TEL NOTE	1111-ANN	SAMPLING OBSERVED B	· <b>v</b> .		
DISCREPANCIES:	on republic		OUMERING OBSERACT D	1		
DISCILLI ANGLES.	DISCRET ANCIES.					

	ILLI OIL	•	SAMPLING POINT: MWANP-29			
	····	· · · · · · · · · · · · · · · · · · ·				
SAMPLE INFORMATION	SAMPLE I.D. N	10.: MW/	4NP-29-07	705		
MATERIAL:	WATER SOI	R SOIL		□отн	ER (LIST)	
TYPE: ⊠ GRAB □		MPOSITE	OTHER (LIST)			
HAZARDOUS?:	YES NO		UNKNOWN			
	AINER	NUMBER	PRESERVAT		COMMENTS	
TYPE	VOLUME	<del> </del>	PREPARAT		VOCa bu CIMPOCOD	
VOA VIAL	40 ml	3	HCl to pH<2, Coo		VOCs by SW8260B  Methane, ethane, ethene by	
VOA VIAL	40 ml	3			RSK-175	
Amber	250 ml	1	H₂SO₄ to pH<2,Co		TOC by E 415.1	
VOA VIAL Poly	40 ml	3	Cool to 4°C ZnAc & NaOH, Coo		CO₂ by RSK-175 Sulfide by E376.1	
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020	
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.)  SAMPLE CLEAR, NO ODOR, TRACE ORANGE PARTICULATES						
FIELD MEASUREMENTS						
PARAMETER	EQUIP	MENT I.D.	RESULTS (U	INITS)	COMMENTS	
	See asso	ociated purge for	m for sampling detai	il .		
COMMENTS: (WELL PURGING VOLUME: SAMPLE APPEARANCE; ODOR; COLOR, ETC.) TOTAL PURGE 2.5 GALLONS						
GENERAL INFORMATIO	N WEATHER	HOT & CLEM	2 A	UR TEMPE	RATURE 90'S	
	SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ SPECIAL HANDLING: FedEx  MODE OF SHIPMENT: CAR/TRUCK BUS PLANE COMMERCIAL VEHICLE					
QA/QC		<u>L</u>	- KALL			
SAMPLE COLLECTED BY: JAN /AS SAMPLING OBSERVED BY:						

JOB No. 6301-05-0016

JOB NAME DSCR - OU8- Semi-Annual Monitoring Resample

DATE 8/2/05 TIME 1200

SAMPLING POINT: MWANP 25

					DEPTH_	18
SAMPLE INFORMATIO	N	SAMPLE I.D. NO	D.: MWA	UP-25-07	05	
MATERIAL:	<b>⊠</b> WATE	R SOIL		SLUDGE	□отн	ER (LIST)
TYPE:	⊠ GRAB	□сом	IPOSITE	OTHER (LIST	·)	
HAZARDOUS?: [	YES	⊠ NO		UNKNOWN		
	ITAINER	<del> </del>	NUMBER	PRESERVA		COMMENTS
TYPE		VOLUME		PREPARAT	LION	COMMENTS
VOA VIAL		40 ml	3	HCl to pH<2, Coo	ol to 4°C	VOCs by SW8260B
VOA VIAL		40 ml	3	HCl to pH<2, Coo		Methane, ethane, ethene by RSK-175
Amber		250 mi	1	H₂SO₄ to pH<2,Co	ool to 4°C	TOC by E 415.1
VOA VIAL		40 ml	3	Cool to 4°	С	CO₂ by RSK-175
Poly		500 mt	1	ZnAc & NaOH, Co	ool to 4°C	Sulfide by E376.1
Poly		500 ml	1	Cool to 4°0	С	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly		500 ml	1	HNO₃ to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020
						·
COMMENTS: (WELI	L PURGII	NG VOLUME: SA	MPLE APPEAR	RANCE; ODOR; CO	OLOR, ETC.	)
_SAMPLE CL	EAR, N	O ODOR, TR	ACE OF OF	LANCE PARTIC	CULATES	
FIELD MEASUREMEN				12 231		
PARAMETER	₹	EQUIPM	ENT I.D.	RESULTS (L	JNITS)	COMMENTS
				n for sampling deta		
COMMENTS: (WELL		NG VOLUME: SA まちる GA		RANCE; ODOR; CC	DLOR, ETC.	.)
GENERAL INFORMATI	ON	WEATHER H	toT + CLEA	R A	AIR TEMPE	RATURE 90'S
SAMPLES SHIPPED	TO: Coft	umbia Analytical S	Services Reddi	no. California/ Mier		
SPECIAL HANDLING						
MODE OF SHIPMEN		CAR/TRUCK	( DBI	JS 🖾 PI	LANE	COMMERCIAL VEHICLE
QA/QC					<u> </u>	
	SAMPLE COLLECTED BY: SAMPLING OBSERVED BY:					

JOB No. 6301-05-0016

JOB NAME DSCR - OU8- Semi-Annual Monitoring Resample

DATE 8-3-05 TIME 1440

SAMPLING POINT: MWANP 26

DEPTH 23'

					DEPTH_	23
SAMPLE INFORMATI	ON	SAMPLE I.D. NO	D.: MWAN	P-26-0705		
MATERIAL:	<b>⊠</b> WATE	R 🗌 SOIL		SLUDGE	□отн	ER (LIST)
TYPE:	⊠ GRAB	□сом	POSITE	OTHER (LIST)	·	
HAZARDOUS?:	YES	⊠ NO		UNKNOWN		
	NTAINER		NUMBER	PRESERVAT		COMMENTS
TYPE	<u> </u>	VOLUME		PREPARATI		
VOA VIAL		40 ml	3	HCl to pH<2, Cool	·	VOCs by SW8260B
VOA VIAL		40 mi	3	HCl to pH<2, Cool		Methane, ethane, ethene by RSK-175
Amber		250 ml	1	H₂SO₄ to pH<2,Coo	ol to 4°C	TOC by E 415.1
VOA VIAL		40 ml	3	Cool to 4°C	<del></del>	CO₂ by RSK-175
Poly		500 ml	1	ZnAc & NaOH, Coo	ol to 4°C	Sulfide by E376.1
Poly		500 ml	1	Cool to 4°C	:	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0
Poly		500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
	_					
COMMENTS: (WEL					LOR, ETC	.)
_ 5.0 BALLOI	n Pubb	ED, cowo	PLESS, OD	raess	·	
FIELD MEASUREMEN	ITS					
PARAMETE	R	EQUIPM	ENT I.D.	RESULTS (U	NITS)	COMMENTS
	·			73_55_70		- COMMENTO
		See assoc	ciated purge form	n for sampling detail	1	
COMMENTS: (WEL	L PURGII S PURGI	NG VOLUME: SA SED, COLOG	MPLE APPEAR	RANCE; ODOR; CO LESS	LOR, ETC	.)
GENERAL INFORMAT		WEATHER <u>&amp;</u>			IR TEMPE	RATURE 90-100°F#
SAMPLES SHIPPER						
	SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microsoft DA					
	SPECIAL HANDLING: FedEx					
MODE OF SHIPMER	V1:	CAR/TRUCK	C BI	JS 🛛 PL	ANE	COMMERCIAL VEHICLE
QA/QC						
SAMPLE COLLECT	ED BY: _	TED WITE	MURANT	SAMPLING OBSE	RVED BY	:
DISCREPANCIES: _						

JOB NO. <u>6301-05-0016</u>	)				
JOB NAME <u>DSCR - OL</u>	18- Semi-Annual				
Monitoring Resample					
DATE 8/3/05	TIME 1440				
SAMPLING POINT: MWANP-27					
DEPTH					

				H
SAMPLE INFORMATION	SAMPLE I.D. NO	= Mustr	IP-27-0705	
MATERIAL:	WATER SOIL			OTHER (LIST)
TYPE:	GRAB ☐ COM	POSITE	OTHER (LIST)	
HAZARDOUS?:	YES 🛛 NO		UNKNOWN	
	AINER	NUMBER	PRESERVATIVE/	COMMENTS
TYPE	VOLUME		PREPARATION	
VOA VIAI.	40 mt	3	HCl to pH<2, Cool to 4°C	VOCs by SW8260B  Methane, ethane, ethene by
VOA VIAL	40 ml	3	HCl to pH<2, Cool to 4°C	RSK-175
Amber	250 ml	1	H₂SO₄ to pH<2,Cool to 4°C	TOC by E 415.1
VOA VIAL	40 ml	3	Cool to 4°C	CO₂ by RSK-175
Poly	500 ml	1	ZnAc & NaOH, Cool to 4°C	
Poly	500 ml	1	Cool to 4°C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Cool to 4°	C Tot. Metals by 6010B,7470A.6020
	-			
				·
			<u> </u>	
			RANCE; ODOR; COLOR, E	ETC.)
SAMLE CL	KAL, NO ODOR,	OB ANGE	PARTICULATES	
FIELD MEASUREMENTS	<u> </u>			
PARAMETER	EQUIPM	ENT I.D.	RESULTS (UNITS)	COMMENTS
See associated purge form for sampling detail				
	PURGING VOLUME: SA PURGE 5. O		RANCE; ODOR; COLOR, E	ETC.)
GENERAL INFORMATIO		TOT PLE	AR AIRTEN	MPERATURE 905
SAMPLES SHIPPED T	O: Columbia Analytical S	Services – Redd	ing. California	Ditt. Luca Deba
SPECIAL HANDLING:	•			
MODE OF SHIPMENT: ☐ CAR/TRUCK ☐ BUS ☑ PLANE ☐ COMMERCIAL VEHICLE				
QA/QC			ST LANE	COMMENSAL ACTIOES
SAMPLE COLLECTED DISCREPANCIES:	BY: Den Nez		SAMPLING OBSERVED	BY:

JOB No. <u>6301-05-0016</u>	
JOB NAME_DSCR - OU8- Semi-Annual Monitoring Resample	
DATE 8.3.05 TIME 920	
SAMPLING POINT: DP/	
DEPTH NA	

		•			IG POINT: DP-/
SAMPLE INFORMATION	SAMPLE I.D. N	0: DP-1-	0705		
MATERIAL: 🛛 WA		•	SLUDGE	□отн	ER (LIST)
TYPE: 🛛 GR	AB COM	<b>IPOSITE</b>	OTHER (LIST)		
HAZARDOUS?: YES	S ⊠ NO		UNKNOWN		•
CONTAIN		NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME		PREPARAT		
VOA VIAL	40 ml	3	HCl to pH<2, Cool	I to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C	:	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020
COMMENTS: (WELL PUF				DLOR, ETC	.)
FIELD MEASUREMENTS					
PARAMETER	EQUIPM	MENT I.D.	RESULTS (U	NITS)	COMMENTS
	See asso	ociated purge for	m for sampling detai	il	
COMMENTS: (WELL PUF	GING VOLUME: S	AMPLE APPEA	RANCE; ODOR; CO	LOR, ETC	5.)
46 GALLONS 1	PURGED CO	عدى عاهماه	, Dolles		
GENERAL INFORMATION	WEATHER S	1.V , Y 21/200	TOT A	UR TEMPE	RATURE 90~100°F≠
SAMPLES SHIPPED TO:	Columbia Analytical	Services - Redo	ling, California/ Mile		New July 10
SPECIAL HANDLING: Fed	Ex				
MODE OF SHIPMENT:	☐ CAR/TRUC	:к 🔲 В	us 🛭 Pi	ANE	COMMERCIAL VEHICLE
QA/QC					
SAMPLE COLLECTED BY DISCREPANCIES: NON		EMANN	SAMPLING OBSE	ERVED BY	: DAN VASS

### FIELD SAMPLING

JOB No. <u>6301-05-001</u>	6
JOB NAME <u>DSCR – O</u> Monitoring Resample	U8- Semi-Annual
DATE 8.3.05	TIME 935
SAMPLING POINT	P-2
DEPTH N/A .	

	REPOR	T		DATE 8	
	1421 014	•		SAMPLIN	IG POINT DD-2
				DEPTH_	N/A .
SAMPLE INFORMATION	SAMPLE I.D. N	10.: DP-7	2-0705		
MATERIAL:	WATER SOI	L	SLUDGE	□ отн	ER (LIST)
TYPE:	GRAB CO	MPOSITE	OTHER (LIST)	·	
HAZARDOUS?:	YES 🛛 NO		UNKNOWN		
	AINER	NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME		PREPARAT		
VOA VIAL	40 ml	3	HCI to pH<2, Cool	to 4°C	VOCs by SW8260B
Poly	500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Ct by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Co	ol to 4°C	Tot. Metals by 60108,7470A,6020
				· ··-·	
		1			
	PURGING VOLUME: S			LOR, ETC.	.)
	US PURGED, C	ologiess,	<u>odoeless</u>		
FIELD MEASUREMENT	s				•
PARAMETER	EQUIPI	MENT I.D.	RESULTS (U	NITS)	COMMENTS
	Can ann	naintad arrana farra			
	See asse	ociated purge for	n for sampling detai	ı	
COMMENTS: (WELL	PURGING VOLUME: S	AMDIE ADDEAE	PANCE: ODOP: CO	LOP ETC	<u>,                                     </u>
	us Purged, C		•	LON, ETC.	·,
GENERAL INFORMATION		SUNNY, V.	·	ID TEMPE	RATURE <u>90~100</u> *F±
OCHERAE III ORIMATI	WEATHER_	30,410 y , V.	1101	OK I CIVIE	NATORE -10 100 1 I
	FO: Columbia Analytical	Services - Redd	ing, California/ Mich	oseeps – P	Illaborg PA
SPECIAL HANDLING:					
MODE OF SHIPMENT	: CAR/TRUC	K 🗍 B	US 🛛 PL	.ANE	COMMERCIAL VEHICLE
QA/QC					
SAMPLE COLLECTER	BY: DAN VAS	5	SAMPLING OBSE	RVED BY:	TED WITTEMANN
DISCREPANCIES:N					

### FIELD SAMPLING

JOB NAME DSCR - OU8- Semi-Annual Monitoring Resample  DATE 8.3.05 TIME 940  SAMPLING POINT: DP-3	JOB No. 6301-05-0016	
DATE <u>8.3.65</u> TIME <u>946</u> SAMPLING POINT: DP-3		8- Semi-Annual
SAMPLING POINT: DP-3		TIME 940
DEPTH N/A		P-3

	R	EPORT	Γ			3.3.05 TIME 940 IG POINT: DP-3 N/A
SAMPLE INFORMATION	ON SA	MPLE I.D. NO	D: \( \sum_{D} \)	3-0705		
MATERIAL:	 ⊠ WATER	SOIL	<del></del> ,	SLUDGE	🗌 отн	ER (LIST)
TYPE:	⊠ GRAB	Сом	POSITE	OTHER (LIST)	)	
HAZARDOUS?:	YES	⊠ NO		UNKNOWN		•
CO	NTAINER		NUMBER	PRESERVAT	TIVE/	COMMENTS
TYPE	VO	LUME	TAOMBER	PREPARAT	ION	COMMENTS
VOA VIAL	4	0 ml	3	HCl to pH<2, Coo	l to 4°C	VOCs by SW8260B
Poly	5	00 ml	1	Cool to 4°C	5	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly	50	00 ml	1	HNO <sub>3</sub> to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020
COMMENTS: (WELL  65 GAUS  FIELD MEASUREMENT  PARAMETER	ONS PUR	GED , (	ENT I.D.	RANCE; ODOR; CO	S UNITS)	COMMENTS
COMMENTS: (WEL			AMPLE APPEAR		LOR, ETC.	)
GENERAL INFORMAT		<del>/</del>	H, Yuuuc		VIR TEMPE	RATURE 90 -100° €
SAMPLES SHIPPET SPECIAL HANDLIN	O TO: <u>Columb</u>		, ,			ittshara DA
MODE OF SHIPME		CAR/TRUCK	( <u>B</u>	US 🛛 PI	LANE	COMMERCIAL VEHICLE
QA/QC						
SAMPLE COLLECT DISCREPANCIES:		n VASS	······································	SAMPLING OBSE	ERVED BY:	TED OTTEMANN

JOB No	o. <u>6301-05-0016</u>	
JOB NA	AME <u>DSCR – OU</u> ng Resample	8- Semi-Annual
	8.23.05	TIME 945
_	ING POINT:	D-4
DEPTH	I N/A	,

	KLPOK			SAMPLIN DEPTH_	MA DP-4
SAMPLE INFORMATION	SAMPLE I.D. N	0.: DP-0	1-0705		
MATERIAL: 🛛 WATE	ER SOIL	•	SLUDGE	□отн	ER (LIST)
TYPE: 🏻 GRAE	B □ COM	MPOSITE	OTHER (LIST)	) <u> </u>	
HAZARDOUS?: YES	⊠ NO		UNKNOWN		,
CONTAINER		NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME	ļ	PREPARAT		
VOA VIAL Poly	40 ml	1	HCI to pH<2. Cool Cool to 4°C		VOCs by SW8260B  Alkalmity, NO <sub>3</sub> , SO <sub>4</sub> , Cf by  E310.1, E300.0
Poly	500 ml	1	HNO <sub>3</sub> to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020
COMMENTS: (WELL PURG 75 GALLONS II FIELD MEASUREMENTS  PARAMETER	EQUIPM See asso	MENT I.D.	RESULTS (U	NITS)	COMMENTS
COMMENTS: (WELL PURG			•	•	.)
75 GALLONS F	<del>T</del>		<del>-i</del>		
GENERAL INFORMATION	WEATHER S	MUNNY, H	DT A	JR TEMPE	RATURE <u>90-100°F</u>
SAMPLES SHIPPED TO: <u>Co</u> SPECIAL HANDLING: <u>FedE</u>	•	Services - Redd	ling, California/ M.	P	iltshura PA
MODE OF SHIPMENT:	CAR/TRUC	к □в	US 🖾 PL	.ANE	COMMERCIAL VEHICLE
QA/QC			· · · · · · · · · · · · · · · · · · ·		
SAMPLE COLLECTED BY: DISCREPANCIES:NONE	_		SAMPLING OBSE	ERVED BY:	TED WITEMANN

	•	010 4	15		
	JOB No.	6301-05-0016			
		ME_DSCR - OU8- Semi-Ani	nu <u>al</u>		
		Resample	55		
	Î	7 3 93	<u> </u>		
		NG POINT: DD-5			
	DEPTH_	N/A.			
5					
E	<b>∏</b> ОТН	ER (LIST)			
(LIST)	·				
NWO			,		
ERVAT		COMMENTS	<b>—</b>		
PARAT	ION	COMMENTS	_		
1<2. Coo	lo 4°C	VOCs by SW8260B			
oof to 4°C	;	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by	′		
		E310.1, E300.0			
H<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020			
		0010B,7470A,0020			
			_		
OR; CO	LOR, ETC	;.)			
ESS	<u> </u>				
	<del></del>				
1 TC /!!	NUTCY	COMMENTS	·		
LTS (U	M13)	COMMENTS			
ng detai	Į.				
-					
)R- C∩	LOR, ETC	······································			
JN, UU =C €	LON, LTO	7-1			
<u> </u>					
A	IR TEMPE	RATURE 90-100*	<u> -                                    </u>		

			_	DEPTH_	N/A.
SAMPLE INFORMATION	SAMPLE I.D. NO	D: DP-5	-0705		
MATERIAL:	WATER SOIL		SLUDGE	ОТН	ER (LIST)
TYPE:	GRAB COM	IPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🛛 NO		UNKNOWN		
	AINER	NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME		PREPARATI		
VOA VIAL	40 m)	3	HCl to pH<2. Cool	lo A°C	VOCs by SW8260B  Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by
Poly	500 ml	1	Cool to 4°C		E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Coo	ol to 4°C	Tot. Metals by 6010B,7470A,6020
					:
				·	
COMMENTS: OMEN	DUDCING VOLUME, CA	MADLE ADDEAD	ANOT ODOD OO	00.570	
	PURGING VOLUME: SA ONS PURGED			LOR, ETC.	.)
FIELD MEASUREMENTS		LOCOPLES	, odobless		
PARAMETER	· EQUIPM	ENT I.D.	RESULTS (UI	VITS)	COMMENTS
	See assoc	ciated purge form	n for sampling detail		
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; COI	LOR, ETC.	)
80 GALLOI	NS PURGED,	COLOPLESS	ODOPLESS		
GENERAL INFORMATIC		BUNNY, HO		IR TEMPE	RATURE 90-100 F ±
SAMPLES SHIPPED T	O: Columbia Analytical S	/ Services – Reddi	ing. California/ Misse		ittsburg BA
SPECIAL HANDLING:					
MODE OF SHIPMENT		<	JS ⊠PL	ANE	☐ COMMERCIAL VEHICLE
QA/QC					
SAMPLE COLLECTED	BY: DAN VASS	_	SAMPLING ORSE	おくたし おく・	TED WITEMANN
DISCREPANCIES:	•	<del></del>	CAMIN ENTO OBSE	· (VLD D1.	100 1100 1100

JOB No. <u>6301-05-0016</u>
JOB NAME <u>DSCR - OU8- Semi-Annual</u> Monitoring Resample
DATE 8.3.05 TIME 1000
SAMPLING POINT: DP-6
DEPTH MA

		KEPOK				GPOINT: DP-6 N/A
SAMPLE INFORMAT	ION	SÄMPLE I.D. NO	D-6:	-0705		-
MATERIAL:	<b>⊠</b> WATE			SLUDGE		R (LIST)
TYPE:	☑ GRAB	□сом	IPOSITE	OTHER (LIST)	)	
HAZARDOUS?:	YES	⊠ NO		UNKNOWN		4
TYPE CO	NTAINER		NUMBER	PRESERVAT PREPARAT		COMMENTS
VOA VIAL	-	VOLUME 40 ml	3	HCI to pH<2, Coo		VOCs by SW8260B
Poly		500 ml	1	Cool to 4°C		Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0
Poly		500 ml	1	HNO₃ to pH<2, Co	ool to 4°C	Tot Metals by 6010B,7470A,6020
<u> </u>						
				· · · · · · · · · · · · · · · · · · ·		
COMMENTS: (WE					LOR, ETC.	)
		PEGED, CO	LOPLESS,	Dolless		
FIELD MEASUREME	NTS					
PARAMETI	ER	EQUIPM	ENT I.D.	RESULTS (U	NITS)	COMMENTS
		See assoc	ciated purge form	n for sampling detai	il	
COMMENTS: (WE	LL PURGI	NG VOLUME: SA	AMPLE APPEAR	ANCE; ODOR; CO	LOR, ETC.	)
100 BALL	ms P	026ED (	DIOPLESS,	DOPLESS		
GENERAL INFORMA			·		IR TEMPE	RATURE 90-100°F±
SAMPLES SHIPPE	D TO: <u>Col</u>	umbia Analytical S	<i>i</i> Services – Reddi	ng, California/ Miss	D:	Mahusa DA
SPECIAL HANDLIN	lG: <u>FedEx</u>					
MODE OF SHIPME	NT:	CAR/TRUCK	С ДВС	JS ⊠PL	ANE	☐ COMMERCIAL VEHICLE
QA/QC	:					
SAMPLE COLLECT	TED BY: _	DAN VASS		SAMPLING OBSE	ERVED BY:	TED WITTEMAND
DISCREPANCIES:		NONE				·
					· · · · · · · · · · · · · · · · · · ·	

JOB No. 6301-05-0016

JOB NAME DSCR - QU8- Semi-Annual Monitoring Resample

DATE 8.3.05 TIME 11.05

SAMPLING POINT: DD. 7

	REPOR	SAMPLING POINT: DD. 7 DEPTH_N/A			
SAMPLE INFORMATION	SAMPLE I.D. NO	D: ND-	7-0705	1	,
MATERIAL:	———I WATER ☐ SOIL		SLUDGE	□ отн	ER (LIST)
TYPE:	GRAB COM	IPOSITE	OTHER (LIST)		
_	YES NO		UNKNOWN		
CONT	AINER	NUMBER	PRESERVAT	ΓΙVΕ/	COMMENTS
TYPE	VOLUME	NOMBLA	PREPARAT	ION	COMMENTS
VOA VIAL	40 m)	3	HCl to pH<2, Coo	l to 4°C	VOCs by SW8260B
Poty	500 ml	1	Coof to 4°C	C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CF by E310.1, E300.0
Poly	500 ml	1	HNO₃ to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020
COMMENTS: (WELL)	PURGING VOLUME: SA	AMPLE APPEAF	RANCE: ODOR: CC	LOR, ETC.	)
_	ONS PURBED,				, i
FIELD MEASUREMENTS					
PARAMETER	EQUIPM	IENT I.D.	RESULTS (U	INITS)	COMMENTS
	See assoc	ciated purge forr	n for sampling detai	il	
COMMENTS: (WELL)	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; CO	LOR, ETC.	)
105 GALLO	INS PURGED, C	DLOPLESS	, ODOPLESS	<u> </u>	,
GENERAL INFORMATIO	<del> </del>	<del>-</del>			RATURE 90100°F±
SAMPLES SHIPPED T	O: Columbia Analytical	Services - Redd	ing, California/ Micr	ا حواص	INO.
SPECIAL HANDLING:	FedEx				
- MODE OF SHIPMENT	: CAR/TRUCI	< □ B	US ⊠PI	LANE	COMMERCIAL VEHICLE
QA/QC			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
SAMPLE COLLECTED DISCREPANCIES:	DAN VASS		SAMPLING OBSE	ERVED BY:	TED WITTEMANN

ĺ	JOB No. <u>6301-05-0016</u>
	JOB NAME <u>DSCR - OU8- Semi-Annual</u> Monitoring Resample
;	DATE 8.3.05 TIME 115
	SAMPLING POINT: DP-8
i	DEDTH ALA

	SAMPLING POINT: DP-8					
				N/A.		
SAMPLE INFORMATION	SAMPLE I.D. NO	DAC ::	-0205	<u> </u>	•	
MATERIAL:	——— WATER ☐ SOIL		SLUDGE	Потн	ER (LIST)	
_	_	IPOSITE	OTHER (LIST)			
	YES NO		UNKNOWN	-		
	AINER	MINADED	PRESERVAT	ΓΙΥΕ/	00111451450	
TYPE	VOLUME	NUMBER	PREPARAT	ION	COMMENTS	
VOA VIAL	40 ml	3	HCI to pH<2, Coo	I to 4°C	VOCs by SW8260B	
Poly	500 ml	1	Cool to 4°C	;	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by E310.1, E300.0	
Poly	500 ml	1	HNO₃ to pH<2, Co	ool to 4°C	Tot. Metals by 6010B.7470A,6020	
COMMENTS: (MELL	PURGING VOLUME: S	ANADI E ADDEAS	ANCE: ODOD. CO	V OD ETO		
	PURSED, COLO		•	LOR, ETC.	.)	
FIELD MEASUREMENTS	·	120032	<u> </u>			
PARAMETER	EQUIPM	ENT I.D.	RESULTS (U	INITS)	COMMENTS	
	See asso	ciated purge for	n for sampling detai	i)		
			g dotta	•		
COMMENTS: (WELL	PURGING VOLUME: SA	AMPLE APPEAR	RANCE; ODOR; CO	LOR, ETC.	)	
60 BALLONS	PURGED, CO	LOPLESS,	, ODORLESS			
GENERAL INFORMATIO	WEATHER S	unny, Ho	Δ Α	JR TEMPE	RATURE <u>90-100°F</u> ±	
SAMPLES SHIPPED T	O: Columbia Analytical S	Services - Redd	ing, California/ Mich	**************************************	Mahanga DA	
SPECIAL HANDLING:	SPECIAL HANDLING: FedEx					
MODE OF SHIPMENT	: CAR/TRUC	< □ B	US 🖾 PL	ANE	COMMERCIAL VEHICLE	
QA/QC						
SAMPLE COLLECTED DISCREPANCIES:	BY: DAN VASS	<b>&gt;</b>	SAMPLING OBSE	ERVED BY:	TEDWITTEMANN	

SAMPLE COLLECTED BY: DAN VASS

**SAMPLE INFORMATION** 

**FIELD MEASUREMENTS** 

**GENERAL INFORMATION** 

**QA/QC** 

DISCREPANCIES: NONE

					-	010 413		
					JOB No.	6301-05-0016		
F	IEL	D SAMP	LING			AE DSCR - OU8- Semi-Annual Resample		
_		REPORT	<b>-</b>		DATE S	3.3.05 TIME 1010		
		REFUR	l		SAMPLIN	NG POINT: DP-9		
					DEPTH_	N/A		
MPLE INFORMATION		SAMPLE I.D. NO	D. D. 9	- M705				
	لــــــــــــ ŒTAW			SLUDGE	Потн	ER (LIST)		
_	GRAB	· <del></del>		OTHER (LIST)	**	ETT (EIOT)		
·	YES	⊠ NO	FOSITE					
CONT/				PRESERVAT	FIVE/			
TYPE		VOLUME	NUMBER	PREPARAT		COMMENTS		
VOA VIAL		40 ml	3	HCl to pH<2. Coo	I to 4°C	VOCs by SW8260B		
Poly		500 ml	1	Cool to 4°C	<del></del>	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cf by		
						E310.1, E300.0		
Poly		500 mt	1	HNO <sub>3</sub> to pH<2, Cool to 4°C		Tot. Metals by 6010B,7470A,6020		
		,						
	-							
***************************************								
COMMENTS: (WELL F	PURGI	NG VOLUME: SA	MPLE APPEA	RANCE; ODOR; CC	LOR, ETC	5.)		
50 GAUC	2115	PURGED,	COLORLES	S, ODOPLES	5			
ELD MEASUREMENTS				· · · · · · · · · · · · · · · · · · ·				
PARAMETER		EQUIPM	ENT I.D.	RESULTS (L	INITS)	COMMENTS		
See associated purge form for sampling detail								
COMMENTS: (WELL F	PURGI	NG VOLUME: SA	MPLE APPEA	RANCE; ODOR; CC	LOR, ETC	;.)		
50 GALLON		_	_	ODORESS		<u> </u>		
ENERAL INFORMATIO		WEATHER <u></u>			IR TEMPE	RATURE 90-100 F±		
SAMPLES SHIPPED TO	SAMPLES SHIPPED TO: Columbia Analytical Services – Redding, California/ Microseeper Billiahann BA							
		minia Analytical S	<u> </u>	and, Camornia/ Micr	ONCE:			
SPECIAL HANDLING:			/	WC 57.00	AA45			
MODE OF SHIPMENT:		☐ CAR/TRUCH	( [B	OUS KIPI	ANE	COMMERCIAL VEHICLE		
NIOC	7							

SAMPLING OBSERVED BY: TED WITTEMANN

### FIELD SAMPLING

JOB No. <u>6301-05-0016</u>
JOB NAME DSCR - OU8- Semi-Annual
Monitoring Resample
DATE 8.3.05 TIME 1620
SAMPLING POINT: DP-10
DEPTH N/A

	REPO	DATE 8.3.05 TIME 1020			
					IG POINT: 22-10
			<u> </u>	DEPTH_	N/A
SAMPLE INFORMATION	SAMPLE	.D. NO.: DP-	10-0705		
MATERIAL:	WATER [	SOIL	SLUDGE	OTH	ER (LIST)
TYPE:	GRAB	COMPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES 🔯	NO	UNKNOWN		,
	AINER	NUMBER	PRESERVAT		COMMENTS
TYPE	VOLUME		PREPARATI		
VOA VIAL	40 ml	3	HCI to pH<2. Cool		VOCs by SW8260B  Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by
Poly	500 mi	1	Cool to 4°C	:	E310.1, E300.0
Poty	500 ml	1	HNO <sub>3</sub> to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
COMMENTS: (WELL I	PURGING VOLUM	IF: SAMPLE APPEAL	RANCE: ODOR: CO	LOR ETC	1
		, COLORLESS		,	,
FIELD MEASUREMENTS	···-··································				
PARAMETER	EC	OUIPMENT I.D.	RESULTS (U	NITS)	COMMENTS
	Coo				
	266	associated purge for	m for sampling detail	!	
COMMENTS: (WELL I	PURGING VOLUM	E: SAMPLE APPEA	RANCE: ODOR: CO	LOR FTC	)
		. colorless,			,
GENERAL INFORMATIO	(	R SUNNY, H		IR TEMPE	RATURE 90-100°F±
SAMPLES SHIPPED T	O: <u>Colum</u> bia Anal	/ <u>/tical Services</u> – Redd	ling, California/ Micro	20022 D	
SPECIAL HANDLING:					
MODE OF SHIPMENT	: ☐ CAR∕I	RUCK B	US 🛛 PL	ANE	COMMERCIAL VEHICLE
QA/QC					
SAMPLE COLLECTED	BY: TED	WITTEMANN	SAMPLING ORSE	RVED BY:	DAN VASS
DISCREPANCIES:	NONE			<b></b>	

				JOB No. 6301-05-0016		
	ElE	JOB NAME DSCR - OU8- Semi-Annual				
		LD SAMP	LING			Resample
		REPORT	Γ			3.3.05 TIME 1030
			•			NG POINT: DP-11
					DEPTH_	N/A
S	AMPLE INFORMATION	SAMPLE I.D. NO	D: DP-1	11-0705		
	MATERIAL: WA	TER SOIL		SLUDGE	□отн	ER (LIST)
	TYPE: ⊠ GR	AB COM	POSITE	OTHER (LIST)	)	
	HAZARDOUS?: YES	S ⊠NO		UNKNOWN		
	CONTAINE		NUMBER	PRESERVAT		COMMENTS
	TYPE VOA VIAL	VOLUME 40 ml	. 9	PREPARAT		
	<del></del>	40 (1)	3	HCl to pH<2, Coo	10 4 4	VOCs by SW8260B Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by
	Poly	500 ml	1	Cool to 4°C		E310.1, E300.0
	Poty	500 ml	1	HNO₃ to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020
					•	
	COMMENTS: (WELL PUR	GING VOLUME: SA	MPLE APPEAF	RANCE; ODOR; CC	LOR, ETC	5.)
	60 BALLONS	PURGED, CO	weless,	ODOPUESS		
F	IELD MEASUREMENTS		···			
	PARAMETER	EQUIPM	ENT I.D.	RESULTS (U	INITS)	COMMENTS
		See assor	ciated purge form	n for sampling detai	il	
		300 0000	natos pargo tom		<b>''</b>	
	COMMENTS: (WELL PUR	GING VOLUME: SA	MPLE APPEAR	RANCE; ODOR; CC	LOR, ETC	5.)
	60 GALLONS	PURGED, C	OLOPLESS	, ODORUESS		
G	SENERAL INFORMATION	<del></del>	H, Yanoc	<del></del>		RATURE 90-100°F±
	SAMPLES SHIPPED TO: 0	Columbia Analytical S	i Services – Redd	ing, California/ Micr	oseeps .	Model
	SPECIAL HANDLING: Fedi	Ex		,		
	MODE OF SHIPMENT:	☐ CAR/TRUCH	( <u> </u> B	US 🛛 PI	.ANE	COMMERCIAL VEHICLE
C	ANDC					
	SAMPLE COLLECTED BY:	TED WITH	=MANN	SAMPLING OBSE	ERVED BY	: DAN VASS
	DISCREPANCIES: Non		-	23 2 3501		*
	· · · · · · <del>- · - · - · - · - · - · - ·</del>					

#### FIELD SAMPLING

JOB No. <u>6301-05-0016</u>	
JOB NAME DSCR - OUI	8- Semi-Annual
Monitoring Resample	
DATE 8.305	TIME 1200
SAMPLING POINT: D	D-11(1036)
DEPTH NA.	, , ,

	RE	DATE SAMPLIN DEPTH	1305 TIME 1200 IG POINT: DD-11 (1036 N/A			
SAMPLE INFORMATION	SAME	PLE I.D. NO	0: ou8D	UP-3-0705	_	:
MATERIAL:	WATER	SOIL	-	SLUDGE	□отн	ER (LIST)
TYPE:	GRAB	COM	<b>IPOSITE</b>	OTHER (LIST)		
HAZARDOUS?:	YES	⊠ NO		UNKNOWN		
	AINER		NUMBER	PRESERVAT	1	COMMENTS
TYPE VOA VIAL	VOLU 40 m		3	PREPARAT		
	40 11		3	HCl to pH<2, Coo	1 10 4 °C	VOCs by SW8260B  Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by
Poly	500 n	กไ	1	Cool to 4°C	;	E310.1, E300.0
Poly	500 r	nl	1	HNO <sub>3</sub> to pH<2, Co	ol to 4°C	Tot. Metals by 6010B,7470A,6020
FIELD MEASUREMENT:	PURGED	, colo	euss, o	Dolless (	DUPLIC	ATE DP-11-0705)
PARAMETER	I		IENT I.D.	RESULTS (U		COMMENTS
COMMENTS: (WELL						
60 GALLON	s Pubs	ED, C	oweress,	ODORLESS	(DUPU	ATE DP-11-0705)
GENERAL INFORMATIO	N WEA	THER S	-unny, H	σΤ A	IR TEMPE	RATURE 90-100°F±
SAMPLES SHIPPED T SPECIAL HANDLING:		Analytical S	/ ' Services – Redd			Make and DA
MODE OF SHIPMENT	: c.	AR/TRUC	K 🔲 BI	JS ⊠PL	ÂNE	COMMERCIAL VEHICLE
QA/QC			<del></del>	<u>-</u>		
SAMPLE COLLECTED DISCREPANCIES:		WIT7	EMANN	SAMPLING OBSE	RVED BY:	DANVASS

JOB No. <u>6301-05-0016</u>
JOB NAME_DSCR - OU8- Semi-Annual Monitoring Resample
DATE # 8.3.05 TIME 1045
SAMPLING POINT DP-12
DEDTH NA

		IXLI OIX	•		SAMPLING POINT: DP-12 DEPTH NA	
SAMPLE INFORMATI	ON	SAMPLE I.D. N	0: DP-1	2-0705		
MATERIAL:	⊠ WATE	ER SOIL		SLUDGE	□отн	ER (LIST)
TYPE:	⊠ GRAB	□ con	MPOSITE	OTHER (LIST)	)	
HAZARDOUS?: YES		⊠ NO		UNKNOWN		
CONTAINER			NUMBER	PRESERVAT		COMMENTS
TYPE		VOLUME		PREPARAT	•	
VOA VIAL		40 ml	3	HCI to pH<2, Coo	I to 4°C	VOCs by SW8260B  Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , Cl by
Poly		500 ml	1	Cool to 4°0		E310.1, E300.0
Poly		500 ml	1	HNO₃ to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020
COMMENTS: (WEI 50 GAU FIELD MEASUREMEN PARAMETE	ons f its	PURED, C	OLO PLESS	RESULTS (U	INITS)	COMMENTS
		See asso	ciated purge for	m for sampling deta		
COMMENTS: (WEI 50 GALLON		NG VOLUME: S 26ED , COL			LOR, ETC	·.)
GENERAL INFORMA	TION	WEATHER	SUNNY, HO	T A	UR TEMPE	RATURE <u>90-100°F±</u>
SAMPLES SHIPPEI SPECIAL HANDLIN	G: <u>FedEx</u>	umbia Analytical	Services - Redd	ling, California/Micr		Dittoburg DA
MODE OF SHIPME	NI:	☐ CAR/TRUC	К ∏В	US 🗵 PI	ANE	COMMERCIAL VEHICLE
SAMPLE COLLECT	ED BY:	TED WITT	EMANN	SAMPLING OBSE	ERVED BY	: DAN VASS
DISCREPANCIES:						

### FIELD SAMPLING REPORT

JOB No. <u>6301-05-0016</u>
JOB NAME DSCR - OU8- Semi-Annual
Monitoring Resample
DATE 8-2-05 TIME 17:20
SAMPLING POINT: TEIP BLANK
DEPTH N/A

					N/A
SAMPLE INFORMATION	ON SAMPLE	I.D. NO.: TB - 0802		<u> </u>	
MATERIAL: [	⊠ WATER [	SOIL. COMPOSITE	SLUDGE OTHER (LIST)		ER (LIST)
HAZARDOUS?: [		⊠ NO	UNKNOWN		,
TYPE	TAINER VOLUME	NUMBER	PRESERVAT PREPARATI		COMMENTS
VOA VIAL	40 ml	23	HCl to pH<2, Cool		VOCs by SW8260B
VOA VIAL	40 ml	3	HCi to pH<2, Cool	to 4°C	Methane, ethane, ethene by RSK- 175
VOA VIAL	40 ml	23	Cool to 4°C		CO <sub>2</sub> by RSK-175
N/A L	AB PROVIDE	ME: SAMPLE APPEAR	RANCE; ODOR; CO	LOR, ETC	:.)
FIELD MEASUREMEN	115				
PARAMETE	R E	QUIPMENT I.D.	RESULTS (U	NITS)	COMMENTS
COMMENTS: (WEL	IDED, UNOA	ee associated purge for SNED VOA VIAL	S W/ COC TA	PE ACIE	
GENERAL INFORMAT		HER N/A	Δ	IR TEMPE	ERATURE N/A
	<del></del>	alytical Services - Califo			17/1
SPECIAL HANDLING		aryticar dervices - Camo	n i i a		
MODE OF SHIPMEN		TRUCK B	M.o.	.ANE	COMMERCIAL VEHICLE
QA/QC	T. LI CAR	THOUSE EIGHT	.00 M.P.	.AML	LI COMMISLICIAL VEHICLE
SAMPLE COLLECTION DISCREPANCIES:		ONTEMANN	SAMPLING OBSE	RVED BY	<u></u>

### FIELD SAMPLING REPORT

JOB No. 6301-05-0016	
JOB NAME <u>DSCR - OU</u> Monitoring Resample	8- Semi-Annual
DATE 08/03/05	TIME 17:15
SAMPLING POINT: LA	B PEOVIDED
DEPTH N/A	

		KEI OK	•	·	SAMPLING DEPTH N	POINT: LAB PEOVIDEI /A
SAMPLE INFORMAT	ION	SAMPLE I.D. N	O.: TB-0603	05-01		
MATERIAL:	<b>⊠</b> WATE	R 🗌 SOIL	_	SLUDGE	OTHER	(LIST)
TYPE:	⊠ GRAB	COM	MPOSITE	OTHER (LIST)		
HAZARDOUS?:	YES	⊠ NO		UNKNOWN		
CC	ONTAINER		NUMBER	PRESERVAT	IVE/	COMMENTS
TYPE		VOLUME		PREPARAT		COMMENTS
VOA VIAL		40 ml	2369	HCl to pH<2, Coo		VOCs by SW8260B
VOA VIAL		40 ml	3	HCl to pH<2, Coo	to 4°C M	ethane, ethane, ethene by RSK- . 175
VOA VIAL		40 ml	23(2)	Cool to 4°C	:	CO₂ by RSK-175
			·			
<b>/</b>						
	·					
			<u> </u>	<u> </u>		
	_		AMPLE APPEAF	RANCE; ODOR; CO	LOR, ETC.)	
N/A L	AB PE	POVIDED				
FIELD MEASUREME	NTS					
PARAMET	ER	EQUIPA	MENT I.D.	RESULTS (U	NITS)	COMMENTS
		1				
				m for sampling deta		
LAB	Peovit	ED. UNOT	Pened Vo	A VIALS W/C	COCTARE	Acloss UDS
COMMENTS: (WE	ELL PURGI	NG VOLUME: S	AMPLE APPEAF	RANCE; ODOR; CO	LOR, ETC.)	
N/A LA	B PRO	VIDED		<del></del>		
GENERAL INFORMA	ATION	WEATHER_	N/A	A	JR TEMPERA	TURE N/A
0.43401.50.04.0000			•			
SAMPLES SHIPPE			Services - Califor	rnia		
SPECIAL HANDLI						
MODE OF SHIPMI	ENT:	CAR/TRUC	K 🔲 B	US ⊠PL	ANE [	OMMERCIAL VEHICLE
QA/QC						
SAMPLE COLLEC	TED BY:	ED WITT	ENNAMM	SAMPLING OBSE	RVED RV	
DISCREPANCIES:			-11-11-10	OUMI, FING ODOE	-NVED D1	
DIOUNLE ANUIES.	, -010	<u></u>	·			

### FIELD SAMPLING REPORT

ļ	JOB No. <u>6301-05-0016</u>
	JOB NAME <u>DSCR OU8- Semi-Annual</u> Monitoring Resample
	Monitoring Resample
	DATE 8.3.05 TIME 1850
	SAMPLING POINT: LAB PROVIDED
	DEPTH MA

						NG POINT: CAB PERVIDER
SAMPLE INFORMA	ATION	SAMPLE I.D. N	O.: TB - 0 <b>%</b> <i>o</i> :	305-02	•	
MATERIAL: TYPE: HAZARDOUS?:	⊠ WATE ⊠ GRAB □ YES	R □ SOI	•	SLUDGE		HER (LIST)
	CONTAINER	23110		PRESERVAT	IVF/	
TYPE		VOLUME	NUMBER	PREPARAT		COMMENTS
VOA VIAL		40 m)	623	HCl to pH<2, Coo	l to 4°C	VOCs by SW8260B
VOA VIAL		40 ml	3	HCl to pH<2, Coo	l to 4°C	Methane, ethane, ethene by RSK- 175
VOA VIAL		40 ml	(i) 23	Cool to 4°C		CO <sub>2</sub> by RSK-175
	VELL PURGI		SAMPLE APPEAI	RANCE; ODOR; CO	DLOR, ETC	C.)
FIELD MEASUREM	MENTS					
PARAME	TER	EQUIP	MENT I.D.	RESULTS (L	INITS)	COMMENTS
COMMENTS: (V	20 VIDEL VELL PURGI 220VIDE	NG VOLUME: S	UED VOA	m for sampling deta ハトピー 心/このの RANCE; ODOR; CO	LTAKE	A-closs LIDS
GENERAL INFORM		WEATHER_	NIA	,	AIR TEMP	ERATURÉ N/A
SAMPLES SHIP	PED TO: <u>Col</u> LING: <u>FedEx</u>	umbia Analytical	Services - Califo	rnia		
MODE OF SHIP	VIENT:	☐ CAR/TRUC	K DB	OS KIPI	LANE	COMMERCIAL VEHICLE
QA/QC						
SAMPLE COLLE DISCREPANCIE		TED WITTE	MANH	SAMPLING OBSI	ERVED B	Y:

### FIELD SAMPLING REPORT

JOB No. 6301-05-0016

JOB NAME DSCR -- OU8- Semi-Annual Monitoring Resample

DATE 8-2-05 TIME 16:10

SAMPLING POINT: FRUIP BUANK
DEPTH N/A

		REP	ORT	_			NG POINT: EQUIP BUANK
				AUG 121 4	D-EQB-0705		
SAMPLE INFORMAT	TION	SAMPLE	E J.D. NO	DUB-BLAD			•
MATERIAL:	⊠ WATE	j	SOIL		SLUDGE	Потн	ER (LIST)
TYPE:	⊠ GRAE		_	POSITE	OTHER (LIST)	<del></del>	, ,
HAZARDOUS?:	☐ YES		⊠ NO □ COM	PUSITE	UNKNOWN	<i></i>	
	ONTAINER				PRESERVAT	FIV/E/	
TYPE	ONTAINER	VOLUME	<u> </u>	NUMBER	PREPARAT		COMMENTS
VOA VIAL		40 ml		3	HCl to pH<2, Coo	ol to 4°C	VOCs by SW8260B
VOA VIAL		40 ml		3	HCl to pH<2, Coo	ol to 4°C	Methane, ethane, ethene by RSK-175
Amber		250 ml		1	H₂SO₄ to pH<2,Co	ol to 4°C	TOC by E 415.1
VOA VIAL		40 ml		. , 3	Cool to 4°0	3	CO₂ by RSK-175
Poly		500 ml		1	ZnAc & NaOH, Co	ol to 4°C	Sulfide by E376.1
Poly		500 ml	;	1	Cool to 4°0	C	Alkalinity, NO <sub>3</sub> , SO <sub>4</sub> , CI by E310.1, E300.0
Poly		500 ml		1	HNO <sub>3</sub> to pH<2, Co	ool to 4°C	Tot. Metals by 6010B,7470A,6020
						···	
		<del></del>				-	
COMMENTS: (W	ELL PURG	ING VOLU	JME: SA	AMPLE APPEA	RANCE; ODOR; CO	DLOR, ETC	;.)
N/A DI	1 H20	LOT	£9104	640 FISH	ER SCIENTIF	ic / Lan	OPERNIC CONTENT
FIELD MEASUREM							H20
PARAME	TER	<u>-</u>	EQUIPM	ENT I.D.	RESULTS (U	JNITS)	COMMENTS
H20 Pomí	PED THE				m for sampling deta ND TUBING.	il	
COMMENTS: (W	ELL PURG	ING VOLU	JME: SA	AMPLE APPEA	RANCE; ODOR; CO	DLOR, ETC	S.)
N/A D	I H20	LOT	# 910	4040 FIS	HER SURVITA	رد / لص	OBBANIC CONTENT
GENERAL INFORM			HER N				ERATURE N/A
<del></del>			_				
SAMPLES SHIPP			iaiytical S	<u> Services – Red</u>	ging, California		
SPECIAL HANDL	·						
MODE OF SHIPM	IENT:	☐ CAF	R/TRUCI	K □ E	BUS 🖾 P	LANE	COMMERCIAL VEHICLE
QA/QC		_					
SAMPLE COLLEC	CTED BY:	Ted :	<u>ماريد</u>	3MANN	SAMPLING OBS	ERVED BY	Y: DAN VASS
DISCREPANCIES			<del></del>		, 11 11 11 11 11 11 11 11 11 11 11 11 11		
PIOOI (E) / NAOILC	· — \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\						

### FIELD SAMPLING REPORT

JOB No. 6301-05-0016

JOB NAME DSCR - IDW

DATE 8.3.05 TIME 15:50

SAMPLING POINT: IDW

DEPTH N/A

						DEPTH_	N/A
SAMPLE INF	ORMATION		SAMPLE I.D. NO	D.: IDW-2-0705			
MATERIAL	: 🛛	WATE	R □SOIL		SLUDGE	□отн	ER (LIST)
TYPE:	$\boxtimes$	GRAB	□сом	POSITE	OTHER (LIST)		
HAZARDO	US?:	YES	⊠ NO		UNKNOWN		
	CONT	AINER		NUMBER	PRESERVAT		COMMENTS
TY	PE		VOLUME	NOMBER	PREPARAT	ION	COMMENTS
VOA	VIAL		40 ml	3	HCl to pH<2, Coo		VOCs by SW8260B
Amber	Glass		1 L	2	Cool to 4°C	·	SVOCs by SW8270C
Amber	Glass		1 L	2	Cool to 4°C		Pesticides by SW8081A
Ambei	Glass		1 L	2	Cool to 4°C	; 	Herbicides by SW8151A
Po	oly		500 ml	1	HNO₃ to pH<2; Co	ool to 4°C	Total RCRA Metals (+ Cu, Ni, Zn, and Hg) by 6010B, 7470A
Po	oly		11.	1	Cool to 4°C	2	TSS by EPA 160.2 BOD by SM5210
<u> </u>							
COMMEN.	TS: (WELL I	PURGI	NG VOLUME: SA	AMPLE APPEA	RANCE; ODOR; CO	LOR, ETC	C.)
compe	SITE OF	3	DRUMS ≈ 13	30 GALLONS	S BUGHT E	Bearn,	STRONG SWEET SULFIL
FIELD MEAS	UREMENTS	S					ODOR
PA	RAMETER		EQUIPM	IENT I.D.	RESULTS (L	JNITS)	COMMENTS
			See asso	ciated purge for	m for sampling deta	ii	
	•				RANCE; ODOR; CO		
<del></del>							and sweet sultiple
GENERAL IN	IFORMATIC	N	WEATHER S	H, YUNUS	எட் /	AIR TEMPI	ERATURE 90-100°F±
			lumbia Analytical	/ Services – Redo	ling, California		
SPECIAL	HANDLING:	<u>FedEx</u>				·	
MODE OF	SHIPMENT	:	CAR/TRUC	K 🗌 E	BUS 🖾 P	LANE	COMMERCIAL VEHICLE
QA/QC			<u> </u>				
	COLLECTED	BY: _	i Ted with	EMANN	SAMPLING OBS	ERVED BY	: DAN VASS
Ŀ	ANCIES: N						

Results of Bi-Annual Groundwater Sampling – July 2005 Operable Units 6,7, and 8 Defense Supply Center Richmond

December 2005 Revision 0

1	
ı	
•	

### 2

### **APPENDIX A3**

OPERABLE UNIT 6
CHAIN OF CUSTODY DOCUMENTATION

Provide FAX Results

V. Spelcafized Forms / Custom Report

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

QF.

CAS Contact

% 8R ##

5090 Caterpillar Road • Redding, CA 98003 • (530) 244-5227 • 800-695-7222 x 10 • FAX (530) 244-4109 PAGE

							•		    -						7
Project Marie	Project Number	) (4) (4)		L	,						٠,	ا.			-
13 SCK Bi-Annual GW Same	aire 6301-05	016:070	9.0200			ANALYS	ANALYSIS REGUESTED (Include Mathod Number and Container Preservative)	TED (mod	ide Metho	d Number	and Cont	alner Pras	(evitative)		.;.
Steve Vounces Handle	Report CC	Hantnord	2000	PRESE	PRESERVATIVE		;			-		-,			
Company Address	X 30 40 1		2021	- 1		1	$\frac{1}{1}$	+	<b>†</b>	+		1		- 100 / 1	. ]
MACTEC		باستان پاستان			M		<u></u>	_	<u></u>	_	•	<u> </u>	<u></u>	Preservative Key 0. NONE	
13200 Town Point Dr	)r 5/2	00			BELO		<u></u>			<u> </u>			<u></u>	- 44 EEE COL	·;
Kennesaw GA 20144	=	,			ISN			<u>'</u>	<u></u>	,	<u></u>		`		
Phone 170-421-3400	FW: 770-421-3486	21-348	7	BBMUN	/ /\@\ \\@\ \\@\ \\@\ \\@\ \\@\ \\@\ \\	<u></u>	<u></u>	\		<u></u>				7. NaHSO4	:
Barrisor's General of There	Semplers Printed Name	Howard	, 7		ואסו מושכו		<u></u>	<u>'</u>		<u></u>	\ \				
CLIENT SAMPLE ID	LAB ID		E MATRIX	1, 1, 2			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				1 2 2 5		AITEDNA	REMARKS/ ATTEDNATE DESCRIPTION	वि
TB-071205		0080 30LIT	M	0			É							as occornic	.]
A E HA-188-0705		1200	MO	3	1	366	+	T		-					<u>.</u>
A EHA-18A-0705		1155	ξ.	13		3		4		7		<del> -</del>			<u> </u>
AEHA-25A-0705		1510	3	9		9	1	T T		7					T
4 E #A-258-0705		1500	3	9		. ?	4			<b>&gt;</b>	<u>  :                                   </u>	-			<u> </u>
0 U 6 DUP-H-0705	14	1200	30	6		D.	- 0	5 77	7	·			-		T
MEHA-248-0705		1700	30 W	9					4	<u> </u> -	-				·. T
AEHA-5-0705		1555	K Z	0-						-		<u> </u>			T
046D4P-1-0705		12(	70 W	6				-		-		-		,	T
AEHA-24A-0705		V 1630	30 W	6				 	ļ.			+		-	T
* Circle the method and each appropriate metal	1						]   		REPOR	REPORT REQUIREMENTS	MENTS	  -	INVOICE ()	INVOICE INFORMATION	1
Total Metals/6010 At As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo NI K Ag Na	Cd Cr Cu Co Fe Pb	Mg Mn Mo N	_	Se Sr Ti Ti	Sn V Zn		. ,	<u> </u>	_ 1. Results Only	Ž		2			 T
Total Metals/7000 series: As Sto Cr Cu Pto Se Ti Hg Total Metals/8020 series: Sto As Ba Be Cd Cr Co Cu Pto Mn Mo Ni Se Ag Ti V Zn	Se TI Hg Or Co Cu Pb Mn N	o NiSa Ag Ti	•			٠	• • • • • • • • • • • • • • • • • • • •	<u>.  </u>	II. Results (LCS, DUI	II. Results + OC Summaries (LCS, DUP, MS/MSD as required)	ries required)	BILL TO:	4000	address	<u>.</u>
Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Ll Mg Mn Mo Ni K	Cacacacaca R	Pb LI Mg Mn	Mo Ni K Ag	Na Se Sr	> uS II II.	ន	. • •	1.	III. Results	II. Results + QC and Calibration Summaries	Dration	Ŀ			T
Dissolved Metals/7000 series: As Sb Cr Cu Pb Se T1 Hg	Pb Sa TI Hg	,			: '	į		- (\$\frac{1}{2}\)	N Deta V	IV. Data Validation Report with Raw Data	Twith Rew D		RNAROUND	TURNAROUND REQUIREMENTS	· T

Dissolved Metats/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn SPECIAL INSTRUCTIONS/COMMENTS FOR FEX #

RELINGUISHED BY

Signature Janual Hanner	Signature Printed Name	Signature Printed Name	Agnature rinted Name	es pr	Signature Printed Name	Signature Pridiad Name	Signature Drings Name
AACTEC	Film	Firm			Alm	Fra	Firm
me 7112/05/14/15 Desprine	Data/Time	Date/Time	1.00 m		Data/Tirea,	Data/Time	Detp/Time
Distribution; White - Return to Originator; Vellow - Lab Copy, Pink - Renained by Client	w - Lab Copy, Pink - Retained by (	Clent		, i			

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

PAGE 5090 Caterpillar Road • Redding, CA 98003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

P.

CAS Contact

**#**00 # HS

BILL TO. A BOVE Address TURNAROUND REQUIREMENTS REMARKS/ ALTERNATE DESCRIPTION X\_ Standard (10-15 working days) INVOICE INFORMATION Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) 500 Minted Name Signethre Date/Time N. Data Valdation Report with Raw Oats V. Spelcalized Forms / Custom Report II. Results + OC Summaries (LCS, DUP, MS/MSD as required) REPORT REQUIREMENTS II. Results + OC and Calibration RELINQUIGHED BY し、井 I. Results Only Edata rinted Name 58746 Signature Dette/Time Choler ATE 0 RECEIVED BY OBOLE ON LIST BELOW
WEINLS Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo NIK Ag Na Se Sr Ti TI Sn V Zn Printed Name Signature Total Metals/6010 Al As St. Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo NI K Ag Na Se Sr Ti Ti Sn V Zn PRESERVATIVE 851103158757 LOTAL NUMBER OF CONTAINERS v J RELINQUISHED BY MATRIX 6301-65-0016,0709,02.00 2 ≥ Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn HOWAL 770-421-3486 SAMPLING Total Metals/6020 series; Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn 200 7/12/05 1510 1700 1630 "Way Hartness 1500 1200 Arritad Name Dates/Time Signature 570 DATE 30144 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg LAB 10 Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg DSCR B. Annual GW Sampling ガク Printed Name Circle the method and each appropriate metal Signatura 776-421-3460 SPECIAL INSTRUCTIONS/COMMENTS 4 EHA-25A-6705 4EHA-25B-0705 THEY BEHA - 24B-0745 8476 Saw 046DUP-4-0705 2010-1-9UG9110 AEHA-24A-0705 4EHA-5-6705 Heve Youngs HOWAR CLIENT SAMPLE ID RELINGUISHED BY 3200

Distribution, White - Return to Originator; Yellow - Lab Copy, Pink - Retained by Client

Statibution: White - Return to Originator, Vellow - Lab Copy; Pink - Retained by Client

Analytical . Services \*\*

# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpillar Road • Redding, CA 98003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109 PAGE

4 40

CAB Contect

8 SH.#

TURNAROUND REQUIREMENTS REMARKS/ ALTERNATE DESCRIPTION Cooler# 0713A Standard (10-15 worlding days) NVOICE INFORMATION ECEIVED BY Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) Printed Name Dette E ğ IV. Data Validation Report with Raw Data V. Spelcafted Forms / Custom Report Yes . No Il Results + OC Summaries (LCS, DUP, MS/MSD as required) REPORT REQUIREMENTS III. Results + QC and Calibration RELINQUISHED BY o, Results Only Edetta Signature 0 B Analysie 0 00 Dissolved Metats/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo NIK Ag Na Se Sr TI TI Sn V Zn MOTER LETOM hinted Name Signatura Total, Metalay 6010 AJ As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo NIK Ag Na Se Sr TITI Sn V. Zn Datts/Tim PRESERVATIVE 9 0 9 **Ž** NUMBER OF CONTAINERS 9 Ø 身 SPECIAL INSTRUCTIONS/COMMENTS FELEK ID # 89103158779 RELINQUISHED BY MATRIX DSCRBiAnnual 6WSampling 6301-05-0016,0709.0200 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn ≥ Howard Total Metals/7000 series: As Sb Cr Cu Pb Se T1 Hg Total Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag T1 V Zn 70-421-3486 1/13/65 0830 0945 Hartness 1020 0401 1200 2460 388 040/ 1256 1015 thread Name SAMPLING DATE TIN Signature Date/Time 5te 100 Sample Danie 30144 RECEIVED BY LAB ID のみ 3200 Town Point Dr ACTEC DELETION Printed Name Circle the method and each appropriate metal. Signature Transfer T roped Harager Steve Youngs 70-421-3400 MWA50-37-0745 M3/50 AEHA-218-0705/MS/MSD ennesaw AEHA-26A-0705 MWA50-38-0705 Uaniel A awar A F HA - 15A -0705 MWA50-36-07 05 B-071305 MACTE DMW-7A-0705 AEHA-218-0705 MWA50-37-0705 CLIENT SAMPLE ID RELINQUISHED BY Σ Signature

D 8

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpilar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

SR. d PAGE 2 OF

CAS Contact

REMARKS/ ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS 8. Other Hea Cooler# 0713A Standard (10-15 worlding days) NVOICE INFORMATION Provide FAX Regults ANALYSIS REQUESTED (Include Mathod Number and Container Preservative) rmad Name Catte/Time ğ N. Data Validation Report with Raw Data . V. Speicalized Forms / Custom Report. II. Results + OC Summaries (LCS, DUP, MS/MSD as required) REPORT REQUIREMENTS II. Results + QC and Calibration RELINGUISHED BY Results Only 9 Hinted Netme Sgrattin Data/Time 407 Analyses **v** OHOGE ON TIEL BELOW Dissolved Metals/6010: At As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn Printed Name Signature TI Si V Zh PRESERVATIVE 851103158779 TOTAL NUMBER OF CONTAINERS တ် 150R Bi-Annual GNSampling 6301-05-0616,0709,0200 Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se RELINGUISHED BY MATRIX Dissolved Metals/8020 series: Sb As Be Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn Andy Hartness Total Metals/6020 series: Sb As Ba Ba Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn 7/13/05/1205 770-421-3486 SAMPLING DATE TIME Howard Printed Name Signature 3200 Town Point Dr Ste 100 4 30144 FOR TX HOH Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg RECEIVED 8Y Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg CA Circle the method and each appropriate metal NEC 830 Detertine Signature Steve Joungs PECIAL INSTRUCTIONS/COMMENTS EHA-268-0705 770-421-3400 Kennesau CLIENT SAMPLE ID RELINQUISHED BY Date/Time 7/13 /0.5 Signatura

Distribution: White - Return 15 Originator; Yelfow - Leb Copy, Pink - Retained by Clent

14

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

ř.

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

PAGE OF

P PO

CAS Contact

\$ #E

ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS Coolest OTINE Standard (10-15 worlding days) NVOICE INFORMATION Provide FAX Resutts ANALYSIS REGUESTED (Include Method Number and Container Preservative) Stated Name 空間 Date/Tras Stonature ₫ W. Data Velidation Report with Raw Data V. Speicalzed Forms / Oustorn Report II. Results + OC Summarles (LCS, DUP, MS/MSD iss required) REPORT REQUIREMENTS III. Results + QC and Calibrition HELINOUISHED BY FedEx I. Results Only THIRD Name Signature Derts/Time 8511031587 1 Choler YECEIVED BY CHOLE ON LIST BELOW Dissolved Metala 190 (c. Al As So Ba Ba B Ca Cd Cr Cu Co Fe Po Li Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn Strited Name Signature Date/Time Total Metals/8010 AI As Sb Ba Ba B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo NIK Ag Na Se Sr TI TI Sn V Zn PRESERVATIVE TOTAL NUMBER OF CONTAINERS m mme PPECIAL INSTRUCTIONS/COMMENTS FOLK IN # 851103158768 RELINGUISHED BY MATRIX 15CRBit anna 16M Sanding 6301-05-0016,0709,0200 Amonto Tinds Hortness Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn. Mo NI Se Ag TI V Zn Be Cd Cr Co Cu Po Mn Mo Ni Se Ag TI V 2n 7/3/06 1200 0945 845 1300 1015 256 770-421-3486 SAMPLING DATE TIME Printed Name Signeture Ş 00/ 30144 Sampler's Printed Name 公司 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg RECEIVED BY LABID Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg 3200 Town Point Dr Printed Name Kennesaw, GA Circle the method and each appropriate metal Sprenue Dette/Time COMPANYAGINES M. A.C.T.E.C. Stere Youngs MACTEC AEHA-26B-0765 A E H A - 26 A-6705 MWAS0-37-0705/M5D Total Metals/6020 series: Sb As Ba 770-421-3400 1830 מאט גינ MWA50-36-0705 MWA50-37-0705 DMW-74-0705 CLIENT SAMPLE ID RELINQUISHED BY Signature

Distribution: White . Return to Originator; Yellow - Lab Copy; Plink - Retained by Client

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 ×10 • FAX (530) 244-4109.

PAGE OF

CAS Contact

9

8

ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS X Standard (10-15 working days) C. les # 07/30 INVOICE INFORMATION 3. Office, Provide FAX Resufts ECEIVED 8 ANALYSIS REQUESTED (Include Method Number and Container Preservative) BILTO. Above finted Name Signature 51 Ž ... N. Deta Validation Report with Raw Deta V. Spelcalized Forms / Custom Report II. Results + OC Summaries (LCS, DUP, MS/MSD as required) Edeba Yes No REPORT REQUIREMENTS III. Results + QC and Celibration Summaries RELINQUISHED BY Printed Name Signature 7511031587 Dissolved Metals/6010: Al As Sto Ba Be B Ca Cd Cr Cu Co Fe Pto Li Mg Mn Mo Ni K Ag Na. Se Sr TI TI Sn V Zn ON LIST BELOW Printed Name Signatura To hai Mehala/80110 AI As Sob Ba Be B Ca Cd C/ Cu Co Fe Po L Mg Mn Mo·NíK Ag Na Se Sy TritiSn V Zn PRESERVATIVE 851103158780 ৩ 17 1 RELINQUISHED BY DSCR Bi-Annual 6 W Sampling 6301-05-0016,0709,0200 MATRIX 3 Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn 2 Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Nt Se Ag TI V Zn 770-421-3486 040 Indy Hartness 1040 1/13/05 1020 1015 SAMPLING DATE TIME Hinted Name Squature 탿 SPECIAL INSTRUCTIONS/COMMENTS FELLEX Cooler # 30144 Ur 5te RECEIVED BY Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg LAB ID Total Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Jennesau, Cof 3200 Town Point Printed Name Circle the method and each appropriate metal Steve Youngs Signature 770-H21-3400 Ampleia Signatus MACTEC AEHA-218-0705MS/NSD A E HA - 15A-0765 MWA50 -38-0715 AEHA - 218-0705 MAGT CLIENT SAMPLE ID

Cistribution: White - Return to Originator, Vellow - Lab Copy, Pink - Retained by Client

1830 Date/fine

Defletime 7

DatherTime

Date Time

816

435

BRYCH-1904-14

816 436

Printed Name Signeture

Ainted Name Signeture

ninted Name Signature

Printed Name Signature

Date/Time

Data/Time

Date/Tmx

TURNAROUND REQUIREMENTS

. IV. Data Validation Report with Raw Data V. Spelbalbad Forms / Custom Report

Standard (10-15 working days)

Provide FAX Results

RECEIVED BY

TELINQUISHED BY

Edata

ACOC-1204-11

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

PAGE X OF 2

Ŋ

8

CAS Contact

REMARKS/ ALTERNATE DESCRIPTION Preservative Key NVOICE INFORMATION ANALYSIS REQUESTED (Include Method Number and Container Preservative) Ş REPORT REQUIREMENTS (LC9, DUP, MS/MSD as required) III, Results + QC and Calibration Summaries II. Results + QC Summaries Results Only Diesobred Metais/8010; At As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Min Mo Ni K Ag Na Se. Sr Ti Ti Sn V Zn MOTER LSIT NO Total Metals 6010 AI As So Ba Be B Ca Co Cr Cu Co Fe Po L Mg Mn Mo NIK Ag Na Se Sr TI TI Sn V Zn PRESERVATIVE TOTAL NUMBER OF CONTAINERS G 6301-05-0016,0709,0200 MATRIX 3 Ż 3 ≥ ⋧ Tudy Hortness Total Metals/6020 series: Sb As' Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn 770-421-3486 0440 1200 7114/05 0830 0950 1245 1145 1300 1200 1010 SAMPLING DATE TIME 30144 Ste LABID Tabal Metals/7000 series: As Sb Cr Cu Pb Se TI Hg 15CR BI Annual GW Sampling Point Circle the method and each appropriate metal. 0015-121-000 ennesaw A F.HA -30A-0705 DMW-28E-0705 Steve Youngs 4EHA-334-0705 4 EHA-23A-0705 646DUP-5-0705 EHA-30B-0705 AEHA - 28A -0705 AEHA-28 B-0705 046DUP-3-0705 CLIENT SAMPLE ID B-071405 L J H W W 7 30 3200

Printed Name Data/Time Signature Daniel Howard BENTAL HIOS A 9.00 Sometime Harrey

SPECIAL INSTRUCTIONS/COMMENTS Fed Ex # \$51163158816

RELINGUISHED BY

Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn

Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg

Distribution: White - Return to Originator; Yellow - Lab Copy, Pink - Retained by Citent

816 437

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpillar Road • Redding, CA 86003 • (530) 244-5227 • 800-695-7222 ×10 • FAX (530) 244-4109

PAGE 2 OF 2

9

CAS Contact

TURNAROUND REQUIREMENTS REMARKS/ ALTERNATE DESCRIPTION Zn. Acetate MeOH NaHSO<sub>4</sub> X Standard (10-15 working days) INVOICE INFORMATION Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) S Day Printed Name Signature ğ IV, Data Validation Report with Raw Data V. Spelcalized Forms / Custom Report REPORT REQUIREMENTS II. Results + OC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calbradon Summanes RELINGUISHED BY Edecta 198 L Results Only Pinted Name Signature Ö RECEIVED BY 209 Dissolved Metals/8010: At As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Min Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn MOTER LEIT NO Printed Name Signature Sr TI TI Sn V Zn PRESERVATIVE TOTAL NUMBER OF CONTAINERS Total Metals/6010 At As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se RELINOUISHED BY DSCR Bi-Annua 6 W Sampling 6301-05-0016,0709,0200 MATRIX 821103158816 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn Indy Hartness Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 770-421-3486 7114/05 0930 1200 1630 0001 SAMPLING DATE TIME Printed Name Signature 5te 100 30144 Te L Ex # LAB ID 3200 Town Point Dr rinted Name Circle the method and each appropriate metal. Steve Youngs Signatura MACTED COMPANYACIONE MA A CT EX SPECIAL INSTRUCTIONS/COMMENTS 65-PH-0705 70-421-3400 ennesaw A EHA -238-0705 00 6DUP-2-0705 4EHA-338-0705 565-P2-0705 Howar CLENT SAMPLE 1D MACTEC RELINQUISHED BY Sometime + James

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

Date/Time

Date/Time 1/1/

Date/Time

Dete/Time

Date/Turn

Data Time

SCOC-1204-11

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Catarpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

PAGE

Ь В

CAS Contact

800

Fed Ex cooler 851103158816 REMARKS/ ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS X Standard (10-16 working days) AFALATE IA INVOICE INFORMATION Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) # Sunted Name BIL TO: Signature Ž . IV. Deta Validation Report with Parw Data V. Speicalzad Forms / Custom Report II. Results + OC Summerles (LCS, DUP, MS/MSD as required). ₽ ₽ | REPORT REQUIREMENTS III. Resurts + OC and Calibration Summaries RELINQUISHED BY . Results Only Printed Name Cataline Signetture 100 19 O Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo NIK Ag Na Sa Sr Ti Ti Sn V Zn ત MOTER LSIT NO. × Anted Name Datts/Time Signature Total Metals/6010 AI As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo NIK Ag Na Se Sr 71 TI Sn V Zn PRESERVATIVE I RELINQUISHED BY MATRIX 3CR BiAnnual GW Sampling 6301-05-0016, 0709,0200 SPECIAL INSTRUCTIONS/COMMENTS FOLLEX # 851103158805 ₹ ₹ Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn ≥ wond ady Hartness Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg Total Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 0930 1200 1200 1/14/05/1200 1000 630 770-421-3486 1615 SAMPLING DATE TIME Printed Name Signature Dette/Time 100 ste 30144 Sampler's Pytraed Name RECEIVED BY Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg LAB ID 3200 Town Point Dr アク Company MACTEO Printed Name Circle the method and each appropriate metal. Steve Youngs Signeture Data/Time MACTEC Sennesaw 770-421-3400 EHA-238-0705 EHA-338-0705 046 DUP-2-0705 1565-P2-0705 65-P4-6705 Descrition 711 4105 11900 2010-3-0103 Printed Noward Howard JU6DUP-5-0705 Somme David Howar CLIENT SAMPLE ID RECINQUISHED BY

Distribution: White - Return to Originator; Veltow - Lab Copy, Pink - Retained by Clent

Printed Name Signature,

Printed New Signature

Printed Name Signature

Printed Name Signature

Printed Name

Datte/Time

Detay/Time

Date/Tree

E

TURNAROUND REQUIREMENTS

N. Data Validation Report with Raw Data V. Spelcalized Forms / Custom Raport

 $X_{\mu}$  Standard (10-15 working days)

Provide FAX Results

RELINQUISHED BY

Edente

851103158790

元の及并

SPECIAL INSTRUCTIONS/COMMENTS

Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag Ti V Zn

RELINQUISHED BY

RECEIVED BY

**TELINQUISHED BY** 

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

P

PAGE

တ

CAS Contact

RFAS are in 251103152516 Cooler ALTERNATE DESCRIPTION INVOICE INFORMATION Felox ANALYSIS REQUESTED (Include Method Number and Container Preservative) # Ş REPORT REQUIREMENTS II. Results + OC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration. I. Results Only 表3 Se Sr TITI Sn V Zn MOTER LSIT NO d SITISION PRESERVATIVE TOTAL NUMBER OF CONTAINERS Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Total Metals/6010 At As 'Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se D 3 CR Bi Annual 6W Sumpling 6 301-0 5-0016, 0709,0200 MATRIX Inde Hartaess 770-421-3486 Total Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn 1245 0460 1145 1115 0101201HIL SAMPLING DATE TIME 3200 Town Point Dr Ste 100 6A 30144 LAB ID steve Youngs Circle the method and each appropriate metal MACTE MACTEC ennesaw EHA-28A-0705 70-42-3400 A EHA-288-0705 EHA-30B-0705 AEHA-30A-0705 AEHA-33A-0705 AEHA-23A-0705 CLIENT SAMPLE ID

Distribution: White - Return to Originator; Yellow - Lab Copy, Pink - Retained by Client

Date/Time

Date/Tmc

Ē

Date/Time

Date Tare

715A

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

PAGE 5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244 4109

۶ کر کا

CAS Contact

700 # ES

REMARKS/ ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS X Standard (10-16 working days) INVOICE INFORMATION Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) 6 Day Printed Name 2 N. Data Validation Report with Raw Data V. Spelcalized Forms / Custom Report it. Results + QC Summaries (LCS, DUP, MS/MSD as required) REPORT REQUIREMENTS III. Results + OC and Calibration Summaries RELINQUISHED BY I, Results Only Signature RECEIVED B Dissolved Metals/8010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn M Printed Name Signatura Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr TI TI Sn V Zn PRESERVATIVE ťΩ 4 SPECIAL INSTRUCTIONS/COMMENTS Fed Ex # 851103158849 RELINQUISHED BY MATRIX 6301-05-0016,0709.0200 ≥ Dissolved Metats/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn ⋛ Proportion Hartness Total Metais/8020 series; Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn 7 76 - 42 1-3 486 Sampler's Printed Name 12.50 1700 15,0 1655 1500 0001 543 7/15/45 0830 1010 SAMPLING DATE TIME Held Name Signature 57e 100 Kennesaw, CA 30144 Dissolved Matats/7000 series: As. Sb Cr Cu Pb Se TI Hg RECEIVED BY LABID Sh Cr Cu Pb Se Ti Hg 3200 Town Point Dr DSCO Bi-Arnival 6 MSangling Printed Name Circle the method and each appropriate metal. Signature Company/Actions MACYEC Sample's Squatre MACTEC 270-421-3400 Steve Youngs AEHA-12A-0705 AEHA-16A-0705 MWA50-35-070F AEHA-278-0705 LAWMW-G-0705 DMW-18A-0705 1565-04-0705 US 65-62-0705 4565-NI-0705 CLIENT SAMPLE ID 3-071505 Total Metals/7000 series: As RELINGUISHED BY Signatura Harney

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

Detail MACTEC FINE Detailine 7/13/05 / 1920 DataTine

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 ×10 • FAX (530) 244-4109

PAGE 2 OF 2

CAS Contact

**%** 

800

816 TURNAROUND REQUIREMENTS ALTERNATE DESCRIPTION Standard (10-15 worlding days) INVOICE INFORMATION Other Provids FAX Results TECEIVED B ANALYSIS REQUESTED (Include Method Number and Container Preservative) Printed Name Signature 햜 δ .... N. Data Velidation Report with Raw Data V. Spelcalized Forms / Custom Report N9 ... REPORT REQUIREMENTS II. Results + OC Summerles (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries TEL INQUISHED BY . Results Only Printed Name Signature O 80378 M Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo NiK Ag Na Se Sr Ti TI Sn V Zn MOTER LETOM n Printed Name Signature Total Metala/6010 AI As So Ba Be B. Ca. Cd Cr. Cu. Co Fe Po L. Mg Mn Mo NIK Ag Na. Se Sr. TI TI Sn. V. Zn PRESERVATIVE × 0 TOTAL NUMBER OF CONTAINERS 851103158849 RELINGUISHED BY 6 301-05-0016, 0709,020 0 MATTRIX 3 Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn ≥ 1520 E PAPOUT - dy Hartness Total Metals/7000 series: As Sto Cr Cu Pto Se Ti Hg Total Metals/5020 series: Sto As Ba Be Cd Cr Co Cu Pto Min Mo Ni Se Ag Ti V Zn 1520 0011 50/51/6 SAMPLING 770 - 421-3486 Printed Name Signature 5te 100 30144 Fel Ex# RECEIVED BY Dissolved Metals/7000 series: As Sto Cr Cu Pto Se TI Hg GA MSCR Bi-Annua 16 WSompling Circle the method and each appropriate metal. Signatura Detta/Time MARCHER 3200 Town Point Steve Youngs SPECIAL INSTRUCTIONS/COMMENTS 770-421-3400 4565-H2-0705 1565-BR2-07es ennesaw 04 6DAP-6-0705 Ampier Sprenz CTEC D# CLIENT SAMPLE ID RELINQUISHED BY 711/3/

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Climit

Date/Time

Date/Time

SCOC-19NL11

9000-1100-111

**Date/This** 

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

- b

PAGE

6090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x 10 • FAX (530) 244-4109.

<u></u>8

CAS Contact

REQUEST FORM SR#

တ

851103158849 REMARKS/ ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS X\_ Standard (10-15 working days) INVOICE INFORMATION REAS are Fed Ex # in Cooler Províde FAX Results こうべららて ANALYSIS REQUESTED (Include Method Number and Container Preservative) Printed Name Sprieture Ş . IV. Dafa Validation Report with Raw Data V. Spelcalized Forms / Custom Report REPORT REQUIREMENTS. Basufts + QC Summerles
 C.CS, DUP, MSA/9D as required) III. Results + QC and Calibration Summertes RELINQUISHED BY . Results Only Printed Name Signeture Do 1/2 Dissolved Metals/6010: Al As Sb Ba Ba Ba Ca Cd Cr Cu Co Fe Pb Li Mig Mn Mo Ni K Ag Na Sa Sr Ti Ti Sn V Zn ON LIST BELOW 7 Printed Name Sphature Ba Be B Ca Cd Cr Cu Co Fe Pro L Mg Min Mo NIK Ag Na Se Sr TI TI Sn V Zn PRESERVATIVE × TOTAL NUMBER OF CONTAINERS 1 FedEx # 851103158838 RELINQUISHED BY MATRIX DSCR 8: Annua 6WSampling 6301-05-0016,6709,0200 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn 3 Indy Hartness Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 1000 12.50 1700 116/bs 13 LS 776-421-3486 SAMPLING DATE TIME Printed Name Signature Ē 3200 Town Point Dr Ste 100 30144 LAB ID Total Metals/7000 series; As Sb Cr Cu Pb Se Tl Hg. ennesaw, CA Printed Name MACTEC Circle the method and each appropriate metal Steve Youngs Spratture SPECIAL INSTRUCTIONS/COMMENTS 770-421-3400 AEHA-12A-0705 DMW-18A-0705 E HA-278-0705 565-DH-0705 A E HA-16A-0705 PHIND Name | HOWARD CLIENT SAMPLE ID Signant David Howan RELINQUISHED BY

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Reteined by Clent

1920 Determine

Date/Time 7/15/05

SCOC-1204-11

Date/Tim

Date/Im

Data/Time

Services "

# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

8

CAS Contact SR# P P PAGE 5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-895-7222 x10 • FAX (530) 244-4109

Other H.Pou 851103158849 TURNAROUND REQUIREMENTS REMARKS/ ALTERNATE DESCRIPTION X Standard (10-16 working days) INVOICE INFORMATION RFAS are n cooler Fed Ex # RECEIVED B Provide FAX Results ANALYSIS REQUESTED (include Method Number and Container Preservative) Printed Name BIL 70: Strature ŝ IV. Deta Vafdation Report with Raw Data V. Spelcelized Forms / Custom Report II. Results + QC Summerles (LCS, DUP, MSAISD as required) SE ... REPORT REQUIREMENTS III. Results + QC end Calibration Summarise RELINQUISHED BY I. Results Only Edeta Printed Name Signature Ē PO 6.3 10 K Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr TI TI Sn V Zn MOTER LSTT NO. Printed Name Signature Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo NIK Ag Na Se Sr TI TI Sn V Zn PRESERVATIVE RELINCUISHED BY Fed Ex # 8511 03 158827 MATRIX 3 3 DSCR B.-Annual 6WSampling 6301-05-6016, 0709,0200 ₹ Dissolved Matalsy8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn Total Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn From Judy Hartness 1/15/05 1550 1543 1655 1500 1100 770-421-3486 SAMPLING DATE TIME ortan batmi Signature Ste 100 30144 Bampler's Printed Name Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg RECEIVED BY LABID Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg CA 3200 Town Point Dr Printed Name Circle the method and each appropriate metal Pilm MACTEC Firm Datastine 7/15/45/1920 Datastine Signature Company/Actions MACTEO SPECIAL INSTRUCTIONS/COMMENTS Steve Youngs 50-35-0705 65-62-0705 Lennesaw 770-421-3400 65-H2-0705 2010-D-WMWA. 1565-NI-0765 Printed Name Daniel Howard CLIENT SAMPLE ID RELINQUISHED BY Sampler's Signature Z Z Z

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

816 444

SCOC-1204-11

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 5090 Caterpillar Roed \* Redding, CA 88003 • (530) 244-5227 • 800-685-7222 ×10 • FAX (530) 244-4109 PAGE 1 OF 1

www.cestab.com	2000 Catal pintal 11000 - 11600m18, OA 80000 - (500) 244	Ž	- AIX >>	300-030-1222 XIU • FAX (530) 244-4109	2	ב ב ב		5		<u>ଧ</u> ା	CAS Contact		J
DSCA BiAnnial GW Sampling	mpling 6301-05-001	6.301-05-0016, 0709, 6200		ANA	ANALYSIS REQUESTED (Include Method Number and Container Preservative)	UESTED	Include I	fethod N	umber at	d Contact	mer Prese	rvative)	•
Propect Manager Steve Youngs	ings Report Co. Indy A	<del>`</del>	PRESERVATIVE	(TIVE		Ö	, - , -				-		Į.
CONTRAINING MACTED		1.	•	1/80/	/ /	10						Preservative Key 0. NONE	i
32000 Town Point	oint Dr Ste 100		CONTAI	90 s	\ \ /*	17.	\	<u> </u>		//		H NO.	
Kennesawi	1, GA 30144			28 1817 A	>\ >\	740			<u></u>				
770-421-3400		984		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		FI	)o	<u></u>	`	<u></u>		7. NaHSO4	
Semplers Specific M ACTEC	Sempler's Printed Name			W 27/2	D A C	J. 1	<u> </u>				\ '; /*		
CLIENT SAMPLE ID	TAB 1D	SAMPLING ATE TIME MATRIX								3.7		HEMARKS/ ALTERNATE DESCRIPTION	l I
T8-07160S	7/16	W 0080 8	9	×××		-	,						1
· OUG-BLAD-EQB-0705		15 W 1	3 X	XXX	×	X		ļ.,.		_	<u> </u>		1
4565-12-0705		K W	6	×	V		:	•		٠.			1. 5
		3	2	×	X							1	1
# AEHA-22A-0705		1 W 0580	×	X	X	×				,			
DMW-9A-0705		2	Ġ	××	7								1
à		1015 W	9	XX	×		•		<u>:</u>				ì
USGS-F2-0705		3	2	×	×			:		ļ			1
USGS-F4-0705	•	1000 W	6	××	X						`,		1
M.			·							. ,.			i
* Circle the method and each appropriate metal	rlate metal.						Œ.	EPORT R	REPORT REQUIREMENTS	SINTS	-	INVOICE INFORMATION	ł
Total Metals/8010 Al As Sb Ba B	Total Metals/8010 Al As Sb Ba Ba B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo NI	Mn Mo NIK Ag Na Se Sr	Ë	Sn V Zn		٠		i. Results Only			<u> </u>		1
Total Metals/8020 series: Sb. As. Ba. Ba. Cd. Cr. Co. Cv.	Total Metals/8020 series: As Sp. Cr. Cu. P.D. Se. II. Hg. Total Metals/8020 series: Sb. As Ba. Ba. Cd. Cr. Co. Cu. Pb. Mn. Mo. NI_Se. Ag. Ti	Se Ag TIV Zn					   	S, DUP, MS	II. Results + OC Surmaries (LCS, DUP, MS/MSD as required)	(pauri	BIL 70:		Ī
Dissolved Metals/6010: Al As Sb	C Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb. Li Mg Mn	J Mg Mn Mo NI K Ag Na	Se St	Ti Sn V Zn		. •	≅ å	III. Results + O	III. Results + QC and Celbration Summation	ation		-	ſ
Dissolved Metals/7000 series: As Sb. Cr. Cu. Pb. Se. Ti. Hg.	Dissolved Metals/7000 series: As Sb. Cr. Cu. Pb. Se. Til Hg	<b>,</b>	; }	: .	-		≥	Deta Validat	on Report w	IV. Deta Validation Report with Flaw Data		TURNAROUND REQUIREMENTS	1
Creative Metalsocky series: St.	AS DE DE CO CU PO MU ME	N Se Ag 11 V Zn		-				bedjeded	V. Spekretized Forms / Custom Bacood	- Becom	×		
SPECIAL INSTRUCTIONS/COMMENTS	Lester The Desta	Dash #	900	3093	3.357		. # .	Edata	· 建	2	<i>a</i>	brandard (10-18 worlding days) Provide FAX Results	
RELINQUISHED BY	RECEIVED BY	YE CALIBRIED BY		30	RECEIVED BY			A SECOND			<u> </u>		, I
	I		21 M				*		CISHED B			RECEIVED BY	
Somether David House	Signature . T	Signature	·	Signeture		٠.	Signature		· .	7.	Stonature		
Danic	Fitting Name	Printed Name		Printed Name	. ,	·	Printed Name	<b>E</b>	Serve.		Printed Name	ame	
MACTEC	(			E C	. ;		E.		1	-	ELL.		

16B

# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

PAGE

5090 Caterpillar Road • Reciding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

CAS Contact

500 SR #

816 445 RFASare in ervative Key TURNAROUND REQUIREMENTS ALTERNATE DESCRIPTION Cooler mit . Standard (10-15 working days) NVOICE INFORMATION Reita Dash Provide FAX Regute ANALYSIS REQUESTED (Include Method Number and Container Preservative) rinted Name 티크 Signature Date/Time **\*** IV. Data Velidation Report with Paw Data V. Spetcalized Forms / Custom Report. 11. Results + QC and Calbration 1. SN SE II. Results + OC Summaries (LCB, DUP, MS/MSD as rigguired) REPORT REQUIREMENTS HELINQUISHED BY L Results Only **Summaries** Signature Dette/Tunk Do 94 0 006 3093 3571 Dissolved Metals/6010: Al As So Ba Be B Ca Cd Cr Cu Co Fe Pb Ll Mg Mn Mo, NI K Ag Na Se Sr Tl 17 Sn V Zn 4 Printed Name Signature Signature To bai Metaba/8010 Ai As Sb Ba Ba Ba Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo NiK Ag Na Sa Sr TITI Sn V Zn **Date/Tim** PRESERVATIVE Ē 15CR BiAnnual GW Sampling 6301-05-0016.0709,0200 MATRIX Dissolved Metals/8020 series: So As Ba Ba Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn Report Hartness 770-421-3486 Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 0111 1015 100 116/05 1015 7000 SAMPLING DATE TIME Printed New Signeture Deta-Time SPECIAL INSTRUCTIONS/COMMENTS De Ita Dash# 30144 Semplar's Printed Neus Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg RECEIVED BY Total Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg LAB ID 3200 Town Point Kennesaw, GA Circle the method and each appropriate metal. rinted Name 770-421-3400 Signature 6/05/1 430 Date/Time teve loungs MACTEC MACT U 565-F2-0705 J 565-K2-0705 AEHA-34A-0705 DMW-98-0705 DMW-9A-0705 4565-F4-0705 aniel Howard CLIENT SAMPLE ID thank House RELINGUISHED BY Date/Time

Distribution: With a - Return to Originator; Yallow - Lab Copy; Pjnk - Retained by Client

# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpillar Road • Redding, CA 98003 • (530) 244-5227 • 800-695-7222 ×10 • FAX (530) 244-4109 PAGE

ည

\$ # HS

www.odstablegern			1	· ·		 	 		/   -  -	<u> </u>	- CO 100K		
DSCORING ON SOLUTION	Project Number	5-0116 0709.	(1) (1)		A	ALYSIS REC	VESTED (	Inchude Met	hod Numb	ANALYSIS REQUESTED (Include Method Number and Container Preservative)	ner Preservi	ethva)	
Proper Margare Jouras	Report CC	REPORT OF THE THER		PRESERVATIVE		0 /				: (1,1)			
2	TEO			1	\ A							Preservat	the Key
3200 Town Po.	+ Dr	54e 100		ENTATINO	809 10198	77					<u></u>	HICL HACK HACK HACK	
Kenn esa	, GA 30	30144			ZZ LSITI	<u>`</u> ≯′	•				· 	20. Z. 20. A	
770-421-3400	•	170-421-3486			10/VO	\$0 \$7				<u>;</u>		7. NaHSO B. Other _	8
Surper's Spread MACTEC	S		· ·		NT T			<u></u>	/ /-		· /-		
CLIENT SAMPLE ID	LABID	SAMPLING DATE TIME	MATRIX									REMARKS/ ALTERNATE DESCRIPTION	PTION
78-071705		dr105 0800	-	6	×	×	·, ·						
USGS-K4-0708		1 0803	W W		×	×			<u>  .</u>				
W565-63-0705		0430	M 9	1	×	×	-		·				
11565-64-0705		0060	) /	<u>.</u>	××	×			<u> </u>				
US65-64-0705MS/MSD		0050	M	9	×								
USGS-M2-0705		1015	<u>°</u>		×	×							
U565-IH-0705		1050	W. 9	•	XX	メ							2
USGS-M4-0705		1023	<i>8</i>	·	XX	×				-			
4565-12-0705	-	0925	W 9		メメ	X				, .			
USGS-A4-0705		V 0950	M 9	į	メ	ヌ	<u> </u>						
* Circle the method and each appropriate metal.	ate metal.							- AER	REPORT REQUIREMENTS	EMENTS	<u>×</u>	INVOICE INFORMATION	No.
Total Metals/6010 Al As Sto Ba Be B Ca Cd Cr Cu Co Fe Pto L Mg Mn Mo Ni	B Ca Cd Cr Cu Co Fe Po	×	Ag Na Se Sr	Sr. Ti ⊐ Sn	์ รู	•		L Regu	. Results Only	•	2		
Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg	Cu Pb Se Ti Hg				. ,		•	I. Per	II. Results + QC Summeries	arjas	. eart 70:		
Total Metals/6020 series: So As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V	Be Cd Cr Co Cu Pb Mn	Mo NiSe Ag Tiv Zn						<b>g</b>	(LCS, DUP, MS/MSD es required)	is required)			
Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn	R Be B Ca Cd Cr Cu Co	Fe Po Li Mg Min Mo I	Mo NI K Ag Na	S <sub>9</sub> Sr Ti	TI Sn V Zn			Summaries	III. Results + QC and Calibration Summaries	Allbradion .			
Dissolved Metals/7000 series: As 5b Cr Cu Pb Se Ti Hg Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se An	Cr Cu Pb Se Ti Hg	F	y uZ >				•		1 Valktallon Re	V. Deta Valdation Report with Raw Data		TURNAROUND REQUIREMENTS  5 Day	KENTS
SPECIAL INSTRUCTIONS/COMMENTS	Dolta Day		000	14	VITA			* 85°	calized Forms /	V. Spelcalized Forms / Custom Report	*	Standard (10-15 working days)	days)
	25	9	7 - 7	1	Š			Edata	ž.	<b>.</b> <b>.</b>	- !	Provide FAX Resutts	<u></u>
VE CELENI DEL					٠			:			Other		
	NECEWED BY		RELINQUISHED BY		<b>.</b>	RECEIVED BY		., t	RELINGUISHED BY	VB.03		RECEIVED BY	
Laway Jan	Signature	Signature		ľ	Signature			Signature		; ;	Signature		Ī
3	Printed Name	Printed Name			Printed Name			Printed Name		,	Printed Nam	2	1

816 446

RCCC-1304.11

816 447

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

PAGE

 $\infty$ 

Project N	V 77 / 8.01	Project Number		Į,		VIANA	AND BECKLEY	TED One	and the state of the				
	IDITIONA GIV JA	mp1.ng 6301-05-06	16.0709	007016		TOTAL PARTY		1	יייטרו סיי נרבירה ווייטרים שמתוכת ומיוויהן עוני כמושונים בנומים	שני פואני כמיוונ	aurer rates	mente)	
	Steve Youngs	toll sont		26.44	PRESERVATIVE	<u>=</u>	0				.,.		
Compeny/Address	MACO TO T			<b>X</b>		1			/	\ \	<u> </u>	-    -  -	eservative Key
<u>ا</u> د	) ( ) H		9			B NOTE	<u></u>	_	/ /	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<u></u>	)-i	2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
8	XXX TOWN POINT UT	t ut 57e 100	0			9		<u></u>	\ \ \	<u> </u>	_	165	12 20 20 20 20 20 20 20 20 20 20 20 20 20
<b>Y</b>	ennesaw, GA					7 23 /5	\ \ \_	<u></u>		<u></u>	<u></u>	j w w	
Tools F	70-421-3400	8	3486		BMUN.	1	\ \\ \\	_	<u></u>	\ \ \	\ \ \ \	, , , ,	NaHSO4 Other
Sampler's	Samplers Blongton A CTEC	Sampler's Printed Name				W	\       (1)	<u></u>	<i></i>	<u></u>	_		
:	CLIENT SAMPLE ID	. QBV	SAMPLING DATE TIME	MATRIX								RENATE	REWARKS/
U.S	4565-82-0705		05.00 201	-	)    -	*   *   *							
								1.					· vun.
		,					ļ			-			-
			,								-	-	
:													
											<u>.</u>	•	
										<u> </u>	-		
						ļ			·				
	•							<u>:</u> .					
* Circle	* Circle the method and each appropriate metal	nfate metal.						-	REPORT REQUIREMENTS	IREMENTS .	-	INVOICE INFORMATION	SHMATION
Total	Metals/6010 Al As Sb Ba B	Total Metala/8010 At As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni		K Ag Na Se S	SrTITS	5		!	I. Results Only		2		<i>-</i>
Total	Total Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Total Metals/6020 series: Sb As Be Be Cd Cr Co Cu	Total Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se An Ti v			*		· .	·! . ,	II. Results + OC Summaries (LCS, DUP, MS/MSD as required)	mmanies D as required)	HEL 73		
	twod Metale/2010; Al Ae Sh	Described Marele/8010: All de Ch Be to B Ce Ch C C C B B Li Li Li Li Li Li Li Li Li Li Li Li Li		; 3	F d	i 2	,		III. Results + QC and Calibration	d Celibration			
Disso	lived Metals/7000 series. As &	Dissolved Metals/7000 series: As Sb Cr Cu Pb Se T1 Hg			MO IN IN A SUBME ON OF IT IT ON V AN	57 > 16			Cummings.			RNAROUND RE	TURNAROUND REQUIREMENTS
Disso	hved Metals/6020 series: Sb /	As Ba Be Cd Cr Co Cu Pb Mn M	Ni Se Ag	ΠVZn				<u> </u>	The Date variation inspirit was risk using	AUDULT WHAT FIRM U	>	. 5 Day	
SPECIAL	L INSTRUCTIONS/COMMEN.	SPECIAL INSTRUCTIONS/COMMENTS De 142 Dash #	900 -	3093	6	840		<u>k.</u> [ · · ,	W. Speicalized Formal / Custom Report	a / Custom Report	<u>4.</u>	Standard (10-15 working days)	working days)
						;	`.				Office	FTOWING FAX HOGUITS	e dinte
	RELINGUISHED BY	RECEIVED BY	JA.	PELINQUISHED BY		HEC	RECEIVED BY	-	RELINGUISHED BY	неб ву	-	RECEIVED BY	ED BY
Signature	D. Formands	Signature	Skonemine	ì		Signature	· ,	8	Strature	: ·	e de la constante de la consta		
Printed Name	anter	Printed Name	Printed Name	:	E	Printed Name	- - -	7 . Pa	Printed Name				
£			E										
<b>X</b>	ハイントードの人の一番	David Tas						Ē	e		Firm		
	De Karleon, III		CHANGE I KING		3	Date/ Inte		8	Dette/Time		em-TVeneO	90	
Discribing	solutions white a neutral to Carpinator; resolution of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the second of the	Discriptions where the result to Originator; terow - Lab Copy; Piffx - Netarred by Clerk	:		,	:' :'	,	•	-				

# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

PAGE 5090 Caterpiliar Road • Redding, CA 98003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

CAS Contact

တ

8 **\*** 

REMARKS/ ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS Standard (10-15 worlding days) NVOICE INFORMATION ECEIVED BY Provide FAX Regults ANALYSIS REQUESTED (Include Method Number and Container Preservative) Printed Name Signature Š IV. Data Validation Report with Raw Data V. Speicalized Forms / Custom Report Eduta Yes No II. Results + OC Summaries (LCS, DUP, MS/MSD as required) REPORT REQUIREMENTS III. Results + QC and Calibration Summaries RELINCOISHED BY Results Only Printed Name Signature ٤ Ò \* 0 Dissolved Metals/6010; Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Min Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn MOTER LSIT NO 4 Printed Name Signature Dette/Time Se Sr TITI Sn V Zn PRESERVATIVE 206 Regularished 3 836 006 3093 3840 6.301-05-0016.0709.0200 MATRIX Total Metals/8010 At As Sb Ba Ba B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Dissolved Metals/8020 series; Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn RAPPORTO HALTHESS 770-421-3486 Total Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 0930 0900 0900 1015 SAMPLING DATE TIME 7/17/05 0803 Printed Name Sprature Sette Trans 3200 Town Paint Dr Ste100 SPECIAL INSTRUCTIONS/COMMENTS Delta Dash # 30144 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg LAB ID fotal Metals/7000 series: As St. Cr. Cu. Pt. Se TI Hg Kennesaw, SA DSCR BiAngual GW Sampling Printed Name Circle the method and each appropriate metal Deta-Time Signature Company/Address MACTEC Sample's Spreature MACTEC Steve Youngs 770-421-3400 4565-64-0705 1250 11565-M2-0705 1430 4565-64-0705 4565-63-0705 Printed Name Danie Howland WSGS-KH-0705 CLIENT SAMPLE ID RELINQUISHED BY Mretec

Oistribution: White - Return to Originator; Yellow - Lab Copy, Pink - Retained by Client

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1	nd Container Preservetive)		Preservative Key 0. NONE 1. HCL 2. HCL 2. HNO 3. H2SO 3. H2SO		7. NaHSO4		REMARKS/ ALTERNATE DESCRIPTION										100	equired) BILL TO:		TURNAROUND REQUIREMENTS  ### Deta	×	No Provide FAX Results	BY RECEIVED BY	Signethre	Printed Name	
MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX  MATRIX	ED (Include Method Number er	80												:	-	REPORT REQUIREMENTS	I. Results Only	11. Results + OC Summarle (LCS, DUP, NSARSO as re-	III. Results + OC and Calibration Summaries	IV. Data Validation Report with Raw Deta	V. Spekalized Forms / Custom Report		HELINGUISHED BY	Signature	Printed Name	
MATRIX  MATRIX  MATRIX  S  S  S  S  N  N  N  N  N  N  N  N  N	ANALYSIS REQUEST	2 0 4	1205	15/0 1/0 1/0/N	17/0/m/V/m			×		_]	×××			•			ın V Zn		> S			3	RECEIVED BY	Senature	Printed Name	Firm
Cu Co Fe Pb L Mg Nn Mo Ni Se The Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll of Doll	020	25		EROFC	Виплит	NTOT	1—	1 M		925 HX	7	<b>4</b>					K Ag Na Se Sr Ti TI		N K Ad Ne Se Sr	, , , , , , , , , , , , , , , , , , ,		900 # 1	RELINOUISHED BY		Vens	
	6301-05-0016.07	Tudy Hart	r 5te 100	%	FAXE 770-421-34	Sampler's Printed Name	LAB ID DATE 1	21 20/17/17	1, 10	0	0	4 0					r Cu Co Fe Pb L Mg Mn Mo	liHg ⊃o CuPb MnMoNiSe Ag	CA Cr Cu Co. Fe Pb Ll Mg A	Dissolved Metals/7000 series: As Sb Cr Cu Pb Se 11 Hg Dissolved Metals/8020 series: Sh As Ba Ra Cd Cr Co Cu Ph Mn Mn NI Se			RECEIVED BY	untau 0:05	Petrial	Firm

. 🐧 .

Hinted Name

Printed Name Signature

Date/Tim

Date/Time

Detta/Time

Provide FAX Regults

Edata

# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

P. PAGE

CAS Contact

O)

8

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

TURNAROUND REQUIREMENTS REMARKS/
ALTERNATE DESCRIPTION XStanderd (10-15 working days) INVOICE INFORMATION ٥ IV. Date Validation Report with Raw Date V. Speicalized Forms / Custom Report REPORT REQUIREMENTS (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries II. Retults + QC Summaries Results Only Ž, × Be B Ca Cd Cr Cd Co Fe Po Li Mg Mn Mo NIK Ag Na Se Sr Ti Ti Sn V Zn 7 MOTER LSTT NO Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo NIK Ag Na Se Sr 11 TI Sn V Zn PRESERVATIVE Fod Ex # 851103158850 O SCR. BiAnavale W Sampling 6301-05-0016:0709.0200 MATRIX Dissolved Metals/8020 series: So As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn Total Mettals/7000 series: As Sb Cr Cu Pb Se TI Hg Total Mettals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Min Mo Ni Se Ag TI V Zn 7/18/05 0800 0935 770-H21-3486 SAMPLING DATE TIME 1600 1000 9910 30144 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg LAB 10 3200 Town Poin Dr Circle the method and each appropriate metal 300-421-3400 Sarpier Spraw MACTEO Dissolved Metals/8010: Al As Sb Ba PECIAL INSTRUCTIONS/COMMENTS EHA-318-0705 AEHA-31A-0705 AEHA-32A-0705 AEHA-32B-0705 THU WHOTHERS Kennesaw Total Metals/6010 Al As Sb Ba CLIENT SAMPLE ID B-071805

Printed Name Signature RELINQUISHED BY Printed Name Signature Printed Name Signature RELINCUISHED BY Spinsture Stanson

Sistribution: White - Return to Originator Yellow - Lab Copy, Pink - Retained by Client

2000 DataTime

TOWARD

					CHAIN -	- 40 - N				RECORD	. : •		•		74
	Thoma: (612) \$26-5245	826-5745	Microsceps, Inc. =	[ˈsdə		:X0 Wi	liam Pi	220 William Pitt Way -	Pier	burgh	Piftsburgh, PA 15238	38	Fex No	Fax No. ; (412) 826-3435	3483
	Company:	MACTE	NEC	રું છે.						Pareme	Parameters Requested		Results to:	T. 9. H. +.	1
3.00	Co. Address:	M	n Point	D.	54,0	5+0100	1 1	Kennesaw							2001
	Proj. Manager:		2 4 4 4		,		. 1								
	Proj. Location:	<i>[</i>	homan	W									Invoice to :	Judy Hartness	1000
	Proj. Number:	•	0016.07	0.60	200										
٠.	Phone #:	J70-421-3400	4100	Fax #:	תנו.	- 421	770-421-3486	9	<del></del> -						
	Sampler's signature :		MUSTER	9	H	0		ł,			<u> </u>		A Prince	Ž.	
		7		X3				`	•						
	Sample ID	Sample Description		Date	Time	Comp	Grab	Cont	H				Red	Remote	
\$	4544-138-034	A E HA-18B-0705		1/12/05/1200	200		×	_	×	_	<del> </del>		Fed For	4	
		A E 419- 1812-0705			1155	. 2	·×		×				\$511031CIL	LL 77	
		A E HA- 254-0705	-0705		1510	,	×	Ī	×				:		i
		AEHA-258-0705	705		1500	-	×		X						
		ou bdup-4-0105	2000		1200	,	X	1	×						
*		AEHA-348-0705	6705		0027		X	1	×						
		AEHA- 5-0705	705		1555		×		×						
		0 46 Dup-1-0705	705		1200		×		×						
		AE HA-2-44-0705	\$ 2010		16.30		×		×						
		AEHA-15A-0705		2012717	1020		×		×						
		AEHA-218-0705			1040		×	-	×						
		MWA50-36-0705	5205 V		1200		X	-	×						
	Relinquished by :	0 #1	Company:	1		Date:	Time:	Received by :				Company		Date:	Time:
	744	A WANTED		4		4	1400								
	Reinquished by :		Company:			Date :	Time);	Received by	••			Company		Date:	Time:
	Relinquished by :		Company:	12		Date:	Time :	Received by :				Company:		Date :	Time :
		W	WHITE COPY: Accompany Samples	сошрац	Samples		YELLOW	YELLOW COPY : Laboratory File	oratory F	iş.	PINK	PINK COPY: Submitter	iller		

Phone: (412) \$26-5245	972592	Microseeps, In	x, Inc.	220 W	lliam Pf	ff Way	c 220 William Pitt Way - Pittsburgh, PA 15238	A 15238	Far N	Fax Ng. 1 (412) \$26-3453	3403
Company:	MACTEC	EC		, ·	. ,		Parameters Reguested	Requested	Remit to:	Tuly Hertness	בין מפננ
Co. Address:	163)	1 Dr, 570	160, Ke	nn2.5an	GA 30	4410					
Proj. Location:	150 R.	R. ohman A VA	ZZ		\$	ı			Irvoice to :	T. 1. Hant. 200	4.0
Proj. Number:	ľV	0016,070	9.0200	0.	,					n / 200	2
Phone#:	776-421-3400	3400		130-421-3486	-3486						
Sampler's signature :		MACTER Paid	iel Hours	7		*			Cooler III	Chode	Choler Teng.
	SampleID		ê		80.00.000.000		2+				
Semple 10	-Semple-Description-	Dete	Tipe	Š	đ.	Cont	- -		Re-	Remarks	
2	MWA 50-37-0705		7113/05 09 45	70	×	1	×		FULEX #	<b>#</b>	
	DMW-7A-6705	74	1300		X	Ť	×		1851103161477	6147	7
V	MWA50-38-0705	0705	1015	,	×		×				
q	A = 48: 268-0705	1705	1250		×	-7-00-0	×				
74	AEHA-268-0705		1205		×		×				
4	AFHA-33A-6705	705 711400	0101 2010		X	}	×				
7	AEHA-23A-0705		1245	10	×	1	×				
A	AEHA-288-0765	265	0440	Q	×	Į	X				
A	AEHA-2 8A-0705	2705	1115	\	×	~	×				
V	AEHA-308-0705	3705	1145		X	1	×				
4	AEHA-30A-0705	205	1300		×	Ţ	×				
7	046DUP-5-0705	7 22 V	1200		×	1	×				
Relinquished by :	=	Company:		Date:	Time:	Received by :		Con	Company:	Date:	Time :
4) and	ナル・ナ	MEGT	FC	21/165	19 00						
Relinguished by :	<b>)</b>	Сопрапу:		Date :	Time:	Received by :	••	Ö	Соправу :	Date :	Time :
Relinquished by :		Соправу:		Date :	Time :	Received by :		Ö	Company:	Date :	Time :
	*	WHITE COPY: Accompany Samples	mpany Sampl		YELLOW	YELLOW COPY : Laboratory File	bratory File	PINK COPY: Submitter	Submitter		

Hone: (4) 2) \$26-5245	265345	Microsceps, Inc 220 William Pift Way - Piftsburgh, PA 15238	Inc	220 Wil	liam Pi	it Way-	Piftsburgb	, PA 15238		Fax No.	Pax No.: (412) 826-3433	9
Company:	MACTEC	FEC	•		. :	>~.	Pum	Parameters Requested		Regults to :	Judy Hartness	theck
Co. Address: Proj. Manager:	' ' '	aint Dr. St	X 6001 3	600056	W, GA		l					
Proj. Location:	BSCR Richman	Richman A	D VA							Invoice to :	Judy Hartness	Incss
Proj. Number:	,	6301-05-0016.0709.0200	10200		-						,	
Phone #:	170-421-3400		Fax #: 720	770-421-	3486							
Sampler's signature :	•	MACTECASIOH	in Harry	0		Ý				Cooler ID	#000g	Cooler Terrap.
	Jamole ID	G				•	7					
Semple ID	Semple Description.	Date	Time	Comp.	Q <b>u</b> p	/ Cont.	H			Remarks	1	
	046042-3-0705				×	1	X			FodEx井	#	
	AEHA-238-0705		0530		×		X				-6419	7
	6010-1-6108	105	1200		×	-	×					
	AF HA - 338-0705	0705	1000		×	)	×					
	USGS-P2-0705	705	1630		×	1	×					
	USGS-P4-0705	105	1615		×	1	X					
	AEHA-12A-0705		7115 ks 1315		×	-	×					
	AEHA-16A-0705		1000		X		×					
	DMW-18A-0705	705	1256		×							
	AEHA-278-0705	705	1700		×		×					
	USGS-DH-0705	705	1010		×		×					
	LAMMIN-Q-0705	-0705 W	15.50		×							
Relinquished by	0	Company:	,			Received by :		0	Company:		Date :	Time :
Dimek	Throng	///H('.1/F(	_	й	500							
Relinquished by :		Company:		Date:	Time :	Received by :		0	Company:		Date :	Time :
Relinquished by :		Сопрапу:		Date:	Time :	Received by :		0	Company:		Date:	Time :
	<b>A</b>	WHITE COPY: Accompany S	Semoles		WO I PAY	- In words I value with the	was Eile	DIMY CONT. 6-1-1-1-1	o Bulkania			

Phone: (412) \$26.5745	क्ष स्टब्स्ट	Micros	eps, I	i on	220 WII	liam Pi	it Way	Pitts	Microseeps, Inc 220 William Pitt Way - Pittsburgh, PA 15238	N 152	90	Farn	Far No. 1 (412) #26-3433	3433
Company:									Parameters Requested	Requesto		Remits to:	Indy Hurtness	arthess
Co. Address: Proj. Manager:	(,)	43	Stelle, Kens Youngs	ennes	Suns	Stello, Kennesaw, CH36144	*	;		<del>;</del>				
Proj. Location: Proj. Number:	" DSCR, Richmond VA	chmon 2000	59.02	FI				· · · · · ·				Invoice to :	IndyHartness	thess
Phone #:	770-421-3400	3-100	Fax#:		-421	770-421-3486								
Sampler's signature :		EC	San Jan	Porist Hone	9		į	<del></del>			<del>-</del>	Cooler ID	3	Cooler Temp.
Semple-ID	Sample Description		7/1505 Date	Time	Comp	Qup	Cont	EH.			•	8	Remarks	
	11565-NI-0705		#2#s			×	1	×				Fed Tex #	*	300,000
	MWA50-35-0705	- 1	1115/05 1	16.55		×	-	X				851103161477	-6147	
	USG5-62-0705	705	_	1500		×		×						
	4565-H0705	705		1100		×		×						
	15-155 -ARZ 0785	296	7	17.0		×	+	*					-	
	" OHE PUP 6-0705	395		17.00		*		*						
	"d365-K2-0705	7707												
	U565-K1-0705	_	711/des 1015	210		×		×						
	AEHA-344-0705	7705		3530		×	1	×						
	AEHA-22A-0705	5020	1	0220		×	-	×						
	DMW-9A-0705	705		11.00		X		×						
	DMW-98-6705	1 50		2701		×		$\overline{\times}$						
Relinquished by	14mm 2	Compuny: MACTE	TE(	6	Date:	Time: 1900	Received by :				Company:		Date :	Time :
Relinguished by :		Company:	1		Date :	Time:	Received by :				Company:		Date :	Time :
Relinquished by :		Company:			Date:	Time :	Received by :			 	Company:		Date :	Time :
	W	WHITE COPY: Accompany	ccompany	Samples		YELLOW	YELLOW COPY : Laboratory File	oratory F	i e	PINK	PINK COPY : Submitter	mitter		

9 n 0,

Phone: (412) 126-5749	) स्टब्स्टर	Microseeps, Inc 220 William Pitt Way - Pittsburgh, PA 15238	ps. In		20 WII	liam Pi	tt Way	Fifts	burgh,	PA 15	<b>38</b>	Fax No	Fex No. : (412) 826-3439	-3433	
Company:	MACTEC	TEC	,						Permit	Parameters Requested	8	Results to: Tindo Hortmere	1 7	7	
Co. Address:	(A)	un Paint	1										, ,		-
Proj. Location:	19	oungs ichmon &		V					···	· .		Invoice to :	Tudy Hartness	rhess	-
Froj. Number:	6301-05-0016,0704.0 770-421-3400 Fax#:	107	Pax #:	M '	770-421-	11-34	3486	u a	<u>.</u>	·					
Sampler's signature :		MACTECK	A S	and Howa	4	0,		boap.				Cooler ID	8	Cootler Tamp.	
Sample ID	- dempte Description	N ( ) ( )	Date	Time	Comp.	Grab	Cont.	Ή				Re	Remarks		
	4565-F2-0705		711405 11	00		×		×				FodEx#	tt		
	US 65-F4-07BS			1000		×	1	×				451103161477	419	1,	
	4565-63-6705		0 20/17/15	0430		×		У							
	USGS-64-070S	1705	0	6900		×		¥							
	45G5-M2-0705	0705	10	1015		×	***	×							
	USGS-14-6705	705	9	1050		×	-	*			-				
	4565-MH-0705	705	3/	1023		×	Į	χ							
	4565-62-0705	3705	0	25.60		×	-	Х	<u> </u>						
_	4565-44-0705	705	0	05,0		×		Ķ			-				
	4565-82-0705	27 as 1	0	0830		×		*							
	A E HA - 31A - 0705		7/18/105 0	35%		×	-	>							
	A E HA - 318-0705	J 5070		1000		X		X							
Relinquished by :	,	Company:			Date:	Time :	Received by :	:			Company:	, i	i age	E ogr	
Harrie	Howard	MACTEC	M M		1/21/65	1900	•								
Relinquirhed by :		Company:		Д	Date:	Time :	Received by :	:	,		Сопрапу:	9:	Date :	Time :	
Relinquished by :		Company:		Р.	Date:	Time :	Received by :				Company:	y:	Date :	Time :	
,	A	WHITE COPY: Accompany Samples	company S	amples	]:	YELLOW	YELLOW COPY : Laboratory File	Porntory F	٩	PINA	PINK COPY: Submitter	ımitter			
				-											

Phone : (412) \$26-576\$	3	Micro	seeps, In	ne 2	20 Will	lam Pit	ne. + 220 William Pitt Way-	Pittsb	Microseeps, Inc 220 William Pitt Way - Pittsburgh, PA 15238	15238		Far No.	Fex No. : (412) 826-3433	3443
Company :	MACTEC	TEC				(C. 5)			Parameters Requested	parant		Results to :	Indu Hartner	Tues
Co. Address: 32	3200 Town	Paint You	Dr			* :								
•	DSCR R	chrond		VA						······································		Envoice to :	Judy Hart 110 25	+1105
Proj. Number:	6301-65-0016,0709,0200	270.210	09.0200 Fax#:		770-421-3486	3486	·	_						
Sampler's signature :		MACTECI Sai	<i>G</i> /	1	Ottom							Cooler ID	Cooke	Cooler Tame.
Αĵ	<u>د</u> د	Ω				;		4			8			*
Sample ID	Sample-Description	) 35. 8. 1	Date	Time	Comp.	Grab	Cont	·			\$200	Remarks	1	
AE	AEHA-32A-0705	li	7/18/KE	0001		. ×	1	X				K wad the		
AE	A F##-318-0705		7118105	0910		X		×					-617	ű
TB	TB-0712 05		Hules 0	0080		×	~	×						
														,
					1			-						
		1	+	1		-		1	+					
								7						
		+			Þ			$\frac{1}{1}$	+		1			
						-								
						•		-						
						en in Same								
Relinquished by:	0	Company:	TEO	<u> </u>	Date: T		Received by :	 	ц,	o	Company:	,	Date :	Time :
Relinquished by :		Сопфапу:	-	Δ	Date:	Time :	Received by :			<u>  8</u>	Company:		Date :	Time :
Relinquished by :		Сотрану:		Α	Date :	Time :	Received by :			8	Company:		Date:	Time :
	M	WHITE COPY: Accompany Samples	Accompany	Samples		YELLOW	YELLOW COPY : Laboratory File	ratory File		INK COP	PINK COPY: Submitter	8		

December 2005 Revision 0

Results of Bi-Annual Groundwater Sampling - July 2005 Operable Units 6,7, and 8 Defense Supply Center Richmond

### 2

### 3

### **APPENDIX A3**

### **OPERABLE UNIT 7** CHAIN OF CUSTODY DOCUMENTATION

Data/Time

Dette/Time

Datts/Tme

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109 D18A Columbia Analytical Services no

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

SR#

CAS Contact

₹ Y

PAGE

TURNAROUND REQUIREMENTS REMARKS/ ALTERNATE DESCRIPTION X Standard (10-15 Worlding days) INVOICE INFORMATION RECEIVED BY Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) Printed Name Signature ₽ IV. Data Validation Report with Raw Data . V. Speicalized Forms / Custom Report REPORT REQUIREMENTS. (LCS, DUP, MS/MSD as required) III. Recults + QC and Calibration **RELINQUISHED BY** II. Results + OC Summarfer I. Results Only Summaries Printed Name RECEIVED BY Dissolved Metals/8010: Al As So Ba Be B Ca Cd Cr Cu Co Fe Po Li Mg Mn Mo Ni K Ag Na Se Sr TI TI Sn V Zn MOTER LSIT NO rinted Name Sprature Total Metals/6010 At As Sto Ba Be B Ca Col Co Fe Pto L Mg Mn Mo NiK Ag Na Se Sr TITI. Sn V Zn PRESERVATIVE NUMBER OF CONTAINERS Ó Ç 9 Œ  $\sigma$ 9 Œ 5 RELINQUISHED BY 6301-05-0016 0709,0200 MATRIX Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg. Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Sa Ag TI V Zn Fed Ex # 851 10 3155909 7878total Merats/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Min Mo Ni Se Ag T1 V Zn 1510 1645 218/65 0815 1630 1200 Wdv Hartness 1020 1020 1000 1510 SAMPLING DATE TIME 1016 Printed Name Signature 124-066 30144 LABID 0 Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg Printed Name ennesaw, (+H Circle the method and each appropriate metal 3200 Town Point Signature フェーション SSCR Bi Annual GWSand SPECIAL INSTRUCTIONS/COMMENTS Steve Youngs MACTED 170-421-3400 OUTDUP-3-0705 MWFTA-20-070.5 MWFTA-18-0705 DMW-22A-0705 DMW-25A-0725 MW-112-2-0705 -R-071805-02 DMW-278-0705 MWF05-3-0705 CLIENT SAMPLE ID MWF05-1-0705 RELINQUISHED BY ompanyAddress

Distribution: White - Return to Originator; Yellow - Lab Copy, Pink - Retained by Client

Detailine

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM aterpillar Road - Redding, CA 96003 - (530) 244-5227 - 800-695-7222 x10 - FAX (530) 244-4109 PAGE 2 OF 2

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109 PAGE 2

Annital   EVS. apling	10   6   10   10   10   10   10   10
Annual 6 W So apling   E301-05-001 6.0709.02 0   PRESENTIVE	10
Annual GW Sangling   6301-05-0016.0709.02.00   PRESERVATIVE   Stay   Annual GW Sangling   6301-05-0016.0709.02.00   PRESERVATIVE   Stay   Annual GW Sangling   6301-05-0016.0709.02.00   PRESERVATIVE   Stay   C T E C   Sengtes Friend Name   Stay   C T E C   Sent   C T E C   Sengtes Friend Name   Sent   C T E C   Sent   C T E C   Send   C	
Annual GW Sangling   6301-05-0016.0709.02.00   PRESERVATIVE   Stay   Annual GW Sangling   6301-05-0016.0709.02.00   PRESERVATIVE   Stay   Annual GW Sangling   6301-05-0016.0709.02.00   PRESERVATIVE   Stay   C T E C   Sengtes Friend Name   Stay   C T E C   Sent   C T E C   Sengtes Friend Name   Sent   C T E C   Sent   C T E C   Send   C	
Annual GW Sangling   6301-05-0016.0709.02.00   PRESERVATIVE   Stay   Annual GW Sangling   6301-05-0016.0709.02.00   PRESERVATIVE   Stay   Annual GW Sangling   6301-05-0016.0709.02.00   PRESERVATIVE   Stay   CT   C	
Annual GW Sangling   6301-05-0016.0709.02.00   PRESERVATIVE   Stay   Annual GW Sangling   6301-05-0016.0709.02.00   PRESERVATIVE   Stay   Annual GW Sangling   6301-05-0016.0709.02.00   PRESERVATIVE   Stay   C T E C   Sengtes Friend Name   Stay   C T E C   Sent   C T E C   Sengtes Friend Name   Sent   C T E C   Sent   C T E C   Send   C	
Annual GW Sampling   6301-05-0016.0709.02.00   PRESERVATIVE   Stay   Annual GW Sampling   6301-05-0016.0709.02.00   PRESERVATIVE   Stay   Annual GW Sampling   Stay   An	
Annual GWSangling   6201-05-0016.0709.02.00   Steve   Valars   Free   Free   Valars   Free	Start Ray   Annual C W Sampling   Bagol Van Cot   An + An + An + An + An + An + An + An
Annual GWSangling   6201-05-0016.0709.02.00   Steve   Valars   Free   Free   Valars   Free	Start Ray   Annual C W Sampling   Bagol Van Cot   An + An + An + An + An + An + An + An
### Proposition   6705 angling   6301-05-0016.0709    \$\frac{5}{4} \text{FeVe} \sqrt{6} \text{in n as } \text{From Point D} \t	Size Rain Hanual 6 W Sampling 6301-05-001 6.0709  Fright Manual 5 W Sampling 6301-05-001 6.0709  Fright Manual 5 W Sampling 6301-05-001 6.0709  Fright Manual 5 W Sampling 6301-05-001 6.0709  Fright Manual 5 W Sampling 6301-05-001 6.0709  Fright Manual 5 W Sampling 6301-05-001 6.0709  Fright Manual 5 W Sampling 6501-05-001 6.0709  Fright Manual 7 W Sampling 6501-05-001 6.0709  Fright Manual 7 W Sampling 6501-05-001 6.0709  Fright Manual 7 W W W W W W W W W W W W W W W W W W
### Proposition   6705 angling   6301-05-0016.0709    \$\frac{5}{4} \text{FeVe} \sqrt{6} \text{in n as } \text{From Point D} \t	Size Rain Hanual 6 W Sampling 6301-05-001 6.0709  Fright Manual 5 W Sampling 6301-05-001 6.0709  Fright Manual 5 W Sampling 6301-05-001 6.0709  Fright Manual 5 W Sampling 6301-05-001 6.0709  Fright Manual 5 W Sampling 6301-05-001 6.0709  Fright Manual 5 W Sampling 6301-05-001 6.0709  Fright Manual 5 W Sampling 6501-05-001 6.0709  Fright Manual 7 W Sampling 6501-05-001 6.0709  Fright Manual 7 W Sampling 6501-05-001 6.0709  Fright Manual 7 W W W W W W W W W W W W W W W W W W
SCRBI Annual GWSampling 6301-05-0016.1  3200 Town Point CT EC  3200 Town Point CT EC  Sample Primal Name  Kennesse Primal Name  CLIENT SAMPLE ID  MW FTA-298-0705  WW FTA-298-0705  WW FTA-23-0705  WW FTA-24-0705  WW FTA-24-	
SCRBI Amnual GWSampling 6301-05-0  3200 Town Point Dinty Dr S  3200 Town Point Dinty Dr S  3200 Town Point Dinty Dr S  3200 Town Saw Show Saw Shirt Bill Dr S  MWFTA-12-3400 Town Point Dr S  MWFTA-298-6725  MWFTA-23-0725  MWFTA-23-0725  MWFTA-23-0725  MWFTA-23-0725  MWFTA-23-0725  MWFTA-23-0725  MWFTA-23-0725  MWFTA-23-0725  MWFTA-24-0725  MWFTA-26-0725  MWFTA-26-0	
SCRBI Annual GWSampling 6300  S200 Town Point FROM  Renned War Stave Voungs  Kennesawa Properties Barriers Prince  CLIENT SAMPLE ID LAB ID  MWFTA-298-0705  WWFTA-298-0705  WWWFTA-298-0705  WWWFTA-288-088-088-088-088-088-088-088-088-088	
SCRBIAnnual GWSangling  SCRBIAnnual GWSangling  Read of Cown Point  Renders Squality  MWFTA-298-6705  WWFTA-298-6705  WWFTA-298-6705  WWFTA-23-6725  WWFTA-298-6705  Bissolved Metals/6020 series: Sb As Ba Be Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca Ca	<u>                                     </u>
SCREEN AND STEVE YOUNG TO MAN TO TELL TO TO TO TO TO TO TO TO TO TO TO TO TO	
SCRBIANNUALGE  SCRBIANNUALGE  SCRBIANNUALGE  SACOTOWN  KENNESAW  720-421-34  720-421-34  WWETH-29B-6  WWETH-2B-6  WWETH-2B-6  WWETH-2B-6  WWETH-2B-6  WWETH-2B-6  WWETH-2B-6  WWETH-2B-6  WWETH-2B-6  WWETH-COMMON  WWETH-COMM	
CLIENT SAN  CLIENT SAN  MWETA-16  MW	
Circle the name of the state of	

SCOC-1204-11

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

tact		reservative)		Preservative Key 0. NONE 1. HCL 2. HNC3	5. Zn. Acetate		/	ATTERNATE DESCRIPTION										INVOICE INFORMATION	BILL TO:		TURNAROUND REQUIREMENTS  8 Day	X Standard (10-15 worlding days)	Provide FAX Results	RECEIVED BY	Bonetine	Printed Name		
OF CAS Contact		ANALYSIS REQUESTED (Include Method Number and Container Preservative)															8 4	REPORT RECUIREMENTS L Results Only	Summaries MSD as required)	III. Results + OC and Calibration	rdetion Report with Raw Data	V. Spetcalized Forms / Custom Report	Edeth Yes No	RELINGUISHED BY	Signature		Am	
22 X10 • FAX (530) 244-4109 PAGE			PRESERVATIVE 2 0 4/8 3 8	SELOW SELOW		-07k	DE MERCAL STATE OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERT		4 x x x  ·   -   -	×××	x x x x x x	XXXX	XXXX	××××	×			i i	47 > 10 H =	88 ST EL S8 8			The same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the sa	RECEIVED BY	Stgretture	Printed Name		
5090 Caterpiliar, Road • Redding, CA 86003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109		6301-0016.0709.0200	ndy Hartness P	Springering Co.		121-3486		SAMPLING SAMPLING DATE TIME MATRIX	3	H 9101 1	0	0	0	Z)	¥ 10×0 ¥ 3			3	Min Mo Ni Se Ag Ti V Zo	N K AG Na	, <sub>2</sub> > F	3	021103135420	RELINQUISHED BY	Styrature	Printed Name	Fam	Data/Inte
An Employee - Owned Company 5090 Caterpillar, Road • Redding, www.cateth.com	_	4	Steve Youngs Term	MACTEC Town Point Dr	6A 3014	FIXE	FC Sample		MW-112-2-0705	MW F05-1-0704	DIMW-X 14-0705	MWr05-3-0705	04 /DU PT 3 - 0705	W M WFTH-20-0705	DMW-27A-0105220	,	* Circle the method and each appropriate metal	Total Marsia/Ento Al As Sh Bs Bs B Cs Cx Cx Cx Cx Cx bx 1 ms ms ms ms ms ms ms ms ms ms ms ms ms	Total Metals/7000 series: As Sto Cr Cu Pb Se Ti Hg  Total Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V	Dissolved Metals/6010: Al As Sb Ba Ba B Ca Cd Cr Cu Co Fe Pb Ll Mg Mn	Dissolved Metals/7000 series: As Sp. Cr. Cu. Pb. Sp. 71 Hg Dissolved Metals/8020 series: Sb. As Ba Be Cd. Cr. Go Cu. Pp. Mn. Mo. NI. Se. Ag	SPECIAL INSTRUCTION BY COMMENTS - 1 - 1	ช พ .	RELINQUISHED BY RECEIVED BY	Signature ) Hay	d —	NACTED Film	

SCOC-1204-11

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

718C

5080 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

8 # US

141

CAS Contact

Ö

PAGE

Other H - POL vative Key. TURNAROUND REQUIREMENTS REMARKS/ ALTERNATE DESCRIPTION X Standard (10-15 working days) NVOICE INFORMATION ECEIVED B Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) Tinted Name Signature HT 19 DateThin ğ N. Data Validation Report with Raw Data V. Speicalizad Forms / Custom Report REPORT REQUIREMENTS II. Results + OC Summaries (LCS, DUP, MS/MSD as required) III. Results + GC and Calibration Summeries RELINQUISHED BY Results Only Edata Printed Norns. Signature Date/Tim Ø M \* PRESERVATIVE 2 0 Dissolved Metals/8010: Al As Sb Ba Be B Ce Cd Cr Cu Co Fe Pb Li Mg Mn Mo NI K Ag Na Se Sr Ti Ti Sh V Zh MOTER LST NO Parted Name Total Matalabeoto Al As So Ba Ba B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti TI Sn V Zn Signature Date/Time  $\overline{\mathsf{X}}$ # 851103155910 1 3 SPENIATIVOO FO FERMUN JATOT 7 7 RELINGUISHED BY MATRIX 3 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn 13CR Bi Annual 6 WSampling 6301-0016.6709,0200 Judy Hartness 770-421-3486 Total Metals/8020 series; Sb As Ba Ba Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn 7/18/05 1630 1630 1510 1510 1150 1515 530 SAMPLING DATE TIME Printed Name Signature Datte/Time Ste 100 30144 Ted而x LAB ID Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg Iown Point Dr Steve Youngs MACTEC Circle the method and each appropriate metal, Rennesaw, GA 12.000 Date/fm Signatura STATES OF THE CHIEF PECIAL INSTRUCTIONS/COMMENTS 770-421-3400 DMW-25A-0705 MW FTA-18-0705 M WFTA-298-0705 MWFTA-23-0705 MW FTA-16-0705 MWFTA-7-0705 DmW-22A-0705 **CLIENT SAMPLE ID** Famel Home Pannage AELINQUISHED BY MACTES Sirial 3200 Sompany/Address

Distribution: White - Return to Originator; Yellow - Lab Copy, Pink - Retained by Glent

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

Sampling   Presentative   Section
Sampling   Presentative   Section
Sampling   Regulation   Presentative   Sampling   Regulation   Regul
### MACTEC   December   Page Nation   Page N
Bithnual GWSa molina   Proparisation   Propari
ENTRAMPLE ID  OTOWN AS THE PROPERTY OF THE SAMPLE ID  OT 19 QS  OT 19 QS  OT 19 QS  OT 19 QS  TA-19-070S  TA-19-07
ar

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

OF 2

8 # HS

PAGE 2

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 600-695-7222 x10 • FAX (530) 244-4109

CAS Contact

REMARKS/ ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS X Standard (10-15 working days) Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) A D imbd Name Signature Date Tim ğ ... IV. Data Validation Report with Raw Data V. Speicalized Forms / Custom Report REPORT REQUIREMENTS II. Results + OC Summaries (LCS, DUP, MS/MSD as required) iii. Resufts + QC and Calibration Summaries RELINQUIBHED BY Results Only Printed Nam Signature × Dissolved Metals/8010: Al As Sb Be Be B Ce Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn MOTER LSIT NO Printed Name Signature Detro/Time Total Metals/8010 Al As Sto Ba Be B Ca Cd Cr Cu Co Fe Po L Mg Mn Mo Nik Ag Ne Se Sr Ti Ti Sn V Zn PRESERVATIVE Ē MUMBER OF CONTAINERS O 9 O 8511 63154589 MATRIX 13 CR. Bi Annual 6W Sampling 6301-05-0016,0709,0200 Judy Hartness Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 7/19/05 1620 1630 1600 1516 170-421-3486 SAMPLING DATE TIME Printed Name Date/Time Styrature 5te 100 30140 SPECIAL INSTRUCTIONS/COMMENTS FeAE imes #Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg 3200 Town Point Dr の下 MACTEC Printed Name Circle the method and each appropriate metal Signature Steve Youngs Date/Ilme Sampler's Signature MACTEC DMW-26A-0705 MWFTA-10-0705 NWFTA-9-0705 MWFTA-17-0705 ennesaw, 70-421-3400 PHASO NETDANIC HOWARD 0U7PZ-2-0765 Jamel House Fin MACTEO Determine 7/19/05 11900 CLIENT SAMPLE ID RELINGUISHED BY Company/Address Signature

Distribution; White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Clent

SCAC. 1974.11

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

CAS Contact

PAGE

5090 Caterpillar Road • Redding, CA 98003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

TURNAROUND REQUIREMENTS REMARKS/ ALTERNATE DESCRIPTION X Standard (10-16 working days) INVOICE INFORMATION Provide FAX Results RECEIVED B ANALYSIS REQUESTED (Include Method Number and Container Preservative) Tritted Name Data/Time Signature Ž IV. Data Validation Report with Raw Data V. Spetcelized Forms-/ Custom Report REPORT REQUIREMENTS (LCS, DUP, MS/MSD as required) iii. Results + OC and Calibration Summanes RELINQUISHED BY II. Results + QC Summaries **E** I. Results Only E S Phribad Name Sprature Ę Vo 0 11/5 X Dissolved Metats/8010: Al As So Ba Be B Ca Cd Cr Cu Co Fe Po Li Mg Mn Mo Ni K Ag Na Se Sr TI TI Sn V Zw Ü MOTER LSIT NO Inted Name Signature Total Mentales/6010 At As Sb Ba Be B Ca Cd Cr Cu Co Fe Pto L Mg Min Mo Ni K Ag Ne Se Sr Ti TI Sn V Zn Date Time PRESERVATIVE LOTAL NUMBER OF CONTAINERS 7 MATRIX DSCR BiAnaua 645 Sampling 6301-05-0016, 0709, 0200 SPECIAL INSTRUCTIONS/COMMENTS FELEX # 851103154578 ≥ Judy Hortness Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 30144 770-421-3486 Samples Prisod Name Total Metats/6020 series: So As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 1032 SAMPLING DATE TIME 1100 Theles non 130 1032 0117 Printed Name Data/Tima Signathure 3200 Town Point Dr Ste 100 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg LAB 10 Total Metals/7000 series: As 6b Cr Cu Pb Se TI Hg MACTEC Printed Name Kennesaw, GA Circle the method and each appropriate metal Data/Time -1/19/105/1900 Date/Time Signeture MACHEC Steve Yaungs 770-421-3400 OUT-BLAD-EQB-0705 MWFTA-14-0705 MWFTB-19-6725 MS. MWFTA-19-0725 DMW-33A-0705 6U7P E-8-0705 Howard CLIENT SAMPLE ID RELINGUISHED BY Signatifie

Distribution: White - Return to Originator, Yellow - Lab Copy, Pink - Retained by Client

SCOC-1204-11

Date/Time

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

P

PAGE

5090 Caterpillar Road • Redding, CA 98003 • (530) 244-5227 • 800-895-7222 x10 • FAX (530) 244-4109

88 88 88

CAS Contact

TURNAROUND REQUIREMENTS ALTERNATE DESCRIPTION X Standard (10-15 working days) INVOICE INFORMATION Provide FAX Results RECEIVED B ANALYSIS REQUESTED (Include Method Number and Container Preservative) Three Name Signetura ģ N. Data Valdation Report with Raw Data V. Spelcetzed Forms / Custom Raport -REPORT REQUIREMENTS II. Results + QC Summaries (LCS, DUP, MSA/8D as required) III. Results + QC and Calibration RELINGUISHED BY ie. Results Only Edsta Printed Name Signature Date/Time Ę Ø 3 \* X Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn MOTER LSIT NO 7 × Printed Name Signature Date Time Total Metals/6010 AI As Sto Ba Be B Ca Cd Cr Cu Co Fe Pb L Mag Mn Mo NIK Ag Na Se Sr TITI Sn V Zn PRESERVATIVE × X TOTAL NUMBER OF CONTAINERS J 1 J 1 I J Fed Ex # 851103155931 RELINQUISHED BY MATRIX DSCR BiAnnual GW Sampling 6301-05-0016.0709,0200 Dissolved Metals/8020 series; Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn ady Hartness 770-421-3486 Total Metals/8020 series; Sb As Ba Be Cd Cr Ço Cu Pb Mn Mo Ni Se Ag TI V Zn 1045 7/19/05 1055 1705 1630 316 SAMPLING DATE TIME 10:30 1020 2091 Arriad Namy Sgratters Date/Time Ste 100 3014H Sempler's Printed Name Dissolved Metals/7000 series; As Sb Cr Cu Pb Se Ti Hg RECEIVED BY Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg 3200 Town Point Dr ennesaw, GA Printed Name CompanyAddress MACTER Circle the method and each appropriate metal. DebaTime Signatura MACHEO SPECIAL INSTRUCTIONS/COMMENTS 776-421-3460 MWFTH-288-0705 MWFTA-5-0725 6117PZ-4-0705 MWFTA-17-0705 MWFTA-10-0705 MWFTA-9-0705 DMW-26A-0705 Janiel Howard 047P2-2-0705 Date/Time 71/9/05 / / 900 CLIENT SAMPLE ID Squarre Daniel House RELINGUISHED BY

Distribution; Write - Return to Originator; Yellow - Lab Copy; Pink - Ratained by Client

RECEIVED BY

Provide FAX Regults

TURNAROUND REQUIREMENTS

N. Data Validation Report with Raw Data V. Spekalized Forms / Custom Report

SET 10

II. Resulta + OC Summarles (LCS, DUP, MS/MSD as required)

III. Results + QC and Calibration Summaries

\$000-1204-11

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpilar Road • Redding, CA 98003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

SR

**†** 

CAS Contact

N b PAGE

ALTERNATE DESCRIPTION **NVOICE INFORMATION** ANALYSIS REGUESTED (Include Method Number and Container Preservative) ģ REPORT REQUIREMENTS 1. Resutts Only, 0 HOT MOTER LSIT NO Total Metals/8010 AJ As Sb Ba Ba B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn PRESERVATIVE S TOTAL NUMBER OF CONTAINERS U σ  $\sigma$ σ J o o MATRIX 15CR Bi Annual GW Sampling 6301-05-0016,0709,0200 3 ≥ Judy Hartness 1256 1200 200 145 1240 1050 770-421-3486 1150 008000x1 911 SAMPLING DATE TIME Ste 100 30144 LABID Circle the method and each appropriate metal Steve Youngs 3200 Town Point MACTEC AEHADG-10-0705 770-421-3400 MACTEC MWFT A-1-0705 25 Kennesaw DMW-35A-0785 MM FTA-3-01 45 14-704 P-2-0705 DMW-13A-0705 MWFTA-1-0705 R-072005 DUTDIIP-1-07R5 JMW-20A-0705 CLIENT SAMPLE ID

Total Metats/7000 series: As Sb Cr Cu Pb Se Ti Hg

Total Metals/8020 series: So As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn

Be B Ca Cd Cr Cu Co Fe Pto LIMg Min Mo Nik Ag Na Se Sr Ti Ti Sn V Zn Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg Dissolved Metals/8010: Al As Sb Ba

Fed Ex# 851103161466 Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn SPECIAL INSTRUCTIONS/COMMENTS

RECEIVED BY

RELINCUISHED BY

٠,	Sonature Hance Howard	Sgrature	Signature	Signature	Signature	Signature
٠.	Permissions 10 Howard	Printed Name	Printed Name	Printed Name	Primed Name	Printed Na
٠	「ことと」という。	Firm	Film:	FILM	Firm	H.
٠.	Data/Time 7/2 0/05 10 1945	Date/Time	Data/Time	Date/Time	Dette/Time	Dette/Time
	Distribution; White - Return to Originator; Yellow - Lab Copy; Plink - Fl	low - Lab Copy, Pink - Retained by Clent				

BLM

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5080 Caterpillar Road • Redding, CA 86003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

PAGE

CAS Contact

**8** #5

TURNAROUND REQUIREMENTS REMARKS/ ALTERNATE DESCRIPTION X\_Stendard (10-15 working days) INVOICE INFORMATION ECEIVED BY Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) S Day Printed Name Dette/Time 8FL 75 Ş IV, Data Valdation Report with Raw Data V. Speicalized Forms / Custom Report. III. Results + QC and Calbratton . . ii. Results + OC Summaries (LCS, DUP, MSAMSD as required) REPORT REQUIREMENTS RELINQUISHED BY I. Resutts Only Signature Printed Name Dette/Time **Ac** 'n ¥ 0 4/5 RECEIVED BY Dissolved Metals/6010: Al As Sb Ba Ba B Ca Cd Cr Cu Co Fe Pb Limig Min Mo Ni K Ag Na Se Sr.TITI Sn V Zn MOTER LSIT NO 5 Printed Name Signatura Sta Time Total Metals/8010 Al As Sb Ba Be B Ca Cd Cr Cv Co Fe Pb L. Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn PRESERVATIVE LOTAL NUMBER OF CONTAINERS J Fed Ex # 851103161455 **TELINQUISHED BY** MATRIX DSCR Bi-Annual GANSampling 6301-05-6016, 6719,0200 Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Min Mo Ni Se Ag TI V Zn 170 - 421-3486 Sempler's Printed Name mond Judy Hartness Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mb Ni Se Ag Ti V Zn 7/24/45 114S 1050 1200 SAMPLING DATE TIME 1150 1256 Antad Name Signatura Ste 100 30144 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg LABID Total Metals/7000 series: As 8b Cr Cu Pb Se Ti Hg Inted Name Circle the method and each appropriate metal. Date Tres 3200 Town Point 770-421-3400 CHROSaw, SPECIAL INSTRUCTIONS/COMMENTS MACTEC DENTINO 7/20/05/1945 JMW-35A-0725 Steve Young MWFTA-3-0705 04704P-4-0705 4 EH ADG-10-0705 DMW-13A-0705 CLIENT SAMPLE ID RELINQUISHED BY

Distribution: White • Return to Originator; Yellow • Lato Copy; Pink • Retained by Client

Printed Name.

Date/Ins

TURNAROUND REQUIREMENTS

IV. Data Validation Report with Raw Data . V. Speicalizad Forms / Custom Report

Ill. Results + QC and Calibration Summaries

Dissolved Metata/6010: At As SD Ba Be B Ca Cd Cr Cu Co Fe Pb Ll Mg Mn Mo Ni K Ag Na Se Sr TI TI Sn V Zn

Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Min Mo Ni Se Ag TI V Zn

Dissolved Metals/7000 series: As Sb Cr Cu Pb Se 71 Hg

SPECIAL INSTRUCTIONS/COMMENTS

Standard (10-15 working days)

.. Provide FAX Results

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

PAGE \_\_ 6090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 ×10 • FAX (530) 244-4109

0

8 # HS

QF /

CAS Contact

REMARKS/ ALTERNATE DESCRIPTION 8. Other # INVOICE INFORMATION ANALYSIS REQUESTED (Include Method Number and Container Preservative) BIL 70. Ş (LCS, DUP, MS/MSD as required) REPORT REQUIREMENTS II. Results + OC Summerles I. Results Only 3 0 12 Ц Total Metats/8010 AI As, Sto Ba Be Br Ca Cd Cr Cu Co Fe Pto L Mg Mn Mo NIK Ag Na Se Sr Ti Ti Sn V Zn PRESERVATIVE J 3 MATRIX 6301-05-0016,0709, 6200 770-421-3486 Total Metals/7000 series: As Sto Cr Cu Pb Se Ti Hg Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn Harring Hartness 1240 0111 1200 1116 SAMPLING DATE TIME Ste 100 7/20/05 1 30144 LABID D D own Point Circle the method and each appropriate metal. DSCR Bi Honual GW Sampling Steve Youngs 770-421-3400 MWFTA-1-0705MS/MSD Mactec Jampiers Stonetier A A C TEC MW FTA-1-0705 DMW-204-0705 ennesaw 3010-1-940Ch 0 CLIENT SAMPLE ID 3200

FedEx # 851103161422

			and Court Dirth - Department for Class	Outsigner White . Better to Christian Valley . I to Come Outs . Detailed in
Datis/Time	T state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the sta	DetterTime	Cataviume	Detailms 7 (3.0/05/ 14.4.5
Him		First First		I''' MACT EC
Printed Name	d Nerra	ka Name	Printed Name	Minesterne Howard
Standare				Signatura Trans ( trava
RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	HELINGOISHED BY

SCOC-1204-11

## CHAIN - OF - CUSTODY RECORD

Phone: (412) 826-5745	3,52,62	Microseeps, Inc	Inc.	220 Wil	lam Pi	t Way	220 William Pitt Way - Pittsburgh, PA 15238	15238	Fax No. :	Fax No. ; (412) 126-3433	8
Company:	MACTEC	7		•			Parameters Reguested	greated	Results to:	Indy Hartness	rtne
Co. Address: Proj. Manager:	3200 Town Point Dr Ste 100	was Dr Stu		Kennesawich30144	Sawlo	430144					
Proj. Location:	•	hmand VA							Invoice to : 14.	udy Hartness	triess
Phone #:	770-421-3400 Fax#:	216. 0109.0. 400 Fax		770-421-3486	3486				21.2.5 28.5		
Sampler's signature :		MACTEC Manuel		Howard	(		· · · · · · · · · · · · · · · · · · ·		Coolee ID	Cooler Teng.	Ting
Sample ID	-Serry le - Description	Date	Time	Comp	Grab	Cont	H	-	Remarks	*	
	M W-112-2-0705				×	_	×		下の1万/井		
	M MIF05-1-0705	ĺĺ	1010		×	-	×			1488	
	DMW-274-0705	705	1020		Y	1	×		,	,	
	MWF05-3-0705	705	1000		×	¥	  -  -				
	047 DUP-3-0705	0.705	1200		×	1	×				
	MWFTH-20-0705	0725	1645		Ϋ́	,	×				
-	MINFTA-18-0705	2705	7630		×		×				
	DMW-25A-0705	705	1510		×	,	×			ę,	
	DMW-22A-0705	705	1510		×	,	×			gir.	
	MWFTA-298-0705	-07.05	1515		×	~					
	MWETA-7-0705	705	1530		×	1	×				
	MWFTA-23-0705	0725 1	1450		×	7	×				
Relinguished by:	2 Hm 2	Company:		Date: Time:		Received by :		Company:		Date :	Time :
Relinquished by :	i	Company:		Date:	Time :	Received by :		Company:		Date:	Time :
Relinquished by :		Company:		Date:	Time:	Received by :		Company:		Date:	Time :
•		WHITE COPY: Accompany Samples	PAY Sammies				VEG LOW COPY : Laboratory Edla	DATE AND SECTION	Landan		

## CHAIN - OF - CUSTODY RECORD

Phone: (41)	Prima: (012) \$26-5245	Microseeps, In	'sdaas	Inc	220 Wi	lism Pi	it Way	c 220 William Pitt Way - Pittsburgh, PA 15238	5238	Fax No. :	Fex No. : (412) 826-3433	5531
Company:	MACTE					-	350. 11	Perameters Requested	posto	Reauth to:	T. L. Hartner	+
Co. Address: Proj. Manager:	er: 5200 Town Point Dr Ste 100 Kenneson, 10 H 30144	Paint	Dr 54	601 2	Lounes	An la A						
Proj. Location:	"	ichman	1 1	NA						Invoice to :	Judy Hartocke	4064
Proj. Number:	•	016.070	04.60	200								
Phone #:	770-421-3400	700	Fax#:		10-412	770-4121-3486	g					
Sampler's signature :		MACTEC	F	Havis Howar	t area	0				Coolet ID	Coop	Cooler Terro
	SA MOICED	a H			7.20			2 F	-			
Sample ID			Dete	Time	10	Graf	Cont	<del>-</del>		Konarks	4	
	MWFTA-16-0725		7/18/05 16	1630		×	/	×		打でるだ。井	#	
	D MW-33A-0705		711 9/05 #	#	1136					851103161488	8871	
	MWFTA-14-0705	0705		#38	0111							
	MWFTA-19-0705	0705		- <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> - <del>-</del> <del>-</del>	1032							
	0117P=-8-0705	1705		1037	1100							
	047PZ-4-0705	2705		10%	10.55							
	MWFTA-248-0705	-0705		2401								
	MWFTA-5-0705	205		1030								
	0U7P2-2-6705	5.05		1020								
	M WIETA-10-0705	-0705		1630								
	MWETA-9-0705	2020		16.00								
	DMW-26A-0705	0705	<b>&gt;</b>	1516								
Relinquished by :	1 7	Company:			Date:	Time :	Received by :		Company:	A :	Date :	Time :
J. Chronic	Howard /	MACTEC	TE	U	7/21/05 1900	1900						
Relinguished by :		Company:			Date:	Time :	Received by :		Company:	y:	Date:	Time :
Relinquished by :		Company:			Date:	Time :	Received by :		Company:	y:	Date:	Time :
	A	WHITE COPY : Accompany Samples	Accompa	v Samoles		YELLOW	YELLOW COPY : Laboratory Elb.		PINE COPY : Submittee			
							1	•				

### CHAIN - OF - CUSTODY RECORD

Home: (412) 826-5249	3 826-5245	Microseeps, Inc 220 William Eff Way - Pittsburgh, PA 15238	ps. Inc	220	Willia	ım Pitt	Way	Pittsb	urgh, P	K 15238		Par No.	Pet No. 1 (4) 2) \$26-3433	G)
Company:	MACTEC	2				, ·	<u> </u>		Parametera Regreated	egretted		Results to :	A dy Ha	Indy Hartness
Co. Address:	ल	2 Altria	1001 2	Comes	2 m/ (2)	H3014	#,							
Proj. Location:	11 DSCR. Richmon DVA	chmon B	VA		,						· <u>-</u> -, =	Invoice to :	Judy Hartness	thess
Proj. Number:		016.070		0							<del>,</del>		_	
Phone #:	770-421-3400	700	Fax # :	776-421-3486	-121-	3486								
Sampler's signature :		MACTEC/BanielHowa	James	Who	gra							Cooler ID	3	Cooler Temp,
	54.7	D	Sec. 20		9			z H				Š		
Semple ID	- Georgie-Determption-		Dete	ර 1	Comp.	Operb	S S	,	7	4		Romarke	4	
	MWFTA-17-6705		CI 20/11/C	205		×		×				FOLEX	T.	
	DMW-35A-0705	205	<i>),</i>	2411		×		×				851103161148	1118	200
	DMW-13A-0705	705	1150	زه		×	_	×						
	MWFTA-8-6705	705	W	1050		×	-	×						
	047DUP-2-0765	70.5	12	12.00		×	~	X						
	ANWETA-1-0705	705	1	011		×	Ţ	×						
	DMW-20A-0705	705	12	1240		×		×						
	PUTDUD-1-GIDE	705	12	1200		×	-	×						
	AEHADG-16-6705	705	12	1256		×	-	×						
	TB071805	<b>→</b>	0,	800		×	_	×						
			-	$\dashv$	-			-	$\exists$					
Relinquished by:		Company:		Date:		Time:	Received by :			۲	Company:		Date:	Time :
Janes J.	House	MACTEC	FEC	7/2	7/21/05 1900	100								
Relinquished by :		Company:		Date:		Time:	Received by :	••		<u></u>	Сопрапу:		Date :	Time :
Relinquished by :		Соправу:		Date :		Time:	Received by :				Company:		Date :	Time :
	W.	WHITE COPY: Accompany Samples	company Sa	mples	*	BLLOWC	YELLOW COPY : Laboratory File	oratory Fil		PINK CO	PINK COFY: Submitter	lter .		
			•		•						•	•		

December 2005 Revision 0

Results of Bi-Annual Groundwater Sampling – July 2005 Operable Units 6,7, and 8 Defense Supply Center Richmond

1

2 3

### **APPENDIX A3**

OPERABLE UNIT 8
CHAIN OF CUSTODY DOCUMENTATION

SCOC-1204-1

Date Titre

E

A & Analytical Services 72 Columbia

# CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5080 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

#

CAS Contact OF 2 PAGE

Zn. Acetate MeOH NaHSO4 TURNAROUND REQUIREMENTS REMARKS/ ALTERNATE DESCRIPTION X Standard (10-15 working days) NVOICE INFORMATION B. Other Provide FAX Resufts **64400**€ ANALYSIS REQUESTED (Include Method Number and Container Preservative) 6 Day rimbd Name Signature N. Data Validation Report with Raw Data V Spetcalized Forms / Custom Report **HEPORT REQUIREMENTS** (LCS, DUP, MS/MSD as required) II. Results + OC and Calbration IL Reautts + OC Summertes RELINCUISHED BY **B** Results Only Ainted Name Signature RECEIVED BY OD × X Dissolved Metals/8010: Al As Sto Ba Be B Ca Cd Cr Cu Co Fe Pto Li Mg Mn Mo, NI K Ag Na Se Sr Ti Ti Sn V Zn MOTHE IST NO. × ninted Name Signature Total Metals/8010 At As Sb Bar Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti TI Sn V Zn PRESERVATIVE NUMBER OF CONTAINERS σ  $\sigma$ a RELINIQUISHED BY 6301-05-0016,0709,0200 MATRIX Fedex # 851103161433 3 Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn 3 1130 W PAPPORTO JULY Hartnes Total Metals/6020 series; Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 1545 7/20/05 0830 0060 1530 202 1130 00.11 SAMPLING DATE TIME 1615 HX8-124-776 Ste 100 Printed Name Signature 76108 Sempler's Printed Nume Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg LAB ID Total Metals/7000 series; As Sb Cr Cu Pb Se TI Hg 3200 Town Point Ó Programme Anna 6 W Sampling Printed Name Circle the method and each appropriate metal. Sumbler Squebur MA CTEC Signetura COMPANY MACTICO PECIAL INSTRUCTIONS/COMMENTS enriesaw DMW-23A-0705M5/MSD 770-421-3400 343-31AD-EQB-0705 MW-31A-0705 Project Merapy 5010-77-A 7 A M 0 u & Dup-4-0705 JMW-24A-0705 DMW-30A-0705 R-072005-02 HOWARD MWANP-4D-6725 JMW-23A-0705 tower CLIENT SAMPLE ID HELINOVISHED BY

Sartbufon: White - Return to Originator; Yellow - Lab Copy; Prix - Retained by Client

Dede/Time

TH MAC

Deda/Time

Date/Time

Date/Time

Deta/Time

Oats/Time Ē

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

18B

5090 Cetsrpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

CAS Contact

8 <u>\*</u> PAGE

Other Ha POH REMARKS/ ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS X Standard (10-15 working days) INVOICE INFORMATION ECEIVED BY - Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) offitted Name BILL TO: Signature ō IV. Data Validation Report with Raw Data V. Spelcalized Forms / Custom Report REPORT REQUIREMENTS (LCB, DUP, MS/MSD as required) 1). Results + QC and Cathration HELINGUISHED BY ii. Results + QC Summarles . Results Only Summeries . Edate Hrated Name Sometime Ç<sub>0</sub> 0 463 **JECEIVED BY** Dissolved Metals/6010: Al As So Ba Be B Ca Cd Cr Cu Co Fe Po Li Mg Min Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn 7 ON LIST BELOW Signature . ranted Name Total Metals/8010 AJ As Sto Ba. Be B Ca Cd Cr Cu Co Fe Pto L Mg Mn Mo Ni K Ag Na Se Sr TI TI Sn V Zn PRESERVATIVE þ TOTAL NUMBER OF CONTAINERS I 444191801188 TELINOVISHED BY SCR BiAnnual 6 W Sampling 6301-05-6016, 6709, 6206 MATRIX Dissolved Michals 6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn Indy Hartness Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 78 HE-124-06-1130 1530 1136 1/20/05/09/05 SAMPLING DATE TIME 1100 Printed Name Signature 246 100 30144 SPECIAL INSTRUCTIONS/COMMENTS Fed Ex# Sempler's Printed Name Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg RECEIVED BY LABID Total Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg エツ Town Point Dr Attack Name Circle the method and each appropriate metal. Steve Youngs MACTEC Prove 7 70 - 421 - 3400 MACT 0 4 8-8LAD-EQB-105 DMW-23A-0705m5/ms Total Metals/8020 series: Sb As Ba ennesaw M WANP -22-0705 D MW -23A-0705 1 M M-30A-0705 CLIENT SAMPLE ID RELINCUISHED BY 3200 Egnething 1

Distribution: White - Return to Originator; Yallow - Lab Copy; Pink - Retained by Citent

SAZ ...

Data Time

TURNAROUND REQUIREMENTS

5 Day

INVOICE INFORMATION

ğ

A Standard (10-15 working days)

Provide FAX Results

鼻

SCOC12041

ANALYSIS REQUESTED (include Method Number and Container Preservative) IV. Data Vaildation Report with Raw Data . V. Spelcelized Forms / Custom Report. III. Resurts + QC and Calibration II. Results + QC Summarles (LCS, DUP, MS/MSD as required) REPORT REQUIREMENTS RELINQUIBHED BY CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 9. A L Results Only 5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 × 10 • FAX (530) 244-4109 PAGE 2 O RECEIVED B Dissolved Metals/8010: At As Sb Ba Ba B Ca Cd Cr Cu Co Fa Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn MOTER LSIT NO Total Metals/6010 AI As Sto Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo NI K Ag Na Se Sr TI TI Sn V Zn PRESERVATIVE TOTAL NUMBER OF CONTAINERS Q. Fed TX # 851103161433 RELINOUISHED BY 6301-05-0016,0769,0200 MATRIX **イ M A O L FE G** 3 Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn Judy Hartness 770-421-3486 Total Metals/8020 series: Sh As Ba Be Cd Cr Co Cu Ph Mn Mo Ni Se Ag TI V Zn 1/20/05 12 00 SAMPLING DATE TIME 3200 Town Point Dr Ste 100 30144 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg RECEIVED BY CAB ID Total Metals/7000 series: As Sb Cr Cu Pb Se T1 Hg JSCR BiAnned GWSampling タヤ Circle the method and each appropriate metal 70-421-3400 Steve Young SPECIAL INSTRUCTIONS/COMMENTS 348 DUP- 2-6705 lampier's Stoneture A C TE annesaw, CLIENT. SAMPLE ID RELINDUISHED BY

REMARKS/ ALTERNATE DESCRIPTION

CAS Contact

#000 SR #

rinted Name Signature Date/Tme Ę Pinted Name Date/Time Signature Anted Name Date/Time Signature anted Name Date/Time Signature Nstribution: White - Return to Originator; Yellow - Lab Copy; Phik - Retained by Client

Printed Name

HOWAT

Signature

Signature & annie / Honney

20/05 / 1945 Dereviews

Sate Time

Third Name

Printed Name

Printed Name

**Defeating** 

Dette/Time

E

Crrr 1904

200

ထ္

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

DRNO

Ъ

PAGE

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

# 55

CAS Contact

REMARKS/ ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS X Standard (10-15 working days) INVOICE INFORMATION Provide FAX Results -'d'6'4'4'6'6'≻' ANALYSIS REQUESTED (Include Method Number and Container Preservative) Signeture Ş IV. Deta Validation Report with Raw Data V. Speicelznd Forms / Custom Report II. Results + OC Summarios (LCS, DUP, MS/MSD se requind) REPORT REQUIREMENTS III. Results + QC and Calibration Summaries RELINCUISHED BY L. Passuits Only Edata Sprenge Òc 4% 0 Dissolved Metals/8010; Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pto Li Mg Mm Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn 7 NOTIST BELOW Signature Total Metals/6010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn PRESERVATIVE 1 1 LOTAL NUMBER OF CONTAINERS 4 RELINGUISHED BY MATRIX 35CA B. Annual 6W Sampling 6301-05-0016,0709,0200 SPECIAL INSTRUCTIONS/COMMENTS FLATEX # 85110316141 Hartness Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn Total Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag Ti V Zn 545 SIGI ROPAT 1515 1200 7200 SAMPLING DATE TIME Printed Name 30144 770-421-3486 Signature Ste 100 PADORICO JUST LABID Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg 3200 Town Point Dr. Printed Name Steve Youngs Circle the method and each appropriate metal Signature MACTE Sampler's Signature MACTEO Kennesaw. 770-421-3400 OU SUMP -2-0785 04 8 DWP-4-0705 1 MW-24A-0705 DMW-31A-0725 MWAND-4D-0705 CLIENT SAMPLE ID Bretter Tarent RELINQUISHED BY Sompany/Address

Narrbutton: White - Return to Originator; Yallow - Lab Copy, Pirk - Retained by Client Parame 7/10/05/1945

Osta/Time

Varie Howar

RMC-1904.11

1048A

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 ×10 • FAX (530) 244-4109 PAGE

_									.,-												i					~ {	31(	•	47	7	
	Preservative)	1.0 1.0 1.0 1.0 1.0	Preservative Key	2. HOS	5. Zn. Acetate 6. MeOH			REMARKS/ ALTERNATE DESCRIPTION						•	_				INVOICE INFORMATION		BILL TO:		TURNAROUND REQUIREMENTS 60 bay	Standard (10-15 worlding days)	Provide FAX Results	Other	RECRIVED BY	Signature	Printed Name	Form	Date/Tins
	ANALY8IS REQUESTED (Include Mathod Number and Container Preservative)																-		EQUIREMENTS!	٠,	II. Resufts + OC Summaries (LC8, DUP, MS/MSD as required)	III. Results + QC and Calbration	IV. Data Validation Report with Raw Data	V. Speiceltred Forms / Qustom Report	Edeta Nes No		RELINQUISHED BY	Signature	Primed Name		Dete/Time
	ANALYSIS REQUESTED (In	PRESERVATIVE I D	/ / QJ/XG/	(P) (P) (P) (P) (P) (P) (P) (P) (P) (P)	/ / 17 / 28 / 50 / N	10 17 10 / STE	一方以才避		× × ×	XXX		×××	XXX				$  \cdot   \cdot   x   \times   \times  $	X X X	of the second	TI Sn V Zn		Sr TI TI Sn V Zn					RECEIVED BY	Signature	Rinted Name	Hina Hina	Date/Time
	00 20 . 00 20 00	55	SHEH		EH OE	1 -3 4 86	IA3OT	SAMPLING SAMPLING DATE TIME MATRIX	7/24/05/0800 W 9		6 57.60		1520 9	6   0/11/1	1015   9	0930 9	1200 9	1555 1 9		Mg Mn Mo Ni K Ag Na Se Sr Ti	NI Se Ag TI V Zn	NIK AG Na Se	2 > 1	4411421669113	OL'ECCICOLICO.		RELINQUISHED BY	Signature	Printed Name	Flm	DateTime
Profest Number	pling 6301-05-C	33 mondo Indy Hartne	$\mathcal{O}$	Dr	GA 3	Fixe	Sampler	LABID			5					\.		5	oriete metal.	Total Metals/6010 Al As So Ba Be B Ca Cd Cr Cu Co Fe Po L Mg Mn Mo Ni K	Total Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Total Metals/6020 series: Sb As Be Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn	Dissolved Metals/6010: At As Sb Ba Ba B Ca Cd Cr Cu Co Fe Pb Ll Mg Mn Mo	Dissolved Metals/7000 series: As Sb Cr Cu Pb Se T1 Hg Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag T1 V Zn	T	TOO UX #		RECEIVED BY	Signeture	Printed Name		Dete/Time
Project Name	DSCR Bi Annual Sampling	Transformance John 3	Compeny/Address MACTEC	3200 Town Point	Kennesaw	Phone #	Sumpler's Signature MACTA		718-072105	MWANP-13-6705	MWANP-14-0785	MWANP-21-070x	MWANP-23-6705	MW ANP-10-0705	MWANP-120-0705		048DUP-1-0705	MWANP-3-0725	* Circle the method and each appropriate metal	Total Metals/6010 Al As Sb Ba I	Total Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg Total Metals/6020 series: Sb As Be Be Cd Cr Co Cu	Dissolved Metals/8010; Al As Sb	Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Ci	SPECIAL INSTRUCTIONS/COMMENTS	· ·	-	RELINGUISHED BY	Signatura A days Offer	Printegrams 12 Howard		Date/Time 7/2 0/05/- 7/2 1/05

Distribution: With a - Return to Originator; Vellow - Lab Copy, Pirk - Retained by Clerit

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

Columbia
Analytical
Services

8 - Owned Company Castleboom

H&M

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

PAGE 2 OF 2

**#**000

CAS Contact

HNO3 H2SO4 NaOH Zh. Acetate MeOH NeHSO4 REMARKS/ ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS X Standard (10-15 working days) INVOICE INFORMATION Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) Strated Name Signature FIL 10: Š N. Deda Validation Report with Raw Data V. Spelcelized Forms / Custom Report REPORT REQUIREMENTS I. Results + OC Summeries (LCS, DUP, MS/MSD as required) III. Results + OC and Cathration RELINQUISHED BY . Resutts Only Edata Printed Name Signature × Ba Be B Ca Cd Cr Cu Co Fe Po Li Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn MOTER LETT NO. Printed Name Signature Total Metals/8010 At As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V. Zn PRESERVATIVE Fed Ex# 8511 03155840 SHEINIMINOO SO HEBBINDIN TIMELLI v Q. Q RELINQUISHED BY MATRIX 6301-05-0016,0709,0200 Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn 3 5 5 2 3 Indy Hartness 770-421-3486 Total Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg
Total Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn 0945 1535 812 1/21/05 6945 1500 620 1610 SAMPLING DATE TIME Printed Name Signetture Date/Tme Ste 100 Sempler's Printed Name 30144 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg RECEIVED BY LABID 3200 Town Point Dr GA. BSCRBIAnnual Sampling Printed Name Circle the method and each appropriate metal Plan MACTEC Trum
DatesTime 7/21/05/19 15 Detection Steve Youngs Signature 370-421-3400 Sample's Signature MACTEO CompanyAddress MACTEC SPECIAL INSTRUCTIONS/COMMENTS 0572MW-1-0705 MWANP-17-6705 MWANP-15-0765 M30 MWAN945-0705 Kennesaw MWANP-18-0705 4565-546705 Dissolved Metals/6010; Al As Sb Printed Name Haward US65-2-6765 CLIENT SAMPLE ID Small Hans House RELINQUISHED BY

Natribution; White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

TURNAROUND REQUIREMENTS

. N. Deta Velidation Report with Raw Deta

III. Results + OC and Calibration Summaries

C Standard (10-15 working days) Provide FAX Resutts SCOC-1204-11

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5080 Caterpillar Road • Redding, CA 98003 • (530) 244-5227 • 800-695-7222 ×10 • FAX (530) 244-4109 PAGE

P

CAS Contact

ANALYSIS REQUESTED (Include Method Number and Container Preservative) 6301-05-0016,0709,0200 Mack BiAnnual Sampling

REMARKS/ ALTERNATE DESCRIPTION ğ REPORT REQUIREMENTS II. Results + OC Summarfes (LCS, DUP, MS/MSD as required) I. Results Only Total Metals/6010 AI As Sb Ba Be B Ca Cor Cu Co Fe Pb L Mg Mn Mo NIK Ag Na Se Sr TI TI Sn V Zn PRESERVATIVE DIAL NUMBER OF CONTAINERS I MATRIX 3 Judy Hartness 770-421-3484 09.15 7/21/05 0930 1555 SAMPLING DATE TIME 0191 1200 246100 30144 LABID 3200 Town Point Dr Circle the method and each appropriate metal Kennesaw, GA MACTEC Most Maragas Steves Youngs 710-421-3400 CONTRUNISMENT MACTED MMAND-7-0705 MWANP -3-0705 MW ANP-15-0705 本 Ougonp-1-0765 CLIENT SAMPLE ID N SGS-5-0705

Total Metals/7000 series: As Sb Cr Cu Pb Se T1 Hg Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Min Mo Ni Se Ag T1 V Zn

Dissolved Metals/8010; At As So Ba Be B. Ca Cd Or Cu Co Fe Po LIMg Mn Mo Ni K Ag Na Se Sr TITI Sn V Zn Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg

851103155850 SPECIAL INSTRUCTIONS/COMMENTS

ЯЕШКОИ!8НЕD ВY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINCUISHED BY	RECEIVED BY
Sommer Pour House	Signature	Signeture	Signature	Signeture	Signature
Mind None Howard	Printed Name	Printed Name	Printed Name	Printed Name	Primed Name
FIE CAPCIALO	Fien	Hm	Firm.	Firm	Fim
Detailme 7/21/05/1915 Detailme		Deta/Time	Dette/Time	Date/Time	Date/Ilme
Telefactual And and Antonio Market and Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio Antonio	A Lab Coar Disk . Bateland by Class				

SCOC-1204-11

Datte/Time

Detectors

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

P -

800 # US

PAGE

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

CAS Contact

REMARKS/ ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS X Standard (10-15 working days) NVOICE INFORMATION Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) Printed Name Signature B(L TO: Ş IV. Data Validation Report with Rair Data V. Speicalized Forms / Custom Report II. Results + OC Summerles (LCS, DUP, MS/MSD as required) REPORT REQUIREMENTS III. Results + QC and Calibration Summaries RELINQUISHED BY . E I. Results Only Prented Name Signature W. \* RECEIVED BY 0 X Dissolved Metats/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb LIMO, Mn Mo NiK Ag Na Se Sr Ti Ti Sn V Zn PRESERVATIVE | MOT38 LSIT Printed Name DateTime Signature To tai Montaba/6010 AIAs Shi Ba Be Bica Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn Ē 851103155861 TOTAL NUMBER OF CONTAINERS I I MATRIX Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn 6301-05-0016-0709,0200 Total Metals/7000 series: As Sto Cr Cu Pto Se T1 Hg Total Metals/6020 series: Sto As Ba, Be Cd Cr Co Cu Pto Min Mo NI Se Ag T1 V Zn Judy Hartness 1535 1620 1/21/05 09 45 1500 9160 SAMPLING DATE TIME 770-421-3486 amples Printed Name Printed Name Signature Date/Time Ę 5te 100 TedTx井 30144 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg RECEIVED BY CAB ID rinted Name 3200 Town Point Dr Circle the method and each appropriate metal GA Stgnature Darta-Time BICK Bi Annual Sampling MACTEC Propositionages Steve Youngs SPECIAL INSTRUCTIONS/COMMENTS CONTRENYABILIES MACTEC MWANP-15-0705 ms/ 0572MW-1-0705 MWAND-18-0705 770-421-3460 aniel Howard MWANP-176705 Kennesam Jane 14 CLIENT SAMPLE ID 1565-2-0725 RELINGUISHED BY 2

Natribution: White - Return to Originator; Yellow - Lab Copy, Pink - Retained by Client

SCOC-1204-11

Date/Time

**DetayTims** 

Date/Time E

Data/Time

Ē

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

048D

Columbia
Analytical
Services

800

SH #

CAS Contact

ь Ы

5080 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 600-685-7222 x10 • FAX (530) 244-4109 PAGE

ervative Key REMARKS/ ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS Standard (10-15 working days) INVOICE INFORMATION ECEIVED BY Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) Printed Name Signature BIL TO: Ş IV. Data Validation Report with Raw Data V. Speicelized Forms / Custom Report REPORT REQUIREMENTS, II. Results + QC Summeries (LCS, DUP, MS/MSD as required) III. Results + OC and Calibration Summaries **TELLINOUISHED BY** I. Results Only . E Parted Name Signature ₩. 7 × Dissolved Matals/8010: Al As Sto Ba Ba Ba Ca Ca Ca Ca Co Fe Pho Li Mg Man Mo Ni K Ag Na. Se Sr Ti Ti Sn V Za X NOTER TELOW Printed Name Styneture Total Metals/8010 At As Sb. Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr TI TI Sn V 2n PRESERVATIVE X X Fed Ex # 851103155872 LOLYT NOWBER OF CONTAINERS MATRIX Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn DSCR Bi Annual 6W Simpling 6301-05-0016-0709,0200 Total Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn udy Hardness 0945 0441 Talles 1045 0950 1520 1015 SAMPLING DATE TIME Printed Name 770-4213486 Signature Frm 5+6 160 Sampler's Printed Name HECEIVED BY 30144 LABID Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg 3200 Town Point Dr String Name Circle the method and each appropriate metal Signature MARTIN Steve Youngs 6 H SPECIAL INSTRUCTIONS/COMMENTS Samplers Synether MACTEC MWAND-11/20-6705 MW ANP-13-6705 770-421-3400 MWANP-21-0705 MWANP-23-0705 MWAND-14-0705 Howard MWAND-10-0705 CLIENT SAMPLE ID Kennesaw RELINQUISHED BY anie

Distribution: Write - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

Date/Time

Date/Time 7/21/05/1915

単してと

TURNAROUND REQUIREMENTS

5 Day

IV. Data Validation Report with Raw Data . V. Speicalzad Forms / Custorn Report.

NVOICE INFORMATION

Ş

REPORT REQUIREMENTS

I. Resutts Only

II. Results + OC Summaries (LCS, DUP, MS/MSD as required)

III. Results + QC and Calibration

X Standard (10-13 working days)

ANALYSIS REQUESTED (Include Method Number and Container Preservative) CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM PAGE Ó ₹ K K 5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x 0 • FAX (530) 244-4109 Dissolved Metabar6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Ll Mg Mn Mo NI K Ag Na Se Sr Ti Ti Sn V Zn NOTE AND THE SETOM Total Metats/6010 AI As So Ba Be B Ca Cd Cr Cu Co Fe Po L Mg Mn Mo NIK Ag Na Se Sr Ti Ti Sn V Zn PRESERVATIVE 0 3 9 Œ 9 4 851103160242 MATRIX 6301-05-0016, 6709,0200 2 Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn Judy Hartness 770-421-3486 Sample's Period Name Total Metals/7000 series: As Sb Cr Cu Pb Se T1 Hg Total Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag T1 V Zn 1445 7/22/05 08 00 1045 10.30 1030 1040 1040 SAMPLING DATE TIME 8 019 1 te 100 30144 Fed Ex# Dr Dissolved Metals/7000 series; As Sb Cr Cu Pb Se TI Hg LABID なな 10wn Point 13CR B. Annual Sampling Stove Youngs Circle the method and each appropriate metal. MACHEO SPECIAL INSTRUCTIONS/COMMENTS MACTEC 770-421-3400 MWAND-24-0705 MWANP-19-6705 MWANP-20-0705 enresa W MWANP-25-0705 MW ANP-27-0725 MW ANP-16-0705. MWA NP-26-0785 nP-2-0-705 R-072205 CLIENT SAMPLE ID DP-5-0705 3200

REMARKS/ ALTERNATE DESCRIPTION

7

CAS Contact

9

3COC-1204-11 RECEIVED BY Provide FAX Results Anted Name Signature Dette/Tim Ę 是 差 — RELINQUISHED BY rithted Name Structure Date Printed Name Signature DateTime Printed Name Signature **Date/Time** Ē Obserbution: White - Return to Originator; Vetow - Lab Copy; Prink - Retained by Client Signatura Date/Tme Data/Time 7/22/05/18/30 Daniel Honard HELINQUISHED BY MACTE

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

PAGE

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

せるコ

CAS Contact

00

ANALYSIS REQUESTED (include Method Number and Container Preservative) 6301-05-0016,6709,0200

Preservative Key REMARKS/ ALTERNATE DESCRIPTION ò REPORT REQUIREMENTS I. Results Only MOTER ARTON PRESERVATIVE 3 MATRIX Indy Hartness 1270-421-3486 7/22/05 1145 1230 1200 1245 1000 1105 123 130 1030 20 SAMPLING DATE TIME 5 te 100 Sampler's Printed Name 30144 LAB ID SCR BiAnnal GW Sompling 3200 Town Point Dr Circle the method and each appropriate metal MACTEC Steve Youngs Kennesaw, GA Sempler's Signature MACTEC U 80UP -3-0705 17-12-0705 DP-1-0705 NP-4-0705 CLIENT SAMPLE ID DP-7-0705 DP-9-0705 JP-10-0705 DP-8-0705 P-11-0705 NP-6-0705

Total Menals/6010 AI As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn Total Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg

Total Metala(6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn

Dissolved Matata/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Ll Mg Mn Mo Ni K Ag Na Se Br Tl Tl Sn V Zn Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NJ Se Ag TI V Zn Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Tl Hg

TURNAROUND REQUIREMENTS...

. IV. Data Validation Report with Raw Data

Ed ette

Summanies

II. Results + OC Summaries (LCS, DUP, MS/MSD as required) Results + QC and Calibration. X Standard (10-13 working days)

PPECIAL INSTRUCTIONS/COMMENTS FOR EX # 851103160242

Towns Spratus		HEUENNELD BY Signature	RELINQUISHED BY	STATISTICS.
General Signature Signature				, hadelved By
Signature Printed Name				*
Phriad Name			Signeture	Signature
		Printed Name	Birth Stems	
			Silver parental	FIRE DETER
しいしている。	Firm	THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE S	E E	Film
Data Time 1/2 2/04 / 1 V 2/ Detailmin				
		Cater Jets	Date/Time	Deta/Time

484 816 Preservative Key HCL HN03 H2SQ4 Zn. Acetate MeOH NeHSQ4 - PEMARKS/ ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS X Standard (10-15 workting days) LO RECEIVED BY Provide FAX Regults ANALYSIS REQUESTED (Include Method Number and Container Preservative) Antad Name CAS Contact Signature Detta/Time δ #000 # HS N. Data Validation Report with Raw Data V. Spetcatond Forms / Custom Report **₽** II. Results + OC Summaries (LCS, DUP, MS/MSD as required) REPORT REQUIREMENTS III. Results + OC and Calibration RELINQUISHED BY CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 0F.0 **2** I. Resutts Only Summaries Pinted Name Signature 5080 Catarpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109 PAGE 3 <del>JECEIVED BY</del> Dissolved Metals/8010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn MOTER BETOM Printed Name Signature Ba Be B Ca Cd C; Cu Co Fe Pb L Mg Mn Mo NIK Ag Na Se Sr TI TI Sn V Zn PHESERVATIVE 851103160242 × RELINQUISHED BY MATRIX 6301-05-0016,0709,0200 2 Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn PREDICT INDY Hartness Total Metals/6020 series: Sb. As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 7/22/05/1020 SAMPLING DATE TIME 770-421-3486 Minted Name Signatura Datte/Time Ste 100 Oistribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Clean Sampler's Printed Name Trad TTX 林 Kelmasaw GA 30144 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg RECEIVED BY ZB D Total Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg. DSCRB: Annual 6 W Sampling 3200 Town Point Dr Steve Young MACTEO Printed Name Circle the method and each appropriate metal. Deta/Time 7/22/65/ 1830 Deta/Time Signature MACTEC SPECIAL INSTRUCTIONS/COMMENTS 770-421-3400 0284 Homey / Janiel Howard CLIENT SAMPLE ID P-3-0705 Total Metals/6010 Al As Sb HELINGUISHED BY ampler's Signature

SCOC-1204-11

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM 5090 Cattsrpillar Road • Redding, CA 86003 • (530) 244-5227 • 800-695-7222 ×10 • FAX (530) 244-4109 PAGE

	Project Name Project Number	Project Nurther	1780				PINALVSIS	RECHIEST	forth Ci	de Marthur			ANALYSIS BEOLIEGTED Analysis Marked at		
-	Project Menager	Serve Line VIII L	29185	104,0 2,00			-			No autori	D BANKING	n containe	USA ISSOLA		
	Steve Yo	4res Tuly	Hartness		PRESERVATIVE	ME ス	0	3	00						
	M ACTE	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\				N	3						<u> </u>	Preservative Key	Ι,
, e <sup>r</sup>	3200 Town Point	nt )r 5/2100				DIE O	7			_					
	$\varkappa$	A 30	0		ROFCO	1257			\	<u></u>	-		<u></u>	3. H2SO4 4. NaOH 5. Zn Acetate	, ,
	Phone		21-7486			NO 3	10 10						· //	7. NaHSO4	
	Sampler's Storatury M. A. C. T. E.C.	Shipper		<u> </u>		TH	<u>}</u> //  // // // // // // // // // // //	7		<u></u>					
- •	CLIENT SAMPLE ID	LAB ID	SAMPLING DATE TIME	MATRIX	10/2/20								TIM	REMARKS/	T
	MWAN7-19-0705	**	7/24/05 112,5	3	×	×	×		<u>.</u>			·			T.
	M WAND-20-0765	56	1 1045	3	×	×	×		<u> </u>		-	<del>                                     </del>			Ţ
	MWANP-24-0705	A STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STA	1030	W.	×	×	.×					-			Τ.
	MWAND-25-0705		1030	h M	X	X	メ		<u>.</u>	-		<del> </del>			T
•	MWAND-27-0708		1040	<b>∀</b>	×	×	×	F			-				Т
- 12,	MWANP-26-0705	4.	1160	3	×	×	×	-					-		T
<sup>-</sup>	MWAND-16-0705		1445	3	×	×	×							- c.	Ţ
· · ·	•					-	<u> </u>					-			7
						-			-	-	. -				, ·
•		:		,		ļ		-	.	-	-	+	  - 		T
	* Circle the method and each appropriate metal.	rlate metal.				-	-	-	+						T
	Total Metals/6010 Al As Sto Ba B.	Total Metals/6010 Al As Sto Ba Be B Ca Cd Cr Cu Co Fe Pto 1. Min Min Min No.	Mo Mo Mi K	K AA NIS Se Cr		ķ		, ,,	!	HEPOHT R	REPORT REQUIREMENTS Results Only		PO PO	NVOICE INFORMATION	
	Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg	C. Po Se 11 Hg		5 ·		3		•		II. Resetths + (	II. Restifts + OC Nimmertee		·		Τ
	Total Metals/6020 series: Sb As Ba	Total Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI	Ni Se Ag TI V Zn				.,	: ;	<u> </u>	(LCS, DUP, N	(LCS, DUP, MSAKSD as required)				T
-	Dissolved Metals/6010: Al As Sb I	Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb LJ Mg Mn		Mo NI K Ag Na	.⊏ જે જે	T Su Z		•	<u>.1</u>	Summarles	III. Results + QC and Calibration Summaries				1
	Dissolved Metals/7000 series: As & Dissolved Metals/6020 series: Sb A	Dissolved Metals/7000 series: As Sb Cr Cu Pb Se 171 Hg Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag 111 V Zn	Mo Ni Se Ag TI	.z				· · ·		. IX Deta Valid	IX Data Validadon Report with Raw Data	fn Raw Data	TURNARO 6 Dey	TURNAROUND REQUIREMENTS	1:
	SPECIAL INSTRUCTIONS/COMMENTS	Tol To #	251103	13	707				<u>                                    </u>	V. Speicalized	V. Speicalized Forms / Custom Report	m Report	X Standar	Standard (10-15 working days)	
				<b>-</b>	· •			-	1,	l.	.  - 	2		Provide FAX Results	
	RELINOVISHED BY	PECEIVED BY	1,20	No common State on								<u>.</u>	Other		,
				COISHED BY	٠.		RECEIVED B)	à		KELIN	RELINOUISHED BY			RECEIVED BY	T
	Faire Howard	Signature	Sgreature			Signature	· 		Signature	E SE		"	Signature		Т
	Printed Lame	Printed Name	Printed Name		1	Printed Name			E	Printed Name .		, ,	Printed Name		1
	1	Firm	Fire			HT.			Ē					.	Ť
, 	Detection 7/22/05/1930	Oats/1me	Dete/Trne		B	Date/Time			Deta/Time	line.	• .			- 1	1
	Distribution: White Return to Originator; Yellow - Lab Copy; Prix - Retained by Client	w - Lab Copy; Pink - Retained by Client			1.								AKKOV I MTB		
	and the core of the core of the core of the core	بيت ماكية سيطيط ميميط أميا			•		,	-		1				rout Juur	;

0480

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

OF 2

PAGE

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

CAS Contact

9

8

ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS X Standard (10-13 working days) INVOICE INFORMATION Provide FAX Regults ANALYSIS REQUESTED (include Method Number and Container Preservative) States Name ᄪᅼ Signature Date/Tm \$ (V, Data Validadon Report with Raw Data V. Speicalfaed Forms / Custom Report II. Results + QC Summaries (LCS, DUP, MRMSD as required): REPORT REQUIREMENTS III. Results + QC and Calibration Summaries RELINQUISHED BY L Results Only H. Signature Ċ HOTE ON TIBL BETOM VELVIS . Dissolved Metals/6010: Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo NI K Ag Na Se Sr Ti Ti Sn V Zn ď Printed Name Stanature Total Metals/8010 Al. As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo NI K Ag Na Se Sr TI TI Sn V Zn Datte/Time PRESERVATIVE メ Fed Ex# 851103155883 RELINQUISHED BY DSCR BiAnnual CW Sampling 6301-05-0016,0709,0200 MATRIX 3 Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Dissolved Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn Judy Hartness 770-421-3486 Total Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 7/2405 1046 1010 1145 0001 1030 1230 105 1245 1200 SAMPLING DATE TIME 1050 arintad Name Signatura 5te 100 30/44 Sampler's Printed Name LABID \*3200 Town Point Printed Name Kennesaw, GA Circle the method and each appropriate metal. Company Address MACTEC Signature Date/Time 70-421-3400 Sumpler's Spineture MACTEC SPECIAL INSTRUCTIONS/COMMENTS 04 87 UP-3-0705 1 aniel Howard 17-5-0705 11 P-12-6705 DP-6-0705 CLIENT SAMPLE ID NP-2-0705 NP-1-0705 DP-4-0705 NP-7-0705 DP-9-0725 DP-8-00 RELINGUISHED BY

Distribution: White - Return to Originator, Yellow - Lab Copy, Pink - Retained by Client

Printed Name

PAR PER Signature

Printed Nam Signature

Printed Name Signeture

Printed Name

PHILD and Howard

TACTED

Signature David Howan

Date

Defro Time

DateATIME

DeterTime

Ę

Stonature

RECEIVED B

RELINGUISHED BY

RECEIVED BY

RELINGUISHED BY

RECEIVED BY

RELINCUISHED BY

SCOC-1204-11

**ひとを**ひ

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5080 Catanpillar Road • Redding, CA 98003 • (530) 244-5227 • 800-695-7222 ×10 • FAX (530) 244-4109 PAGE C OF A

CAS Contact

7

8 \* HS

HNO3 H2SO4 NGOH Zn. Acetate Mech NaHSO4 REMARKS/ ALTERNATE DESCRIPTION TURNAROUND REQUIREMENTS Standard (10-15 working days) NVOICE INFORMATION Provide FAX Reguts ANALYSIS REQUESTED (Include Method Number and Container Preservative) ĝ IV. Data Validation Report with Raw Data - V. Spelcalized Forms / Custom Report REPORT REQUIREMENTS II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration . Results Only Summeries 0 10 Dissolved Metals/8010; Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn MOTER LETOM Total Metals/8010 At As Sto Ba Be B Ca Cd Cr Cu Co Fe Pto L Mg Mn Mo NiK Ag Na Se Sr TI TI Sn V Zn PRESERVATIVE × × NUMBER OF CONTAINERS 851103155883 DSCR 8: Amual GWSampling 6301-05-0016.0709, 8200 MATRIX 3 Judy Hartness Dissolved Metala/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 7845-124-966 Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn #2465 1130 1020 SAMPLING DATE TIME 0 == 5+e 100 Sampler's Printed Name Kennesaw, CA 30144 Ted用X Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Report CC LAB ID Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg 3200 Town Point Dr Steve Youngs Circle the method and each appropriate metal. MARTEC MACTEC 770-421-3400 PECIAL INSTRUCTIONS/COMMENTS DP-10-0705 DP-3-0705 SP-11-0705 CLIENT SAMPLE ID mpler's Signature Company/Address

Distribution: White - Return to Originator; Yellow - Leb Copy; Pirk - Retained by Client

Data/Trine

Date/Time 7/22/05/1830

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109 PAGE 7 OF 7

PULL OF SOLING TO THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF		0301-03-0016,0104,0200							
roject Manager	_		t						
STOVE Youngs	H	udy Hartness	PRESERVATIVE	WATIVE 2	000	0			
2	i C			,	100	100	/ / /	/	Preservative Key 0. NONE
3200 Town Point	Dr Ste	100		Po	73	\ Vc			HOL HNO3 HSO3
Kennesaw	GA 30144	4	) <b>±</b> O <b>±</b> ∃	R   P   S   N   S   N   N   N   N   N   N   N	<b>1</b> 8 ∂₹		/		/ 6. Zn. Acatate 6. MeOH
770-421-3400	FAXE 7	18-421-348C			9	/		/ /: :/	7. NaHSO4 8. Other
Sampler's Signature MAROTEC	Sampler's P	010			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<i> </i>	/	/	
CLIENT SAMPLE ID	DAB ID	SAMPLING DATE TIME N	MATRIX				1 1 1 1		REMARKS/
TR-072205-02	THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE S	02.30	*  }	<u> </u>	o X X				TENNALE DESCRIPTION
TB-672205-02	1.	<del></del>	r	( ×					
PECRIDIM-1-0705				×	×				
	,			₩.					-
					,		ļ		
								  -  -	
			-					<u>.</u>	
-	-								
							Ġ		
Circle the method and each appropriate metal.	netal.					REPORT	REPORT REQUIREMENTS		INVOICE INFORMATION
Total Metals/6010 AI As Sto Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo NI K Ag Na Se	Ca Cd Cr Cu Co Fe Pb L N	fg Mn Mo NIK Ag	Na Se Sr Ti Ti Sn V Zn	in V Zn	- - 		<u>.</u>	ē.	
Total Metats/7000 series: As Sb Cr Cu Pb Se Ti Hg Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn	Pb Se Ti Hg Cd Cr Co Cu Pb Mn Mo I	AISB Ag TIV Zn			*	1. Results (LCS, DUP,	II. Results + QC Summeries (LCS, DUP, MSAMSD &s required)	BILL 70:	-
Dissolved Metals/6010: Al As Sto Ba Be B Ca Cd Cr Cu Co Fe Pto Li Mg Mn Mo Ni K Ag h	B Ca Cd Cr Cu Co Te P	b Li Mg Mn Mo Ni	S S	Sr Ti Ti Sn V Zn	 	III. Results	III. Results + QC and Calibration		
Dissolved Metals/7000 series; As Sb Cr Qu Pb Se Ti Hg Dissolved Metals/6020 series; Sb As Ba Ba Cd Cr Co Co	Cr Cu Pb Se 11 Hg Ba Ba Cd Cr Co Cu Ph Mr Mr No Na Sa An 11 V 72	V II AA AA AA AA AA AA		, . i	,	N. Deta Vel	N. Data Validation Report w(th Raw Data		TURNAROUND REQUIREMENTS
	T 1 T		ā !			V. Spekaliza	V. Spelcalized Forms / Custom Report	×	Standard (10-16 worlding days)
	「のみだメド	421102152894	25894			Edeta	\$		Provide FAX Results
A A SHED BY	BEYERVEN BY				,		•	age d	
		RELING	JOISHED BY	8608A	RECEIVED BY		RELINQUISHED BY		RECEIVED BY
Same Marra	· · ·	Signettine		Sprettre		Signature		Signature	
Daniel Howard	Printed Name	· Printed Name		Printed Name		Printed Name		Printed Name	
TEC		Firm				FF			
は日本の	- W	Data/Trea							

SCOC-1204-1

Columbia Arayaical Services

## CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

PAGE\_

コロココ CAS Contact 88 89

TURNAROUNO REQUIREMENTS REMARKS/ ALTERNATE DESCRIPTION Standard (10-15 working days) INVOICE INFORMATION Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) Printed Name BICL 70: 1 Signature Deta/Time Ş IV. Data Validation Report with Raw Data V. Speicalized Forms / Custom Report REPORT REQUIREMENTS II. Results + OC Summaries (LCS, DUP, MS/MSD as requind) III. Results + OC and Calibration Summaries RELINOUISHED BY Printed Name Signature Date/Time RECEIVED BY h b M 7 q 'n 3 Dissolved Metals/8010: Al As Sb Bs Be B Ca Cd Cr CuCo Fe Pb Li Mg Mn Mo Ni K Ag Na Se Sr Ti 71 Sn V Zn Dissolved Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn NO TISL BELOW g 3 'n 'n g Ç Anted Nam 60 Signature Total Metals/6010 At As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag. Na Se Sr Ti Ti Sn V Zn PRESERVATIVE 3 B 9 'n 60 3 TOTAL NUMBER OF CONTAINERS 9 4 6 6 d Q 0 RELINQUISHED BY MATRIX 3 3 3 3 Z Project Number Of States SHANPLING (6301-05,0016.900.09-09 Total Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 8:205 12:00 8-2:05 17:20 8.209 16:10 8-205 03:45 8-2-05 10:05 8.2.09 12:15 8.2.00 6:10 SAMPLING DATE TIME Pac まのNess 851103101812 (470) 421-3486 Sempleri Printed Name Dette/Time Signature Sedd with man 3 Marine. SUITE LAB ID 10/04 **BUT** TED A. WITCHANN PONTER を言る 4 Circle the method and each appropriate metal. OUB - BLAD - EQB - DADS 3200 TOWNPOINT SPECIAL INSTRUCTIONS/COMMENTS MWANP - 25-0705 MWANP-24-0705 mus ANP-20 -0705 FED BY # MWANP - 16-0705 MWANP-19-0705 KENNESAW, GA OsterTime 6.2.05 / 19.30 470-421-3400 CLIENT SAMPLE ID TB-080205-01 STEVE VOUNGS RELINQUISHED BY MACTEC MACIEC

Distribution; White • Return to Originator; Yellow • Lab Copy, Pink • Retained by Clien

Detertine

Cate/Time

Cetter Tene

Columbia Analytical Services

CHAIN OF CUSTODY/LABORATORY ANALYSIS REGUEST FORM

5080 Caterpillar Road • Redding, CA 98003 • (530) 244-5227 • 800-695-7222 x10 • FAX (539) 244-4109

PAGE 2

QF 72

CAS Contact

DF459

# US

003

Preservative Key
1. HOL
3. HNO3
4. NSOH
6. NSOH
6. LAcetale
6. LAcetale
7. NaHSO
7. NaHSO
7. NaHSO
7. NaHSO TURNAROUND REQUIREMENTS REMARKS/ ALTERNATE DESCRIPTION X Standard (10-15 working days) INVOICE INFORMATION RECEIVED BY Provide FAX Results ANALYSIS REQUESTED (Include Method Number and Container Preservative) Printed Name Signature 텵열 E Ş IV. Data Valdation Report with Raw Oats V. Spekalized Forms / Custom Report £ (LCS, DUP, MS/MSD as required) REPORT REQUIREMENTS Results + QC and Cafforation Summaries **PELINGUISHED BY \$** . Passults Only Edeta Printed Name Signature Ē 445 ٥ MOTER LSTT NO Printed Name Dissolved Metals 6010: Al As SD Ba Be B Ca Cd Cr Cu Co Fe Po U Mg Mn Mo NI K Ag Na Se Sr TI Ti Sn V 7 Signature Total Maiss/9010 At As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo Ni K Ag Na Se Sr TI TI Sn V Zn PRESERVATIVE TOTAL NUMBER OF CONTAINERS J J J ュ 3 RELINOUISHED BY MATRIX DSCR BIANNAL EN SAMPHAS 6201-05-0016.9000-0709 3 3 3 Dissolved Metals/6020 series; Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn 3 3 Total Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg
Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 8-2.05 09:45 50:01 50.2.8 8.2.05 12:15 8.2.05 12:00 01:9128:20 8-2.05 16 10 SAMPLING DATE TIME Printed Name JUDY HARNESS (970) 421-3486 Signature 851103161812 अपास गठ - Nach Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg Report CC LABID 16 M FLOW KONNESAW, GA BOILT Circle the method and each appropriate metal. 3200 TOWNPOINT DE 尼区欧井 OUB-BLAD-EGB-0745 SPECIAL INSTRUCTIONS/COMMENTS MWANP - 25 - 0705 TOTO A. CITTEMANN mw ANP - 24 - 0705 magn P - 20 -0705 MURANP- 19-0705 DATE (1930) DATE (1930) DATE (1930) MWAND-16-0705 VOUNGS 00te-12th (0t-t CLIENT SAMPLE ID Stanner Control RELINGUISHED BY MACTEC MACTEC OT TOVE Project Name

Distribution: White - Return to Originator; Yellow - Lab Copy, Pink - Retained by Client

SCATT-1904-11

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpillar Road • Redding, CA 96003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

Q F PAGE

CAS Contact 3 8

TURNAROUND REQUIREMENTS HCL HNO3 H-SO4 NGOH Zn. Acetate Mach NaHSO4 REMARKS/ ALTERNATE DESCRIPTION Standard (10-15 moriding days) INVOICE INFORMATION Provide FAX Resufts **ਊ**ਊ≒ぐさせんなもん ANALYSIS REQUESTED (Include Method Number and Container Preservative) Printed Name Date/Time Styreture Ş . IV. Data Validation Report with Raw Data V. Spektalized Forms / Custom Report II. Reeulis + OC Summertes (LCS, DUP, MSA/SD as nequired) REPORT REQUIREMENTS III. Results + QC and Calibration Summaries RELINOUISHED BY I. Results Only Ederk Printed Name Date/Time Sgrettera ١ 1 ١ ١ Dissolved Metals/8010: At As Sb Ba Ba B Ca Cd Cr Cu Co Fe Pb Li Mg Mn Mo Ni K Ag Ne Sa Sr Ti Ti Sn V Zn Plinted Name Date/1 me Signature Total Metals/6010 Ali As Sto Ba Be B Ca Cd Cr Cu Co Fe Pto 1. Mg Mn Mo Ni K Ag Na Se Sr Ti TI Sn V Zn PRESERVATIVE 60 co 6 E ĆŲ £V. TOTAL NUMBER OF CONTAINERS 3 3 3 3 4 3 3 3 MATHIX Dissorved Metalsx6020 eerlest Sb As Ba Be Cd Cr Co Cu Pb Mn Mo NI 8e Ag TI V Zn 3 2 3 Z FED EX # 851103161823 Total Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg Total Metals/6020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti V Zn 8-3-05 1000 8-3-05 10 10 SAMPLING DATE TIME 8-3-05 IT 15 B-3 05 935 8-3-05 945 8.3-05 1105 8-3-05 1115 8-3-05 955 (770) 421-34B6 8-3-05 940 8305 920 Printed Name JUDY HARTNESS Skyreture Oatle/Tans atmas 3200 TOLONPOINT DR. SUTTE 100 Sempler's Printed Name Dissaived Metals/7000 series: As Sb Cr Cu Pb Se Ti Hg MO 444 B おかいのの DECO BIANNUAL GW SAMPLING Circle the method and each appropriate metal OUB BESAMPLE SPECIAL INSTRUCTIONS/COMMENTS A TED A. WITTERNAM 124 (04-4) STEVE VOUNGS **CLIENT SAMPLE ID** 18-080305-D KENNESAL RELINQUISHED BY DP-7-0705 DP-4-0705 08-5-0705 DP-6-0705 DB-3-0705 DP-8-0705 DP-9-9-90 MACTER DP-2-0705 DP-1-0705 MACTER Project Name

Distribution: White - Return to Originator; Yellow - Lab Coor; Pink - Relained by Olleni

SDDC-1204.11

Data/Time

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

5090 Caterpillar Road • Redding, CA 98003 • (530) 244-5227 • 800-695-7222 x10 • FAX (530) 244-4109

Analytical Services C

S ᆼ PAGE

854U CAS Contact 3H #

Servative Key NONE HCL HNO3 HySO4 NaCH Zh. Acetate MeOH TURNAROUND REQUIREMENTS REMARKS/ ALTERNATE DESCRIPTION Standard (10-15 working days) NVOICE INFORMATION rowide FAX Results ANALYSIS REQUESTED (Include Method Number and Containsr Preservative) Printed Name Signature Š IV. Data Validation Report with Rew Data V. Spekatized Forms / Custom Report 2 (LCS, DUP, MSAMSD as required) REPORT REQUIREMENTS Peculis + QC and Calibration Summerles RELINGUISHED BY R. Results + QC Summaries Recuts Only 1 Puried Name Signature Sea Tina SE RECEIVED BY 4 'n Dissolved Metals/6016: At As Sto Ba Be B Ca Cd Cr Cu Co Fe Pto Li Mg Mn Mo Ni K Ag Na Se Sr Ti Ti Sn V Zn MOTER LSIT NO Printed Marine Styrature Clatte/Time Total Metals/8010 Al As Sb Ba Be B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mp Nî K Ag Na Se Sr Ti Ti Sn V Zn 4 PRESERVATIVE 4 40 47 60 3 TOTAL NUMBER OF CONTABILITY 10 4 4 T 5 RELINCALISHED BY MATTRIX 3 1950 BIRNNUAL GLO EMMPLINE 16201.05.0016.9000.0709 3 7 Dissolved Metals/8020 series: Sb As Be Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Total Metals/6020 series: Sb As Ba Ba Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn 8305 14to SAMPLING DATE TIME 8-3-05-10-45 8-3-05 1200 8.3-05 1445 8-3-05 1030 8-3-5/1020 Printed Num Date/Ilme JUDY HARMAN (770) 421 - 3486 85,103,61823 Pin MACIEC | No. | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine | Machine 3200 TOLONPOINT DR SUITE 100 Lather Dissolved Metals/7000 series: As Sb Cr Cu Pb Se TI Hg LAB ID Total Metals/7000 aarles: As Sb Cr Cu Pb Se Ti Hg प्लम् させらめ Circle the method and each appropriate metal. SPECIAL INSTRUCTIONS/COMMENTS 行の改せ Project Name 800 DESTANDE MWANP-26-0705 MWANNP. 27-0905 \$ Philip No. CATTEMANN 2040-6-9ud 8ug (790) 421-3400 CLIENT SAMPLE ID STAVE YOUNGS KONNESAN - societ DP-10- 6705 12-12-0705 20-11-0705 MACTEC MACTEC

SEDC-1904-11

Date/Time

Date/Time

Dete/Tras

Deta/Israel

092b

TED A. WITTEMAN

Date/Time 9/5/05 1930

\* MACIEC

E

톭

E

P.

CAS Contact SR # CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM PAGE U 5090 Catarpillar Road • Radding, CA 98003 • (530) 244-5227 • 800-895-7222 x10 • FAX (530) 244-4109

TURNAROUND REQUIREMENTS REMARKE/ ALTERNATE DESCRIPTION Standard (10-15 working days) INVOICE INFORMATION RECEIVED BY Provide FAX Results g O.+∽304500. ANALYSIS REQUESTED (Include Method Number and Cantainer Preservative) Printed Name **Signatura** 置道 Ş ... IV. Data Validation Report with Rew Date V. Speicelized Forms / Custom Report II. Results + OC Summaries (LCS, DUP, MSAKSD as required) REPORT RECUIREMENTS III. Results + QC and Calibration Summeries RELINCUISHED BY **≅** | 1. Retuits Only 品品 Printed Name Signature H 0 Dissolved Metals/8010: At As Sto Ba Be B Ca Cd C7 Gu Co Fe Fib L1 Mg Mn Mo N1 K Ag Na Se Sr Ti T1 Sn V Zn Parted Name Stynature Total Metals/16010 Al As Sto Bai Bo B Ca Cd C/Cu Co Fe Po L Mg Min Mo NIK Ag Na Se Sr TI TI Sn V Zn PRESERVATIVE TOTAL NUMBER OF CONTAINERS 4 d 3 4 H 4 ~ 6 ngest Number (200 DES-AMPLE) Protest Number (6201-05-0016, 9000, 090) and Number (6201-05-0016, 9000, 090) and Number (8000) and Number (8 MATRIX Dissolved Metals/7000 series: As Sb Cr Cu Pb Se T1 Hg Dissolved Metals/8020 series: Sb As Ba Bs Cd Cr Co Cu Pb Mn Mo Ni Se Ag T1 V Zn 3 3 3 3 3 2 3 3 3 3 Total Metale/8020 series: So As Ba Be Cd Cr Co Cu Pb Mn Mo NI Se Ag TI V Zn 8-3-05 1020 SAMPLING DATE TIME 0101 Bar 8.9 8.9.05 1000 8.3-05 94C 8.3.05 1105 8-3-05 1115 8.5.05 135 83.05 946 8-3-05 955 Printed Name 83.05 920 (7-70) 421 - 3486 JUDY HARPINESS Synetura EX # 851103161834 SUITE 100 LABID Total Metats/7000 series: As Sb Cr Cu Pb Se TI Hg る。 ささるの Circle the method and each appropriate metal 3200 TOWNPONT DE SPECIAL INSTRUCTIONS/COMMENTS KENNEGAW GA 9-70) 421-3400 STEVE VOUNGS CLIENT SAMPLE ID Fied DP-10-0705 DP-7-6705 DP-6-0705 DP-3-0705 DP-5-0705 DP-8-0705 DP-9-5705 RELINOUSHED BY A Streeting と子と下向り DP-4-0705 DP-2-0705 DP-1-0305 MACTER

Distribution: White - Return to Originator; Yellow - Lab Copy; Pink - Retained by Client

SCOC-1204-11

CHAIN OF CUSTODY/LABORATOR MALYSIS REQUEST FORM

5090 Catarpillar Road • Redding, CA 95003 • (530) 244-5227 • 800-895-7222 x10 • FAX (530) 244-4109

Analytical Services

P PAGE 4

Ŋ

8H 8

ervative Key TURNAROUND REQUIREMENTS REMARKS/ ALTERNATE DESCRIPTION X Standard (10-15 working days) INVOICE INFORMATION **JECEIVED BY** Provide FAX Results ANALYSIS REQUESTED (include Mathod Number and Container Preservative) Anised Name BIL 70:1 Dato/Trap Signature δ IV. Data Validation Report with Raw Data V. Speicalized Forms / Custom Report 운 8. Results + OC Summaries (LCS, DUP, MSAISD as required) REPORT REQUIREMENTS III. Results + QC and Celturation Summaries RELINGUISHED BY **₽** I. Resutts Only Echata Printed Mana Signature **Osta/Trae** RECEIVED BY حے ø Dissolved Matala/6010: Al As Sto Ba Be B Ca Cd Cr Cu Co Fe Po Li Mg Mn Mo Ni K Ag Ne Se Sr Ti Ti Sn V Zn Printed Name Datte/Time Signeture Se Sr TI Ti Sn V Zn PRESERVATIVE Ē N TOTAL NUMBER OF CONTAINERS 9 7 RELINQUISHED BY 6201-65-00(6.4000,046) MATRIX Total Matala/6010 At As Sb Bs Bs B Ca Cd Cr Cu Co Fe Pb L Mg Mn Mo NI K Ag Na 3 3 3 Dissolved Metals/8020 series: Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI V Zn total Metals/6020 series: Sto As Ba Be Cd Cr Co Cu Po Min Me NI Se Ag Ti V Zn 8-3-05 1200 8-3-05 buts SAMPLING DATE TIME 8-3-05 10-30 Patried Name Datte/Time JUDY HARTNESS Spratus (770) 421 3486 डिश्ताह १०० 851102161834 Dissolved Matals/7000 series: As Sb Cr Cu Pb Se TI Hg Project Number LABID এত Total Metals/7000 series: As Sb Cr Cu Pb Se TI Hg 44105 DOCA BLANNORL ALL SAMPLINE Circle the method and each appropriate metal. 3200 TOWNPOINT DZ Project Name 608 Design PLE ありのか SPECIAL INSTRUCTIONS/COMMENTS Ø P TOTAL CONTENANY OUR DUP-3-0705 PARTIE 6/3/05 1930 STEVE YOUNGS CLIENT SAMPLE ID 370 421 3400 DP-12-0705 the Comment KONNOSAW **TECINOGISHED BY** >P-11-0705 るれたでの MACTEC

Usarbudon; White - Return to Orighedon; Yetow - Lab Copy; Pink - Retained by Clieni

				ve Key	-	<b></b>		-	Z							-				_		T	5		ĵ.	·	- -		-	-		17 1907 0008
2	1775X			S NO	200 1 I I I 1 I I I I	5. Zn. Acetate 6. WeOH	7. NaHSO4 8. Other		REMARKS				;	***************************************			-		j	Invoice information		-	TIRNABOIND BEDIEBENENTS		Standard (10-15 mortdag days)	Results	RECEIVED BY					Ş
7		evantive)				_	_		AITERNA											INVOICE IN			RNAROHND	3 Out	. Standard (10	Provide FAX Results	RECE		: Name		8	
	CAS Contact	ANALYBIS REQUESTED (matude Method Number and Conteiner Preserrative)				_	_													\$	ᆲ		<u> </u>	<u> '</u>	<u>×</u>			Stonether	: Printed Name	· E	DeterTime	_
SR #	<u> </u>	Comtah	4/6/3		B 093 7.5 1.4	'T>	3 0	 20⁄1			-			_						MTS	g	ş	i	IV. Deta Vizidadon Raport with Rem Cata	n Raport	£,			`	ŀ		
2	<u>.</u>	ther end	n	0.0	~ c1	`و.ِع		થ			-	4	16	-				-		HEPORT REQUIREMENTS Reads Only	II. Results + OC Summarins (LCS, DUP, MSARSD as mount)	II. Results + OC and Cultivaries		Peport MS	V. Spricelized Forms / Custom Report	] E	<u>RELINGUISHED BY</u>					
FORM	P.	De Niem	0	· Re	%'E	70% 2'K	\$0.5 \$0.5 \$0.5 \$0.5	/ co/2 2/0		-	_	1	1				1	1	$\exists$	RT REQ.	S + OC B	50	<b>2</b>	Veldedon	etred For	1	ELINOCH					
L L		S Meth	2	250	? ? ?	2007	75	100 X		1	_	1	1	<u> </u>						REPORT R	E Read	III. Pastu	Summeries	Z 262	2 Spart	3	<u> </u>	Styretere	Printed Name		Dele/Turs	
UES	N	O (Prodh)	0 2	08/	مرعن	EL CONTRACTOR	2	40		.1	1	-	1	-			-		-						1			₽	Æ	HH.	Ž.	,
	PAGE	VEBTE	0	1	- Pr	575	<b>₹</b>	10 3 P. S.		1	-	-	1	<u> </u>	-		1		$\dashv$													
Sis		SIS REC	0	<b>\</b>	हेरिय	SER.	2 P	Sea.		ī	ı	2	1														RECEIVED BY					
LYS	44	ANALY	_		95.56 Bm	67	-\$2 -\$2	Sec.		1	•	.7	ι.	_			-	4					S.				RECE					
NA	(230) 2	- total numer	NE NE	M	0138	48/7	**************************************	784 200			·	7	1	<u> </u>			-	1	-	, r			> ~	n- 14-	-			Signetium	Printed Name	Ē	Detailine	
	. A.		PRESERVATIVE				\$75 \$75	MERCA					-				1		$\dashv$	F	5 =	•	E &			•	-	, at	ex.	<u> </u>	B	
ATO	7222 x		<del>↓</del> ¯	1	NIATNOS					ı	7		40			$\Box$				F Ù		•	Ma 38	<i>.</i>			AB.				$\  \ $	
ABORATOR ANALYSIS REQUEST	5080 Caterpillar Road • Redding, CA 98003 • (530) 244-6227 • 800-695-7222 x10 • FAX (530) 244-4109	0309							MATRIX	3	3	3 例	3							An No Sa	5 <u>2</u> 3	;	ION KAG NA Be	۲Ş م		1	RELINQUISHED BY					
LA!	44-6227	800	, v		,				2 E	440	440	550	350						7	¥		} - -	o¥ E W	e Ag T		85103161845	PE .	•	Printed Name		8	
CHAIN OF CUSTODY/L/	(530) 2	2	WINDY HARTINES				421-34BC		SAMPLING DATE TIME	8.2051440	8-3-051440	8-3-05155	8.3-05 1850			$\dashv$	+	+	1	2			⊒ Z	200		9		61gmathur	上人		Datertime	
JST	98003	١	1		g		121-	ě	8	8.3	. 60 6j	8-3	80				_	_		- 5	2		T. T	† Mari		82	. }	00	3	孙		
ごび	. 2		20 2		Sulte		9	Samplers Printed Name					~							· 2	á		රි වී ±ි		·	<u>ত</u>	CANALO BY	mail	B	O		
. 0	- Feet	Popul Number	10		Su	2	N T		- AB 10	2	9		<b>(£)</b>				-		- -	Ĉ	₽ 6		8 8	.o. Ö R		(	SCENY SCENY	) A	N.	V	<b> </b>	Par - Far
HAII	lar Roe	2 0		,	2	30144															8 C		ට බ හ ලි ප	96 81		Feb cx #	H		K			E Copy:
ਹ	Cetterpi	99			1 (					N	h				$\dashv$	+	+	-	_	Opmana 1.89 B	3 <b>2</b>		8 98 88 C)	b As B	ENTB	U M	_4			$\neg$	Dellatin	
	2080	BOSHINFE AL GIO CAL	STEVE VOUNGS HEATTNESS		3200 TOWNFOINT	9	8		LEID	MWANP-26 -0705	MAJANP-27-0705	Ř	20							Carde me meuro and each appropriate metal. Total Metaleveoto At As Sto Ba Ba B Ca Cd Cr Cu Co Fe Ph I Me Mn Mn M	Total Matale/2000 series: As Sb Cr Cu Pb Se TI Ho Total Metale/2020 series: Sb As Be Be Cd Cr Cu Ph Mn No Ni Se As Ti V		Dissolved Metabler6010; Al As SD Ba Be B Ca Cd Cr Cu Co Fe Pb Li Mg Mn M Dissolved Metable77000 estites; As SD Cr Cu Ph Se Th Hn	series: S	SPECIAL INSTRUCTIONS/COMMENTS	Z.	λa	X	TES A. WITTERMANN		Date-Time 6/3/05 (930 Delettra)	Ciginator;
- R	Services **	BUS S	3 9 8	וו	130	7	. Ŋ	Ņ	CLIENT SAMPLE ID	-26	124	10m-2-0705	- 604					1		M M M	XXX serts	- }	0007/str	0203/ela	CTION		RELINGUISMED BY		STT C	J.	S	SELECTION OF
A HIIVIEW		9 4	₽ 2 2	MACTER	ρ	27	· 松	P. C. L.	ZLENT	4NP	AVE	6	2803		•					no men fetals/60	Astals/7.0		ved Met	wad Met	INSTER		PELING	M	A. E.	(V)	100	WINTE
	Services **  ** Dephysion Owned Conguery  . ** The confidence of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery of the conguery	Project Name	Project Manager STEEVE VOUNGS	y N. €	32%	KENNESAL	140	Sampler's Styretum  N. A.C.T.E.C.	١	S C	रस्थ	δ	78-080305-02						3		Total A Total N	. 1	Dissol	Dissol	PECIAL		•	and d	古り	3	Set A Table	Strbugor.
		• <del></del>		لــــــا	<u> </u>		<u> </u>		<u> </u>		<u></u>			1					<u>, 19</u>	,					נט	•		₹,	<u> </u>	- 1	75	<u>,</u>

# CHAIN - OF - CUSTODY RECORD

Phone: (4)	Phone: (412) \$26-57.65	Microse	- Sd	U	220 Wi	Illam Pi	tt Way	Piftsbu	Microseeps, Inc 220 William Pitt Way - Pittsburgh, PA 15238	5238	Par No.	Fer No. 1 (412) 826-3433	3
Company:	MACTEC	TEC	- !					P	Permeters Requested	3	Results to:	Tak Horting	Cut no
Co. Address:	i a v	Pain +	De	Ste 11	D Kan	Ste 100, Kannesaw 6A	ZZ 7						
Proj. Location:	19	SCR Richmon	<u>حر</u>	1/4/		3					Invoice to :	T.A. Horting	1
Proj. Number:	g	-0016.0	709.	020	2			·· <u>·</u>					
Phone #:	770-421-3400	3400	Fax#:	77	124-0	784E-12H-0LL		· · · · ·					
Sampler's signature :	•	MACTECI	Bani	Him	il Howsen	0		·			Cooler ID	700	Cooler Temp.
	SamoloII	` _				<b>'</b>		72					
Sample ID	Sample-Description"		neG	ime.	Comp	Greb	/ Cont.	<u> </u>			Rem	Remarks	
	TB-072005		7/20/05	0800		X	1	×			元之以井		
	MWANP-22-0705			1100		×	1	×			540824102982	10295	2
	DMW-23A-0705	705		1130		×	1	X					
	DM W-30A-0705	105		1530		×	1	X					
	MWANP- 4D-0705	2070		1615		×	1	X					
	048 DUP-4-0705	20705		1200		×	1	×					
	D MW-24A-0705	0705		1545		×	1	X					
	2 mW-31A-0705	500		1515		×	1	X					
	0 4 5 DUP-2-0705	2705		1200		×		×					
	MMANP-13-0705		2011.57	1045		×	-	×					
	MWANP-14-0705	2020		24 60		×		×					
	MWANP-21-0705	.07a5 J		09.50		X	- \$\delta_{\chi}	×	1				
Relinguished by		Company:			Date :	Time :	Received by :	<u>_</u>		Company:		Dete:	Time:
James L	Horand	MAC7	TEC	Ü	7122105 1830	1830	,	ختهر	-				,
Relinqui <del>shed</del> by		Сопрану:			Date:	Time :	Received by	••		Company:	any:	Date :	Time :
Relinquished by :		Company:			Date:	Time:	Received by :			Company :	Lay : "	Date:	Time :
	W	WHITE COPY: Accompany Samples	педшоо	y Samples		YELLOW	COPY : Let	YELLOW COPY : Laboratory File	NId	PINK COPY : Submittee	uhimiter		
	-							STORES A LINE			, aprillation		

## CHAIN - OF - CUSTODY RECORD

Hame: (412) \$26-5245	0.826-5245	Microseeps	, Inc	220 Wi	Diam Pi	ii Way-	Microseeps, Inc 220 William Pitt Way - Pittsburgh, PA 15238	<b>S</b>	Fex No. ; (412) 826-3433	12) 826-34	33
Company:	MAGT	EC					Parameters Requested		Results to:	17,	Ind. Historia
Co. Address: Proj. Manager:	3200 Town Point De		Ste 100 K	enne	Kennesawich 30144						
Proj. Location: Proj. Number:	l'	DSCR, Richman 9, 1/P	VA			- ·			invoice to: Judy Hart ness	Hart	16.55
Phone #:	111	1400 Feb		770-42F3486	7848.4						
Sampler's signature :	'\	EC	( During	in Howan	Open				Coolee ID	Choles Temp	) dina
Sample ID	Sample Beniphos	2	Time	Comp.	Greb	/ Cort.	₹ H		Remarks		
	MWAMP-23-0705	-0705 7bylos			×		×		Fod Ex #		154 (0) 4 (4 (5 (5 (5 (5 (5 (5 (5 (5 (5 (5 (5 (5 (5
	MWANP-10-0725	$\Box$	41		×	1	×		840824102982	982	
	M WAND-IZD- 6705	20705	1015		×	-	×				
	MWA ND-7-6705	705	06.30		×		X				
	04×04-1-0705	705	1200		×	1	X				
	MWAMP-3-0705	105	1555		×	1	×				
	MWANP-15-6705	5705	0945		×	1	X				
	0572MW-1-0705	2705	0160		×	ı	X				
	MWAND-19-0705	5705	1535		×		X				
	MWAND-17-0705	2705	1500		X	ļ	×				
	USGS-2-0705	05	1620		X	1	×				
	WSGS-5-0705	75	1610		×		×				
Relinquished by	7	Company:		Date:	Time :	Received by:		Company:	Da	Date:	Time :
Jan H	thun.	MACTEC		7/22/05	1830						
Relinquirhed by :		Company:		Date :	Time:	Received by :	••	Сощену:	å	Date :	Time :
Relinquished by :	•	Сопрану:		Date:	Time :	Received by :		Company:	Ā	Darte :	Time :
	IM.	WHITE COPY: Accompany Samples	seny Samples		YELLOW	COPY: Lab	YELLOW COPY : Leboratory File PINK C	PINK COPY: Submittee	x	1	] .

# CHAIN - OF - CUSTODY RECORD

	PINK COPY: Submitter		YELLOW COPY: Laboratory File	YELLO	. sold	WHITE COPY: Accompany Samples	WHILECUF		•
Date : Time :	Сопралу:		Received by :	Time	Date :		Company:		Relinquished by :
Date: Time:	Company:	,	Received by :	Time:	Date :		Company :		Relinquished by
Date : Time :	Сопралу:				Date : 7/22/05	Company: MACTEC	Company:	Howard	Relinquished by :
		- -					/		
									-
				Χ.	5	V 1445	16-6705	M WANP-16-6705	
		X	$[ \ \ ]$	X		1100	6-0705	MWANP-16-0705	
		×	(	×	9	0401	17-0705	MINA NIP - 27 - 0705	
		×		×	0	1030	15-0705	MWANP-25-0705	
2014 211 40		×	~	×	0	1030	5010-41	MWANP-24-0705	
	TA	×	_	×	25		20-0705	MWANP-26-0705	
$ \mathcal{U} $	E.o.	×	-	×		7/22/05 1125	5920-51	2010-91-9 NAMM	
Remote		zH.	Cont	Grab	Comp	Deta Time	3	Sample IV	Sample ID
Coolet ID Coolet Temp.	8			Jan 1	il Harr	P	MACTEC	•	Sampler's signature :
			129	0200 : 770-421-3486	770-42	Fax#:	6301-05-0216.0 109.	14	Phone # :
10: July Hartness	Envoice to :	,			VΑ	o do da	Richmon	. •	Proj. Location:
	1		₽ 1 1	Saw 30	<i>lenie</i>	15, Ste 100, Kennesaw, CA	200 Town Doint D	(r)	Co. Address: Proj. Manager:
10: Indy Hartnes	Results to :	Parameters Requested	3, 35	: -			TEC	MACTEC	Company:
Paž No. ; (412) \$76.3433	8	Microseeps, Inc 220 William Pitt Way - Pittsburgh, PA 15238	Pitt Way -	William	- 220	roseeps, Inc.	Mic	Shr8-978 (	Micros (412) 226-5245

December 2005 Revision 0

Results of Bi-Annual Groundwater Sampling – July 2005 Operable Units 6,7, and 8 Defense Supply Center Richmond

1

2

APPENDIX B

LABORATORY ANALYTICAL DATA RESULTS

FIELD PARAMETER:  Dissolved Oxygen - EPA 360.1 mg/L  DISSOLVED OXYGEN  Ferrous Iron - A3500D mg/L	Sample Date:	Cimit	AEHA-5 7/12/2005	AEHA-5 7/12/2005	AEHA-12A 7/15/2005	AEHA-15A 7/13/2005	AEHA-16A 7/15/2005	AEHA-18A 7/12/2005	AEHA-22A 7/16/2005	AEHA-23A 7/14/2005	AEHA-23A 7/14/2005	AEHA-24A 7/12/2005
Ferrous Iron - A3500D mg/L		0.1	0.3	0.3	3.4	3.2	0.5	0.3	90	<u>~</u>	<b>8</b> .	0.5
FERROUS IRON		0.1	36	3.6	<0.1	0.2	3.2	3.2	0.4	03	0.3	0.2
Oxidation Reduction Potential - A2580A mV OXIDATION REDUCTION POTENTIAL		I	-113	-113	342	423	176	1115	212	334	334	20
<u>рн - ЕРА 150.1 рН Units</u> рН		I	673	6.73	4.17	4.44	5.25	5.31	4.75	3 73	3.73	6.28
Specific Conductance - EPA 120.1 mS/cm SPECIFIC CONDUCTANCE		190 0	1.106	1 106	0.094	7100	0.101	0.256	980 0	0.108	8010	0 171
Temperature <u>- EPA 170.1 deg. C</u> TEMPERATURE		1	61	61	25.7	161	19.5	20.1	23.2	21.2	21.2	23.9
Turbidity - EPA 180.1 NTU TURBIDITY		_	×	<b>∞</b>	⊽	=	17	e	6	<u>«</u>	8	m
FIXED BASE LABORATORY ANALYSIS: Auions - MCAWW 300.0A mg/L CHLORIDE NITRATE AS N SULFATE AS SO4		<del>- 0</del> -	30.9 <0.1 2	31.9 40.1 1.9	14.5 2.58 2	116 2.85 1.2	13 004 JQ 49	14 8 <0 1 37 6	16 0.25 4.8	24.2 0.14 7.8 J	24.1 0.11 4.7 J	9.7 <0.1 17.5
Dissolved Gases - RSK SOP-175 µg/L CARBON DIOXIDE ETHANE ETHENE METHANE		1000 0.5 1.5 0.5	76800 J 1.2 J 0.63 JQ 3800	79000 J 0.51 J <1.5 4400	114000 40.5 <1.5 40.5	103000 <0.5 <1.5 0.45 JQ	168000 <0.5 <1.5 3.5	375000 J <0.5 <1 5 39	133000 J <0.5 <1.5 4.8	61000 0.49 JQ 4.5 20	166000 J 0 56 5 22	38400 J <0.5 <1.5 0.98 JB
Hydrogen by Microseeps - AM20GAX nM HYDROGEN		_	13	1.5	1.6	13	40	2	1.2	4	2.1 J	43
Metals - SW846 6010 (Total) mg/L		Š	<u> </u>		Š							,
ALUMINUM BARIUM		0.06 0.025	0.0171 0.0659	0,0367 0,0807	0.261 0.201	0.152 0.0987	0.136 0.0552	0 0 187 0 0659	0.195 0.0779	0.273	0.264	<0.06 0.0293
BERYLLIUM		0 005	<0.005	<0.005	<0.005	<0.005	<0 005	<0.005	<0.005	<0.005	0 0012 JQ	<0.005
CADMIUM		0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<u> </u>	<0.005	<0.005
CALCIOM		00	2.76 <0.01	3.55 \$0.01	78.1 0.05	1.42 <0.01	/ 35 <0.03	9 80 8 8	6.19 19	/.58 <0.03	85./ P. 0.5	7./3
COBALT		0.015	<0.015	<0.015	<0.015	<0.015	<0.015	0 0397	<0.015	<0 015	<0.015	<0.015
COPPER		0.01	10.0>	10:0>	<0.03	<0.01	I0 0>	0.003 JB	<0.01	Of 8600 0	0.0041 JQ	10.0>
IRON MAGNIESITIA		0.1	5.93	6.59		0.0215 JQ	4.25	28.2	0.337	0 294	0.292	0.781
MANGANESE		0.005	1.78 0.0383	0.0482	0.0454	0.142	9.0 20.0	4.22 2.86	0.0801	0.0794	0.0794	4.86 0.0347
MOLYBDENUM		0.015	0.0137 JB	0.0076 JB	<0.015	<0.015	<0.015	<0.015	<0.015	0 0046 JQ	<0.015	0 0037 JB
NICKEL NOTA SSHIPA		0.02	<0.02	<0.02 	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
POTASSIUM SILVER		- 100	 5	1.51	2 48	29: 29:50	0848 JQ	3.62	2.25	2 92	2.89	5.23
SODIUM		0.5	310	311	5.28	7.4	5.82	16.9	3.92	6 73	6.73	18.1
VANADIUM		0.01	<0.01	0.0025 JQ	<0.01	<0.01	10 0>	<0.01	<0.03	<0.01	<0.01	<0.0>

	Sample Type. Location ID: Sample Date:	Reporting (a)	Normal AEHA-5 7/12/2005	Duplicate AEHA-5 7/12/2005	Normal AEHA-12A 7/15/2005	Normal AEHA-15A 7/13/2005	Normal AEHA-16A 7/15/2005	Normal AEHA-18A 7/12/2005	Normal AEHA-22A 7/16/2005	Normal AEHA-23A 7/14/2005	Duplicate AEHA-23A 7/14/2005	Normal AEHA-24A 7/12/2005
Metak - SW846 6020 (Total) mg/L ANTIMONY		1000 0	100.0>	100'0>	97 11000°0	<0.001	0 00004 JB	0000	0.00017 JB	0 0001	0.00008 JB	100.0>
ARSENIC		0.0005	0.0038 JQ	0 00361 JQ	<0.0005	<0.005	0.00014 JQ	<0.005	0.00623	0.00115	0.00112	<0.005
SELENUM		0.0005	<0.003 0.0035 IO	<0.003 0.00367 TO	0.00227	0.00042 JQ	0.00056	0.00134 JQ	0.0037	0.00169	0.00162	\$ \$0.00 \$ \$0.00 \$ \$0.00
THALLIUM		0 0001	100:0>	100:0>	1000 0>	(00°0)	0 000064 JQ	100 0	000005 50.0001	\$0.0001 \$0.0001	000.0>	<0.001
Mercury - SW846 7471 (Total) mg/L MERCURY		0.0003	<0.0003	<0.0003	<0 0003	0 000128 JQ	<0.0003	<0.0003	<0.0003	Or 21000:0	0.000152 JQ	<0 0003
Total Alkalinity - MCAWW 310.1 mg/L ALKALINITY, TOTAL (AS CACO3)		01	578	580	<10	Or 7	15	28	Of 8	2 10	2 JQ	43
Total Organic Carbon - SW846 9060 mg/L TOTAL ORGANIC CARBON		_	69.4	999	0.4 JQ	04 JH	I	29	2.7	13	1.2	HL 70
Total Sulfide - MCAWW 376.1 mg/L SULFIDE		2	Q	Q	Q	4	4	Q	8	6	8	0
Volatile Fatty Acids - D1552 mg/L ACETIC ACID		-	N A	, VA	N A	Ϋ́	X V	Ϋ́	NA	⊽ 	⊽	N
BUTANOIC ACID LACTIC ACID		- 5	N N A	Y X	Υ X V	Υ X X	A X	V Z	Y X	<u>~</u>	<b>⇔</b>	Y X
PROPIONIC ACID PYRUVIC ACID		1 0.5	NA NA	NA NA	N A A	N N	NA A	NA A	N V	. ∆ 2.0 2.0	. <u>^</u>	NA NA
Volatile Organic Compounds - SW846 8260 µg/l	Z/Z									_ <del></del>		
i,i,i,z-i e i kachloroe i hane i,i,i-trichloroe i hane			⊽ ⊽	⊽ ⊽	⊽⊽	⊽⊽	⊽ ⊽	⊽ ⊽	⊽ ⊽	⊽ ⊽	⊽ 7	⊽ ⊽
I,1,2,2-TETRACHLOROETHANE		- <del>-</del>	7 ▽	, <u>^</u>	7 ▽	7 ⊽	7 ▽	7 ⊽	7 🗸	7 ⊽ ~	7 ▽	7 ▽
1,1,2-1RICHLOROETHANE † 1-DICHLOROETHANF			7 ₹		⊽ 5	⊽ 5	⊽ ₹	₹ 5	⊽ ;	⊽ :	⊽ ;	⊽ ;
1,1-DICHLOROETHYLENE		- <del>-</del> -	λr  ς <sub>0</sub>	کار دی۔0 ا>	7 ⊽	7 ⊽	7 ₹	کر 1.7 ا>	<b>7</b> ⊽	0.36 JQ	623 JQ	7 ⊽
1,1-DICHLOROPROPENE 1,2-3-TRICHI OROBENZENE			⊽ ₹	⊽ ₹	⊽ 7	⊽ ₹	⊽ ₹	⊽ ₹	⊽ ₹	⊽ ₹	⊽ ₹	⊽ ₹
1,2,3-TRICHLOROPROPANE			7 ▽	7 ▽	7 7	7 ₹	7 ▽	7 7	7 <del>V</del>	<b>⊽</b> ⊽	7 V	⊽ ⊽
1,2,4-TRICHLOROBENZENE 1,2,4-TRIMETHYLBENZENE			⊽⊽	⊽∇	⊽ ⊽	⊽ 7	⊽ ₹	⊽ ₹	⊽,⊽	⊽ ₹	⊽ ₹	⊽ ₹
1,2-DIBROMO-3-CHLOROPROPANE		2.5	2.5	. <u>6</u>	25	2.5	2.5	25	2.5	2 8	4.2.5	7 <del>7</del> 7
I,2-DIBKOMOETHANE 1,2-DICHLOROBENZENE			⊽ ∨	. 5	⊽ ⊽	⊽ ⊽	⊽ ⊽	< < 1 < < 0.14 TO	⊽ ⊽		</td <td>⊽⊽</td>	⊽⊽
1,2-DICHLOROETHANE		·	0.25 JQ	0.26 JQ	₹ ▽	7 ▽	₹ ⊽	<b>?</b> ▽	7 ▽	) (1.0)	<b>γ</b> . ∇	7 ▽
1,2-DICHLOROPROFANE 1,3-TRIMETHYI BENZENE			⊽ 7	⊽ ₹	⊽ ₹	⊽ ₹	⊽ ₹	⊽ ;	⊽ ;	⊽:	⊽ ₹	⊽ :
1,3-DICHLOROBENZENE			7 SI	7 S	7 7	7 7	7 ▽	7 ⊽	⊽ ⊽	⊽ ⊽	<b>⊽</b> ⊽	⊽ ⊽
L.3-DICHLOROPROPANE		_	⊽'	⊽	⊽	⊽	⊽	⊽	' ⊽	∵ ⊽	. △	⊽
I,4-DICHLOROBENZENE 2,2-DICHLOROPROPANF		<b></b>	7 73	73	⊽ ;	⊽ ₹	⊽ ₹	⊽ ;	⊽ 5	639 JQ	0.29 JQ	⊽ ;
2-BUTANONE		10	7 🕏	- 0	7 🕏	7 \$	7 🕏	⊽ 5	⊽ ⊽	⊽ <del>\$</del>	7 €	- Q
2-CHLOROTOLUENE		_	⊽	. △	₹ ⊽	; ₽	: ▽	₹ ⊽	- ₹	₹ ⊽	₹ ⊽	<b>?</b> ⊽
2-HEXANONE 4-CHI OROTOI LIENE		<u>.</u>	€ 7	0 ₹	€ ;	°	0 ₹	<del>\$</del> ;	<u>0</u>  >	01>	0 ;	01>
4-METHYL-2-PENTANONE		, 10	7 05	7 €	7 €	7 <del>0</del>	7 €	7 07	7 01>	- 0 	7 0₹	- - - -
ACETONE		01	7.6 JB	6.2 JB	23 JB	4.5 JB	25 JB	2.7 JB	3.9 JB	3.1 JB	2.4 JB	2.9 JB
BENZENE BROMOBENZENE		<u>.</u>	∑: ▽	9.1 ->	⊽ ⊽	⊽₹	⊽ ⊽	0.79 JQ	⊽ ₹	⊽ ₹	⊽ ₹	⊽ ₹
BROMODICHLOROMETHANE			7 ⊽	7 ▽	7 ⊽	7 7	7 ⊽	7 ⊽	⊽ ⊽	⊽ ⊽ ~~	⊽ ⊽	⊽ ⊽
BROMOFORM			⊽	⊽	⊽	⊽	⊽	⊽	. △	. △	▽	. ^
BROMOMETHANE CARBON DISHI FIDE			⊽₹	⊽ ₹	⊽ 7	⊽ ₹	⊽ ₹	⊽ ₹	⊽ ;	~ ₹	⊽ ₹	⊽ ₹
		-	<i>7</i>	7	7	7	7	7	7	7 —-	7	7

	Sample Type		Normal	Duplicate	Normal	Normal	Normal	Normal	Normal	Normal	Duplicate	Normal
	Sample Date:	Keporting (a) Limit	AEHA-5 7/12/2005	AEHA-5 7/12/2005	AEHA-12A 7/15/2005	AEHA-15A 7/13/2005	AEHA-16A 7/15/2005	AEHA-18A 7/12/2005	7/16/2005	7/14/2005	7/14/2005	7/12/2005
CARBON TETRACHLORIDE		-	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽
CHLOROBENZENE			87	68	⊽	⊽	⊽	⊽	⊽	Or 9¢:0	0.39 JQ	0.1 JQ
CHLOROBROMOMETHANE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	▼_	▽ ¹	⊽ '
CHLORODIBROMOMETHANE		_	⊽ '	⊽	⊽ '	⊽ '	⊽ '	⊽ '	⊽ .	⊽_:	⊽ '	⊽ ;
CHLOROETHANE			⊽ :	⊽ :	⊽ :	⊽•	⊽ ;	⊽ :	⊽ ፣	<u>-</u>	<b>▽</b> :	⊽ ₹
CHLOROTORM		<del></del>	⊽ ₹	⊽ 7	⊽ ∜	- 7	⊽ ₹	₹ ₹	⊽ ₹	f 17	<b>.</b> 51	7 7
CILCUCACINE I MANE		'ć	- S. S.	7 6	₹ \$	7 :	₹ ₹	⊽;	√	7 5	7 9	7 =
CIS-1,2-DICHLUROEI HENE		^ -	Or 87.0	∂r 87∩	Ç. ₹	4. 7	Ç 7	, ,	(U.S	2 7	<u>8</u> 7	3 ₹
DIPPONONETTANE			7 5	7 7	7 7	7 7	7 7	7 7	7 7	7 5	7 7	7 7
DIBROMOME LANGE			<b>∵</b> ;	<b>∵</b> ₹	J :	7 7	<b>⊽</b> ₹	₹ ₹	√ ₹	7.	7 -	7 7
DICHLORODIFLOOROME I HANE			₹ .	∵ ;	⊽ ₹	⊽ ₹	⊽ ፣	⊽ :	⊽ ;	07		7 7
EIHYLBENZENE			OY 55.0	O. 7. 0.	▽ .	⊽ .	▽ .	▽ '	⊽ ¹	<u>,                                    </u>	J :	J 7
HEXACHLOROBUTADIENE			▽ '	⊽ '	⊽ '	⊽ '	⊽ '	▽ '	▽ .	⊽ :	⊽ :	J 7
ISOPROPYLBENZENE		<b></b>	⊽	⊽	⊽	⊽	⊽	⊽	▼	▽ '	▽ '	⊽ ¹
M & P-XYLENES		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	▽ '
METHYL TERT-BUTYL ETHER		_	⊽	⊽	⊽	1.8	⊽	⊽	⊽	<u>V</u>	⊽	⊽
METHYLENE CHLORIDE		_	⊽	0.12 JQ	⊽	⊽	⊽	⊽	⊽	0.14 JB	0.094 JB	⊽
N-BUTYLBENZENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽
N-PROPYLBENZENE			⊽	⊽	⊽	⊽	⊽	⊽	⊽	<u>,</u>	~	⊽
NAPHTHALENE			47	4.3	⊽	⊽	⊽	₹	0.82 JQ	<b>!</b> ∨⁄	⊽	⊽
O-XYLENE		-	OG 1600	0 092 JQ	⊽	⊽	⊽	⊽	⊽	<u>,</u>	⊽	⊽
P-ISOPROPYLTOLUENE		_	0.17 JQ	O 81.0	⊽	⊽	⊽	⊽	⊽	▽	⊽	⊽
SEC-BUTYLBENZENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	▽	⊽	⊽
STYRENE		_	⊽	⊽	⊽	⊽	⊽	7	⊽	▽	⊽	⊽
TERT-BUTYLBENZENE			⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽.	⊽ .	⊽ '
TETRACHLOROETHENE		<b></b>	⊽ ;	⊽ ;	▽ '	013 JQ	⊽ .	0.74 JQ	⊽ :	Or 82t0	Or 5.0	⊽ ₹
TOLUENE		;	0.42 JQ	0 42 JQ	⊽ :	⊽∜	⊽	Of 610	⊽ :	-	<b>∀</b> ;	√ .
TRANS-1,2-DICHLOROE I HENE TRANS 1,2 PICHLOROE OPPORTURE		50-		Q.,	<u>\$</u>	∑	<del>(</del>	Ç. ₹	÷ 4	<u> </u>	کار 1.0 م	<del>(</del> )
TRICH OPOSTUSME			7 9 6	7 7	7 7	7 5	7 ₹	7 =	7 7	a	1 9 5	01 570
TRICHI OROEI HOROMETHANE			>r	7 7	7 7	), (O	7 ₹	2 ⊽	7 5	- 	<b>?</b> ⊽	× ∇
VINYL CHLORIDE			0 12 JQ	0.12 JQ	7 ▽	<b>,</b>	• ▽	3.6	∀ ∀	30 J	21 J	OI 71.0
			,	,						<del>-</del>		
Surrogate - % recovery			301	601		ŏ	Ξ	ţ	70	• · ·	301	901
4 PROMOET HOROGENZENE		I	<u> </u>	701	2 2	90	_ 2		96	801	S 5	2 2
PERCHOLLOUNDENCENE DIRROMOET HOROMETHANE		1 :	₽ ₫	\$ 8	700	<u> </u>	701	£ 3	0. 10°	COL .	3 5	3 5
TOLUENE-D8		1 1	89	6 06	86	88	66	89	95	66	96	86
Notes:  J. Estimated; based on QC data JB Estimated; possibly biased high or false positive based on blank contamination JH Estimated, possibly biased high based upon QC data JQ Estimated; Value is between reporting limit and detection limit NA Not Analyzed R Unusable UJ Undetected; Reported Detection Limit is imprecise  Whenpering limits presented are the best that can be achieved under	data Se e achieved under											
normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample difference.	jured sample g limits may vary nd/or sample											
digitals										~		

		Sample Type. Location (D: Sample Date:	Reporting (a) Limit	Normal AEHA-25A 7/12/2005	Normal AEHA-26A 7/13/2005	Normal AEHA-28A 7/14/2005	Duplicate AEHA-28A 7/14/2005	Normal AEHA-30A 7/14/2005	Normal AEHA-31A 7/18/2005	Normal AEHA-32A 7/18/2005	Normal AEHA-33A 7/14/2005	Normal AEHA-34A 7/16/2005	Normal DMW-7A 7/13/2005
			0 1	<del></del>	2.2	Ξ	0.7	7.0	0.4	Ξ	0.7	0.7	1.2
	Ferrous Iron - A3500D mg/L FERROUS IRON		0.1	1.8	e.	6.1	3.6	0.1	5.5	1.0>		36	<0.1
	Oxidation Reduction Potential - A2580A mV OXIDATION REDUCTION POTENTIAL		I	308	120	307	-33	82	-51	337	140	£ <del>.</del>	252
	<b>bH - EPA 150.1 pH Units</b> bH		I	3.82	63	3.76	5.98	561	6 48	4.46	5.02	5.98	4.42
Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part	Specific Conductance - EPA 120.1 mS/cm SPECIFIC CONDUCTANCE		1000	901.0	0.12	0.65	0.18	0.067	0.318	0.075	890 0	0.18	0.05
PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE   PASE	<u>'emperature - EPA 170.1 deg. C</u> 'EMPERATURE		I	27.9	28.5	25.2	26 3	25.6	26.3	23.1	24.8	263	20.5
1	farbidity - EPA 180.1 NTU TURBIDITY		-	74	2	s	⊽	ю	9	ď	12	⊽	⊽
	TXED BASE LABORATORY ANALYSIS: Anions - MCAWW 300.0A mg/L THLORIDE UTRATE AS N ULFATE AS SO4		- 0 -	20 5 - 4.4 - 4.4	8.7 0.04 JQ 7.7	170 40.1 2.5	170 <0.1 2.2	1.7 <0.1 14 6	5.7 40.1 0.5	8.4 1.26 2.9	8.1 <0.1 2.2	 13.1 0.15 1.3	10 133 1.7
1	SK SOP-175 µg/L		1000 0.5 1.5 0.5	222000 J <0.5 <1.5 160	63900 <0.5 <1.5 260	463000 13 53 390	466000 12 51 360	36000 <0.5 <1.5 5.2		114000 J <0.5 <1.5 0.36 JQ	160000 <0.5 <1.5 200		139000 <0.5 <1.5 0.34 JQ
A	<u>Vdrogen by Microseeps - AM20GAX nM</u> FYDROGEN		-	35	13	39	37	1.5	1.7	15	<u> </u>	91	13
	LUMINUM ARIUM ARIUM ARIUM ALUUM ALUUM ALUUM ALUUM ALUUM ALUUM ANGANESE OLYBDENUM ANGANESE COLYBDENUM ANGANESE OLYBDENUM ANGANESE OLYBUM ANGA		0.06 0.025 0.005 0.005 0.005 0.015 0.015 0.005 0.015 0.015 0.001 0.010 0.010 0.010 0.010 0.001	0.0486 JQ 0.033 <0.005 <0.005 4.37 <0.01 <0.0078 JB 1.41 1.91 0.0782 <0.015 <0.015 <0.01 7.8 <0.01 7.8	0.0351 JQ 0.0335 <0.005 <0.005 15 1 <0.01 0.0092 JQ <0.01 3.99 1.54 0.267 <0.015 <0.015 <0.01 2.18 <0.01 4.02 <0.01 0.0505 J	0.871 0.336 0.0014 JQ <0.005 20.6 <0.01 0.0847 0.0047 JQ 1.82 1.2 3 <0.011 JQ 5.65 <0.011 JQ 5.65 <0.011 G7.2 <0.011 G7.2	0.911 0.356 0.0021 JQ <0.005 21 6 <0.01 0.0847 0.0043 JQ 1.73 1.73 1.25 3.16 0.0032 JQ 0.0096 JQ 5.73 <0.01 70 6 <0.01	0.0575 JQ 0.0221 JQ 0.005 0.005 7 67 7 67 0.015 0.0088 JQ 1 07 0.696 0.0453 0.0032 JQ 0.0453 0.002 2.56 0.002 2.56 0.002 2.56 0.002 1.16 R	0.0876 0.332 <0.005 <0.005 <0.001 <0.011 11.8 3.37 0.343 <0.015 <0.015 <0.016 6.88 <0.001 6.89 <0.001	0.154 0.0301 <0.0018 JQ 1.99 <0.011 <0.015 0.043 0.219 JB 0.673 0.0345 0.0043 JB 0.0125 JQ 1.37 <0.01 7.08	0.122 0.021 0.000 0.000 0.004 0.004 0.004 0.005 0.005 0.005	<ul> <li>40.06</li> <li>60.035</li> <li>40.005</li> <li>2.73</li> <li>40.01</li> <li>40.015</li> <li>60.026</li> <li>1.26</li> <li>0.138</li> <li>40.015</li> <li>40.015</li> <li>40.01</li> <li>7.37</li> <li>6.0021</li> <li>1.06</li> <li>6.002</li> <li>6.002</li> <li>6.001</li> <li>6.001</li> <li>7.37</li> <li>6.0021</li> <li>1.00</li> <li>6.001</li> <li>6.001</li> <li>6.001</li> <li>6.001</li> <li>6.002</li> <li>6.001</li> <li>6.001</li> <li>6.002</li> <li>6.001</li> <li>6.001</li> <li>6.001</li> <li>6.001</li> <li>6.002</li> <li>6.001</li> <li>6.001</li> <li>6.001</li> <li>6.002</li> <li>6.001</li> <li>6.002</li> <li>6.003</li> /ul>	0.0502 JQ 0.101 0.101 0.005 <0.005 2.11 <0.015 <0.01 0.0294 <0.015 0.0294 <0.015 2.22 <0.01 5.52 <0.01

	Sample Type: Location ID: Sample Date:	Reporting (a) Limit	Normal AEHA-25A 7/12/2005	Normal AEHA-26A 7/13/2005	Normal AEHA-28A 7/14/2005	Duplicate AEHA-28A 7/14/2005	Normal AEHA-30A 7/14/2005	Normal AEHA-31A 7/18/2005	Normal AEHA-32A 7/18/2005	Normal AEHA-33A 7/14/2005	Normal AEHA-34A 7/16/2005	Normal DMW-7A 7/13/2005
Metals - SW846 6020 (Total) mg/L ANTIMONY ARSENIC LEAD SELENIUM THALLIUM		0 0001 0.0005 0.0005 0.0005	00.00 00.00 00.00 00.00 00.00	0 00040 0.000408 JQ 0.0008 JQ 0.0005 0.0001	0.00007 JB 0.00314 0.0034 0.0117 0.000074 JQ	0 00005 JB 0.00321 0.00341 0.0117 0.00072 JQ	0.00075 0.00125 0.00076 0.00042 JQ	0.00022 0.00667 0.00049 JQ 0.00026 JQ <0.0001	0.00039 0.00018 JQ 0.00262 0.00051	0.00006 JB 0.00025 JQ 0.00087 0.00029 JQ	0.000301 JB 0.00319 0.00064 0.00027 JQ <0.0001	<ul> <li>&lt;0.001</li> <li>&lt;0.005</li> <li>&lt;0.005</li> <li>&lt;0.005</li> <li>&lt;0.005</li> <li>&lt;0.005</li> </ul>
Mercuty - SW846 7471 (Total) mg/L MERCURY		0.0003	<0 0003	0.006121 JQ	9.000115 JQ	Of 601000 0	Of 91000:0	<0 0003	<0 0003	Of 8110000	<0 0003	0.000152 JQ
Total Alkalinity - MCAWW 310,1 mg/L ALKALINITY, TOTAL (AS CACO3)		01	òr s	34	01>	01>	12	134	2 JB	715	35	4 Q(
<u>Total Organic Carbon - SW846 9060 mg/L</u> TOTAL ORGANIC CARBON		_	91	4.7	1.5	1.5	7.6	4.9	1.5 JH	Or 8'0	1.7	HI 6.0
Total Solfide - MCAWW 376.1 mg/L SULFIDE		2	¢.	Q	Q	Q	Ġ.	5	\$	<u>.</u> .	4	4
Volatile Fatty Acids - D1552 mg/L ACETIC ACID BUTANOIC ACID LACTIC ACID PROPIONIC ACID		2 2 0 0 5	<u> </u>	⊅ ८ △ △ Å	△ ∆ △ △ &	* * * * * * *	△ ८ △ △ Å	A A A A A A	⊽ ♡ ⊽ ⊽ <del>©</del>	<b>&amp; &amp; &amp; &amp; &amp; </b>	Y X X X X	A N N N N A N A N
Volatile Organic Compounds - SW846 8260 µg/l 1,1,1,2-TETRACHLOROETHANE 1,1,1-TRICHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1,2-TRICHLOROETHANE	<u> 7)%</u>		∵ ▽ ▽ ▽ ♀ •	⊽⊽⊽⊽	01> 01> 01> Ot 7.3	<10 <10 <10 <10 67 JQ	⊽ ⊽ ⊽ ⊽ ⊽	⊽⊽⊽⊽⊽	▽ ▽ ▽ ▽ ▽	<u> </u>	⊽⊽⊽⊽⊽	⊽⊽⊽⊽⊽
.1-DICHLOROETHYLENE .1-DICHLOROPROPENE .2,3-TRICHLOROBENZENE .2,3-TRICHLOROPROPANE			(	. △ △ △ △	√ √10 √10 √10 √10	27 <10 <10 <10	. △ ↓ △ △	. △ △ △ △	07 62.0   >   >   >   >   >   >   >   >   >   >	<u> </u>	·⊽⊽⊽⊽	. △ △ △
12.4-TRICHLOROBENZENE 12.4-TRIMETHYLBENZENE 2-DIBROMO-3-CHLOROPROPANE 2-DIBROMOETHANE		2.5	. <u>^ ^ %</u> ^	. <u>^ ^ 6</u> ^	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	\$\frac{1}{2}\$	· ^ ^ \$ \$	. <u>^ ^ </u> <u>^ </u> <u>^</u> <u>^</u> ^	. ^ ^ <u>%</u> ^	<u> </u>	4.5 4.5 4.5	. △ △ ☆ △
1,2-DICHLOROBENZENE 1,2-DICHLOROETHANE 1,2-DICHLOROPROPANE 1,3-5-TRIMETHYLBENZENE 1,3-DICHLOROBENZENE			ζ Σ ⊽ ⊽ ⊽	⊽⊽⊽⊽	43 22 <10 <10 7.4 JQ	43 J 22 <10 <10 7.4 JQ	▽ ▽ ▽ ▽	⊽⊽⊽⊽⊽	0.26 JQ	<u> </u>	<pre>&lt;1 </pre> <pre>&lt;1 </pre> 0.42 JQ <1	⊽⊽⊽⊽⊽
1,3-DICHLOROPROPANE 1,4-DICHLOROBENZENE 2,2-DICHLOROPROPANE 2-BUTANONE 2-CHLOROTOLUENE		9-9	042 JQ <1 <10 <10 <10 <10	⊽ ⊽ ⊽ 🕏 ⊽ 🕏	01 > 01 > 00 > 00 > 00 > 00 > 00 > 00 >	0; 00; 01; 01; 00; 01;	⊽ ⊽ ⊽ ♀ ♀	⊽ ⊽ ⊽ ∜ ⊽ ∜	Or 8:0 □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □	▽ ▽ ▽ ♡ ▽ ♡	⊽ ⊽ ⊽ 🕏 ⊽ 🕏	⊽ ⊽ ⊽ ∜ ⊽ ∜
4-CHLOROTOLUENE 4-METHYL-2-PENTANONE ACETONE BENZENE BROMOBENZENE BROMODICHLOROMETHANE BROMOMETHANE CARBON DISULFIDE		- 0 0	2.8 JQ 0.57 JQ 0.57 JQ 0.57 JQ 0.57 JQ 0.57 JQ	▽° 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	01 00 00 00 00 00 00 00 00 00 00 00 00 0	01v 01v 01v 01v 01v 01v 01v 01v 01v 01v	24 JB	⊽ <del>°</del> ° ⊽ ⊽ ⊽ ⊽ ⊽	± 5	V 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	22 JB	2.2 JB 2.2 JB 2.2 AB

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BLANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

		Cample Time		1000		No		1	To Holk	N	N		Morros
		Location ID: Sample Date:	Reporting (a) Limit	AEHA-25A 7/12/2005	AEHA-26A 7/13/2005	AEHA-28A 7/14/2005	AEHA-28A 7/14/2005	AEHA-30A 7/14/2005	AEHA-31A 7/18/2005	AEHA-32A 7/18/2005	AEHA-33A 7/14/2005	AEHA-34A 7/16/2005	DMW-7A 7/13/2005
	CARBON TETRACHLORIDE		_	⊽	⊽	3.4.10	Q.V	⊽	⊽	⊽	<u>.</u>	   ⊽	
	CHLOROBENZENE			7 ▽	- ▽	270	092	- ▽		7 ▽		- ▽	- ▽
	CHLOROBROMOMETHANE			- ▽	- ⊽	0 ₹	0I>	⊽	⊽	⊽	<u>\</u>	. △	. △
	CHLORODIBROMOMETHANE		_	⊽	⊽	01>	0I>	⊽	⊽	⊽	. ⊽_	⊽	⊽
	CHLOROETHANE		-	⊽	⊽	0I>	01>	▽	⊽	⊽	⊽	⊽	⊽
	CHLOROFORM		-	⊽	⊽	¥	53	⊽	⊽	OT 17	⊽	⊽	⊽
	CHLOROMETHANE		_	⊽	⊽	0I>	<10	⊽	0.47 JQ	0.21 JQ	⊽	⊽	⊽
	CIS-1,2-DICHLOROETHENE		0.5	100	-	2100	2000	=:	0.39 JQ	96	60.5	<0.5	<05
	CIS-1,3-DICHLOROPROPENE		_	⊽	⊽	<b>0!&gt;</b>	01>	⊽	⊽	⊽	⊽_	⊽	⊽
	DIBROMOMETHANE		-	⊽	⊽	<10	<10	▽	⊽	⊽	⊽	▽	⊽
	DICHLORODIFLUOROMETHANE		-	₩	⊽	5.2 JQ	49 JQ	⊽	⊽	⊽	.⊽.	⊽	⊽
	ETHYLBENZENE		-	⊽	⊽	<10	0I>	⊽	⊽	⊽	⊽.	0.55 JQ	⊽
	HEXACHLOROBUTADIENE			⊽	⊽	01>	0I>	▽	⊽	⊽	⊽	⊽	⊽
	ISOPROPYLBENZENE			⊽	⊽	<del>0</del>  >	0∀	⊽	⊽	⊽	⊽.	73	⊽
	M & P-XYLENES		_	⊽	⊽	0I>	0I>	⊽	⊽	⊽	⊽_	⊽	⊽
	METHYL TERT-BUTYL ETHER		_	2.2	⊽	OI>	OI>	⊽	==	26	Or zto	⊽	⊽
	METHYLENE CHLORIDE		_	⊽	⊽	26 JB	2.7 JB	⊽	⊽	⊽	0.096 JB	⊽	⊽
	N-BUTYLBENZENE		-	⊽	⊽	<10	<10	⊽	⊽	⊽	∇_	7.4	⊽
	N-PROPYLBENZENE		-	⊽	⊽	0I>	ot>	⊽	⊽	⊽	.⊽.	7.8	⊽
	NAPHTHALENE		_	⊽	⊽	1.5 JQ	o!>	⊽	⊽	⊽	<u>⊽</u>	72	⊽
	O-XYLENE		-	⊽	⊽	0 >	<10	⊽	⊽	⊽	⊽	Of 1800	⊽
	P-ISOPROPYLIOLUENE		_	⊽	⊽	۷I)	<10	⊽	⊽	⊽	<u>⊽</u> .	3.5	⊽
	SEC-BUI YLBENZENE			▽ '	⊽ '	01>	0 <del> </del>	⊽	⊽ '	⊽ '	0.26 JQ	12	⊽ '
	SIYKENE			⊽	⊽	<10	0   -	⊽	⊽	⊽	⊽_	⊽	⊽
	TERI-BUTYLBENZENE		beent 1	⊽:	⊽ ;	01> ::	01>	▽ '	⊽ '	⊽ :	⊽_'	0.32 JQ	⊽ '
	TOT TENNE		<b>.</b>	77	04 JQ	<b>3</b>	. S.	⊽ ¹	⊽ ¹	<u>.</u>	▼ :	⊽ ¹	⊽ ¹
	TO ANY 12 DICH OROGITHMENT		- 3	⊽ 8	⊽ \$	<u>9</u> ;	0 > ,	⊽ \$	⊽ \$	⊽ \$	<u>√</u> .	⊽ \$	⊽ ;
	TRANS-1,2-DICHLOROETHENE TRANS-1,2-DICHLOROEDHENE		ç,	689	€.5	Ο 7 7	کر <sub>2</sub>	<0.5	ç.0.	<0.5	? ₩	? <u></u>	<0.5
	TRICH OPOCH CENT			√ 5	· · · ·	012	01>	⊽ ¹	⊽ ¹	<del>,</del> ;	₹ '	⊽ ¹	₹ 1
	TPICH OPOSITION METERS			3 ₹	), 4£.0	0071	1200	⊽ ₹	⊽ ₹	_ 7	⊽ :	⊽ ₹	⊽ ;
	VINVI CHI OBIDE			. ·	7 5	01>	017	- ec	₹:	7 5	<u> </u>	⊽ ₹	₹ ₹
	WALL CHECKED		<b>-1</b>	5.6	)r */ o	<u>8</u>	non	Dr 87'0	<del>4.</del>	Dr ICO	₹	7	7
	Surrogate - % recovery												
	1.2-DICHLOROETHANE-D4		i	101	107	102	86	<u>a</u>	601	103	102	001	100
•	· 4-BROMOFLUOROBENZENE		I	8	101	901	103	102	601	<u>10</u>	86	85	93
	DIBROMOFLUOROMETHANE		I	86	901	601	105	001	105	106	66	86	86
	TOLUENE-D8		ı	92	36	100	86	26	102	101	93	100	87
Notes													
Notes:	: Estimated: based on OC data												
, <del>g</del> r	Estimated, possibly biased high or false												
	positive based on blank contamination										<b></b>		
Hſ	Estimated, possibly brased high based upon QC data	data											
ď	Estimated; Value is between reporting limit												
	and detection limit												
¥.	Not Analyzed												
≃ :	Unusable		•										
<b>5</b> .	Undetected; Reported Detection Limit is imprecise	ise	,								_		
3	Reporting limits presented are the best that can be achieved under	be achieved under											

Estimated, possibly biased high or false positive based on blank contamination

Estimated, possibly biased high based upon QC data

Estimated, Value is between reporting limit and detection limit

A Not Analyzed
Unusable

J Indetected, Reported Detection Limit is imprecise
Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

1		Sample Type. Location ID; Sample Date	Reporting (a) Limit	Normal DMW-9A 7/16/2005	Normal DMW-18A 7/15/2005	Normal MWA50-35 7/15/2005	Normal MWA50-36 7/13/2005	Normal MWA50-37 7/13/2005	Normal MWA50-38 7/13/2005	Normal USGS-A4 7/17/2005	Normal USGS-D4 7/15/2005	Normal USGS-F4 7/16/2005	Normal USGS-G4 7/17/2005
Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mouse   Mous	FIELD PARAMETER: Dissolved Orygen - EPA 360.1 mg/L DISSOLVED OXYGEN		1.0	2.6	0.3	0.2	0.5	0.3	0.5	0.4	2	9	2.9
State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   Stat	Ferrous Iron - A3500D mg/L FERROUS IRON		0.1	9	4	5.8	n	-0.1	<b>⊕</b>	0.2	<u>~</u>	_	1.0>
	Oxidation Reduction Potential - A2580A mV OXIDATION REDUCTION POTENTIAL		I	498	234	φ	<b>5</b> 5-	011-	381	356	275	223	266
	<u>pH - EPA 150.1 pH Units</u> pH		I	4.37	4.82	5.85	635	7 44	77.8	4 73	4.83	5.13	4.59
PERCINE   PARTINI DEC.   PERCINE	Specific Conductance - EPA 120.1 mS/cm SPECIFIC CONDUCTANCE		100 0	0 107	0.091	0 507	1.48	1.539	0.048	0.082	60 03 o	0.166	0.039
BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDTY   BIDT	Temperature - EPA 170.1 deg. C TEMPERATURE		ı	19.1	23.1	19.3	26.4	23.4	19.2	23	20.1	21.5	17.9
DEASE LABORATORY ANALYSIS:   157   115   614	<u>Turbiditv - EPA 180.1 NTU</u> TURBIDITY		-	-	91	2	<b>∞</b>	⊽	7	m	vn	20	7
Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Decoration   Dec	FIXED BASE LABORATORY ANALYSIS: Auions - MCAWW 300.0A mg/L CHLORIDE NITRATE AS N SULFATE AS SO4		- 0.1	15.7 1.56 13.3	15.7 0   0	11.5 40.1 34.9	61 4 <0.1 77.3	13.9 0.65 78.1	4.9 048 2	7.9 0.1 21	3.7 0.13 2.7	20.1 0.23 22	5 016 J 23 J
1	Dissolved Gases - RSK SOP-175 ug/L. CARBON DIOXIDE ETHANE ETHENE METHANE		1000 0.5 1.5 0.5	131000 J 40.5 <1.5 <0.5	261000 <0 5 <1.5 180	327000 2.1 <1.5 620	278000 0 88 <1.5 1500	59300 4 3 6 1 2600	190000 <0.5 <1.5 <0.5	164000 J <0.5 <1.5 17	94000 <0.5 <1.5 <0.5	92500 J <0.5 <1.5 8 8	130000 J <0.5 <1.5 <0.5
National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National   National	Bydrogen by Microseeps - AM20GAX nM HYDROGEN		~	1.4	1.7	=	<u></u>	13	40	34	- 56	4 -	1.5
UM         0.025         0.0871         0.0557         0.0832         0.0194         JQ           7LLUM         0.005         <0.005	Metals - SW846 6010 (Total) mg/L ALUMINUM		900	0.233	0.0152	0015 10	0 0607	Š	0.150.0	22.0		1310	OI 1030 0
Comparison	SARIUM ERVI I II IM		0 025	0.0871	0.0557	0.0832	0 0194 JQ	0.1	0.109	0.233	0.0267	0.0952	0 0335 0 0335
NESTLIM   0.5   8.07   3.33   61.7   3.74     NICTLIM   0.01   <0.01   <0.01   <0.01   <0.01     AUT	ADMIUM		0.005	<0.005 <0.005	<0.005 \$0.005	<0.005 <0.005	<0.005 <0.005	0.0029 JQ 0.0025 JQ	0 00 00 00 00 00 00 00 00 00 00 00 00 0		20.005 20.005	<0.005 <0.005	<0.005 <0.005
Line   Continue   Co	SALCIUM SHROMIUM		0.5	8.07	3.33	61.7	3.74	106	137	4.86	2.36	3.91	0.72
EK         0.01         < 0.01         < 0.01         < 0.01         < 0.01           NESTUM         0.1         < 0.1	OBALT		0.015	0.0052 JQ	<0.015	<0.015	<0.015	0.0000 JU <0.015	<0.01 <0.015	A.015	0015 0015	O'0900 0'0990	<0.015
NESTUM         0.2         2.9         0.70         3.0         7.42           GANESE         0.005         0.0406         0.0655         0.234         0.0112           GANESE         0.005         0.0406         0.0655         0.224         0.012           GBDENUM         0.015         <0.015	JOPPER RON		0.01	0.00	0.0064 JB	<0.01	100>	0.0142	<0.01	0.0048 JQ	<0.01	0.0021 JQ	10.0>
GANESE         0.005         0.0406         0.0635         0.221         0.0212           RADENUM         0.015         < 0.015         < 0.015         < 0.015         < 0.015           FEL         0.02         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         < 0.015         <	MAGNESIUM		0.2	2 99	1.72	30.0 13.4	0.517	0.071 JQ 112	0 0 /41 JQ 1.53	0.529	0 0882 0 0 0882 0.529	2.8f	0.0275 JQ 0.477
EL 602 <002 <002 <002 <002 <002 <002 <002	AANGANESE AOLYBDENUM		0.005 0.015	0.0406 <0.015	0.0635 <0.015	0.221	0.0212	0.0792	0 0328	0.0294	0 0638	0.101	0 0263
SSECOND 1 1-64 2.58 4.13 0.625 JQ SR 0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 \\ OLIVER DIUM 0.01 <0.01 <0.01 <0.01 \\ OLIVER DIUM 0.027 ID 0.0127 ID 0.0177	AICKEL OTT COTTA		0 02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.015 <0.02	Of 96000	<0.015 <0.02
JM 0.5 4.31 5.27 185 380 ADIUM 0.01 <0.01 <0.01 <0.01 <0.01	U I ASSIUM IL VER		0.01	20.0 10.0 10.0	2.58	4.13 E.13	0 625 JQ <0 03	7.28	203	1.86	7.1.7	100	0.957 JQ
ADIUM 001 <001 <001 <001 <001 <001 <001 <001	ODIUM		0.5	431	5.27	18.5	380	49.8	2.64	6:59	3.06	19.4	4 26
0.02 0.0036 JB 0.0173 JO 0.0036 JB 0.11 J	NC DIOM NC		0.02	<0.01 0.0037 JB	<0.01 0.0173 JQ	-0.00} 0.0096 JB	<0.01 0.11 J	0.332 0.0882 J	<0.01 0.003 JB	<001 00196 IO	<0.01 0.225 R	<0.01 0.161	<0.01 0.0145 IO

	<u>Metais - SW846 6020 (Total) mg/L.</u> ANTIMONY	ARSENIC	SELENITA	THALLIUM	Mercury - SW846 7471 (Total) mg/L.	MERCURY	Total Alkalinity - MCAWW 310.1 mg/L ALKALINITY, TOTAL (AS CACO3)	<u>Total Organic Carbon - SW846 9960 mg/L</u> TOTAL ORGANIC CARBON	<u>Total Salfide - MCAWW 376.1 mg/L</u> SULFIDE	Volatile Fatty Acids - D1552 mg/L ACETIC ACID	BUTANDIC ACID LACTIC ACID	PROPIONIC ACID PYRUVIC ACID	<u> Volatile Organic Compounds - SW846 8260 ug/L</u>	1.1.1, 2-TETRACHLOROETHANE 1.1.1-TRICHLOROETHANE	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE	I, I-DICHLOROETHYLENE	1,1-DICHLOROPENE 1,2,3-TRICHLOROBENZENE	1,2,3-TRICHLOROPROPANE 1,2,4-TRICHLOROBENZENE	,2,4-TRIMETHYLBENZENE	1,2-DIBROMO-3-CHLOROPROPANE 1,2-DIBROMOFTHANE	2-DICHLOROBENZENE	1,2-DICHLOROETHANE 1,2-DICHLOROPROPANE	3.5-TRIMETHYLBENZENE	1,3-DICHLOROBENZENE 1,3-DICHLOROPROPANE	,4-DICHLOROBENZENE	2,2-DICHLOROPROPANE	2-EUTANONE 2-CHLOROTOLUENE	2-HEXANONE	4-CHLOROTOLUENE 4-METHY1, 2-PENTANONE	ACETONE	BENZENE BROMOBENZENE	BROMODICHLOROMETHANE	BROMOFORM	BROMOMETHANE
Sample 1ype: Location ID. Sample Date:													Æ	l																		•			
Reporting (a) Limit	1000	0.0005	0.0005	0.0001		0.0003	01	-	2	-	n -	1 0.5		PP-1			· <b>-</b>				2.5				<del></del> -			<u> </u>	- 9	<b>–</b> 9	2 01		<b>-</b> -	-	1
Normal DMW-9A 7/16/2005	0.00005	Or £10000	0 00112	1000 0>		<0 0003	) J	Ξ	Q	NA	Y X	X X X		⊽ 7	7 ⊽	⊽ ₹	7 ▽	⊽⊽	. △ .	<b>⊽</b> ⊽	<2.5	⊽ ⊽	⊽ ;	<b>⊽</b> ⊽	⊽ 7	⊽ ⊽	. △	0  V	ol>	⊽ 5	<.10 2.4 JB	▽ 5	⊽ ∀	⊽	⊽
Normal DMW-18A 7/15/2005	at 50000 0	0.00065	Of 11000'0	€/000.0 <0.0001		<0 0003	01>	<del></del>	4	V.	Ϋ́ Ϋ́	Z Z Z		⊽ ₹	7 ⊽		Ot 590	⊽⊽	. △ :	⊽⊽	. 55	⊽ ⊽	⊽ :	⊽ ⊽	∇ 7	⊽ ⊽	. △	7 ₹	7 01>	⊽ \$	21 JB	! . ▽ :	⊽⊽	. △	⊽
Normal MWA50-35 7/15/2005	41 30000 0	0.00392	Of 60000	0.000107		<0 0003	167	4.3	4	⊽	<b>0</b> 7	7 ⊽ <del>§</del>		⊽ 5	7 7	⊽ .	<b>Στ</b> ς:θ	⊽ ⊽	∵ ⊽ :	⊽ ⊽	. 53	⊽ 2	∵ ∵	⊽ ⊽	0.18 JQ	. ₹	₹⊽	0 <del>7</del>	7 017	⊽ ;	28 JB	. ⊽	⊽⊽	. △	⊽
Normal MWA50-36 7/13/2005	Ş	OF 815000	0.0003 JQ	0.00274 JQ <0.001		0.000124 JQ	909	17.3	Q	Υ Z	A S	Υ N N		⊽ ;	<b>⊽</b> ⊽	⊽;	7⊽	⊽⊽	7 ▽	⊽⊽	2.	⊽ ⊽	. △	⊽⊽	~ ▼	⊽ ⊽	7 ▽	0 ₹	⊽ 🕏	∵ ⊽ ∶	<0 59 B	0.53 JQ	⊽⊽	7 ⊽	. △
Normal MWA50-37 7/13/2005		0.0104	<0.005	0.0148 <0.001		0.000136 JQ	612	12.4	7 m	⊽	۲ :	⊽ ⊽ ₹	1 5	⊽ '	⊽ ⊽	ʻ⊽,	1 0.16 JQ	⊽ 7	7 ▽	⊽ ⊽	25	<1 017 10	0.71 JQ	⊽ ⊽	' ▽	01 × 10	γ Γ V	01>	⊽ 🕏	: ▽	<10 7.5 TB	Orr 110	⊽ ⊽	7 ₹	' ⊽
Normal MWA50-38 7/13/2005		40.001 40.005	<0.005	&.005 &.005 &.005		0.000117 JQ	Òr 9	1.2	Q	Ą	Y Y	V Z Z		▽ '	⊽ ⊽	. △ .	⊽ ⊽	⊽ ₹	7 V	⊽ ⊽	25	⊽⊽	7 ▽	⊽⊽	. △	⊽ ₹	7 ⊽	0 <del>1</del> >	⊽ 🕏	₹ ⊽	01× √10	ar .	⊽ 7	7 ▽	- ▽
Normal USGS-A4 7/17/2005		0.00017 JB 0.00039 JO	0.00181	0.000063 JO	*	<0 0003	3 JQ	4.3	u ¢	¥ Z	NA	V V Z	Ş	⊽	⊽⊽	7 ▽ 1	⊽ ⊽	⊽ ₹	7 7	⊽ ₹	2.5	⊽⊽	7 ▽	⊽ ⊽	. △	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	λ (7)	2.3 JQ	<b>⊽</b> ⊽	? ⊽	<10 12 E	9 ▽	⊽ ₹	7 🗸	· 🗸
Nomal USGS-D4		0.00006 JB <0.0005	0 00014 JQ	0.00021 JQ <0.0001				1.4 JH	<u>-</u>	₹ Z	Y'A	¥ ¥ ;	<u>.</u>	⊽	⊽ ⊽	<del>,</del> △	⊽ ⊽	⊽ :	7 ⊽ ≥	⊽ 7	50	∇ ₹ <del>2</del> 22	7 ⊽ <del>===</del>	⊽ ⊽	<del>-</del> <del>-</del>	∇ 5	⊽ ⊽	01×	 ∨	₹ ⊽	210 ≪10	d, 74	▽ 5	7.⊽	7 ⊽
Normal USGS-F4		0.00055	0.00187	0 00152 <0 0001	, , ,	<0.0003	15	ĸ	4	Š	Y X	X X	Č	⊽	⊽ ⊽	√ ▼	⊽ ⊽	∀ 5	⊽ ⊽	₩ 5	2.5	⊽ ₹	7 ▽	⊽⊽	7 ⊽	⊽ :	⊽ ⊽	01>	⊽ 5	} ₹	<10 <10	2.4 JB	⊽ ₹	⊽ ⊽	7 ⊽
Normal USGS-G4		40.0001 40.0005	0.00017 JB	0.00023 JQ <0.0001		<0.0003	S JQ	1.3	₩ Ç	Ž	NA AN	Y X	ď.	⊽	⊽ ⊽	7 ▽	⊽ ⊽	' ▽ '	⊽ ⊽	⊽ ₹	2.5	⊽ ₹	7 ⊽	⊽ 7	7 ▽	⊽ '	⊽ ⊽	<10	⊽ ₹	? ⊽	< 10	0 ⊽	⊽ ;	⊽ ⊽	7 ⊽

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type		Normal	N.C.	Normal	Nicorra		ECN	a ELON	e III C	E Loz	Normal
			1011101	Normal	TO COLORED	LEMINAL CO.	Normal	A OS A SO A	* * 3031	70 3031	V3 3031	115.05.04
	Location ID. Re Sample Date:	Reporting (a) Limit	DMW-9A 7/16/2005	DMW-18A 7/15/2005	MWA50-35 7/15/2005	MWA50-36 7/13/2005	MWA50-57 7/13/2005	MWA30-38 7/13/2005	7/17/2005	7/15/2005	7/16/2005	7/17/2005
									•	; 	,	7
CARBON TETRACHLORIDE		_	⊽	⊽	⊽	~	⊽	⊽	⊽	<u>v</u>	₹ .	7
CHLOROBENZENE		_	⊽	∇	5.7	⊽	28	⊽	0.31 JQ	∇_	0 12 JQ	⊽
CHLOROBROMOMETHANE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽.	⊽	⊽
CHLORODIBROMOMETHANE		_	⊽	⊽	⊽	⊽	⊽	▽	⊽	<u>&gt;</u>	⊽	⊽
CHLOROETHANE			⊽	⊽	∀	⊽	⊽	⊽	⊽	⊽.	⊽	⊽
CHLOROFORM			. △	. △	. △	⊽	⊽	⊽	0.13 JB	⊽	<b>▽</b>	0.16 JB
CHLOROMETHANE			. Δ	· ⊽	. ^	. △	⊽	⊽	0.21 30		⊽	⊽
CIECUS DISCHI OPOETHENE		, ,	Š	79	; =	. &	. o	. 0>	3.6	\$0.5	3.8	<0.5
CIS 13 DICHI ODOBDOBENE		<u> </u>	÷ 7	₹ 7	2 7	} \	; <del>-</del>	₹	₹⊽	-	⊽	⊽
DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF THE DIRECTOR OF TH			7 7	7 7	7 7	₹ ₹	- ₩	- ⊽	. △	. △	. △	⊽
DISTORDAND THOSE AND DISTORDAND DISTORDAND THOSE AND DESCRIPTION OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPER			7 7	7 7	7 7		, ≡	- ⊽	. △	- ▽	⊽	⊽
CTUM DENTENE			7 7	7 7	7 7	7 7	; ;	₹ ₹	. △	~	01.710	. △
EINTEDENZENE HEVACHIODORITTA DIENIE			7 7	7 7	7 7	7 5	<del>,</del> ∠	7 ▽	₹ ▽	. ~	<b>`</b> ⊽	. △
IEAACHEOAOBO I ADIEINE			7 7	7 7	7 7	7 7	7 7	7 7	7 7	- √	. 4	. △
ISOPROPYLBENZENE			▽ ¹	⊽ '		J 7	7 ;	7 3	7 7	7 V —-	7 7	7
M & P-XYLENES		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	<b>√</b>	<del>,</del>	7 7
METHYL TERT-BUTYL ETHER			⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽'	⊽	▽ '
METHYLENE CHLORIDE			⊽	▽	⊽	⊽	0.091 JB	⊽	⊽	⊽.	0.1 JB	⊽
N-BUTYLBENZENE		_	⊽	▽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽
N-PROPYLBENZENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽
NAPHTHALENE		_	0 12 10	⊽	⊽	⊽	⊽	⊽	⊽	⊽_	⊽	īn ▽
O-XYLENE			▽	⊽	⊽	⊽	⊽	⊽	⊽	⊽_	⊽	⊽
P-ISOPROPYLTOLUENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽_	⊽	⊽
SEC-BUTYLBENZENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	▽_	⊽	⊽
STYRENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽_	0.24 JQ	⊽
TERT-BUTYLBENZENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	▽	⊽	⊽
TETRACHLOROETHENE			⊽	22	3.1	~	⊽	⊽	0.88 JQ	⊽_	⊽	⊽
TOLUENE		_	⊽	0.37 JQ	⊽	⊽	⊽	⊽	⊽	⊽_	0 69 JQ	⊽
TRANS-1,2-DICHLOROETHENE		0.5	<0.5	0.25 JQ	0.24 JQ	40.5	0.42 JQ	<05	40.5	<0.5	0.21 JQ	<0.5
TRANS-1,3-DICHLOROPROPENE		1	⊽	. ▽	. ▽	⊽	⊽	∵	⊽	⊽_	⊽	⊽
TRICHLOROETHENE		_	⊽	18	7.3	▽		⊽	12	⊽	0.64 JQ	⊽
TRICHLOROFLUOROMETHANE			⊽	⊽	⊽	~	⊽	⊽	⊽	⊽	⊽	⊽
VINYL CHLORIDE		1	⊽	⊽	_	⊽	7.7	⊽	⊽	▽	⊽	⊽
Section 19												
2-DICHI OROFTHANE-DA		1	ŏ	104	55	105	103	108	105	105	[0]	103
A.BDOMOET HOBORENSENE			2 2	101	6	£	201		105	-04	95	103
PEROMOTEOROBENZENE  DEPONDO TENDO DE LA TENTE		ŧ	<u> </u>	5 5	70	5 5	2		50 <del>1</del>	<u> </u>	. %	107
DIBROMOFLUOROMETHANE		ł	8 3	70l	<u>8</u> 2	<u>5</u>	<del>1</del> 8	3	80	Ē 3	2	8
TOLUENE-D8		-	95	28	36	92	98	35	m l	*	60	70

Notes: J E JB E

H JQ NA UU 8

Estimated; based on QC data

Estimated, possibly biased high or false
positive based on blank contamination

Estimated, possibly biased high based upon QC data
positive based on blank contamination

Estimated; Value is between reporting limit
and detection limit

A Not Analyzed
Unusable
J Undetected, Reported Detection Limit is imprecise
Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: Location ID: Sample Date:	Reporting (a) Limit	Normal USGS-14 7/17/2005	Normal USGS-K4 7/17/2005	Normal USGS-M4 7/17/2005	Normal USGS-P4 7/14/2005
FIELD PARAMETER: <u>Dissolved Oxygen - EPA 360,1 mg/L</u> DISSOLVED OXYGEN		9.0	6.0	3.3	4. 4.	-
Ferrous Iron - A3500D mg/L FERROUS IRON		0.1	<del>.</del> 0	N A	<u>(,0</u>	1.5
Oxidation Reduction Potential - A2580A mV OXIDATION REDUCTION POTENTIAL		ţ	330	542	628	226
<u>pH - EPA 150.1 pH Units</u> pH		ı	5.03	4.95	3.71	4 18
Specific Conductance - EPA 120.1 mS/cm SPECIFIC CONDUCTANCE		0.001	0.071	0.071	0.043	9900
Temperature - EPA 170.1 deg. C TEMPERATURE		ı	22.4	26.9	20	25.7
Turbidin - EPA 18 <u>0,1 NTU</u> TURBIDITY		-		⊽	⊽	-tel
FIXED BASE LABORATORY ANALYSIS: Anions - MCAWW 300.0A mg/L CHLORIDE NITRATE AS N SULFATE AS SO4		0.1	6 0.11 14	5.6 0.1 13.2	6.1 0.62 2.3	0r 1 601 601
Dissolved Gases - RSK SOP-175 µg/L CARBON DIOXIDE ETHANE ETHENE METHANE		1000 0 5 1 5 0 5	137000 J <0.5 <1.5 <0.5	119000 J <0.5 <1.5 <0.5	153006 J <0.5 <1.5 <0.5	214000 J <0.5 <1.5 15
Hydrogen by Microseeps - AM20GAX nM HYDROGEN		-	- 3	N	7.1	1.2
Metals - SW846 6010 (Total) mg/L ALUMINUM BARIUM BERYLLIUM CADMIIM		0.06 0.025 0.005	0.0271 JQ 0.0251 <0.005 <0.005	0.076 0.0236 JQ <0.005 <0.005	0.0539 JQ 0.047 <0.005 <0.005	0 131 0 0658 <0 005 <0 005
CALCIUM		0.5	3.12	1.31 ©.01	0.571	1.85
COBALT		0.015	or 900.0	<0.015	0.0064 JQ	<0.015
COPPER IRON		0.1	0.0 Ø.1	0.123	(0.1 (0.1	0 0244 JQ
MAGNESIUM		0.2	1.29	0.692	0.515	149
MOLYBDENUM		0.015	<0.015	<0.015	<0.015	<0.015
NICKEL		0.02	<0.02	<0.02	<0.02	<0.02
POLASSIUM SILVER		0.01	55.5 10.0>	80.1 0.0>	>r 1 <del>16</del> 0	10:0>
SODIUM		0.5	8.3	9 48	5.21	48.4 12.6
VANALIUM ZINC		0.02	0.0053 JB	0 0 0 112 JQ	0.0041 JB	Or 2810.0

.

	Sample Type: Location ID. Sample Date:	Reporting (a) Limit	Normal USGS-14 7/17/2005	Normal USGS-K4 7/17/2005	Normal USGS-M4 7/17/2005	Normal USGS-P4 7/14/2005
Metals - SW846 6020 (Total) mg/L ANTIMONY ARSENIC LEAD SELENIUM THALLIUM		0 0001 0,0005 0,0005 0,0005 0,0005	0.00005 JB <0.00012 JB 0.00034 JQ <0.00031	0.00004 JB <0.0005 0.00086 0.00024 JQ <0.0001	0,00004 JB <0,0005 0,00025 JQ 0,00032 JQ <0,0001	<0.0001 <0.00026 <0.00026 <0.0005 <0.0001
<u>Mercury - SW846 7471 (Total) mg/L.</u> MERCURY		0.0003	<0.0003	<0 0003	<0 0003	0.000141 JQ
Total Alkalinity - MCAWW 310.1 mg/L. AEKALINITY, TOTAL (AS CACO3)		10	01	S. JQ	3 10	3 10
Total Organic Carbon - SW846 9060 mg/L TOTAL ORGANIC CARBON		-	4.	4.1	Or 6:0	Öf 80
Total Sulfide - MCAWW 376.1 mg/L. SULFIDE		7	2 G	₩ \$	m &	4
Volatile Fatty Acids - D1552 mg/L ACETIC ACID BUTANOIC ACID LACTIC ACID PROPIONIC ACID PYRUVIC ACID		1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4 4 4 4 4 2 2 2 2 2 2	< < < < < < < < < < < < < < < < < < <	¥ ¥ ¥ ¥ ¥	<b>4 4 4 4</b> 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
Volatile Organic Compounds - SW846 8260 µg/L. 1.1.1.2-TETRACHLOROETHANE 1.1.1-TRICHLOROETHANE 1.1.2-TETRACHLOROETHANE 1.1.2-TETRACHLOROETHANE 1.1.2-TETRACHLOROETHANE 1.1.1-TRICHLOROETHANE 1.1.1-TRICHLOROETHANE		ما محمد محمد محمد محمد	<b>▽ ▽ ▽ ▽</b> ▽	⊽⊽⊽⊽	v v v v	⊽⊽⊽⊽⊽
1,1-DICHLOROETHYLENE 1,1-DICHLOROPROPENE 1,2,3-TRICHLOROBENZENE 1,2,3-TRICHLOROPROPANE			· □ □ □ □	' ▽ ▽ ▽ ▽	⊽⊽⊽⊽	▽ ▽ ▽ ▽
1,2,4-TRICHLOROBENZENE 1,2,4-TRIMETHYLBENZENE 1,2-DIBROMO-3-CHLOROPROPANE 1,2-DIBROMOETHANE 1,2-DIBROMOETHANE		2.5	△	∆	∇ ∇ <del>0</del> ∇ ∇	2
1,2-DICHLOROETHANE 1,2-DICHLOROPROPANE 1,3,5-TRIMETHYLBENZENE 1,3-DICHLOROBENZENE			7 🗸 🗸 🗸 🗸	7 7 7 7 7	7 ⊽ ⊽ ⊽ ⊽	7
1,3-DICHLOROPROPANE 1,4-DICHLOROBENZENE 2,2-DICHLOROPROPANE 2-BUTANONE 2-CHLOROTOLUENE		2-9	⊅	⊽⊽⊽∜⊽∜	⊽⊽⊽₹⊽₹	⊽⊽⊽∜⊽∜
A-HEXANONE 4-CHLOROTOLUENE 4-METHYL-2-PENTANONE ACETONE BENZENE BROMOBENZENE BROMODICHLOROMETHANE BROMOMETHANE BROMOMETHANE		2-22	5	8	;	67
CARBON DISULFIDE		_	⊽	⊽	⊽	⊽

RACHLORIDE         1         <	1		Sample Type: Location ID: Sample Date:	Reporting (a) Limit	Normal USGS-14 7/17/2005	Normal USGS-K4 7/17/2005	Normal USGS-M4 7/17/2005	Normal USGS-P4 7/14/2005
### A	CILOROGENEZINE CILOROGENEZINE CILOROGENEZINE CILOROGENEZINE CILOROGENEZINE CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CILOROCORMA CIL	CARBON TETRACHLORIDE		-	⊽	⊽	⊽	⊽
### Company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the co	CHICKODIRKNOWETHANE	CHLOROBENZENE			⊽	⊽	⊽	⊽
Here we have a second control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the	CHILORODIRRANOMETHANE CHILORODIRRANOMOMETHANE CHILORODIRRANOMOMETHANE CHILORODIRRANOMETHANE CHILORODIRRANOMETH	CHLOROBROMOMETHANE			⊽	⊽	⊽	⊽
	CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICACOCITIANE CHICAC	CHLORODIBROMOMETHANE		_	⊽	⊽	⊽	⊽
1	CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CHLOMOMETHANE CH	CHLOROETHANE		_	⊽ '	▽ '	⊽ ;	⊽ '
### Company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the company of the co	CSL-12-DICHIOROPRITIANE CISL-12-DICHIOROPROPENE CISC-12-DICHIOROPROPENE CISC-1	CHLOROFORM			<b>∵</b> ;	⊽ :	0.13 JB	⊽ :
	CLST-1, 100 (100 PROPER)	CHLOROME/HANE		- 30	0.22 JQ	⊽ ₹	⊽ <b>č</b>	⊽ ĕ
Here is a second control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the cont	DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEFENDENCE   DEF	CIS-1,2-DICHLOROETHENE		C.0 -	G 7	<u>}</u> 7	5	9 7
60	PUCHIO ROOMETHANE	CIS-1,3-DICREDROFFOFENE DIDPOMOMETHANE			7 ⊽	7 7	7 7	7 0
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	HEXACHIOROPICE	DICHI ORODEI I IOROMETHANE			7 ▽	7 ▽	<b>∀</b>	- ▽
1	State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   Stat	ETHYLBENZENE		-	. △	. △	' ▽	⊽
1	MARTHYLENCENE	HEXACHLOROBUTADIENE		-	⊽	⊽	⊽	⊽
	M. A. P. M. L. P. M. A. M.	ISOPROPYLBENZENE			⊽	⊽	⊽	⊽
8.7 1	METHAL INTERNETIVE FIREM   1	M & P-XYLENES		••••	⊽ '	▽ '	⊽ :	0.26 JQ
	METHALEME	METHYL TERT-BUTYL ETHER		_	⊽ '	⊽ '	8.7	⊽ :
	New Part Machine	METHYLENE CHLORIDE			⊽ ₹	⊽ ₹	⊽ ₹	0.13 JB
1	ANA HT HALENE	N-BULLYLBENZENE N BBORN BENZENE			<i>7</i> 7	√ √	7 7	7 5
E	PARCHED REPORTED	NAPETHAL FUE			7 ▽	7 ▽	7 🔻	7 ▽
1	PASOPROPYLTOLUENE   1	O-XYLENE			- ▽	7 ▽	. △	0.12 JQ
1	SEC-BUTYLBENZENE	P-ISOPROPYLTOLUENE		_	⊽	⊽	⊽	V
1	SITY RENGE   1	SEC-BUTYLBENZENE		-	▽	⊽	⊽	⊽
1	TERT-BLTVI BENZENE	STYRENE		-	⊽	⊽	⊽	⊽ '
E	TRANSL1,2-DICHLOROETHENE	TERT-BUTYLBENZENE		<b>-</b> .	⊽ ₹	⊽ ₹	⊽ ₹	⊽ ₹
0.5 < <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	TRANSL-12-DICHLOROETHENE   0.5   40.5   40.5	I E I KACHLUKUE I HENE TOI I IRNE			7 7	03.50	7 \	- ×-
1	TRANS-13-DICHLOROPROPENE	TRANS-1 2-DICHLOROETHENE		0,5	\$ 5°	\$ 50 \$0.5	505	\$0.5
NE 1	TRICHLOROETHENE	TRANS-1,3-DICHLOROPROPENE		-	⊽	⊽	⊽	⊽
NE 1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <	TRICHLOROFLUOROMETHANE	TRICHLOROETHENE		-	⊽	⊽	⊽	0.19 JQ
	VINYL CHLORIDE  Surrogate - % recovery  1.2-DICHLOROETHANE-D4  4-BROMOFLUOROBENZENE  DIBROMOFLUOROBENZENE  DIBROMOFLUOROBENZENE  DIBROMOFLUOROBENZENE  Estimated; based on QC data  Estimated; based on QC data  Estimated; possibly biased high or false positive based on blank contamination  Estimated; possibly biased high or false positive based on blank contamination  Estimated; possibly biased high based upon QC data  Estimated; po	TRICHLOROFLUOROMETHANE		-	⊽	⊽	⊽	⊽
E 101 100 104  - 101 101 108  - 102 103  - 102 100  - 104	Surrogate - % recovery  1,2-DICHLOROETHANE-D4  4-BROMOFLUOROBENZENE  DIBROMOFLUOROMETHANE  TOLUENE-D8  Estimated, based on QC data  Estimated, possibly biased high or false positive based on blank contamination  Estimated, possibly buased high or false positive based on blank contamination  Estimated, possibly buased high or false positive based on blank contamination  Estimated, possibly buased high based upon QC data  Estimated, possibly buased high based upon QC data  Estimated, value is between reporting limit and detection limit and detection limit is imprecise  Underfected, Reported Detection Limit is imprecise  Reporting Irmits presented are the best that can be achieved under normal operating procedures with the method-required sample volume/sample weight extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample	VINYL CHLORIDE .		_	⊽	⊽	⊽	⊽
E 101 100 104 104 104 104 106 104 108 108 100 110 108 100 110 108 100 110 100 10	1.2-DICHLOROBETRANE-D4 4-BROMOFLUOROBENZENE DIBROMOFLUOROBENZENE DIBROMOFLUOROBENZENE - 101 101 102 102 102 102 102 102 102 102	Surribgate - % recovery						
E 101 101 108 - 102 102 110	4-BROMOFLUOROBENZENE – 101 101 101 101 101 101 101 101 101 1	1.2-DICHLOROETHANE-D4		ŧ	101	001	104	Ξ
- 102 802 110	DIBROMOFLUOROMETHANE – 102 102 102  TOLUENE-D8 – 98 99  TOLUENE-D8 – 99 99  Estimated; based on QC data Estimated; possibly biased high or false positive based on Dank contamination Estimated, possibly biased high based upon QC data Estimated, possibly biased high based upon QC data Estimated, basel is between reporting limit and detection limit Not Analyzed Unusable Undetected; Reported Detection Limit is imprecise Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample	4-BROMOFLUOROBENZENE		1	101	101	108	001
	Estimated, based on QC data  Estimated, possibly biased high or false positive based on QC data  Estimated, possibly biased high based upon QC data  Estimated, value is between reporting limit and detection limit  Not Analyzed  Unusable  Undetected, Reported Detection Limit is imprecise  Reporting limits presented are the best that can be achieved under  normal operating procedures with the method-required sample  volume extracted and analyzed. Sample reporting limits may vary  due to sample volume/sample weight extracted and/or sample	DIBROMOFILUOROMETHANE		I	102	<b>10</b> 2	91 2	109
	nder s vary	:5:						
ï	ıdor S Vary	Estimated; based on QC data						
	ndor S Vary	Estimated, possibly biased fight of taise positive based on blank contamination						
	ıder S Vary	Estimated, possibly biased high based upon QC data	æ					
Estimated; based on QC data Estimated; possibly biased high or false positive based on blank contamination Estimated, possibly biased high based upon QC	ıder : vary	Estimated, Value is between reporting limit						
Estimated; based on QC data Estimated; possibly biased high or false positive based on blank contamination Estimated, possibly biased high based upon QC Estimated, Value is between reporting limit	Not Analyzed Unusable Undetected; Reported Detection Limit is imprecise Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample							
Estimated; based on QC data Estimated; possibly biased high or false positive based on blank contamination Estimated, possibly biased high based upon QC Estimated, Value is between reporting limit and detection limit	ıder S Vary							
Estimated; based on QC data Estimated; possibly biased high or false positive based on blank contamination Estimated, possibly biased high based upon QC Estimated, Value is between reporting limit and detection limit Not Analyzed Innesola	Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample							
Estimated; based on QC data Estimated; possibly biased high or false positive based on blank contamination Estimated, possibly biased high based upon QC Estimated, Value is between reporting limit and detection limit Not Analyzed Unusable	ÁJEA	Denoting lumits presented are the best that can	chiestophinger					
Estimated; based on QC data Estimated; possibly biased high or false positive based on blank contamination Estimated, possibly biased high based upon QC Estimated, Value is between reporting limit and detection limit Not Analyzed Unusable Undetected; Reported Detection Limit is imprec	vary	neputing titules presented are the text that call be at normal operating procedures with the method-require	cineved under red sample					
Estimated; based on QC data Estimated; possibly biased high or false positive based on blank contamination Estimated, possibly biased high based upon QC Estimated, Value is between reporting limit and detection limit Not Analyzed Unusable Undetected; Reported Detection Limit is imprec		volume extracted and analyzed. Sample reporting lit	mits may vary					
Estimated; based on QC data Estimated; possibly biased high or false positive based on blank contamination Estimated, possibly based upon QC data Estimated, possibly based high based upon QC data Estimated, value is between reporting limit and detection limit Most Analyzed Unusable Undetected; Reported Detection Limit is imprecise Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary		due to sample volume/sample weight extracted and/c	or sample				PREPARED/DATE	RMB 9/15/05

TABLE B-2  DATA SUMMARY TABLE FOR GROUNDWATER  OU 6 - LOWER WATER BEARING UNIT  BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005  Defense Supply Center Richmond  Richmond, Virginia
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	Sample Type Location ID: Sample Date:	Reporting (a)	Normal AEHA-18B 7/12/2005	Normal AEHA-21B 7/13/2005	Normal AEHA-23B 7/14/2005	Normal AEHA-24B 7/12/2005	Normal AEHA-25B 7/12/2005	Duplicate AEHA-25B 7/12/2005	Nоrmal AEHA-26В 7/13/2005	Normal AEHA-27B 7/15/2005	Normal AEHA-28B 7/14/2005	Normal AEHA-30B 7/14/2005	Duplicate AEHA-30B 7/14/2005
FIELD PARAMETER: Dissolved Oxygen - EPA 360.1 mg/L DISSOLVED OXYGEN		0.1	9.0	<u>4.</u>	£1	0.4	0.4	6.4	0.3	3.2	0.5	0.4	0.4
Ferrous Iron - A3500D mg/L FERROUS IRON		0.1	0.2	0.2	10	<0.1	0.7	0.7	-	0>		3.6	3.6
Oxidation Reduction Potential - A2580A mV OXIDATION REDUCTION POTENTIAL	ᆁ	t	34	-36	-39	486	23	23	-134	104	120	101	198
<b>pH - <u>EPA 150.1 pH Units</u></b> pH		1	5 8 7	5.52	6 03	3.69	5.63	5.63	7.25	7.05	5.48	5.3	5.3
Specific Conductance - EPA 120.1 mS/cm SPECIFIC CONDUCTANCE		0.001	0.082	0.078	0.101	0.108	0.114	0.114	0.512	0 224	0.131	0.291	0.114
<u>Temperature - EPA 170.1 deg. C</u> TEMPERATURE		1	19.8	21.4	19.9	24 8	22.9	22.9	20 6	23.3	204	20.7	20.7
Turbidity - EPA 180.1 NTU TURBIDITY		-	S	⊽	m	-	⊽	⊽	2	▽	7		-
FIXED BASE LABORATORY ANALYSIS: Anions - MCAWW 300.0A mg/L CHLORIDE NITRATE AS N SULFATE AS SO4	ø.	- 0 1.0	1.6 1.65 104	22 0.05 JQ 9.8	. 2.5 008 JQ	23.8 0.26 2.1	7.4 <0.1 12.2	7.5 <0.1 [2.1	1 JQ 027 0.3	1.9 0.26 11.6	6.4 0 04 JQ 13 8	66.5 <0.1 7.5	67 9 <0.1 7.2
Dissolved Gases - RSK SOP-175 ug/L. CARBON DIOXIDE ETHANE ETHENE METHANE		1000 0.5 1.5 0.5	21600 J <0.5 <1.5 10	47200 · <0.5 <1.5 <0.5	55300 <0.5 <1.5 <0.5	196000 J 67.9 5.1.5 98	40100 J <0.5 <1 5 4 4	42800 J <0 5 <1.5 3.7	8570 <0.5 <1.5 1.3	14100 <0.5 <1.5 4.2	59000 <0.5 <1.5 0.49 JQ	191000 Or 96.0 U 990 130	182000 1 8 J 0.86 JQ 120
Hydrogen by Microseeps - AM20GAX nM HYDROGEN		-	Ξ	1.2	ðr -	17	1.6	1.5	1.8	ū	40	1.2	1.2
Metals - SW846 6010 (Total) mg/L ALUMINUM BARIUM CADMIUM CALCIUM CALCIUM CABALT COPPER IRON MAGNESIUM MAGNESIUM MACKEL POTASSIUM SILVER SODIUM VANADIUM ZINC		0.06 0.025 0.005 0.005 0.05 0.01 0.01 0.02 0.005 0.015 0.015 0.01 0.01	0 0448 JQ 0.0242 JQ <0.005 0.0028 JQ 10 <0.01 <0.015 0.0092 JB 0.0093 JB <0.018 <0.018 <0.018 <0.018 3.29 0.0022 JB 0.0021 JB 0.0022 JB	<ul> <li>40.06</li> <li>40.067</li> <li>40.005</li> <li>40.005</li> <li>40.005</li> <li>40.015</li> <li>40.015</li> <li>40.015</li> <li>40.015</li> <li>40.015</li> <li>40.005</li> <li>40.005</li> <li>40.005</li> <li>40.001</li> /ul>	0.0142 JQ 0.0242 JQ <0.005 <0.005 8.48 <0.015 <0.015 0.0651 3.97 0.0136 <0.015 <0.015 <4.51 <4.77 <0.0112 JQ	0.0646 0.033 <0.005 <0.005 1.55 <0.01 <0.015 0.0496 0.222 1.14 0.133 <0.015 <0.015 <0.017 1.88 <0.011 15.9 <0.011	<ul> <li>◆0.06</li> <li>0.028 JQ</li> <li>◆0.005</li> <li>◆0.005</li> <li>\$32</li> <li>◆0.015</li> <li>•0.0022 JB</li> <li>•0.0022 JB</li> <li>•0.663</li> <li>9.06334</li> <li>♦0.015</li> <li>♦0.015</li> <li>♦0.015</li> <li>♦0.01</li> <li>•0.02</li> <li>•0.03</li> <li>•0.01</li> <li>•0.02</li> <li>•0.03</li> <li>•0.04</li> <li>•0.05</li> <li>•0.05</li> <li>•0.07</li> <li>•0.01</li> <li>•0.02</li> <li>•0.03</li> <li>•0.04</li> <li>•0.05</li> <li>•0.06</li> <li>•0.07</li> <li>•0.07</li> <li>•0.08</li> <li>•0.09</li> <li>•0.09</li> <li>•0.00</li> <l< td=""><td><ul> <li>&lt;0.06</li> <li>0.023 JQ</li> <li>&lt;0.005</li> <li>&lt;0.005</li> <li>&lt;0.005</li> <li>&lt;0.015</li> <li>&lt;0.015</li> <li>&lt;0.0022 JB</li> <li>&lt;0.0072 JB</li> </ul></td><td>0.0489 JQ 0.0778 &lt;0.005 &lt;0.005 17 &lt;0.015 &lt;0.015 &lt;0.011 1.53 11 0.0635 &lt;0.02 8.31 &lt;0.015 &lt;0.016 0.0616 0.0616 0.0616 0.0616</td><td>0.0335 JQ 0.03 0.03 0.005 0.005 39 5 0.0015 0.0029 JB 0.031 JQ 1.33 0.0077 0.015 0.015 0.02 10.2 0.02 10.2 0.01 4.97</td><td><ul> <li>40.06</li> <li>0.0293</li> <li>40.005</li> <li>61.18</li> <li>6.01</li> <li>40.01</li> <li>60.109</li> <li>3.54</li> <li>60.015</li> <li>60.03</li> <li>60.02</li> <li>3.54</li> <li>60.03</li> <li>60.01</li> <li>70.02</li> <li>70.01</li> <li>14.7</li> <li>60.01</li> <li>60.01</li> <li>70.02</li> <li>70.03</li> &lt;</ul></td><td>00402 JQ 0078 &lt;0005 &lt;0005 20.5 &lt;001 &lt;0.01 7.71 10.7 0.236 00039 JQ &lt;0.02 8.08 &lt;0.01 10.2 &lt;0.01</td><td>0.0405 JQ 0.0786 0.0012 JQ &lt;0.005 20.6 &lt;0.015 &lt;0.015 &lt;0.015 &lt;0.015 &lt;0.015 &lt;0.015 &lt;0.016 10.4 &lt;0.0188 JQ</td></l<></ul>	<ul> <li>&lt;0.06</li> <li>0.023 JQ</li> <li>&lt;0.005</li> <li>&lt;0.005</li> <li>&lt;0.005</li> <li>&lt;0.015</li> <li>&lt;0.015</li> <li>&lt;0.0022 JB</li> <li>&lt;0.0072 JB</li> </ul>	0.0489 JQ 0.0778 <0.005 <0.005 17 <0.015 <0.015 <0.011 1.53 11 0.0635 <0.02 8.31 <0.015 <0.016 0.0616 0.0616 0.0616 0.0616	0.0335 JQ 0.03 0.03 0.005 0.005 39 5 0.0015 0.0029 JB 0.031 JQ 1.33 0.0077 0.015 0.015 0.02 10.2 0.02 10.2 0.01 4.97	<ul> <li>40.06</li> <li>0.0293</li> <li>40.005</li> <li>61.18</li> <li>6.01</li> <li>40.01</li> <li>60.109</li> <li>3.54</li> <li>60.015</li> <li>60.03</li> <li>60.02</li> <li>3.54</li> <li>60.03</li> <li>60.01</li> <li>70.02</li> <li>70.01</li> <li>14.7</li> <li>60.01</li> <li>60.01</li> <li>70.02</li> <li>70.03</li> &lt;</ul>	00402 JQ 0078 <0005 <0005 20.5 <001 <0.01 7.71 10.7 0.236 00039 JQ <0.02 8.08 <0.01 10.2 <0.01	0.0405 JQ 0.0786 0.0012 JQ <0.005 20.6 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.016 10.4 <0.0188 JQ

<b>B</b> 2	
FABLE	
Z	

	Metals - SW846 6020 (Fotal) mg/L ANTIMONY ARSENIC LEAD SELENIUM THALLIUM	Mergery - SW846 7471 (Total) mg/L MERCURY	Total Alkalinity - MCAWW 310.1 mg/L. ALKALINITY, TOTAL (AS CACO3)	Total Organic Carbon - SW846 9060 mg/L TOTAL ORGANIC CARBON	Total Sulfide - MCAWW 376.1 mg/L SULFIDE	Volatile Fatty Acids - DI 552 mg/L ACETIC ACID DITA AND CACID	BUTANUIC ACID LACTIC ACID	PROPIONIC ACID PYRUVIC ACID	Volatile Organic Compounds - SW846 8260 ug/L. 1,1,1,2-TETRACHLOROETHANE 1 1 LTRICHI ORGETHANE	1,1,2,2-TETRACHLOROETHANE	1,1,2-TRICHLOROETHANE	I, I-DICHLOROETHANE 1, I-DICHLOROETHYLENE	1,1-DICHLOROPROPENE	1,2,3-1 RICHLOROBENZENE 1,2,3-TRICHLOROPROPANE	1,2,4-TRICHLOROBENZENE	1,2,4-1KIMETHYLBENZENE 1,2-DIBROMO-3-CHLOROPROPANE	,2-DIBROMOETHANE	I,2-DICHLOROBENZENE I,2-DICHI,OROETHANE	1,2-DICHLOROPROPANE	1,3,5-1KIME (HYCBENZENE 1,3-DICHLOROBENZENE	1,3-DICHLOROPROPANE	1,4-DICHLOROBENZENE	2-BUTANONE	2-CHLOROTOLUENE	2-HEANNONE 4-CHLOROTOLUENE	4-METHYL-2-PENTANONE	ACEIONE BENZENE	BROMOBENZENE	BROMODICHLOROMETHANE
Sample Type: Location ID. Sample Date:									E/L																				
Reporting (a) Limt	0.0001 0.0005 0.0005 0.0005 0.0001	0.0003	0	•••	2	- 6	7 7	1 0 5		<b>-</b>	<b></b>		_	~ -	_	- 2	] -	·		· <b>-</b> -		<b>-</b> ,	- 01	- ;	- 1	01	2 -	-	_
Normal AEHA-18B 7/12/2005	0.00104 0.00107 JQ 0.0043 JQ <0.005	<0 0003	51	5.1	Q	¥ ž	Y Y X	N N A N	⊽ 5	⊽ ⊽	⊽	⊽⊽	⊽	⊽⊽	. △	⊽ 'ζ	; ⊽	⊽⊽	- ₽	⊽ ⊽	7 ▽	⊽ :	⊽ <del>0</del>	\ ₹	<b>0</b> ⊽	<10	34 JB <1	⊽	⊽
Normal AEHA-21B 7/13/2005	6.001 6.005 6.005 6.005 6.001	Or 901000'0	21	03 ЛН	8	<b>V</b>	ς ς z	, V V V	⊽ ;	⊽ ⊽	. △	⊽⊽	. △	⊽⊽	. △	⊽ ζ	ç ⊽	⊽ ₹	7 🗸	⊽ ₹	7 ▽	⊽ '	⊽ 🕏	; △ ;	<b>6</b> ⊅	0l> :	31 JB <1	. △	⊽
Normal AEHA-23B 7/14/2005	0.00007 JB 0.0008 0.00016 JQ <0.0005	0 000134 JQ	35	0.5 JQ	\$	NA	K K Z	Y V	⊽ :	⊽ ⊽	₹	⊽⊽	. △	⊽⊽	- ▽	⊽ ζ	°7, ▽	⊽ ₹	7 ▽	⊽ ₹	7 ⊽	₹ '	⊽ 0√	3 ₹	0 ₹0	ol>	16 JB	. △	⊽
AEHA-24B 7/12/2005	0.09 90.09 90.09 100.0>	OF 1510000	4 JQ	1 JH	Q	NA	Υ Υ Σ	N N	₹ '	⊽ ⊽	. △	0.22 JQ 0.34 JO		⊽ ⊽	<del>,</del> △	⊽ ζ	5 ₹	011 JQ	- ⊽	⊽ ₹	7 ⊽	1.3	⊽ 🕏	₹ ⊽	<del>0</del> ⊽	· 01>	2.7 JB 0.65 JO	<b>₹</b> ⊽	⊽
AEHA-25B 7/12/2005	100'0> 50'003 0 0038 100'0>	<0.0003	32	0 7 JH	ß	⊽	ζ Δ	. △ . △ . ○ . ○	▽ .	⊽⊽	. △	<1 033 10	₹ ▽	⊽⊽	- ▽	⊽ ξ	Ç. <b>▽</b>	⊽ ₹	7 ▽	⊽ ₹	7 ⊽	⊽	⊽ 🕏	<b>:</b> ▽	01 ▽	01>	2.8 JB	- ▽	⊽
Duplicate AEHA-25B 7/12/2005	0.0001 <0.0000 0.000017 0.00000 0.00000000000000	<0 0003	31	0.7 JH	4	Ϋ́	<b>∀</b> ₹ ₹	N N A	⊽ '	⊽⊽	7 ▽	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of</td <td>₹ ⊽</td> <td>⊽ ⊽</td> <td>7 ▽</td> <td>⊽ (</td> <td>\$<del>7</del>&gt;</td> <td>⊽ 5</td> <td>7 ⊽</td> <td>⊽ :</td> <td>⊽ ⊽</td> <td>" ▽</td> <td>⊽ Ş</td> <td>₹ ⊽</td> <td>9 ⊽</td> <td>. 01&gt;</td> <td>28 JB</td> <td>7 🌣</td> <td>⊽</td>	₹ ⊽	⊽ ⊽	7 ▽	⊽ (	\$ <del>7</del> >	⊽ 5	7 ⊽	⊽ :	⊽ ⊽	" ▽	⊽ Ş	₹ ⊽	9 ⊽	. 01>	28 JB	7 🌣	⊽
Nonnal AEHA-26B 7/13/2005	<0.001 <0.005 0.00099 JQ <0.005 0.001	0 00012 JQ	122	H 50	Q	NA	<b>₹</b> 2	X X X	⊽ :	⊽ ⊽	7 ▽	⊽⊽	<del>,</del> △	⊽ ⊽	<del>7</del> ⊽	⊽ (	\$ ⊽	⊽ ₹	7 ▽	⊽ 1	⊽ ⊽	. △	⊽ 5	₹ ⊽	<del>0</del> ⊽	. 05	2.6 JB	7 ▽	7
Normal AEHA-27B 7/15/2005	0.00457 0.00103 0.00026 JQ 0.00062 <0.0001	<0.0003	101	4.8	¢.	NA	<b>₹</b> ₹ ₹	N A A	⊽	▼ ⊽	7 ⊽	⊽⊽	- ⊽	~ ⊽ ⊽	7 7	⊽ ₹	<del></del>	⊽ ₹	<del></del>	⊽ :	▽ ▽	- ▽	⊽ 5			, OI>	26 JB	7 🗸	<u> </u>
Normal AEHA-28B 7/14/2005	<pre>&lt;0 00013 0 00003 0 00003 0 00003 0 000005 100000</pre>	Or 291000 0	34	02 JQ	8	N.	₹ZZ	N N	⊽	⊽⊽	7 ⊽	⊽ ⊽	- ▽	⊽ ₹	7 ⊽	⊽ ₹	<b>?</b> ∇	⊽ ₹	7 ⊽	⊽ :	⊽ ⊽	· ⊽	⊽ 🕏	} ⊽	<del>0</del> ⊽	- 01>	2.6 JB	7 ₹	7
Normal AEHA-30B 7/14/2005	0.00004 JB 0.00015 0.00015 0.00197	0.000121 JQ	18 J	24 J	8	⊽	۷ ۵		01>	9 ₹	2 <del>0</del>	3.1 JQ 6.4 IO	01>	01	e)	05	45 40	2 30	01> 01>	<10	0 €	9.9 JQ	0 SO	<u>8</u> 0! >	00. √100	90. 	00T>	01>	27
Duplicate AEHA-30B 7/14/2005	0.00004 JB 0.00086 0.00017 JQ 0.00207 <0.0001	<0 0003	14 J	9.0	4	NA	A Z	X X	⊽	⊽ 7	). Ot 8.0	3.6	₹ ∇	⊽ ₹	7 7	⊽ \$	3 ₽	3.5 J	8.7 ▷	▽ ;	0.49 _ 	· =	⊽ ₹		<del>\$</del> ₹	, 0\$	26 10	λ 	. △

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - LOWER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type:		Normal	Normal	Normal	Normal	Normal	Duplicate	Normal	Normai	Normal	Normal	Duplicate
	Location ID. Sample Date:	Reporting (a) Limit	AEHA-18B 7/12/2005	AEHA-21B 7/13/2005	AEHA-23B 7/14/2005	AEHA-24B 7/12/2005	AEHA-25B 7/12/2005	AEHA-25B 7/12/2005	AEHA-26B 7/13/2005	AEHA-27B 7/15/2005	AEHA-28B 7/14/2005	AEHA-30B 7/14/2005	AEHA-30B 7/14/2005
BROMOMETHANE		-	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	0l>	⊽
CARBON DISULFIDE			⊽	∀	. △	. △	. △	. △	. △	. ∇	' ▽	0I>	⊽
CARBON TETRACHLORIDE		_	⊽	⊽	. △	√ ⊽	√ ⊽	. △	. △	. △	. △	01>	⊽
CHLOROBENZENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	013 JO	▽	77	26
CHLOROBROMOMETHANE		<b>18-41</b>	⊽	⊽	⊽	⊽	. △	⊽	∵ ⊽	<b>√</b>	' ▽	0 >	⊽
CHLORODIBROMOMETHANE			⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	~	01>	⊽
CHLOROETHANE		_	⊽	⊽	⊽	. △	. △	∵ ⊽	. △	∵ ⊽	. △	<10	⊽
CHLOROFORM		_	⊽	⊽	⊽	1.6	▽	. △	⊽	. △	∀	<10	⊽
CHLOROMETHANE		-	⊽	⊽	⊽	⊽	. △	∵ ⊽	. △	√ √	√	0 >	⊽
CIS-1,2-DICHLOROETHENE		0.5	<0.5	<05	7	160	28	27	<0.5	9.2	<0.5	1100	1100
CIS-1,3-DICHLOROPROPENE			⊽	⊽	⊽	⊽	⊽	⊽	⊽	₹⊽	. ∠	0l>	⊽
DIBROMOMETHANE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽'	0 >	⊽
DICHLORODIFLUOROMETHANE		_	⊽	⊽	⊽	0.54 30	⊽	⊽	⊽	⊽	⊽	5.5 JO	6.7
ETHYLBENZENE			⊽	⊽	⊽	, ▽	⊽	⊽	⊽	⊽	⊽	, 0l>	⊽
HEXACHLOROBUTADIENE			⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	oI>	⊽
ISOPROPYLBENZENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	<10	⊽
M & P-XYLENES		_	⊽	⊽	⊽	⊽	⊽	₩	⊽	⊽'	⊽	ol>	⊽
METHYL TERT-BUTYL ETHER			⊽	⊽	⊽	3.2	⊽	⊽	⊽	⊽	⊽	oI>	⊽
METHYLENE CHLORIDE			⊽	⊽	0.094 JB	⊽	⊽	⊽	⊽	⊽	⊽	<10	0 095 JB
N-BULYLBENZENE			⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	0 <b>!</b> >	⊽
N-FROFY LBENZENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	oI>	⊽
NAPHI HALENE O XXI ENF			⊽ '	⊽ .	⊽ `	⊽ '	⊽	⊽	⊽	. ▽	⊽	o!>	⊽ :
O-AILENE RECORDORA TOLLICAE		<b></b> .	▽ .	⊽ '	⊽ '	⊽	⊽	⊽	⊽	⊽	⊽	ot>	Of 81.0
r-isofrof i Lioloene Sec birtyi denzene			⊽ ;	⊽ :	⊽ ¹	⊽ :	▽ .	▽ .	⊽ '	▽ '	⊽ '	o!>	⊽ .
SEC-BOI I EBENZENE STVRENE		<b>-</b> -	₹ ₹	⊽ ₹	⊽ ₹	⊽ ₹	⊽ :	⊽ ¹	⊽ 1	-	⊽ :	00> 1	⊽ :
TERT, RITTVI RENZENE			7 7	⊽ ₹	<b>⊽</b> ₹	⊽ ₹	⊽ ፣	⊽ ፣	⊽ ₹	⊽ ¹	▽ ¹	0 <del> </del> \$	<b>⊽</b> ₹
TETRACHI OROETHENE		<b>-</b>	7 7	7 7	⊽ ₹	۶ ۲			⊽ √	~	⊽ ₹	0 \ <10	- F
TOLUENE			- ▽	7 ⊽	7 ▽	4 ⊽	<b>₹</b> ₹	<b>?</b> ⊽	7 ▽		7 ⊽	01>	Q 72 €
TRANS-1,2-DICHLOROETHENE		0.5	<0.5	€0.5	\$0.5	٠ ــــ	Of 910	OF 910	0.5	<0.5	\$ 0>	2 JO	2.4
TRANS-1,3-DICHLOROPROPENE		_	⊽	⊽	⊽	⊽	, ∀	<b>√</b>	₹	⊽	₹	0    -	i⊽
TRICHLOROETHENE		-	⊽	⊽	1.2	190	091	140	▽	8.2	⊽	1200	1500
TRICHLOROFLUOROMETHANE			⊽	⊽	⊽	⊽	~	⊽	⊽	~	⊽	01>	⊽
VINYL CHLORIDE			⊽	₹	⊽	8.2	2.3	2.2	⊽	0.2 JQ	⊽	1.1	93
Surrogate - % recovery										~			
1,2-DICHLOROETHANE-D4		ı	107	011	001	109	102	2	901	103	108	102	102
4-BROMOFLUOROBENZENE		ı	<u> 1</u>	103	%	102	8	8	101	101	901	112	101
DIBROMOFLUOROMETHANE		1	103	107	86	104	101	102	104	102	<u>1</u> 0	109	101
IOLUEINE-Do		ı	ž	Š	76	5	S	á	8	6	2	Č	S

Notes: J JB

Estimated; based on QC data
Estimated; possibly biased high or false
positive based on blank contamination
Estimated, possibly biased high based upon QC data
Estimated; Value is between reporting limit
and detection limit
Not Analyzed
Unusable
Undetected, Reported Detection Limit is imprecise
Reporting limits presented are the best that can be achieved under
normal operating procedures with the method-required sample
volume extracted and analyzed. Sample reporting limits may vary
due to sample volume/sample weight extracted and/or sample
dilutions.

	Sample Type. Location ID. Sample Date:	Reporting (a) Limtt	Normal AEHA-31B 7/18/2005	Normal AEHA-32B 7/18/2005	Normal AEHA-33B 7/14/2005	Normal DMW-9B 7/16/2005	Normal LAWMW-Q 7/15/2005	Normal USGS-B2 7/17/2005	Normal USGS-C2 7/15/2005	Normal USGS-F2 7/16/2005	Normal USGS-G3 7/17/2005	Normal USGS-H2 7/15/2005	Normal USGS-K2 7/16/2005
FIELD PARAMETER: <u>Dissolved Oxygen - EPA 360.1 mg/L</u> DISSOLVED OXYGEN		0.1	0.4	9.0	6.0		8.0	0.5	90	0.5	_	2.2	9.0
Ferrous Iron - A3500D mg/L FERROUS IRON		0.1	-	<u>8:1</u>	-	0.2	1.8	1.2	1.2	0.5	2	0.7	1.5
Oxidation Reduction Potential - A2580A mV OXIDATION REDUCTION POTENTIAL	≽l	1	861	7	24	330	26	961	208	208	143	8	-14
<u>pH - EPA 150.1 pH Units</u> pH		ſ	5.31	6.3	91.9	5.1	90 9	5.37	5.41	19:5	5.5	60.9	6 48
Specific Conductance : EPA 120.1 mS/cm SPECIFIC CONDUCTANCE		100:0	0.114	0.164	0.246	0.045	0 108	0 092	0.149	0.131	0.1	0 085	0.195
<u>Temperature - EPA 170.1 deg. C</u> TEMPERATURE		l	21.5	. 17.4	22.8	25.5	17.8	- <u>8</u>	81	61	18.6	1.84	16.3
Turbidiry - EPA 180.1 NTU TURBIDITY			~	×	7	⊽	Ξ	5	٣	9	<del>4</del>	'n	٣
FIXED BASE LABORATORY ANALYSIS: Anions - MCAWW 300.0A mg/L CHLORIDE NITRATE AS N SULFATE AS SO4	.22	<del>-</del>	11 <0.1 17.2	2.9 40.1 8.3	13.9 <0.1 22.2	4 0.08 JQ 2.8	2.8 <0.1 5.9	10.7 <0.1 17.8	3 <0.1 7.8	11 20 11	24 0.08 JQ 9.5	2 0.05 JQ 10 I	13.4 <0.1 22.2
Dissolved Gases - RSK SOP-175 pg/l. CARBON DIOXIDE ETHANE ETHENE METHANE		1000 0.5 1.5 0.5	88300 J <0.5 <1.5 3.6	45600 <b>J</b> <0.5 <1.5 <1.6	43200 <i>J</i> <0.5 <0.5 <1.5 <1.3	98400 J <0 5 <1 5 <0 5	57900 <0.5 <1.5 5.4	75600 J <0.5 <1.5 16	57800 <0.5 <1 5 1 9 JB	48500 J 40.5 41.5 14	67300 J <0.5 <1.5 1.7	31600 <0.5 <1.5 5.5	34300 J <0.5 <1.5 <0.5
Hydrogen by Microsceps - AM20GAX nM HYDROGEN		-	1.5	1.5	Ξ	43	3.4	Ξ	1.3	1.4	0.9 JQ	2	0 94 JQ
Metals - SW846 6010 (Total) mg/L ALUMINUM BARUUM CADMIUM CALCIUM CALCIUM COPER IRON MAGNESIUM MAGNESIUM MAGNESIUM MAGNESIUM MAGNESIUM MAGNESIUM MAGNESIUM MAGNESIUM SILVER SODIUM SILVER SODIUM ZINC		0.06 0.025 0.005 0.005 0.01 0.01 0.1 0.1 0.02 0.005 0.015 0.015 0.01	0.017 JQ 0.0269 <0.005 <0.005 7.04 <0.015 <0.015 0.055 3.63 0.03802 0.0038 JB <0.02 4.35 <0.01 6.82 <0.01	0.122 0.0624 <0.005 <0.005 11.9 <0.015 <0.015 <0.011 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015	40.06 0.0658 0.00658 0.0014 JQ <0.005 19.1 40.015 40.015 40.02 40.02 5.02 40.01 18.7 40.01	0 0416 JQ 0 0122 JQ <0 005 <0 005 2.47 <0.01 <0.015 0 0474 JQ 1.06 0.013 <0.013 <0.013 <0.013 2.33 <0.01 2.38 <0.01	<ul> <li>&lt;0.06</li> <li>&lt;0.024 JQ</li> <li>&lt;0.005</li> <li>&lt;0.005</li> <li>&lt;0.01</li> <li>&lt;0.02</li> <li>&lt;0.01</li> <li>&lt;0.02</li> <li>&lt;0.01</li> <li>&lt;0.01</li> <li>&lt;0.02</li> <li>&lt;0.01</li> <li>&lt;0.01</li> <li>&lt;0.02</li> <li>&lt;0.02</li> <li>&lt;0.03</li> <li>&lt;0.03&lt;</li></ul>	<ul> <li>&lt;0.06</li> <li>0.0302</li> <li>&lt;0.005</li> <li>&lt;0.005</li> <li>&lt;0.015</li> /ul>	0 0354 JQ 0.0204 JQ 0.0204 JQ 0.005 5 07 5 07 60.015 60.015 60.015 60.02 3.54 60.01 4.72 60.01 60.01 60.01 60.01	<ul> <li>&lt;0.06</li> <li>0.0335</li> <li>&lt;0.005</li> <li>9.85</li> <li>&lt;0.015</li> <li>&lt;0.0026</li> <li>JQ</li> <li>0.408</li> <li>44</li> <li>0.0737</li> <li>&lt;0.015</li> <li>&lt;0.017</li> <li>&lt;0.018</li> <li< td=""><td>00092 JQ 0,0092 JQ &lt;0,005 &lt;0,005 7,42 &lt;0,01 &lt;0,015 &lt;0,01 3,26 0,112 0,0061 JB &lt;0,02 3,27 &lt;0,02 3,27 &lt;0,02 3,27 &lt;0,01 5,58 &lt;0,01</td><td>0.243 0.0251 &lt;0.005 &lt;0.005 10.9 &lt;0.01 &lt;0.015 &lt;0.015 &lt;0.015 &lt;0.015 &lt;0.015 &lt;0.017 8.33 &lt;0.011 8.33</td><td><ul> <li>0.063</li> <li>0.0633</li> <li>0.0633</li> <li>0.005</li> <li>0.006</li> <li>0.001</li> <li>0.19</li> <li>0.001</li> <li>0.001</li> <li>0.001</li> <li>0.001</li> <li>0.001</li> <li>0.001</li> </ul></td></li<></ul>	00092 JQ 0,0092 JQ <0,005 <0,005 7,42 <0,01 <0,015 <0,01 3,26 0,112 0,0061 JB <0,02 3,27 <0,02 3,27 <0,02 3,27 <0,01 5,58 <0,01	0.243 0.0251 <0.005 <0.005 10.9 <0.01 <0.015 <0.015 <0.015 <0.015 <0.015 <0.017 8.33 <0.011 8.33	<ul> <li>0.063</li> <li>0.0633</li> <li>0.0633</li> <li>0.005</li> <li>0.006</li> <li>0.001</li> <li>0.19</li> <li>0.001</li> <li>0.001</li> <li>0.001</li> <li>0.001</li> <li>0.001</li> <li>0.001</li> </ul>

TABLE B-2	DATA SUMMARY TABLE FOR GROUNDWATER OU 6 - LOWER WATER BEARING UNIT BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Supply Center Richmond Richmond, Virginia
-----------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------

Normal USGS-K2 7/16/2005	<0.0001 0.00013 JQ 0.00007 JB 0.000172 JQ	<0 0003	89	<u>E</u> 1	Q	W N	NA	NA	N N N A		⊽	⊽ ₹	7 🗸	0.54 JQ	, ⊽	⊽ ₹	7 ▽	⊽	⊽ ;	2.5	7 🗸	⊽	▽ ¹	⊽ √	7 ▽	. △	⊽	0 > ;	⊽ ₹	} ▽	- 0 >	2.8 JB	▽ '	⊽ √	7 ▽
Normal USGS-H2 7/15/2005	0.00015 JB 0.00122 0.00051 0.00024 JQ <0.0001	<0 0003	22	76	\$	,	7 0	⊽	△.5		⊽	⊽ ₹	7 ▽	7 ▽	⊽	⊽ ₹	7 ₹	. △	⊽ ;	2 5	7 ⊽	⊽	⊽ .	⊽ √	7 ▽	. △	⊽	0l> ;	√ ₹	} ⊽	01>	3.6 JB	⊽ '	⊽ ₹	7 ⊽
Normal USGS-G3 7/172005	<0.0001 0.00065 0.00006 JB <0.0005	<0.0003	27	0.7 JQ	<2 W	7	7 7	⊽	- ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °		⊽	⊽ 7	7 ▽	7 ⊽	⊽	⊽ ₹	7 ▽	⊽	⊽ ;	2	7 ▽	⊽	⊽ .	⊽ 7	7 ▽	` ⊽	⊽	<u>0</u> ;	⊽ ₹		· 01>	3.18	⊽ '	⊽ 7	7 7
Normal USGS-F2 7/16/2005	0.00005 JB 0.00038 0.00012 JB <0.0005 <0.0001	<0.0003	25	9.1	6		7 0	⊽	~ ~ 0 <b>%</b>	-	⊽	⊽ 7	7 7	03 JQ	⊽	- ⊽ √	7 🗸	~	⊽ ;		7 🔻	⊽	⊽ '	⊽ 7	7 7	. △	⊽	0 0 √	7 5		<10	26 JB	▽ ′	⊽ 7	7 🔻
Normal USGS-C2 7/15/2005	0.00005 JB 0.00067 0.0005 <0.0005	<0.0003	27	Or 9:0	Q	7.7	Y Y	NA	A N A A		⊽	⊽ ₹	7 🗸	7 ▽	⊽	⊽ ₹	7 🗸	. △	⊽ ;	5 5	7 ▽	⊽	⊽ .	⊽ ₹	7 🗸	. △	⊽	<del>0</del> ₹	₹ ₹	} ▽	<10	3.9 JB	▽ '	⊽ ₹	7 ▽
Normal USGS-B2 7/172005	0.00005 JB 0.00018 JQ 0.00026 JQ <0.0005	<0.0003	=	-	w s	ž	Y X	NA	A X A X		⊽	⊽ ₹	7 ▽	- ▽	⊽	⊽ ₹	7 7	. △	⊽ 3	5 5	7 ▽	⊽	⊽ '	⊽ ₹	7 🗸	. △	⊽	0l> ¬	7 5	<del>?</del> ▽	· 01>	01>	▽ '	⊽ 7	7 ▽
Normal LAWMW-Q 7/15/2005	<0.0001 <0.0005 0.000025 JQ <0.0005 <0.0001	<0 0003	53	0.3 JQ	۵	ž	N A	NA	Z Z Z		⊽	⊽ 7	7 ▽	<i>;</i> ∠	⊽	⊽ ₹	7 ▽	⊽	⊽ ;	25.	7 ▽	⊽	⊽ .	⊽ 7	7 ▽	. △	⊽	0I> ;	₹ ₹	? ⊽	01>	31 18	⊽ .	⊽ ₹	7 ▽
Normal DMW-9B 7/16/2005	0.00004 JB 0.0001 0.00007 JB 0.00029 JQ	<0 0003	òr 6	0.3 ЈН	8	ž	¢ v	ΑN	A A X		⊽	⊽ ₹	7 ▽	₹ ▽	=	⊽ ₹	7 ▽	⊽	⊽ ;	\$ 5	7 ⊽	⊽	⊽ :	⊽ ₹	7 ▽	. △	⊽	⊖ ;	√ ₹	2, ⊽	0   ∨	2.2 JB	⊽	⊽ 7	7 ⊽
Normal AEHA-33B 7/14/2005	<ul> <li>40.0001</li> <li>40.0005</li> <li>0.00023 JQ</li> <li>0.00019 JQ</li> <li>0.00019</li> </ul>	9.000153 JQ	7.5	9.3 JQ	8	ž	X X	NA	Y Z		⊽	⊽ ₹	7 🗸	₹ ⊽	⊽	⊽ ₹	7 ⊽	⊽	⊽ ;		7 ▽	⊽	⊽ .	⊽ ₹	7 ⊽	. △	⊽	0⊳ ₹	⊽ ₹	27 ▽	. 01>	1.3 JB	⊽	⊽ ₹	7 ▽
Normal AEHA-32B 7/18/2005	0.00011 0.00028 JQ 0.00238 <0.0005	<0.9003	49	0.7 ЛН	Q	ž	X X	ΝΑ	A Z A		⊽	⊽ ₹	7 ⊽	7 ▽	⊽	⊽ ₹	7 ⊽	∀ ⊽	⊽ :	2 5	7 ▽	⊽	⊽ .	⊽ 7	7 ⊽	. △	⊽	° √	√ ₹	<del>?</del> ⊽	. 0i>	01>	▽ '	⊽ √	7 ⊽
Normal AEHA-31B 7/18/2005	0 00004 JQ 0 00018 JQ 0 00012 JQ 0.00023 JQ <0.00021	<0 0003	12	НГ 8.0	Ç	į	V V	NA	N N		⊽	⊽ 7	7 ⊽	₹ ▽	⊽ '	⊽ ₹	7 ▽	⊽	⊽ ;	\$ 5	7 🗸	⊽	⊽ '	⊽ ₹	7 🗸	' ▽	⊽	05 ₹	7 🗧		. 0 >	01>	⊽ '	⊽ ₹	7 ▽
Reporting (a) Limit	0.0001 0.0005 0.0005 0.0005 0.0001	0.0003	01		2	-	- 7	_	1 0.5		-			•	****	<b></b>	<u>.</u>	_	- ;	2.5	-	_				- 1	-	0 -	- 5	<u>:</u> –	. 01	01	<del>-</del> .		
Sample Type. Location ID: Samplé Date:										<b>5</b>	HE/L																								
	Metals - SW846 6020 (Total) mg/L ANTIMONY ARSENIC LEAD SELENIUM THALLIUM	<u>Mercury - SW846 7471 (Total) mg/L.</u> MERCURY	<u>Total Alkaliniry - MCAWW 310,1 mg/L</u> ALKALINITY, TOTAL (AS CACO3)	<u>Total Organic Carbon - SW846 9060 mg/L</u> TOTAL ORGANIC CARBON	Total Sulfide - MCAWW 376.1 mg/L SULFIDE	Volatile Fatty Acids - D1552 mg/L	BUTANOIC ACID	LACTIC ACID	PROPIONIC ACID PYRUVIC ACID	Volveile Omenia Community	VOISING OF SAND AND AND AND AND AND AND AND AND AND	1,1,1-TRICHLOROETHANE 1,1,2-TFTRACHIOROFTHANE	I.1.2-TRICHLOROETHANE	1,1-DICHLOROETHANE	1,1-DICHLOROETHYLENE	I,I-DICHLOROPROPENE	1,2,3-TRICHLOROPROPANE	1,2,4-TRICHLOROBENZENE	1,2,4-TRIMETHYLBENZENE	1,2-Dibromo-3-CHLOROFROPANE 1 2-DibromOFTHANE	1,2-DICHLOROBENZENE	1,2-DICHLOROETHANE	1,2-DICHLOROPROPANE	1,5,5-1 NUMET HY LBENZENE 13, DICHI OROBENZENE	1,3-DICHLOROPROPANE	1,4-DICHLOROBENZENE	2,2-DICHLOROPROPANE	2-BULANONE	2-HEXANONE	4-CHLOROTOLUENE	4-METHYL-2-PENTANONE	ACETONE	BENZENE	BROMOBENZENE BROMODICHI OROMETHANE	BROMOFORM

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - LOWER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	James 13 pc.		Roma	Northal	MOLITICAL	Normal	Nomia	Normal	ipilion	NOUTED	MOLINA		
	Location ID: Sample Date:	Reporting (a) Limit	AEHA-31B 7/18/2005	AEHA-32B 7/18/2005	AEHA-33B 7/14/2005	DMW-9B 7/16/2005	LAWMW-Q 7/15/2005	USGS-B2 7/17/2005	USGS-C2 7/15/2005	USGS-F2 7/16/2005	USGS-G3 7/17/2005	USGS-H2 7/15/2005	USGS-K2 7/16/2005
BROMOMETHANE			⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽
CARBON DISULFIDE		_	. △	- ⊽	. ^	. ^	' ⊽	. △	. △	-  -	⊽	⊽	⊽
CARBON TETRACHLORIDE		_	⊽	⊽	- ▽	. 4	. 4	. ≏	. △	- ▽	⊽	⊽	⊽
CHLOROBENZENE		. –	₹₩	₹	⊽	7 ▽	⊽⊽	. △	₹ ♥	- ▽	. △	. △	∀ ⊽
CHLOROBROMOMETHANE			▽	' ⊽	. △	. △	. △	. △	∵ ⊽	. △	⊽	⊽	⊽
CHLORODIBROMOMETHANE		-	⊽	∵ ⊽	. ^	. △	. △	∵ ⊽	' ▽	- ▽	⊽	▽	⊽
CHLOROETHANE		_	. △	. △	. ^	. △	. ^	. △	∵ ⊽		~	⊽	⊽
CHLOROFORM		_	. △	- ▽	- ▽	- ▽	- ▽	. △	. △	- ▽	. △	. △	~
CHLOROMETHANE		. –	. △	- ▽	₹ ▽	- ▽	07 90		- ⊽	- ▽	0.41 10	. △	▽
CIS-1,2-DICHLOROETHENE		0.5	<0.5	. 0>		205	¥ 5 ♥	. 05	0.78	\$ <del>0</del> \$	7	2.5	<0.5
CIS-1,3-DICHLOROPROPENE			₹	) <del>-</del>	} ⊽	} ▽	} ⊽	3 ⊽	₹	-	÷⊽	⊽	⊽
DIBROMOMETHANE			- ▽	. △	- ⊽	. △	- ▽	· 🌣	∵ ⊽	- ▽	∵ ▽	⊽	⊽
DICHLORODIFLUOROMETHANE			- ▽	. △	. △	. △	. △	. ^	. △	- ▽	' ▽	⊽	⊽
ETHYLBENZENE		_	. △	. △	- ⊽	. △	. △	. △	. △.	▽	. △	⊽	⊽
HEXACHLOROBUTADIENE			⊽	. △	' ⊽	. △	. △	. △	∵ ⊽	. △	. △	⊽	⊽
ISOPROPYLBENZENE		-	⊽	▽	. △	. △	√ ⊽	' ▽	∵ ⊽	. △	⊽	⊽	⊽
M & P-XYLENES		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	▽	⊽
METHYL TERT-BUTYL ETHER		_	~	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	▽	1.4
METHYLENE CHLORIDE		-	⊽	⊽	0 13 JB	⊽	0.097 JB	⊽	⊽	⊽	⊽	⊽	⊽
N-BUTYLBENZENE			⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽
N-PROPYLBENZENE		_	⊽	⊽	⊽	⊽	▽	⊽	⊽	⊽	⊽	⊽	⊽∶
NAPHTHALENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	₹,	⊽	⊽
O-XYLENE		-	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	. ▽	⊽
P-ISOPROPYI, TOI JUENE		_	⊽	⊽	⊽	⊽	⊽'		⊽	⊽	⊽	⊽	⊽
SEC-BUTYLBENZENE			⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽
STYKENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽ '
TERT-BUTYLBENZENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽
TETRACHLOROETHENE		_	0.23 JQ	₹	⊽	Of 890	⊽	⊽	0.12 JQ	⊽	⊽	⊽	⊽
TOLUENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽
TRANS-1, 2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<b>0</b> 5	<0.5	<0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE		wired.	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽
TRICHLOROETHENE		_	0.27 JQ	⊽	⊽	0 56 JQ	⊽	1.7	14	⊽	4.8	0.32 JQ	⊽
TRICHLOROFLUOROMETHANE		_	⊽	⊽	∀	⊽	⊽	⊽	⊽	▽	⊽	⊽	⊽
VINYL CHLORIDE			⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽
Surrogate - % recovery			į	,	;	;	į	;					
i,z-Dichtoroei Hane-Da		1	14	105	103	25	104	\$	60	103	105	011	<u>S</u>
4-BROMOFLUOROBENZENE		ı	<u>60</u>	801	901	<b>10</b>	86	102	101	100	<u>10</u>	\$	86
DIBKOMOFLUOKOMETHANE		i	Ξ	=	102	101	<u>10</u>	105	101	102	011	105	108
TOTOENE-D8			č	30	Ş	90	2	5	70		2		ď

Estimated; based on QC data
Estimated; possibly biased high or false
positive based on blank contamination
Estimated; possibly biased high based upon QC data
Estimated; Value is between reporting limit
and detection limit
Not Analyzed
Unusable
Undetected; Reported Detection Limit is imprecise
Reporting limits presented are the best that can be achieved under
normal operating procedures with the method-required sample
volume extracted and analyzed. Sample reporting limits may vary
due to sample volume/sample weight extracted and/or sample
dilutions

DATA SUMMARY TABLE FOR GROUNDWATER
OU 6 - LOWER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

•

.

	Sample Date:	Reporting (a) Limit	USGS-L2 7/17/2005	USGS-M2 7/17/2005	USGS-N1 7/15/2005	USGS-P2 7/14/2005
FIELD PARAMETER: Dissolved Oxygen - EPA 360.1 mg/L DISSOLVED OXYGEN		0.1	3.7	9.0	1.2	3.2
Ferrous Iron - A3500D mg/L FERROUS IRON		0.1	<b>-</b> 0∀	0.2	0.2	-0>
Oxidation Reduction Potential - A2580A mV OXIDATION REDUCTION POTENTIAL		ı	126	691	139	356
<u>pH - EPA 150.1 pH Units</u> pH		1	6.43	5 86	2 06	2 97
Specific Conductance - EPA 120.1 mS/cm SPECIFIC CONDUCTANCE		0.001	0.143	0.088	0.135	0.217
<u>Temperature - EPA 170.1 deg. C</u> TEMPERATURE		I	981	16.5	17.1	21.3
Turbidity - EPA 180.1 NTU TURBIDITY		-	⊽	⊽	m	2
FIXED BASE LABORATORY ANALYSIS: Anions - MCAWW 300.0A mg/L CHLORIDE NITRATE AS N SULFATE AS SO4		- 0.1	12.5 0.09 JQ 17.7	5.1 <0.1 11.2	4.5 <0.1 12.1	2 3 0 34 22.8
Dissolved Gases - RSK SOP-175 µg/L. CARBON DIOXIDE ETHANE ETHENE METHANE		1000 0.5 1.5 0.5	33900 J <0.5 <1.5 <0.5	70500 J <0.5 <1.5 21	44300 <0.5 <1.5 0.42 JB	24800 J <0.5 <0.5 <1.5 <1.5
Hydrogen by Microseeps - AM20GAX nM HYDROGEN		-	Ξ	Or 16:0	1.9	Or 56:0
<u>Metals - SW846 6010 (Total) mg/L</u> ALUMINUM		90:0	<0.06	<0.06	Or \$10'0	90.0>
BARIUM		0.025	0.0335	0.0211 JQ	0.0162 JQ	0.0262
BERYLLIUM		0.005	0000 0000 0000	6.00 8.00 8.00 8.00	\$0.00 \$0.00	\$ \$ \$
CALCIUM		0.5	14.1	6.86	6.26	20 3
CHROMIUM		10.0	<0.01	<0.01	<0.01	10:0>
COBALT		0.015	<0.015	<0.015	<0.015	<0.015
COPPER		10:0	000H	0.01	0.0038 JQ	0.0022 JQ 0.0517 JO
MAGNESIUM		0.2	7.87	3.8	3.07	98.9
MANGANESE		0.005	0.0525	0.0545	0 0433	0.0526
MOLYBDENUM		0.015	<b>©</b> .015	<0.015	<0.015	<0.015
DOTASHIM		70.0	20:02	3.73	3.02	20:02
SILVER		0.0	0.00201 0.00201	5.73 <001	2÷.c 10:0>	57.¢ 10:0>
SODIUM		0.5	8.6	77.7	13.8	119
VANADIUM		100	1000	.00	500	01 10000

Metals - SW846 6020 (Total) mg/L ANTIMONY ARSENIC LEAD SELENIUM THALLIUM Mercury - SW846 7471 (Total) mg/L						
Mercury - SW846 7471 (Total) mg/L MERCURY		0 0001 0 0005 0.0005 0.0005	0.00004 JB <0.0005 JB <0.0005 <0.0005 <0.0001	<pre>&lt;0 0001 &lt;0.00005 0.00005 0.00005 &lt;0.00005</pre>	40,000 p. 0.000 p. 0.	0.00007 JB 0.00011 JQ 0.00006 JB <0.0005
		0 0003	<0.0003	<0.0003	<0.0003	0 000112 JQ
Total Alkalinity - MCAWW 310.1 mg/L ALKALINITY, TOTAL (AS CACO3)		0.	84	29	35	7.7
Total Organic Carbon - SW846 9060 mg/L TOTAL ORGANIC CARBON		-	-	0.7 JQ	0.2 JQ	Òr 60
Total Sulfide - MCAWW 376.1 mg/L SULFIDE		2	2 u	⊅ ©	4	۵
Volatile Fatty Acids - D1552 mg/L ACETIC ACID BUTANOIC ACID LACTIC ACID PROPIONIC ACID PROPIONIC ACID PYRUVIC ACID		1 2 2 0 5 5 0 5 5 6 5 6 6 6 6 6 6 6 6 6 6 6 6	A A A A A	<b>&amp; &amp; &amp; &amp; &amp; &amp; &amp; &amp; &amp; &amp;</b>	N N N N N N N N N N N N N N N N N N N	\$ \$ \$ \$ \$ 2 2 2 2 2
Volatile Organic Compounds - SW846 8260 µg/L 1,1,1,2-TETRACHLOROETHANE 1,1,1-TRICHLOROETHANE	اد.		⊽⊽	⊽⊽	⊽⊽	⊽∇
1.1.2.2-TETRACHLOROETHANE			⊽⊽	⊽ ⊽	⊽ ⊽	⊽ ⊽
1,1-2-THICHLOROETHANE		<b>.</b>	2.6	7 ▽	<i>,</i> △	√ √
I, I-DICHLOROETHYLENE			⊽ :	⊽ ;	⊽ ₹	⊽ 7
I, I-DICHLOROPROPENE I 2 3-TRICHI OROBENZENE			⊽⊽	⊽⊽	⊽ ⊽	7 7
1.2,3-TRICHLOROPROPANE		· <del></del> ,	. △ .	∵ ⊽ .	' ▽ '	⊽ ;
1,2,4-TRICHLOROBENZENE 1,7,4-TRIMFTHYI RENZENE			⊽ ⊽	⊽ ⊽	⊽ ⊽	⊽ ⊽
1,2-DIBROMO-3-CHLOROPROPANE		2.5	4.5	<2.5	<2.5	<2.5
1,2-DIBROMOETHANE			⊽ 7	⊽ ₹	⊽ 7	⊽ ₹
1,Z-DICHLOROBENZENE 1 2-DICHI OROETHANE		<del>-</del>	7 ▽	7 ⊽	7 🗸	7 🗸
1,2-DICHLOROPROPANE		· <b>-</b>	' ▽	⊽	⊽	⊽
I,3,5-TRIMETHYLBENZENE		;	⊽ .	⊽ :	⊽⊤	⊽ ;
1,3-DICHLOROBENZENE		_ ,	⊽ ₹	⊽ ₹	⊽ ¬	⊽ ∜
1,3-DICHLOROPROPANE 14 DICHLOROBENZENE			⊽ ⊽	⊽ ⊽	⊽ ⊽	⊽ ⊽
2.2-DICHLOROPROPANE			7 ▽	7 ⊽	- ▽	. △
2-BUTANONE		10	<10	0I>	01>	ot>
2-CHLOROTOLUENE		<b>–</b> :	⊽ 5	⊽ 9	⊽ ;	⊽ ₹
2-HEXANONE		2 -	€ ₹	€ 7	€ √	€ 7
4-CHLOROLOENE 4-METHY1.2-PENTANONE		- 9	√ Ş	7 ₹	7 등	7 🕏
ACETONE		2 0	18 JB	2.8 JB	24 JB	3.5 JB
BENZENE		_	⊽	⊽	⊽	⊽
BROMOBENZENE		_	⊽	⊽	⊽	⊽
BROMODICHLOROMETHANE		<b>-</b> .	⊽ ₹	⊽ 7	⊽ 7	⊽ ₹

## DATA SUMMARY TABLE FOR GROUNDWATER OU 6 - LOWER WATER BEARING UNIT BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Supply Center Richmond Richmond, Virginia

	201		Normal	Normal	POINT	TO LINE
	Location ID Sample Date:	Reporting (a) Limit	USGS-1.2 7/17/2005	USGS-M2 7/17/2005	USGS-N1 7/15/2005	USGS-P2 7/14/2005
BROMOMETHANE		_	⊽	⊽	⊽	⊽
CARRON DIGIT FIDE		-	' ⊽	· <del>-</del>	∵ ⊽	. △
CARBON TETRACHLORIDE		• •	₹ ▽	- ▽	- ▽	. △
CHLOROBENZENE			√	- ▽	. △	. ₹
CHLOROBROMOMETHANE			- ▽	- ▽	- ▽	- ▽
CHLORODIBROMOMETHANE		. –	⊽	. △	. △	. △
CHLOROETHANE		_	. △	. △	∵ ⊽	. △
CHLOROFORM		_	⊽	~	. △	▽
CHLOROMETHANE			0.28 JQ	046 JO	⊽:	⊽
CIS-1,2-DICHLOROETHENE		0.5	<0.5	<b>∠0.5</b>	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE		-	⊽	⊽	⊽	⊽
DIBROMOMETHANE		_	⊽	⊽	⊽	⊽
DICHLORODIFLUOROMETHANE			⊽	⊽	⊽	⊽
ETHYLBENZENE		_	⊽	⊽	⊽	⊽
HEXACHLOROBUTADIENE		_	⊽	⊽	⊽	⊽
ISOPROPYLBENZENE		_	⊽	▽	⊽	⊽
M & P-XYLENES		_	⊽	⊽	⊽	▽
METHYL TERT-BUTYL ETHER			⊽	⊽	∀	⊽
METHYLENE CHLORIDE		_	⊽	~	⊽	0.1 JB
N-BUTYLBENZENE		-	⊽	⊽	⊽	⊽
N-PROPYLBENZENE		-	⊽	⊽	⊽	⊽
NAPHTHALENE		-	⊽	⊽	⊽	⊽
O-XYLENE		_	⊽	⊽	⊽	₹
P-ISOPROPY1,TOLUENE		_	⊽	⊽	⊽	⊽
SEC-BUTYLBENZENE		_	⊽	⊽	⊽	⊽
STYRENE		_	⊽	⊽	⊽	⊽
TERT-BUTYLBENZENE		_	⊽	▽	⊽	⊽
TETRACHLOROETHENE		-	⊽	⊽	⊽	⊽
TOLUENE			⊽	⊽	⊽	⊽
TRANS-1,2-DICHLOROETHENE		0.5	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE			⊽	⊽	⊽	⊽
TRICHLOROETHENE		-	⊽	⊽	⊽	⊽
TRICHLOROFLUOROMETHANE		-	⊽	⊽	⊽	⊽
VINYL CHLORIDE		_	⊽	⊽	⊽	⊽
Surrogate - % recovery						
1,2-DICHLOROETHANE-D4		:	86	108	108	113
4-BROMOFLUOROBENZENE		1	26	601	26	<u>\$</u>
DIBROMOFLUOROMETHANE		1	102	801	103	107
TOT LINE DS		ı	92	46	60	8

Estimated, based on QC data
Estimated, possibly biased high or false
positive based on blank contamination
Estimated; possibly biased high based upon QC data
Estimated; value is between reporting limit
and detection limit
Not Analyzed
Unusable
Unusable
Undetected; Reported Detection Limit is imprecise
Reporting limits presented are the best that can be achieved under
normal operating procedures with the method-required sample
volume extracted and analyzed. Sample reporting limits may vary
due to sample volume/sample weight extracted and/or sample
dilutions.

PREPARED/DATE: RMB 9/15/05 CHECKED/DATE: JAH 9/16/05

	Sample Type Location ID Sample Date	Reporting (a) Limit	Normal DMW-28E 7/14/2005	Normal USGS-BR2 7/15/2005	Duplicat USGS-BR 7/15/200
	,		·		
FIELD PARAMETER:					
Dissolved Oxygen - EPA 360.1 mg/L					
DISSOLVED OXYGEN		0 1	0 7	0 5	0.5
Ferrous Iron - A3500D mg/L					
FERROUS IRON		0.1	0.2	ı	i
FERROUS IKON		U, t	0.2	ı	1
Oxidation Reduction Potential - A2580A mV					
OXIDATION REDUCTION POTENTIAL			-184	51	51
pH - EPA 150.1 pH Units					
pH		_	7.96	8.58	8 58
-					
Specific Conductance - EPA 120,1 mS/cm					
SPECIFIC CONDUCTANCE		0.001	0.46	0 554	0.554
Temperature - EPA 170.1 deg, C				_	
TEMPERATURE			22.7	22.8	22.8
Turkidia. PD4 400 4 kyrsi					
<u>Turbidity - EPA 180.1 NTU</u> TURBIDITY		1	<1	2	2
LOWDINI		ı	~1	2	2
FIXED BASE LABORATORY ANALYSIS:					
Volatile Organic Compounds - SW846 8260	g/L				
1,1,1,2-TETRACHLOROETHANE		1	<1	<1	<1
1,1,1-TRICHLOROETHANE		1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE		1	<1	<1	<1
1,1,2-TRICHLOROETHANE		1	<1	<1	<1
1,1-DICHLOROETHANE		i	<1	<]	<1
1,1-DICHLOROETHYLENE		1	<1	<1	<1
1,1-DICHLOROPROPENE		1	<1	<1	</td
1,2,3-TRICHLOROBENZENE		1	<1	· <1	<1
1,2,3-TRICHLOROPROPANE		1	· <1	<1	<1
1,2,4-TRICHLOROBENZENE		1	<1	<1	<1
1,2,4-TRIMETHYLBENZENE		1	<1	0.13 JQ	0.13 JC
1,2-DIBROMO-3-CHLOROPROPANE		2.5	<2.5	<2.5	<25
1,2-DIBROMOETHANE		1	<1	<1	<1
1,2-DICHLOROBENZENE		1	<1	<1	<1
1,2-DICHLOROETHANE		1	<) <1	<1	<1
1,2-DICHLOROPROPANE 1,3,5-TRIMETHYLBENZENE		1	<1 <1	<1 <1	<1 <1
1,3-DICHLOROBENZENE		1	<1	<1 <1	<1
1,3-DICHLOROPROPANE		i	<1 <1	<1	<1
1,4-DICHLOROBENZENE		1	<1 <1	<1 <1	<li>&lt;1</li>
2,2-DICHLOROPROPANE		i	<1	<1	<1
2-BUTANONE		10	<10	<10	<10
2-CHLOROTOLUENE		ĩ	<1	<1	<1
2-HEXANONE		10	<10	<10	<10
4-CHLOROTOLUENE		1	<1	<1	<1
4-METHYL-2-PENTANONE		10	<10	<10	<10
ACETONE		10	2.5 JB	2.5 JB	3.1 JB
BENZENE		1	<1 '	<1	<1
BROMOBENZENE		1	<1	<1	<1
BROMODICHLOROMETHANE		1	<1	<1	<1
BROMOFORM		1	<1	<1	<i< td=""></i<>
BROMOMETHANE		1	<1	<1	<1
CARBON DISULFIDE		1	<1	<1	<1
CAPPONETED ACHI (10 HIE		1	<1	<1	<)
CARBON TETRACHLORIDE CHLOROBENZENE		1	<1	<1	<1

### DATA SUMMARY TABLE FOR GROUNDWATER OU 6 - BEDROCK WELLS BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Supply Center Richmond Richmond, Virginia

	Sample Type: Location ID Sample Date:	Reporting (a) Limit	Normal DMW-28E 7/14/2005	Normal USGS-BR2 7/15/2005	Duplicate USGS-BR2 7/15/2005
CHLORODIBROMOMETHANE		1	<1	<1	<1
CHLOROETHANE		1	<1	<1	<1
CHLOROFORM		1	<1	<1	<1
CHLOROMETHANE		1	<1	<1	<1
CIS-1,2-DICHLOROETHENE		0.5	< 0.5	< 0.5	<0.5
CIS-1,3-DICHLOROPROPENE		1	<1	<1	<1
DIBROMOMETHANE		1	<1	<1	<1
DICHLORODIFLUOROMETHANE		1	<1	<1	<1
ETHYLBENZENE		1	. <j< td=""><td>0.16 JQ</td><td>0 15 JQ</td></j<>	0.16 JQ	0 15 JQ
HEXACHLOROBUTADIENE		1 `	· <1	<1	<1
ISOPROPYLBENZENE		1	<1	<1	<1
M & P-XYLENES		1	<1	0.47 JQ	0.42 JQ
METHYL TERT-BUTYL ETHER		1	<1	<1 `	<1
METHYLENE CHLORIDE		1	<1	<1	0.11 JB
N-BUTYLBENZENE		1	<1	<1	<1
N-PROPYLBENZENE		1	<1	<1	<1
NAPHTHALENE		1	<1	<1	<1
O-XYLENE		1	<1	0.18 JQ	0.18 JQ
P-ISOPROPYLTOLUENE		1	<1	<i `<="" td=""><td><i `<="" td=""></i></td></i>	<i `<="" td=""></i>
SEC-BUTYLBENZENE		1	<1	<1	<1
STYRENE		1	<1	0.077 JQ	0 078 JC
TERT-BUTYLBENZENE		1	<1	<1	<1
TETRACHLOROETHENE		1	<1	<1	<i< td=""></i<>
TOLUENE		1	<1	4	4 2
TRANS-1,2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE		1	<1	<1	<1
TRICHLOROETHENE		1	<1	<1	<1
TRICHLOROFLUOROMETHANE		1	<1	· <1	<1
VINYL CHLORIDE		1	<1	<1	<1
Surrogate - % recovery					_
1,2-DICHLOROETHANE-D4	****	-	106	103	108
4-BROMOFLUOROBENZENE		-	95	94	96
DIBROMOFLUOROMETHANE		_	104	102	104
TOLUENE-D8		-	90	91	93

### Notes:

JB Estimated; possibly biased high or false positive based on blank contamination

JQ Estimated; Value is between reporting limit and detection limit

(a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

PREPARED/DATE: RMB 9/15/05 CHECKED/DATE: JAH 9/16/05

	Sample Type. Location ID: Sample Date:	Reporting (a) Limit	Normal AEHADG-10 7/20/2005	Duplicate AEHADG-10 7/20/2005	Normal DMW-13A 7/20/2005	Normal DMW-20A 7/20/2005	Normal DMW-22A 7/18/2005	Normal DMW-25A 7/18/2005	Normal DMW-26A 7/19/2005	Normal DMW-27A 7/18/2005	Normal DMW-33A 7/19/2005	Normal DMW-35A 7/20/2005	Normal MW112-2 7/18/2005	Normal MWFOS-1 7/18/2005	Normal MWFOS-3 7/18/2005
FIELD PARAMETER: <u>Dissolved Oxygen - EPA 360.1 mg/L</u> DISSOLVED OXYGEN		1.0	0.5	0.5	9'1	0.3	03	1.2	0.7	0.7	8 0	0.4	0.3	0.7	6.0
Ferrous Iron - A3500D mg/L. FERROUS IRON		0.1	76	7.6	2.1	[3	9.0	⊕	<b>∞</b> .	9.0	2.5	11.2	1.5	6.1	3.6
Oxidation Reduction Potential - A2580A mV OXIDATION REDUCTION POTENTIAL		1	237	237	. 315	321	14	304	26	134	89	231	251	487	229
pH - EPA 150.1 pH Units pH		I	4.18	4.18	4.16	4.27	5.74	5.97	4 69	4.35	5.49	4 78	4.61	3.9	4 28
Specific Conductance - EPA 120.1 mS/cm SPECIFIC CONDUCTANCE		0 00 0	0.293	0.293	0.212	0 132	0 239	041	0.58	0.149	0 164	0.139	0 133	1100	860 0
Temperature - EPA 170.1 deg. C TEMPERATURE		1	20.8	20.8	20 8	22 8	194	29.1	8'61	22.8	25.9	22.1	218	21.1	28.4
Tarbidiv - EPA 180.1 NTU TURBDITY		-	⊽	⊽	٣	⊽	⊽	15	m	M	⊽	⊽_	-	-	9
FIXED BASE LABORATORY ANALYSIS: Anions - MCAWW 300.0A mg/L CHLORIDE NITRATE AS N SULFATE AS SOJ			45.6 <0.1 30	45.8 <0.1 28.2	464 198 121	22.6 0.16 5.1	40.5 - 0.5 - 1.8	1.7 0.64 25.9	97.9 40.1 5.7	32.8 0.18 4.3	18.8 <0.1 18.8	, 30.9 <0.1 4	24.9 0.21 9.2	2.6 <0.1 9.4	6 60.1 19
Dissolved Gases - RSK SOP-175 µg/L. CARBON DIOXIDE ETHANE ETHENE METHANE		1000 0 5 1.5 0.5	153000 J <0.5 15 46	163000 J <0.5 14 45	147000 J <0.5 <1.5 0.83 JB	214000 J <0.5 <1.5 3.6	78200 J <0.5 <1.5 31	283000 J <0.5 <1.5 9.4	223000 J 0 66 J 0.55 J 1800 J	275000 J 1.2 <1.5 3300	107006 J <0,5 UJ 1,3 J 220 J	118000 J <0.5 <1.5	79000 J <0.5 <1.5 <0.5	43400 J <0.5 <1.5 0.34 JQ	240000 J 0.86 15 1000
Hydrogen b. Microseeps - AM20GAX nM HYDROGEN		~	13	1.2	1.5	2.2	17	<u>~</u>	7	3	11	2.1	8.3	37	2.5
Mercury - SW846 7470 (Total) mg/L MERCURY		0.0003	<0.0003	<0.0003	<0.0003	<0 0003	<0 0003	<0.0003	<0.0003	<0 0003	<0.0003		<0.0003	<0 0003	<0.0003
Metals - SW846 6010 (Total) mg/L ALUMINUM BARUM CADMIUM CALCIUM COPALT COPPER IRON MAGNESIUM MAGNESIUM MANGANESE MOLYBDENUM NICKEL POTASSIUM SILVER SODIUM VANADIUM		0.06 0.025 0.005 0.005 0.01 0.01 0.01 0.015 0.005 0.005 0.005 0.001 0.005	0.0518 JB 0.0916 0.0013 JQ 0.005 5.09 0.0155 0.0155 0.0155 5.42 1.65 5.42 0.039 JQ 0.0209 4.74 0.011	0.0474 JB 0.0924 0.0011 JQ 0.0011 JQ 0.005 5.09 0.0162 0.0162 0.0162 JQ 4.4 0.011 0.0162 JQ 0.011 0.0162 JQ 0.011 0.0162 JQ 0.011 0.0162 JQ	1.01 0.197 0.005 0.005 5.65 0.01 0.015 0.0161 0.0045 0.161 0.0045 0.001 2.16 0.016 0.016 0.001 2.16 0.016	0.152 JB 0.0757 <0.005 (0.005 1.87 <0.01 0.0177 0.669 3.73 0.348 <0.015 <0.015 <0.017 7.61	0 0106 JQ 0 0589 0 0589 <0.005 9,62 <0.001 0.0058 JQ <0.01 0 001 0 001 0 001 0 001 0 001 0 01 JQ 0 01 0 01 0 01 0 01 0 01 0 01 0 01 0 0	0.0998 0.103 0.005 0.005 41.3 0.001 0.0041 JB 0.157 JB 3.64 0.314 0.015 0.002 29.5 0.013	0 303 0 0618 0 0618 0 005 0 0005 0 001 0 001 0 000 0 000 0 001 0 001 0 001 0 001 0 001 0 001 0 001 0 001	0.713 0.278 <0.005 <0.005 <0.011 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015	0 0229 JQ 0 05111 <0 005 <0 005 9 39 <0 015 <0 015 <0 010 6.7 0.102 <0.015 <0.015 <0.016 <0.016 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.	0.0459 JB 0.0683 0.005 8 08 8 08 0.015 0.015 0.015 0.015 0.015 0.015 0.015 0.015 0.015	0.0866 0.0545 0.0052 JQ <0.005 5.5 <0.01 0.007 JQ <0.01 1.62 4.32 0.0898 <0.0898 <0.015 0.0106 JQ 8.33 <0.011	0 0242 JQ 0 0113 JQ 0 0113 JQ <0 005 <0 001 0 0045 <0 01 0 0006 0 00043 JB <0 001 5 84 <0 01 5 84 <0 01 6 001 6 0	0 0899 0 158 <0 005 <0 005 1 39 <0 015 <0 01
ZINC		0 02	0 0045 JB	0 0059 JB	0.0288	0 0 173 JQ	0 0094 JB	0 0055 JB	<0.02	0.0933	0.0268	0 0277	0.0121 JB	0.0016 JB	0.029

Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Company   Comp	Sample Type Location ID Re Sample Date.	Reporting (a)	Normal AEHADG-10 7/20/2005	Dupticate AEHADG-10 7/20/2005	Normal DMW-13A 7/20/2005	Normal DMW-20A 7/20/2005	Nomal DMW-22A 7/18/2005	Normal DMW-25A 7/18/2005	Normal DMW-26A 7/19/2005	Normal DMW-27A 7/18/2005	Normal DMW-33A 7/19/2005	Normal DMW-35A 7/20/2005	Normal MW112-2 7/18/2005	Normal MWFOS-1 7/18/2005	Normal MWFOS-3 7/18/2005
		0 0001 0 0005 0.0005 0.0005	-0.0001 0.0386 0.0000 J JB 0.00135	11 118 14	0.00006 JB 0.00017 JQ 0.00236 0.00055	<0.0001 <0.0001 0.00417 0.00026 JQ 0.00007 JQ	0.00004 JQ 0.00644 0.00008 JQ 0.00031 JQ <0.0001	0 00041 0 00043 JQ 0 00016 JQ 0 00041 JQ 0 000102	0 00007 JB 0.0019 0 00033 JQ 0 00095 0 00001	Of 1000.00 0.00009 0.00009 0.00009 0.00009			Or 90000 0 Or 1000 0 Or 1000 0 Or 1000 0	0 00006 JQ 0 00033 JQ <0 0005 <0,0005 <0,0001	0.00006 JQ 0.0208 0.00089 0.00046 JQ <0.0001
11		01	22	21	01▽	<10	29	153	79	<10	11	Ø.		15	<b>0</b> 1∨
		_	2.2	2.4	1.2	1.7	Н. 9.1	5.3	20.9	6	38			08 JH	1
1		63	4	Ç	Q.	4	4	4	8	4	4	4	Ć,	Q	\$
13.4 3.7 3 1		2 2 1 1 6.5	⊽ ♡ ⊽ ♥	△ 6, △ △ §	< < < < < < < < < < < < < < < < < < <	< < < < < < < < < < < < < < < < < < <	₹ ₹ ₹ ₹ Z Z Z Z Z	4 4 4 4 4 2 2 2 2 2	& & & & & & & & & & & & & & & & & & &	△	⊅ ♡ ♡ ⊽ §	* * * * * * * * * * * * *	Z Z Z Z Z Z Z Z Z Z	<b>~</b> ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	3.2 \$ △ △ △ \$ \$
			3.4 10000 0.26 JQ 0.25 JQ 0.29 JQ 0.29 JQ 0.29 JQ 0.29 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20 JQ 0.20	93.7 93.0 93.0 94.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0 95.0	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	□ ½ □ □ ╬ - □ □ □ □ Ö □ □ □ □ □ □ □ □ □ □ □ □ □ □	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥ ♥		\$\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	<u> </u>	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		

## DATA SUMMARY TABLE FOR GROUNDWATER OU 7 - UPPER WATER BEARING UNIT BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Supply Center Richmond Richmond, Virginia

	Sample Type:		Normal	Duplicate	Normal	Normal	Normal	Normal	Normal	Normal	Norma	Normal	Norma	Normal	Normal
	Location ID Sample Date	Reporting (a) Limit	AEHADG-10 7/20/2005	AEHADG-10 7/20/2005	DMW-13A 7/20/2005	DMW-20A 7/20/2005	DMW-22A 7/18/2005	DMW-25A 7/18/2005	DMW-26A 7/19/2005	DMW-27A 7/18/2005	DMW-33A 7/19/2005	DMW-35A 7/20/2005	MW112-2 7/18/2005	MWFOS-1 7/18/2005	MWFOS-3 7/18/2005
CIS.1 3-DICHI OBOETHENE		\$ 0	0021	0015	Š	91	18	13	0.77	Ť	0630	91	Ě	8	\$400
CIS.1 1-DICER OF ORDER		} -	<b>8</b> 7	3 7	; ·	· 7	2 7	† 7	; 7	} ₹	₹ ₹	· 🗸	₹	÷⊽	OI>
DIPPONON CENTERAL AND CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACTOR OF CONTRACT			7 7	7 7	7 7	7 7	7 7	7 7	7 7	7 7	7 7	- 7	7 7	7	: 5
Digital Office I HANE			7	7	7	7	7	7	7	7 '	<del>,</del> .	7	7 :	7 5	9 7
DICHLORODIFLUOROMETHANE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	▼	⊽	⊽	OI>
ETHYLBENZENE		_	11	16	▽	⊽	⊽	⊽	⊽	⊽	⊽	▽	∇	▽	Q 
HEXACHLORO-1,3-BUTADIENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	₹	▽	⊽	▽	₽
ISOPROPYLBENZENE		-	<u>~</u>	<b>∞</b> :	⊽	⊽	⊽	▽	⊽	⊽	▽	⊽	⊽	▽	01>
M & P-XYLENES			11	92	⊽	⊽	⊽	⊽	⊽	⊽	⊽	√_	⊽	⊽	OI>
METHYL TERT-BUTYL ETHER		-	⊽	⊽	⊽	⊽	⊽	▽	⊽	⊽	⊽	Á	7	⊽	01>
METHYLENE CHLORIDE		-	2.3	2.5	⊽	⊽	⊽	⊽	0.26 JB	⊽	0 26 JB	⊽	⊽	⊽	OI>
N-BUTYLBENZENE		1	1.4	1.5	⊽"	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	OI>
N-PROPYLBENZENE		_	91	9'1	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	0I>
NAPHTHALENE		_	081	180	⊽	⊽	⊽	⊽	⊽	⊽	3.7	⊽	⊽	⊽	OI>
O-XYLENE		_	11	16	⊽	⊽	⊽	⊽	⊽	⊽	0.29 JB	⊽	⊽	⊽	0-
P-ISOPROPYLTOLUENE		-	Or 17.0	O. 79 JQ	⊽	⊽	⊽	⊽	⊽	⊽	⊽	Ţ	⊽	⊽	01>
SEC-BUTYLBENZENE			1.2	1.2	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽_	⊽	⊽	0.
STYRENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	₩	⊽	⊽	⊽	01>
TERT-BUTYLBENZENE			0.2 JQ	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	01>
TETRACHLOROETHENE		_	4200	4200	⊽	0.7 JQ	5	3.3	0.28 JQ	⊽	081	19	⊽	⊽	0 <del>.</del> ≻
TOLUENE		_	79	78	▽	⊽	⊽	⊽	⊽	⊽	⊽	▽	0.23 JQ	⊽	4.8 JQ
TRANS-1,2-DICHLOROETHENE		0.5	13	13	<0.5	0.48 JQ	0.46 JQ	<b>40</b> 5	₹0.5	<0.5	36	<0.5	<0.5	\$€	79
TRANS-1,3-DICHLOROPROPENE		,	⊽	⊽	⊽	. ▽	▽	▽	⊽	⊽	⊽	⊽	⊽	⊽	0 <del>1</del> >
TRICHLOROETHENE			26000	26000	⊽	0.64 JQ	15	Of 68 0	0.45 JQ	⊽	530	91	⊽	⊽	2200
TRICHLOROFLUOROMETHANE		_	6	10	⊽	▽	⊽	▽	⊽	⊽	0.47 JQ	⊽	⊽	⊽	Ot>
VINYL CHLORIDE		-	100	100	⊽	⊽	0.5 3Q	⊽	1.2	2.1	35	▼	⊽	⊽	170
Surrogate - % recovery												<del>-</del>			
1,2-DICHLOROETHANE-D4		ı	93	==	911	901	105	103	011	101	Ξ	118	8	901	101
4-BROMOFLUOROBENZENE		1	94	46	103	901	201	103	101	104	113	901	101	105	8.
DIBROMOFLUOROMETHANE		ı	95	101	114	901	106	901	101	101	Ξ	911	<u>10</u>	100	112
TOLUENE-D8		ı	100	104	101	101	66	95	001	94	102	103	8	100	96

Notes:
J. B. I. I. H. H. I. J. O. C. E. E. J. O. C.

¥ ≈ 5 €

Estimated, based on QC data
Estimated, based on QC data
Estimated; possibly biased high or false
positive based on blank contamination
Estimated, possibly biased high based upon QC data
Estimated, Value is between reporting limit
and detection limit
A Not Analyzed
Unusable
Undetected, Reported Detection Limit is unprecise
Reporting limits presented are the best that can be achieved under
normal operating procedures with the method-required sample
volume extracted and analyzed. Sample reporting limits may vary
due to sample volume/sample weight extracted and/or sample
dilutions.

Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   Prince   P		Sample Type: Location ID: Sample Date:	Reporting (a) Limit	Normal MWFTA-1 7/20/2005	Normal MWFTA-3 7/20/2005	Duplicate MWFTA-3 7/20/2005	Normal MWFTA-5 7/19/2005	Normal MWFTA-7 7/18/2005	Normal MWFTA-9 7/19/2005	Normal MWFTA-10 7/19/2005	Normal MWFTA-23 7/18/2005	Normal OU/7PZ-2 7/19/2005	Normal OU7PZ-4 7/19/2005	Normal OU7PZ-8 7/19/2005
Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   C			<b>2</b> 0	0.2	0.5	0.5	0.3	2.4	0.4	\$ 0	80	0.3	0.5	0.4
	Ferrous Iron - A3500D mg/L. FERROUS IRON		10	5.5	8.4	* <del>,</del>	0.8	9.0	<del>-</del>	0.1	8.4	4.	2.2	2
Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Par	Oxidation Reduction Potential - A2580A mV OXIDATION REDUCTION POTENTIAL		I	۴	-14	-14	16	568	506	101	66	25	62	91-
	<b>pH - EPA 150.1 pH Units</b> pH		I	5.78	5 88	5 88	5.76	3.3	5.13	5.94	4.95	4 74	5.41	5.66
Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Particular   Par	Specific Conductance - EPA 120,1 mS/cm SPECIFIC CONDUCTANCE		0.001	0 88	0.5	0.5	0.08	0 092	0.078	0.102	0.189	560	 	0.087
Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page   Page			ı	21.1	184	18.4	20 5	21.8	661	185	243	20.6	20.5	21.3
Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack   Pack	Turbidity - EPA 180.1 NTU TURBIDITY		-	⊽	⊽	⊽	7	2		m	۲۱	- 7	¢	σ
	FIXED BASE LABORATORY ANALYSIS: Anions - MCAWW 300,0A mg/L CH.ORIDE NITRATE AS N SULFATE AS SOA		- <del>-</del> -	47.3 △ <u>-</u> -	83.9 40.1 18.4	76.9 40.1 16.4	6.6 0.06 JQ 6.4	6.3 0 88 15	10.2 (0.1) 19.3	6 2 0.06 JQ 7.4	36.5 40 l 68	18 5 0.1 4.2	8.5 JQ 0.06 JQ 8.7	6.6 1.0 3.9
	Dissolved Gases - RSK SOP-175 ug/L. CARBON DIOXIDE ETHANE ETHENE METHANE		1000 0 5 1 5 0.5	283000 J <0.5 <1.5 5800	129000 J 7.6 1.6 1700	122000 J 8.7 1.8 1900	•	121000 J <0.5 <1.5 <0.5	68800 J 60.5 UJ 7.15 UJ 8.18	59800 J <0.5 UJ <1.5 UJ 2.9 J		137000 J 45 UJ 45 UJ 44 J	117000 3 <0.5 UJ <1.5 UJ 200 3	76200 ←0.5 ←1.5 500
	Hydrogen by Microseeps - AM20GAX nM HYDROGEN			1.7	1.2	13	1.3	12	1.4	1.2	<u>-</u>	44	23	22
Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part	Mercury - SW846 7470 (Total) mg/L MERCURY		0.0003	<0.0003 UJ	<0.0003	<0 0003	<0 0003	₹ 0003	<0.0003	<0 0003	<0 0003	<b>√</b> 0003	<0 0003	<0.0003
OGG         0.244 B         0.148 B         0.183 B         0.085 JQ         0.075 OGG         0.0907 OGG         0.0100 D         0.0001 JQ         0.001 JQ         0.	Metals - SW846 6010 (Total) mg/L		•		!	<del>1</del>			;					
ALLADAM         0.005                                                                                                                    <	BARIUM		0.00 0.025	0.204 JB 0.421	0.148 JB 0.0858	0.132 JB 0.0839	0.0185 JQ 0.0252	0.75 0.104	0.0927 0.0179 JQ	0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.132 0 133	0 0367 JQ 0 0 193 JQ	0.0741 0.0252	0 0368 JQ 0.0252
State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   State   Stat	BERYLLIUM CADMIUM		0 005	△ 005 △ 005	6.005 6.005	6.005 6.005	Q Q Q	0 0014 JQ	6.005 6.005	0 005 0 005	0 0012 JQ	0.0023 JQ	9 66	0 00 %
MATUM         001         0.0061 JQ         Φ01         Φ01 <t< td=""><td>CALCIUM</td><td></td><td>0.5</td><td>58.7</td><td>19.5</td><td>18.6</td><td>3 92</td><td>4 87</td><td>3.05</td><td>4 4</td><td>7.02</td><td>4.26</td><td>5.45</td><td>4.92</td></t<>	CALCIUM		0.5	58.7	19.5	18.6	3 92	4 87	3.05	4 4	7.02	4.26	5.45	4.92
Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Color   Col	CHROMIUM		100	0.0061 JQ	0 0 0 0 0 0	<0.01 0.01 0.01 0.01 0.01	10:0>	40.05	100	40.01	<0.00	10.01	10.0	0.01
NESIUM   14.7   12   11.5   158   401   6634   6583   14.9   153   25     NESIUM   6.02   2.5   5.92   5.7   3.1   1.92   2.09   3.38   4.94   287   3.91     ANEXION   6.005   1.16   6.188   6.018   6.018   6.015   6.015   6.015   6.015     ANEXION   6.005   1.16   6.188   6.015   6.015   6.015   6.015   6.015     ANEXION   6.005   1.16   6.015   6.015   6.015   6.015   6.015     ANEXION   6.015   6.015   6.015   6.015   6.015     ANIX   6.016   6.015   6.015   6.015   6.015   6.015     ANIX   6.016   6.015   6.015   6.015   6.015   6.015     ANIX   6.016   6.015   6.015   6.015   6.015     ANIX   6.015   6.015   6.015   6.015     ANIX   6.016   6.015   6.015   6.015   6.015     ANIX   6.016   6.015   6.015   6.015   6.015     ANIX   6.015   6.015   6.015   6.015   6.015   6.015   6.015     ANIX   6.015   6.015   6.015   6.015   6.015   6.015   6.015     ANIX   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015     ANIX   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.015   6.	COPPER		0 0 0	G 0 ♥	C10.0>	<0.05 10.05	(10 0>	>r +con:0	CIA 69	<0.015	O 0 0 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 07 10 07	CIO# ₩	€ 0.05 10.05
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	RON		- 0	14.7	22.	11.5	85 1	100	0 634	0.583	14.9	1 53	2.5	2.57
FEDENTIAL         G015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015         <0015	MANGANESE		0.005	82.5 1.16	5.92 0.188	5.7 0.18	5.1 0.0547	1.92 0.0236	2.09	3.38	4.94	2 87 n 118	3.91	3.4
ELL 002 $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.01$ $< 0.01$ $< 0.02$ $< 0.01$ $< 0.02$ $< 0.01$ $< 0.02$ $< 0.01$ $< 0.02$ $< 0.01$ $< 0.02$ $< 0.01$ $< 0.02$ $< 0.01$ $< 0.02$ $< 0.01$ $< 0.02$ $< 0.01$ $< 0.02$ $< 0.01$ $< 0.02$ $< 0.01$ $< 0.02$ $< 0.02$ $< 0.01$ $< 0.02$ $< 0.01$ $< 0.02$ $< 0.02$ $< 0.01$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< 0.02$ $< $	MOLYBDENUM		0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	40.015	<0.015	<0.015
TR	NICKEL POTA SSIEM		0 02	Ø.02	<0.02	<0.02	<0.02	<0.02 3.33	<0.02	<0.02	Of 8600 0	<0.02	<0.02	<0.02
UM 0.5 18.7 55.4 53.1 9.92 2.02 6.7 10 5.89 4.6 3.92 MDIUM 0.001 0.0012 IQ <0.01 <0.01 <0.01 <0.01 <0.01 1.8 0.0017 IB 0.0017 IB 0.0017 IB 0.0017 IB 0.0017 II 0.0015 II 0.0015 II 0.0015 II <0.01	SILVER		0.01	° 5	0.0023 JB	€. 0 0	4. 6 8. <u>0</u>	8/7 €005	577 Ø 01	\$\ \$\ \$\	6.38	<b>3</b> 5	4 & &	38. 88. 6
NDIUM 001 001 40.01 0.0022 JQ <0.01 <0.01 <0.01 0.0022 JQ <0.01 <0.01 <0.01 0.0022 JQ <0.01 <0.01 <0.01 <0.01 0.0012 JB 0.0017 JB 0.0011 JB 0.0013 JB 0.0109 JB 0.0127 JO 0.0157 JD 0.0075 JB 0.0022 JO <0.01	SODIUM		6.5	18.7	55.4	53.1	9.92	2.02	6.7	9 9	5.89	4.6	3 92	5.5
All College College College College College College College College College College College College College Co	VANADIUM		001	Ø 0.1		0.0022 JQ	10.0> 0.760	<0.01 00.00 00.00	<0.01 0.01 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010	<0.01	0.0022 JQ	7 CO 01	10.0	0.01

Normal OU7PZ-8 7/19/2005	0 000034 JB 0 00016 JQ 0,00007 JB 0 00032 JQ <0 0001	56	9° 6	Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z	△ △ △ ↑ <del>2</del>
Normal OU7PZ-4 7/19/2005	<pre>00001</pre> 00001 00003	<b>~</b>	2.2 开	Z Z Z Z Z Z	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Normal OU7PZ-2 7/19/2005	0.00006 JB 0.00169 0.00007 JB 0.00059	O	£ C	<u> </u>	<u> </u>
Normal MWFTA-23 7/18/2005	<0.0001 0.018 0.00007 JQ 0.00058 <0.0001	15	3.7	< < < < < < < < < < z z z z z	\$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$
Normal MWFTA-10 7/19/2005	0 000033 JB 0 000153 0 00009 JB <0 0005	29	06 JH	< < < < < < < < < < < < < < < < < < <	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Normal MWFTA-9 7/19/2005	0 000033 JB 0.00025 JQ 0.00018 JQ <0 0005 <0 0001	01>	H 0	<pre>&lt; 4 &lt; 4 &lt; 7</pre> <pre>&lt; 2 &lt; 2 &lt; 2 &lt; 2</pre>	
Normal MWFTA-7 7/18/2005	0 00008 JQ 0 00013 JQ 0 000139 0 00023 JQ	01>	<u>.</u> 6	< < < < < < < < < < < < < < < < < < <	
Normal MWFTA-5 7/19/2005	<ul> <li>Q 0001</li> <li>Q,00008 JB</li> <li>Q 0005</li> <li>Q,0001</li> </ul>	30	0 7 JH △	4 4 4 4 4 2 2 2 2 2	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
Duplicate MWFTA-3 7/20/2005	0 00011 JB 0.0236 0.00019 JQ 0.00053 <0 0001	95	<u>2</u>	<b>4</b> 4 4 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
Normal MWFTA-3 7/20/2005	0.00012 JB 0.0253 0.00014 JQ 0.00065 <0.0001	57	2, Q	<b>4 4 4 4 4</b> 2 2 2 2 2	□ □ □ □ <del>2</del> □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □
Normal MWFTA-1 7/20/2005	0 0002 JB 0 0408 J 0 00009 JB 0 00161 <0 0001	440	30.3	< < < < < < < < < < < < < < < < < < <	
Reporting (a)	0 0001 0.0005 0.0005 0 0005	01	2 -	2 2 0.5	
Sample Type. Location ID. R Sample Date:					<u>. 力</u> 温·
	Metals - SW846 6020 (Total) mg/L ANTIMONY ARSENIC LEAD SELENIUM THALLIUM	Total Alkalinity - MCAWW 319.1 mg/L ALKALINITY, TOTAL (AS CACO3) Total Organic Carbon - SW846 9969 mg/L	TOTAL ORGANIC CARBON  Total Sulfide - MCAWW 376.1 mg/L  SULFIDE	Volatile Fatty Acids - SM5560 mg/L ACETIC ACID BUTANOIC ACID LACTIC ACID PROPIONIC ACID PYRUVIC ACID	Volatile Organic Compounds - SW846 8260 µg/L  1,1,2-TETRACHLOROETHANE  1,1,1-TRICHLOROETHANE  1,1,2-TETRACHLOROETHANE  1,1,1-TRICHLOROETHANE  1,1,1-TRICHLOROETHANE  1,1-DICHLOROETHANE  1,1-DICHLOROETHANE  1,1-DICHLOROETHANE  1,1-DICHLOROETHANE  1,2-TRICHLOROENCENE  1,2-TRICHLOROENCENE  1,2-TRICHLOROBENZENE  1,2-DIGHLOROENCENE  1,2-DIGHLOROENCENE  1,2-DICHLOROENCENE  1,2-DICHLOROPROPANE  1,3-FTRUETHYLE  1,2-DICHLOROPROPANE  1,3-FTRUETHYLE  1,3-FTRUETHYLE  1,3-FTRUETHYLE  1,3-FTRUETHYLE  1,3-FTRUETHYLE  1,3-FTRUETHYLE  1,3-FTRUETHYLE  1,3-DICHLOROPROPANE  1,3-DICHLOROPROPANE  2-HEXANONE  2-HEXANONE  BROMOBENIZENE  BROMOBENIZENE  BROMOBENIZENE  CHLOROBENIZENE  CHLOROBENIZENE  CHLOROBENIZENE  CHLOROBENIZENE  CHLOROPROPANE  CHLOROPRO

## DATA SUMMARY TABLE FOR GROUNDWATER OU 7 - UPPER WATER BEARING UNIT BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Supply Center Richmond Richmond, Virginia TABLE B-4

	Sample Type:		Normal	Normal	Duplicate	Norma	Normal	Normal	Normal	Normal	Nprrmai	Norma	TACH ITEM
	Location ID.	Reporting (a)	MWFTA-1	MWFTA-3	MWFTA-3 7/20/2005	MWFTA-5 7/19/2005	MWFTA-7 7/18/2005	MWFTA-9 7/19/2005	MWFTA-10 7/19/2005	MWFTA-23 7/18/2005	OUTPZ-2 7/19/2005	OU7PZ-4 7/19/2005	OU7PZ-8 7/19/2005
	Sample Date.	T-Tring	60070711										:
CIS-12-DICHLOROETHENE		0.5		10	9.4	40.5	40.5	40.5 UJ	40.5	2009 J	E -	39	<u>~</u>
CIS-1 3-DICHLOROPROPENE		: -	Ď V	⊽	⊽	⊽	⊽	m ⊳	⊽	⊽	⊽_	⊽	▽ '
DIBROMOMETHANE		-		⊽	⊽	⊽	▽	n v	⊽	⊽	⊽	⊽	⊽
DICHLORODIE LIOROMETHANE		_	3 <u>-</u> 1	⊽	⊽	⊽	▽	SO ▽	⊽	⊽	₹.	⊽	⊽
ETHYLBENZENE		-	3 E3	' ▽	⊽	⊽	⊽	ín ⊽	⊽	⊽	⊽_	⊽	⊽ '
HEXACHIOROLI 1-BILLADIENE			: E	∵ ▽	⊽	⊽	⊽	50 ▼	⊽	⊽	⊽.	⊽	⊽
ISOPROPYL BENZENE			3 ∃	. △	∵ ⊽	~	▽	Ð⊽	⊽	⊽	⊽	⊽	⊽
M & P-XYLENES		-	5 5	∀ ∀	⊽	♥	▽	<u>5</u>	⊽	⊽	⊽	⊽	⊽ ;
T T				. △	⊽	⊽	⊽	m ⊳	⊽	⊽	<u>⊽</u>	0.14 JQ	013 10
METHYLENE CHLORIDE				' ▽	⊽	0 15 JB	▽	ñ⊽	0.13 JB	⊽	⊽_	0.13 JB	⊽ '
N-BUTYLBENZENE		l blad	: B	⊽	⊽	⊽	⊽	ñ⊽	⊽	⊽	<u>v</u>	⊽	⊽ '
N-PROPYL BENZENE				⊽	⊽	⊽	⊽	B⊽	⊽'	⊽	⊽_	⊽	▽ '
NAPHTHALENE		-	54 J	⊽	⊽	⊽	⊽	Ö	⊽	⊽	⊽	⊽	▽ '
O-XYLENE			5	⊽	⊽	⊽	∀	5 ⊽	⊽	⊽	▽	⊽ '	⊽ '
P-ISOPROPYL TOLUENE		_	in ∀	⊽	⊽	⊽	⊽	ín V	⊽	⊽	∇	⊽	⊽ `
SEC-BUTYLBENZENE		-		⊽	⊽	⊽	⊽	D V	⊽	⊽	⊽	⊽	⊽ '
STYRENE		_		⊽	⊽	⊽	⊽	∄ ⊽	⊽	⊽	▼ .	▽ .	⊽ ፣
TERT-BUTYLBENZENE		_		⊽	⊽	⊽	⊽	M ₹	⊽	⊽	⊽	⊽:	₹ .
TETRACHLOROETHENE		_		1.8	1.2	⊽	⊽	m ⊽	⊽	⊽	5.7	8 ·	)r 85.0
TOLUENE		_	_ 5	⊽	⊽	⊽	⊽	m ⊽	⊽	9.2	⊽_	⊽ :	⊽ ;
TRANS-1,2-DICHLOROETHENE		0.5		11		\$ ₩	<0.5	40.5 UJ	\$₽	55 J	\$ P	0.42 JQ	Ç; ₹
TRANS-1,3-DICHLOROPROPENE		_	50 ▼	⊽	⊽	⊽	⊽	m ⊽	⊽	⊽	⊽ :	⊽ ;	⊽ ;
TRICHLOROETHENE		_			2.2	⊽	⊽	ß⊽	⊽	1300	2.9	<b>3</b>	7 :
TRICHLOROFLUOROMETHANE		-	´ M ▽	⊽	⊽	⊽	⊽	m ⊽	⊽	⊽	▽_	⊽	⊽ :
VINYL CHLORIDE		-		3.4	3.3	⊽	⊽	B ⊽	⊽	f 099	⊽	Or 16:0	⊽
Surrogate - % recovery						;	;	į	5	Š		ğ	<i>(</i> 01
1,2-DICHLOROETHANE-D4		1	124	115	=	<u>20</u>	102	171	CO :	104	<u> </u>	5 6	5 8
4-BROMOFLUOROBENZENE		1	66	104	901	88	19	001	<b>S</b>	47	8 8	œ 5	6 6
DIBROMOFLUOROMETHANE		ı	112	112	112	86	901	112	26	<u>\$</u> ;	3: 2	6 6	66 2
TOLUENE-D8		1	86	001	108	94	86	%	93	66	96	7.6	οχ

PREPARED/DATE: RMB 9/23/05 CHECKED/DATE: JAH 9/23/05

Estimated; based on QC data

Estimated, possibly biased high or false positive based on blank containuation

Estimated, possibly biased high based upon QC data Estimated, Value is between reporting limit and detection limit

A Not Analyzed
Unusable
Undetected, Reported Detection Limit is umprecise
Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions

						  -  ;	12.7	Normal	Normal
	Sample Type: Location ID: Sample Date:	Reporting (a)	Normal MWFTA-14 7/19/2005	Normal MWFTA-16 7/18/2005	Normal MWFTA-17 7/19/2005	Normal MWFTA-18 7/18/2005	MWFTA-19 17/19/2005	MWFTA-28B 7/19/2005	MWFTA-29B 7/18/2005
FIELD PARAMETER:	- And Addition								
Dissolved Oxygen - EPA 360.1 mg/L DISSOLVED OXYGEN		0.1	6:0	2.3	. 5.8	9.0	0.4	1.7	0.3
Ferrous Iron - A3500D mg/L FERROUS IRON		0.1	<0.1	<b>-</b> .0	<0.1	0.8	<0.1	1.2	<0.1
Oxidation Reduction Potential - A2580A mV OXIDATION REDUCTION POTENTIAL		1	195	131	П	-76	45	30	-235
pH - EPA 150.1 pH Units pH		ł	8.41	11.6	11.43	6.79	11.01	7.96	10.86
Specific Conductance - EPA 120.1 mS/cm SPECIFIC CONDUCTANCE		0.001	0.411	2.978	2.425	0.161	0.843	0.53	1.182
<u>Temperature - EPA 170.1 deg. C</u> TEMPERATURE		1	18.8	28.2	28.2	24.2	17.7	20.7	16.2
Turbidity - EPA 180,1 NTU TURBIDITY		-	01	12		ю	par.	ю	=
FIXED BASE LABORATORY ANALYSIS: Anions - MCAWW 300.0A mg/L CHLORIDE NITRATE AS N SULFATE AS SO4		1 0.1 1	14.3 0.31 21.4	13.2 <0.1 6.5	7.2 <0.1 12.1	7 0.12 1.5	11.7 <0.1 24	53.7 0.24 11.7	1.8 <0.1 17.6
Dissolved Gases - RSK SOP-175 ug/L CARBON DIOXIDE ETHANE ETHENE METHANE		1000 0.5 1.5 0.5	<1000 UJ <0.5 UJ <1.5 UJ 1.1 JB	<1000 UJ 5.3 75 130	<1000 UJ <0.5 UJ 0.74 J 45 J	17100 J 0.92 1.4 JQ 140	<pre>&lt;1000 UJ &lt;0.5 UJ &lt;0.6 J </pre>	4170 J <0.5 UJ <1.5 UJ 39 J	<1000 UJ 0.37 JQ 1.9 21
Hydrogen by Microseeps - AM20GAX nM HYDROGEN		-	1.7	7.8	29	1.8	1.5	1.2	1.8
Mercury - SW846 7470 (Total) mg/L MERCURY		0.0003	<0.0003	<0.0003	0.000101 JQ	<0.0003	<0.0003	<0.0003	<0.0003
Metals - SW846 6010 (Total) mg/L ALUMINUM BARIUM CADMIUM CALCIUM CHROMIUM COBALT COPPER IRON		0.06 0.025 0.005 0.005 0.01 0.015 0.015	0.0305 JQ 0.058 <0.005 <0.005 13.3 <0.01 <0.015 <0.015	0.0779 1.04 <0.005 <0.005 188 0.0083 JQ <0.015 <0.01	4.02 0.368 0.0012 JQ <0.005 153 <0.01 <0.015	0.0852 0.0543 <0.005 <0.005 13.8 <0.01 <0.015 <0.015	0.869 0.0602 <0.005 UJ <0.005 61.3 <0.01 <0.015	0.0442 JQ 0.0805 <0.005 <0.005 29.9 <0.015 <0.015 <0.015	0.768 0.111 <0.005 <0.005 45 0.0059 JQ <0.015 <0.015

TABLE B-5  DATA SUMMARY TABLE FOR GROUNDWATER  OU 7 - LOWER WATER BEARING UNIT  BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005  Defense Supply Center Richmond	Richmond, Virginia
------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------

				TABLE B-5					
	,	BI-,	DATA SUMMAR' OU 7 - LOWI INNUAL GROUNDW Defense	DATA SUMMARY TABLE FOR GROUNDWATER OU 7 - LOWER WATER BEARING UNIT BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Supply Center Richmond Richmond, Virginia	NDWATER FUNIT VENT - JULY 2005				
	Sample Type: Location ID:	Reporting (a)	Normal MWFTA-14	Normal MWFTA-16 7/18/2005	Normal MWFTA-17 7/19/2005	Normal MWFTA-18 7/18/2005	Normal MWFTA-19 7/19/2005	Мотпа МWFTA-28В 7/19/2005	Normal MWFTA-29B 7/18/2005
	Sample Date:	Clint	117/4005			7	7	V	⊽
1,3,5-TRIMETHYLBENZENE			⊽ 7	<br   </td <td>⊽ ⊽</td> <td>⊽ ⊽</td> <td> ·</td> <td>7 ∇ </td> <td>. △</td>	⊽ ⊽	⊽ ⊽	·	7 ∇ 	. △
1,3-DICHLOROBENZENE		<b>-</b>	7 ▽	⟩, t	. △	' ▽	∇	▽ '	⊽ ₹
1,4-DICHLOROBENZENE			. △	10	⊽	⊽ '	⊽ ,	⊽ ₹	<b>⊽</b> ∇
2,2-DICHLOROPROPANE		1	▽ -	⊽ ;	⊽ ₹	⊽ ₹	OI 7 1	Of 13	.; 01>
2-BUTANONE		o .	0.56 JQ	0 ₹	0 √	07. ▽	γ ∇	₹ ▽	▽
2-CHLOROTOLUENE		- S	⊽ ₹	7 \$	7 0√	<10	<10	<10	<10
2-HEAANOINE 4-CHI OROTOI JIENE		2	₹ ∇	: ▽	⊽	▽	⊽ 5	⊽ ;	⊽ ₹
4-METHYL-2-PENTANONE		10	<10	<10	01>	<10	010	73 IB	5.6 JB
ACETONE		10	1.2 JB	23 JB	4.6 JB	9 ₹	4 △	g, √	\ ∇
BENZENE		<del>-</del> -	⊽ 7	Ωr 97:0 ≥1	7 ▽	7 ▽		⊽	⊽
BROMOBENZENE BROMODICHI OROMETHANE			7 ▽	7 ▽	. △	∇	⊽	▽ '	⊽ 7
BROMOFORM		-	. △	' ▽	$\nabla$	$\nabla$	⊽ '	⊽ ;	⊽ 5
BROMOMETHANE		-	⊽	∵	⊽ '	⊽ ;	√ 7	⊽ ⊽	0.49 10
CARBON DISULFIDE		-	▽ '	⊽ '	⊽ ;	⊽ 7	 ⊽ ∇	7 ▽	``∵
CARBON TETRACHLORIDE			⊽ 5	⊽ =	⊽ ⊽	7 🗸	7 ▽	' ⊽	▽
CHLOROBENZENE			<b>∵</b> √	<u>.</u> △	7 ▽	' ▽	. ∇	⊽	∵
CHLOROBROMOMETHANE CHLORODIRROMOMETHANE		<b>-</b> -	7 ▽	. △	· ▽	▽	⊽	⊽ ₹	⊽ ₹
CHLOROETHANE		-	⊽	⊽	⊽	▽ '	⊽ 7	⊽ 7	7 ⊽
CHLOROFORM			▽ ′	▽ ;	V .	⊽ √		062 30	0.52 JQ
CHLOROMETHANE		1	0.18 JQ	0.31 JQ 1300	)r /9:0 \$ (♥	0.74	1.1	<0.5	<0.5
CIS-1, 2-DICHLOROETHENE		0.5 L	Ç; ⊽		} ⊽	. ⊽	▽	⊽	⊽ '
CIS-1,5-DICHEOROFROTENE DIBROMOMETHANE			7 ▽	. △	. △	⊽	▽ '	⊽ ;	⊽ ∜
DICHLORODIFLUOROMETHANE		1	⊽	▽	▽ .	⊽ ;	 ⊽ ₹	√ ⊽	7 ▽
ETHYLBENZENE		<b>-</b> - •	⊽ 7	⊽ ₹	⊽ ∇	7 ▽	7 🗸	₹ ▽	. △
HEXACHLORO-1,3-BUTADIENE			7 \	7 ▽	7 ▽	' ▽	⊽	▽	⊽
ISOFKOFT LEBENZENE M & P-XYI ENES			7 ▽	. △	. △	⊽	⊽ ;	⊽ :	⊽ ;
METHYL TERT-BUTYL ETHER		-	⊽	$\nabla$	⊽	⊽	0.24 JQ	- E	() ()
METHYLENE CHLORIDE		1	0.15 JB	0.32 JQ	⊽ 7	⊽ 7	0.19 JB	at 12.0	>r √ √
N-BUTYLBENZENE			⊽ '	<b>⊽</b> 5	⊽ 7	7 5	7 ∇	- ∨	√ ▽
N-PROPYLBENZENE		<b>-</b>	⊽ 7	⊽.⊽	7,⊽	7 ▽	. △	⊽	$\nabla$
NAPHTHALENE O XXI ENE		<b>-</b> -	7 ⊽	7 ▽	0.26 JB	' ▽	∇	▽	∇ '
P.ICOPROPYLTOLLIENE			. △	∵ ▽	⊽	▽	⊽	▽ '	⊽ ;
SEC-BUTYLBENZENE		-	∵	⊽	∇	▽ '	∇ ;	⊽ 7	⊽ √
STYRENE		-	$\nabla$	⊽	$\nabla$	⊽ '	⊽ 5	<b>∵</b> √	7 \
TERT-BUTYLBENZENE		1	▽ '	⊽.	⊽ ₹	⊽ ∜	7 -	7 ▽	7 ▽
TETRACHLOROETHENE			⊽ 7	⊽ ;	√ √	7 ▽	~~ : ▽	. △	0.32 JQ
TOLUENE TP ANS 1 2-DICHI OROETHENE		1.0		5.0 13	<0.5	<0.5	<0.5	<0.5	<0.5
TRANS-1.3-DICHLOROET HENE TRANS-1.3-DICHLOROPROPENE		; <del>-</del>	} ⊽	; ∇	▽	⊽	⊽ ;	⊽ ;	⊽ ₹
TRICHLOROETHENE			▽	2.9	⊽	⊽ ¹	0.58 JQ	<b>⊽</b> ₹	7 ⊽
TRICHLOROFLUOROMETHANE		<b>-</b> . :: ::	⊽ '	⊽ ;	▽ ፣	⊽ ₹	7 7	7 ▽	. △
VINYL CHLORIDE		_	⊽	1300	7	7	,	1	

		Normal MWFTA-29B 7/18/2005	106 106 107 97
		Normal MWFTA-28B 7/19/2005	101 87 99 95
		Normal MWFTA-19 7/19/2005	99 87 95 93
		Normal МWFTA-18 7/18/2005	106 107 110 95
	UNDWATER IG UNIT EVENT - JULY 2005 ond	Normal MWFTA-17 7/19/2005	110
TABLE B-5	DATA SUMMARY TABLE FOR GROUNDWATER OU 7 - LOWER WATER BEARING UNIT BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Supply Center Richmond Richmond, Virginia	Normal MWFTA-16 7/18/2005	102 101 103 99
	DATA SUMMARY OU 7 - LOWE INNUAL GROUNDWA Defense S	Normal MWFTA-14 7/19/2005	102 90 100 96
	B1-A	Reporting (a) Limit	1 1 1
,		Sample Type: Location ID: Sample Date:	
			Surrogate - % recovery 1,2-DICHLOROETHANE-D4 4-BROMOFLUOROBENZENE DIBROMOFLUOROMETHANE TOLUENE-D8

Notes:

æ

Estimated; based on QC data
Estimated; possibly biased high or false
positive based on blank contamination
Estimated; possibly biased high based upon QC data
Estimated; Value is between reporting limit
and detection limit
Not Analyzed
Undetected; Reported Detection Limit is imprecise H O

Y D ®

Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

PREPARED/DATE: RMB 9/23/05 CHECKED/DATE: JAH 9/23/05

# DATA SUMMARY TABLE FOR GROUNDWATER OU 7 - BEDROCK BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005

### BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY A Defense Supply Center Richmond Richmond, Virginia

	Sample Type: Location ID.	Reporting (a)	Normai MWFTA-20	Duplicate MWFTA-20
	Sample Date	Limit	7/18/2005	7/18/2005
FIELD PARAMETER:				
Dissolved Oxygen - EPA 360,1 mg/L				
DISSOLVED OXYGEN		0.1	3	3
		*	·	•
Ferrous Iron - A3500D mg/L				
FERROUS IRON		0 1	<0.1	<0 1
Oxidation Reduction Potential - A2580A mV				
OXIDATION REDUCTION POTENTIAL ,		_	150	150
pH - EPA 150.1 pH Units				
pH		-	7.95	7.95
Specific Conductance - EPA 120.1 mS/cm				
SPECIFIC CONDUCTANCE		0.001	0 179	0.179
Temperature EDA 150 1 1 - C				
Temperature - EPA 170.1 deg. C			16.1	
TEMPERATURE		-	18.1	18 1
Tuebidity - FPA 180 1 NTH				
<u>Turbidity - EPA 180.1 NTU</u> TURBIDITY		1	1	1
· ONDIDII I		,	ı	1
FIXED BASE LABORATORY ANALYSIS:				
Anions - MCAWW 300.0A mg/L				
CHLORIDE		ì	4 2	4.4
NITRATE AS N		0.1	0 08 JO	0.1
SULFATE AS SQ4		1	5	4.9
		-	•	
Dissolved Gases - RSK SOP-175 µg/L				
CARBON DIOXIDE		1000	<1000 UJ	<1000 U.
ETHANE		0.5	<0.5	< 0.5
ETHENE		1.5	11	11
METHANE		0.5	56	. 50
Hydrogen by Microseeps - AM20GAX nM				
HYDROGEN	•	1	25 J	1.5 J
P.4				
Mercury - SW846 7470 (Total) mg/L		0.0000	-0.000	-0.0000
MERCURY		0,0003	<0.0003	< 0.0003
Marala CWOAC COAC CO.A.D T				
Metals - SW846 6010 (Total) mg/L ALUMINUM		0.06	0.0328 JQ	0.0272 1/
BARIUM		0.025	0.0328 3Q	0 0272 JC 0 0892
BERYLLIUM		0.023	<0.005	< 0.005
CADMIUM		0.005	<0.005	<0.003
CALCIUM		0.5	16 6	15 8
CHROMIUM		0.01	<0.01	<0.01
COBALT		0,015	<0.015	<0.015
COPPER		0.01	<0.01	<0.01
IRON		01	0.28 JB	0.282 JB
MAGNESIUM		0 2	4.61	4 65
MANGANESE		0.005	0.118	0 118
MOLYBDENUM		0.015	< 0.015	< 0 015
NICKEL		0.02	0 0089 JQ	< 0.02
POTASSIUM		1	9 46	9.11
SILVER		0.01	< 0.01	<0.01
CODITIO		0.5	12 2	11.8
SODIUM		-1-		
VANADIUM		0.01 0.02	<0.01	< 0.01

# DATA SUMMARY TABLE FOR GROUNDWATER OU 7 - BEDROCK

# BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Supply Center Richmond Richmond, Virginia

	Sample Type. Location ID	Reporting (a)	Normal MWFTA-20	Duplicate MWFTA-20
	Sample Date	Limit	7/18/2005	7/18/2005
No. 1. Children Co. 1				
Metals - SW846 6020 (Total) mg/L				
ANTIMONY		0.0001	0.00027	0.00027
ARSENIC		0,0005	0.00064	0 00064
LEAD		0.0005	0.00006 JQ	0.00008 J
SELENIUM		0.0005	0.00023 JQ	<0 0005
THALLIUM		0 0001	<0.0001	<0.0001
Total Alkalinity - MCAWW 310.1 mg/L				
ALKALINITY, TOTAL (AS CACO3)		10	73	74
Total Organic Carbon - SW846 9060 mg/L				
TOTAL ORGANIC CARBON		ì	1 JH	1 ЛН
Total Sulfide - MCAWW 376.1 mg/L				
SULFIDE		2	<2	<2
Volotile Fatty Acide CM8860 mag				
Volatile Fatty Acids - SM5560 mg/L ACETIC ACID		1	<1	214
BUTANOIC ACID		2		NA NA
LACTIC ACID			<2	NA NA
PROPIONIC ACID		1 1	<1	NA
PYRUVIC ACID		-	<1	NA
1 TO VIC ACID		0.5	<0.5	NA
Volatile Organic Compounds - SW846 8260 μg/L	<b>'</b>	_		
1,1,1,2-TETRACHLOROETHANE		1	<1	<1
1,1,1-TRICHLOROETHANE		1	<1	<1
1,1,2,2-TETRACHLOROETHANE		1	<j< td=""><td>&lt;1</td></j<>	<1
1,1,2-TRICHLOROETHANE		1	<1	<1
I,1-DICHLOROETHANE		1	11	11
1,1-DICHLOROETHYLENE		1	3,9	4
1,1-DICHLOROPROPENE		1	<1	<1
1,2,3-TRICHLOROBENZENE		1	<1	<1
1,2,3-TRICHLOROPROPANE		1	<1	<1
1,2,4-TRICHLOROBENZENE		1	<1	<1
1,2,4-TRIMETHYLBENZENE		1	<1	<1
1,2-DIBROMO-3-CHLOROPROPANE		2.5	<2.5	<2.5
1,2-DIBROMOETHANE		1	<1	<1
1,2-DICHLOROBENZENE		1	0.3 JQ	0.32 JQ
1,2-DICHLOROETHANE		1	<1	<1
1,2-DICHLOROPROPANE		i	<1	<1
1,3,5-TRIMETHYLBENZENE		i	<1	<1
1,3-DICHLOROBENZENE		i	<1	<1 <1
1,3-DICHLOROPROPANE		i	<1	<1
1,4-DICHLOROBENZENE		i ,	<1	<i< td=""></i<>
2,2-DICHLOROPROPANE		i	<1	<1
2-BUTANONE		. 10	<10	<10
2-CHLOROTOLUENE		1	<1	<1
2-HEXANONE		10	<10	<10
4-CHLOROTOLUENE		10	<10 <1	<10 <1
4-METHYL-2-PENTANONE		10	<10	<10
ACETONE		10		
BENZENE			2.2 ЛВ	24 JB
BROMOBENZENE		l 1	<1	<1
		1	<1	<1
BROMODICHLOROMETHANE		1	<1	<1
BROMOFORM		1	<1 .	<1
BROMOMETHANE		1	<1	<1
CARBON DISULFIDE		1	<1	<1
CARBON TETRACHLORIDE		1	<1	<1
CHLOROBENZENE		1	<1	<1
CHLOROBROMOMETHANE		1	<1	<1
CHLORODIBROMOMETHANE		1	<1	<1
CHLOROETHANE				

# DATA SUMMARY TABLE FOR GROUNDWATER OU 7 - BEDROCK

# BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005

Defense Supply Center Richmond Richmond, Virginia

	Sample Type:		Normal	Duplicate
	Location ID:	Reporting (a)	MWFTA-20	MWFTA-20
	Sample Date:	Limit	7/18/2005	7/18/2005
CHLOROFORM		1	<1	<1
CHLOROMETHANE		1	<1	0.5 JO
CIS-1,2-DICHLOROETHENE		0.5	61	61
CIS-1,3-DICHLOROPROPENE		1	<1	<1
DIBROMOMETHANE		1	<1	<1
DICHLORODIFLUOROMETHANE		1	<1	<1
ETHYLBENZENE		1	<1	<1
HEXACHLORO-1,3-BUTADIENE		1	<1	<1
ISOPROPYLBENZENE		1	<1	<1
M & P-XYLENES		1	<1	<1
METHYL TERT-BUTYL ETHER		1	<1	<1
METHYLENE CHLORIDE		1	<1	<
N-BUTYLBENZENE		1	<1	<1
N-PROPYLBENZENE		1	<1	<1
NAPHTHALENE	•	1	<1	<1
O-XYLENE		1	<1	<1
P-ISOPROPYLTOLUENE		1	<1	<1
SEC-BUTYLBENZENE		1	<1	<1
STYRENE		1	<1	<1
TERT-BUTYLBENZENE		1	<1	<1
TETRACHLOROETHENE		1	0.26 JQ	0.26 JQ
TOLUENE		1	<1	<1 `
TRANS-1,2-DICHLOROETHENE		0.5	0 78	0 67
TRANS-1,3-DICHLOROPROPENE		1	<1	<1
TRICHLOROETHENE		1	3 2	3.2
TRICHLOROFLUOROMETHANE		1	<1	<1
VINYL CHLORIDE		1	13	13
Surrogate - % recovery				
1,2-DICHLOROETHANE-D4		_	104	101
4-BROMOFLUOROBENZENE		_	108	107
DIBROMOFLUOROMETHANE			105	106
TOLUENE-D8		-	97	99

### Notes:

.:

- J Estimated, based on QC data
- JB Estimated, possibly biased high or false positive based on blank contamination
- JH Estimated; possibly biased high based upon QC data
- JQ Estimated; Value is between reporting limit and detection limit
- NA Not Analyzed
- UJ Undetected; Reported Detection Limit is imprecise
- (a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions

PREPARED/DATE. RMB 9/23/05 CHECKED/DATE. JAH 9/23/05

Sample Type.         Normal         Normal           Location ID.         Reporting (a)         DMW-23A         DMW-24A           Sample Date:         Limit         7/20/2005         7/20/2005	FIELD PARAMETER:  Dissolved Oxygen - EPA 360.1 mg/L  DISSOLVED OXYGEN  0.1 7.5 66	Ferrous Iron - A3500D mg/L FERROUS IRON 0.1 0.2 0.2	Oxidation Reduction Potential - A2580A mV OXIDATION REDUCTION POTENTIAL - 513	pH. EPA 150.1 pH Units - 3.85 3.93	Specific Conductance - EPA 120.1 mS/cm SPECIFIC CONDUCTANCE 0.069 0.057	Temperature - EPA 170.1 deg. C TEMPERATURE - 207 212	Turbidity - EPA 180.1 NTU           TURBIDITY         1         <1         <1	FIXED BASE LABORATORY ANALYSIS:       Anions - MCAWW 300.0A mg/L       1       9.9       7.7         CHLORIDE       0.1       2.42       2.09         SULFATE AS N       1       2.2       2.5	Dissolved Gases - RSK SOP-175 µg/L.       1000       33000       J       43000          CARBON DIOXIDE       0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5       <0.5 <t< th=""><th>Hydrogen by Microsceps - AM20GAX nM HYDROGEN 1 1.7 0.99 JQ</th><th>Mercury - SW846 7470 (Total) mg/L         0 0003         &lt;0.0003</th>         &lt;0.0003</t<>	Hydrogen by Microsceps - AM20GAX nM HYDROGEN 1 1.7 0.99 JQ	Mercury - SW846 7470 (Total) mg/L         0 0003         <0.0003	Metals - SW846 6010 (Total) mg/L         ALUMINUM       0.06       0.108 JB       0.138 JB         BARUM       0.025       0.0437       0.0597         BERYLLIUM       0.005       <0.005       <0.005         CADMIUM       0.005       <0.005       <0.005	M 050 5.0 001 050 0015 <0.015 0017 <0.015	0.1 <0.1 SIUM 0.2 0.704
at Normal 4A DMW-30A 7/20/2005	9.2	<b>⊕</b>	. 443	3.97	7 015	20.5	⊽	30.6 1 19 2.7	J 39100 J 40.5 ~ 41.5 < 41.5 < 40.5	0	3 0.00021 JQ	0.183 JB 0.0462 0.0462 0.005 0.005	1	
Normal DMW-31A 7/20/2005	3.8	6.0	Ē	4.45	0 057	20.4	2	8.9 0.58 2.8 J	138000 J <0.5 <1.5 0.73	1.5	<0 0003 UJ	0.105 JB 0.0516 0.0516 0.005 0.005	0.102 0.01 0.015	0.102 0.34
Duplicate DMW-31A 7/20/2005	3.8	<b>.</b> 0.1	Ξ	4 45	0.057	204	2	8.7 0.58 3.5 J	139000 J <0.5 <1.5	1.5	0.000517 J	0.14 JB 0.0509 <0.005 <0.005	40.01 40.01 40.01	0.126 0.26 0.24
Normal DP-1 8/3/2005	NA AN	Y.	N A	NA	NA A	Ϋ́	V.	74 1.65 0.5 JQ	A X X X	NA	<0.0003	0.0222 JQ 0.0516 -0.005 -0.005 -0.005	0.0083 JB	0.0636 JQ 0.771
Normal DP-2 8/3/2005	NA A	NA	ХА	NA	V Z	NA	Y Y	9 2.79 04 JQ	X	NA	<0.0003	0.506 0.0951 <0.005 <0.005	0.01 <0.01 <0.015	0 101 0 662 0 953
Normal DP-3 8/3/2005	∀ Z	۷ ۲	<b>∀</b> Z	V.	V.	<b>∀</b> X	۷ V	8.6 2.53 0.6. JQ	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Ϋ́	<0.0003	0.189 0.119 0.005 0.005	0.000 0.0091 Q	17/00
Nomal DP-4 8/3/2005	X	Z A	N A	NA	Y Y	N A	NA	5.7 6.1 0.7 7.0	4 4 4 4 7. 7. 7. 7.	V V	<0 0003	0.0218 JQ 0.075 0.005 0.005	0.00 40.01 40.015	0.0659 0.0524 JQ
Normal DP-5 8/3/2005	XA	NA	N A	Ν	NA A	N A	NA	7.1 2.03 0.6.JQ	Z Z Z Z Z	N	<0 0003	0.0914 0.0856 <0.005 <0.005	0.423 0.01 0.015 0.0343	0.0245 <0.1

TABLE B-7	

	Metals - SW846 6020 (Total) mg/L ANTIMONY ARSENIC LEAD SELENIUM THALLIUM	Total Alkalinity - MCAWW 310.1 mg/L ALKALINITY, TOTAL (AS CACO3)	<u>Total Organic Carbon - SW846 9060 mg/L</u> TOTAL ORGANIC CARBON	Total Sulfide - MCAWW 376.1 mg/L SULFIDE	Volatile Fatty Acids - SM5560 mg/L ACETIC ACID BUTANOIC ACID LACTIC ACID PROPIONIC ACID PYRUVIC ACID	Volatile Organic Compounds - SW846 8260 pg/l. 1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,1-DICHLOROETHANE 1,1-DICHLOROPROPANE 1,2,3-TRICHLOROPROPANE 1,2,3-TRICHLOROBENZENE 1,2,4-TRIMETHYLBENZENE 1,2,4-TRIMETHYLBENZENE 1,2-DICHLOROBENZENE 1,2-DICHLOROBENZENE 1,2-DICHLOROBENZENE 1,2-DICHLOROBENZENE 1,2-DICHLOROBENZENE 1,2-DICHLOROBENZENE 1,2-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,3-DICHLOROBENZENE 1,3-DICHLOROPROPANE 1,3-DICHLOROMETHANE 1,3-DICHLOROBENZENE 1,3-DICHLORO
Sample Type: Location ID: Sample Date:			Ţ			<u> </u>
Reporting (a) Limit	0 0001 0 0005 0.0005 0.0005 0.0005	10	-	7	2 7 1 1 2 5 0 5 5 6 5 6 6 5 6 6 6 6 6 6 6 6 6 6 6	
Normal DMW-23A 7/20/2005	<ul> <li>&lt;0.0001</li> <li>&lt;0.0005</li> <li>&lt;0.00025 JQ</li> <li>&lt;0.00021 JQ</li> </ul>	2 JQ	НС 90	4	<b>&amp; &amp; &amp; &amp; &amp;</b> & & & & & & & & & & & & & &	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
Normal DMW-24A 7/20/2005	<pre>&lt;0 0001 &lt;0.00046 JQ &lt;0.00046 JQ &lt;0.0005 &lt;0.0001</pre>	<10	9.5 ЛН	8	<b>&amp; &amp; &amp; &amp; &amp; &amp; &amp; &amp; &amp; &amp;</b>	
Normal DMW-30A 7/20/2005	0.00004 JB 0.00014 0.00074 0.00055	2 JQ	Hf 80	Q	<u>^</u>	
Normal DMW-31A 7/20/2005	0.00005 JB 0.00011 JQ 0.00026 JQ <0.00026 JQ	S JQ	Н1 6.0	Q	<u>^</u>	
Duplicate DMW-31A 7/20/2005	0.00005 JB 0.00012 JQ 0.00058 0.00031 JQ	2 JQ	<del>-</del>	8	Z Z Z Z Z Z Z Z Z Z	
Normal DP-1 8/3/2005	0.00006 JB <0.0005 0.0169 0.00023 JQ <0.0001	3 JQ	V V	¥ V	Z Z Z Z Z Z Z Z Z Z	
Normal DP-2 8/3/2005	0.00006 JB <0.0005 0.0152 0.00022 JQ <0.0001	<10	<b>4</b> 2	N A	4 4 4 4 2 2 2 2 2	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Normal DP-3 8/3/2005	0 00005 JB <0.0005 0.00982 <0.0005 <0.0001	0.7	V Z	<b>∀</b> Z	Y Y X Z Z	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Normal DP-4 8/3/2005	0.00005 JB <0.0005 0.0188 0.0002 JQ <0.0001	<10	NA	NA	& & & & & & & & & & & & & & & & & & &	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$
Normal DP-5 8/3/2005	<pre>&lt;0 0001 &lt;0.0005     0 018     0.00025 JQ &lt;0 0001</pre>	ol>	Ϋ́	N A	<b>4 4 4 4</b> 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	

DATA SUMMARY TABLE FOR GROUNDWATER
OU8 - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Comple Type.		lemoN	Normal	Normal	Normal	Duplicate	Normal	Normal	Normal	Normal	Normal
	Location ID:	Reporting (a)	DMW-23A	DMW-24A	DMW-30A	DMW-31A 770/2005	DMW-31A 7/20/2005	DP-1 8/3/2005	DP-2 8/3/2005	DP-3 8/3/2005	DP-4 8/3/2005	DP-5 8/3/2005
	Sample Date		2007/07/1	COOTION	2020211							
CHLORODIBROMOMETHANE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽
CHIOROETHANE		-	. △	' ▽	. △	⊽	⊽	⊽	⊽	⊽	⊽	⊽
CHIOROFORM			. △	. △	⊽	0.36 JO	0.36 JQ	0.5 JQ	⊽	⊽ -	⊽	⊽
CHLOROMETHANE		• •••	. △	. △	0.14 JB	0.15 JB	, ▽	0 26 JB	0.33 JB	1.1 38	0.74 JB	⊽
CIS-12-DICHLOROETHENE		0.5	. <del>\</del> \	0.51	110	1.6	1.5	& 5.0	40.5	<b>Q.</b> 5	0.5	Ф.5
CIS-1,3-DICHLOROPROPENE		: -	∀	⊽	⊽	⊽	▽	⊽	⊽	⊽	⊽	⊽
DIBROMOMETHANE		_	⊽	⊽	⊽	▽	⊽	⊽	⊽	⊽	⊽	⊽
DICHLORODIFLUOROMETHANE		_	0.58 JQ	⊽	▽	⊽	⊽	⊽	⊽	⊽	⊽	⊽ '
ETHYLBENZENE		-	, ▽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	∵ '
HEXACHLORO-1,3-BUTADIENE			⊽	⊽	⊽	⊽	⊽'	∵	⊽	⊽	⊽ '	⊽ :
ISOPROPYLBENZENE		_	⊽	⊽	▽	▽	⊽'	⊽	⊽	⊽	⊽ '	⊽ .
M & P-XYLENES		_	⊽	⊽	⊽	▽	⊽	⊽	▽	⊽	⊽	⊽ '
METHYL TERT-BUTYL ETHER		_	▽	⊽	⊽	⊽	⊽	⊽	⊽	⊽ -	⊽	⊽ '
METHYLENE CHLORIDE		_	⊽	▽	⊽	▽	⊽	⊽	0.44 JQ	04 JQ	0.33 JQ	⊽ '
N-BUTYLBENZENE		_	⊽	⊽	▽	▽	⊽	⊽	⊽	⊽ ~	⊽	⊽
N-PROPYLBENZENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽ '
NAPHTHALENE		_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽ '
O-XYLENE		_	⊽	⊽	∇.	⊽	⊽	⊽	⊽	⊽	⊽	⊽ '
P-ISOPROPYLTOLUENE		_	⊽	▽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽ '
SEC-BUTYLBENZENE		_	⊽	⊽	⊽	▽	⊽	⊽	⊽	⊽	⊽	∵ '
STYRENE		_	⊽	⊽	⊽	▽	⊽	⊽	⊽	⊽	⊽	▽ '
TERT-BUTYLBENZENE		-	⊽	▽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽ `
TETRACHLOROETHENE		1	⊽	70	62	75	23	0 26 JQ	⊽	⊽	⊽	⊽ '
TOLUENE		-	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	∵
TRANS-1, 2-DICHLOROETHENE		0.5	<0.5	<0.5	49	<0.5	<0.5	<05	<0.5	Q.5	Ø.5	€.5
TRANS-1,3-DICHLOROPROPENE			∀	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽ '	▽ '
TRICHLOROETHENE		.,	⊽	5.4	18	170	170	⊽	⊽	⊽	⊽	V
TRICHLOROFLUOROMETHANE		-	8.8	7.7	1.8	2.3	2.3	0.49 JQ	⊽	⊽	⊽	⊽
VINYL CHLORIDE			⊽	⊽	3.5	⊽	⊽	⊽	⊽	⊽	⊽	⊽
										·		
Surrogate - % recovery 1 2-DICH1 OROFTH ANF-DA		1	901	Ξ	108	- 112	116	110	110	112	114	115
4-BROMOFILIORORENZENF		ı	20	- SE	106	2	106	86	100	101	66	104
DIBROMOET LIOROMETHANE		ł	110	911	109		115	106	107	107	110	112
TOLUENE-D8		i	102	86	66	100	102	102	103	107	105	110
		:								-=,		

	ú
Š	
Ž	_
ž	_

LE ES

¥B∋

Estimated, based on QC data
Estimated, possibly biased high or false
positive based on blank contamination
Estimated, possibly biased high based upon QC data
Estimated, Value is between reporting limit
and detection limit
Not Analyzed
Undetected; Reported Detection Limit is imprecise
Reporting limits presented are the best that can be achieved under
normal operating procedures with the method-required sample
volume extracted and analyzed Sample reporting limits may vary
due to sample volume/sample weight extracted and/or sample
dilutions

-
쑈
ы
Ξ,
9
٧.

MWANP-3 7/21/2005	2	₽.1	374	451	0.081	22	-	11.5 3.65 1.1	110000 J <05 UJ <1.5 UJ <05 UJ	1.3	<0 0003	0 134 0 0982 0 0982 0 005 0 0577 0 015 0 015 0 0166 0.0062 JB 0.0062 JB 0.0064 JB 0.0064 JB
MWANP-3 7/21/2005	7	₩.	374	4.51	0.081	22		11.3 3.62 1.2	110000 J <0.5 UJ <1.5 UJ 0.39 JQ	1.3	<0 0003	0 135 0 0979 <0 005 <0 005 0.597 <0 01 0.0216 JQ 1.82 0.018 <0.015 <0 015 <0 01 <0.011 10.11 0.018 JQ <0.015 <0 015 <0 01
Normal DP-12 8/3/2005	Y Y	¥Z	¥ Z	<b>∀</b> Z	۲ ۲	NA A	Ϋ́Z	10 2.09 04 JQ	< < < < <	Y Y	<0.0003	0.404 0.0638 <0.005 <0.005 0.089 <0.0074 1.13 1.12 0.0627 1.13 1.12 0.0518 <0.015 <0.02 1.2 <0.015 6.95 <0.045
Duplicate DP-11 8/3/2005	Ν Α	NA	Y Y	NA	Ϋ́Υ	VA	NA	15.9 2.52 0.6 JQ	4 4 4 4 2 2 2 2	ν	<0 0003	0.0192 JQ 0.0612 <0.005 <0.005 1.52 <0.01 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0299 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0.0293 0
Normal DP-11 8/3/2005	V V	٧	Ϋ́	A A	NA	NA	¥ X	164 246 0.6 JQ	4 4 4 4 2 7 7 7	٧N	<0.0003	0.0186 JQ 0.062 <0.005 <0.005 <0.015 0.0296 0.0296 0.0296 0.0296 0.0296 0.0296 0.0296 0.0296 0.0296 0.0296 0.0296 0.0296 0.0296 0.0296 0.0296 0.0296 0.0296 0.0296
Normal DP-10 8/3/2005	٧Z	٧×	NA NA	٧X	¥Z	NA	NA	9.2 2.81 6	Z Z Z Z	V.	<0 0003	0.116 0.079 <0.005 0.0011 JQ 442 <0.01 0.059 JQ 0.113 0.26 1.07 0.0316 <0.015 <0.015 <0.016 8.08 0.122 0.122
Normal DP-9 8/3/2005	٧×	NA	NA	NA	NA	NA	NA	11.4 1.67 1.1	<b> </b>	NA	<0 0003	0.171 0.0991 <0.005 <0.005 0.884 <0.015 0.0596 0.137 0.741 0.0741 0.0214 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015
Normal DP-8 8/3/2005	Ϋ́	NA	NA	NA	NA	V.	N.A	10.8 0.54 0.5 JQ	<b>4 4 4 4</b>	NA	<0.0003	0.486 0.101 <0.005 <0.005 <0.005 0.567 <0.01 0.0053 0.742 0.742 0.788 0.0223 <0.012 5.82 <0.01
Normal DP-7 8/3/2005	Z V	N A	NA	N.	NA	N A	NA	116 1.7 0.5 JQ	<b>4 4 4 4</b> 2 2 2 2	NA	<0 0003	0.0381 JQ 0.0704 <0.005 <0.005 0.568 <0.01 0.0418 0.0418 0.0418 0.0418 0.0233 <0.015 <0.015 <0.015 <0.0119 JQ
Normal DP-6 8/3/2005	A A	A'N	N.A.	N A	NA	NA	NA	9.2 1.97 03 JQ	<b>&amp; &amp; &amp; &amp;</b> Z Z Z Z	NA	<0 0003	0.0755 0.0897 0.0897 0.0579 0.579 0.0814 0.0528 JQ 0.0528 JQ 0.0419 0.0419 0.0419 0.0419 0.0419 0.0419 0.0419
Reporting (a) Limit	0.1	0.1	I	I	0 001	1	-	- 0	1000 0.5 1.5 0.5		0 0003	0.06 0.005 0.005 0.005 0.01 0.01 0.01 0.02 0.015 0.02 0.05 0.015
Sample Type: Location ID: Sample Date:			Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value Value		el el			SIS:		21		
	FIELD PARAMETER: Dissolved Oxygen - EPA 360.1 mg/L DISSOLVED OXYGEN	<u>Ferrous Iron - A3500D mg/L</u> FERROUS IRON	Oxidation Reduction Potential - A2580A mV OXIDATION REDUCTION POTENTIAL	<u>pH - EPA 150,1 pH Units</u> pH	Specific Conductance - EPA 120.1 mS/cm SPECIFIC CONDUCTANCE	Temperature - EPA 170.1 deg. C TEMPERATURE	Turbidity - EPA 180.1 NTU TURBIDITY	FIXED BASE LABORATORY ANALYS Anions - MCAWW 300.0A mg/L CHLORIDE NITRATE AS N SULFATE AS SO4	Dissolved Gases - RSK SOP-175 µg/L CARBON DIOXIDE ETHANE ETHENE METHANE	Hydrogen by Microseeps - AM20GAX nM HYDROGEN	Mercury - SW846 7470 (Total) mg/L MERCURY	Metals - SW846 6010 (Total) mg/L ALUMINUM BARUUM CADMIUM CALCIUM CALCIUM CCHROMIUM COPER IRON MAGNESTUM MAGNESTUM MANGANESE MOLYBDENUM NICKEL POTASSIUM SILVER SODIUM VANADIUM

r>
宀
ŒΪ
_
<u>m</u>
< -
L

San Lo Lo San	Metals - SW846 6020 (Total) mg/L ANTIMONY ARSENIC LEAD SELENIUM THALLIUM	Total Alkalinity - MCAWW 310.1 mg/L ALKALINITY, TOTAL (AS CACO3)	Total Organic Carbon - SW846 9060 mg/L TOTAL ORGANIC CARBON	Total Sulfide - MCAWW 376.1 mg/L SULFIDE	Volatile Fatry Acids - SM5560 mg/L ACETIC ACID BUTANOIC ACID LACTIC ACID PROPIONIC ACID PROPIONIC ACID PYRUVIC ACID	Volatic Organic Compounds - SW846 8260 µg/L 1,1,1-TRICHLOROETHANE 1,1,1-TRICHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TETRACHLOROETHANE 1,1,2-TRICHLOROETHANE 1,1-DICHLOROETHANE 1,1-DICHLOROETHANE 1,1-DICHLOROBENZENE 1,2-TRICHLOROBENZENE 1,2-TRICHLOROBENZENE 1,2-TRIMETHYLBENZENE 1,2-DIBROMO-3-CHLOROPROPANE 1,2-DICHLOROBENZENE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROETHANE 1,2-DICHLOROBENZENE 1,2-DICHLOROPROPANE 1,2-DICHLOROMETHANE 1,3-DICHLOROMETHANE 1,3-DICHLOROMETHANE 1,3-DICHLOROMETHANE 1,3-DICHLOROMETHANE 1,3-DICHLOROPROPANE
Sample Type: Location ID: Sample Date:						
Reporting (a) Limit	0 0001 0 0005 0.0005 0.0005 0 0001	10	-	7	0.5	
Normal DP-6 8/3/2005	0.00004 JB <0.0005 0.0306 0.0004 JQ <0.0001	<10	NA	Ϋ́Z	8 8 8 8 8 8 8 8 8 8	~~~~ <del>~</del> ~~ <del>~</del> ~~~ <del>~</del> ~~~~~~~~~~~~~~~~~~~~
Normal DP-7 8/3/2005	<ul><li>&lt;0.0001</li><li>0.00014 JQ</li><li>0.0359</li><li>0.00059</li><li>&lt;0.0001</li></ul>	Or 2	Ϋ́Α	V.	<b>&amp; &amp; &amp; &amp; &amp;</b> & & & & & & & & & & & & & &	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
Normal DP-8 8/3/2005	<0.0001 0.00027 JQ 0.024 0.00091 <0.0001	3 JQ	Y Y	¥ Z	<b>~ ~ ~ ~ ~</b> ~ <b>~</b>	
Normal DP-9 8/3/2005	0 00005 JB 0.00019 JQ 0.0115 0.00077	3 JQ	Ϋ́	NA	Z Z Z Z Z Z Z Z Z	△ △ △ △ △ △ △ △ △ △ △ △ △ △ △ △ △ △ △
Normal DP-10 8/3/2005	0.00005 JB <0.0005 0.0206 0.00034 JQ <0.0001	Or L	<b>Y</b> Z	NA	Z Z Z Z Z Z Z Z Z Z	$\begin{array}{c} \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot \\ \cdot $
Normal DP-11 8/3/2005	0 00004 JB 0.0001 0.0121 0.00041 JQ	3 JQ	NA	V V	X	
Duplicate DP-11 8/3/2005	<ul><li>&lt;0.0001</li><li>0.0001</li><li>0.00117</li><li>0.00044</li><li>1Q</li></ul>	3 JQ	<b>V</b> V	NA	< < < < < < < < < < < < < < < < < < <	
DP-12 8/3/2005	<ul> <li>&lt;0.0001</li> <li>0.00021</li> <li>0.0145</li> <li>&lt;0.00072</li> <li>&lt;0.0001</li> </ul>	3 30	<b>∀</b> Z	₹ Z	▼	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
MWANP-3 7/21/2005	40,0003 40,0003 0,00033 JQ 40,0005 40,0001	3 JH	1.3	Q	∆ ∆ ∆ ∆ 3.	>
MWANP-3 7/21/2005	<ul><li>&lt;0.0001</li><li>&lt;0.0005</li><li>&lt;0.00034</li><li>&lt;0.0005</li><li>&lt;0.0005</li></ul>	2 JB	1.3	Q	<u>^</u>	△    △    △    △    △    △    △

	٥٥
B-7	ON TABLE BOD CBC
TABLE B-7	1
Y	Ĭ
	2
	7
	- 5

Normal Normal Normal Duplicate Normal	Noting Noting Peril DP-12	DP-1 DP-8 DP-3 8/3/2005 8/3/2005 8/3/2005 8/3/2005 7/21/2005 8/3/2005 7/21/2005	Of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of th	∑r 7/10		<1 0.26 JQ 0.42 JQ 0.34 JQ 0.21 JQ 0.18 JQ	1 JB <1 0.92 JB 0.22 JB 0.75 JB 0.22 JB	$\bigcirc 0.5$ 2.1 $\bigcirc 0.5$ 10 8 2.9	▽ ▽ ▽ ▽	▽ ▽ ▽	△	▽ ▽ ▽	▽ ▽ ▽	▽ ▽ ▽	▽ ▽ ▽	∇ Of 910 Of 610 ∇ ∇	0.24 JO <1	▼	▽ ▽ ▽	▽ ▽ ▽	▽ ▽ ▽	▽ ▽ ▽ ▽	▽ ▽ ▽ ▽	▽ ▽ ▽ ▽ ▽	▽ ▽ ▽ ▽	2 9 26 23 180 180 11	▽ ▽ ▽ ▽	<0.5 <0.5 <0.5 0.36 JQ 0.32 JQ <0.5	▽ ▽ ▽ ▽	2.6 28 33 32 24	<1 2.1 1.2 13 J 76 J 7.3	⊽	•	109 111 110 103 111	97 100 98 92 101	105 106 104 99 106 107	
		DP-6 8/3/2005		⊽	⊽	0.24 JO	<b>,</b> 	, <u>e</u>	€ .	7 7	7 ⊽	₹ 5	77	7 7	7 ₹	7 7	7 7	<b>⊽</b> 7	7 7	7 7	77	7 ∇	∵ ⊽	; ⊽	7 ₩	01 020	y 1 ∨	<u>.</u> 0.5	;	1.2	Of 8:0	<b>,</b> □		114	101	109	
6		Location ID. Reporting (a) Sample Date: Limit		CHLORODIBROMOMETHANE	CHIOROETHANE		CHIOROMETHANE	THENE	£1			DICHLOROMETHANE	EIHYLBENZENE	HEAACHLORU-1,3-BUI ADIENE	ISOPKOPYLBENZENE	M & P-XYLENES	MEIHYL IEKI-BUIYL EIHEK	METHYLENE CHLORIDE	N-BUTYLBENZENE	N-FKOPYLBENZENE	NAPHIHALENE	D ISODBODY I TOTI TENE	CCC DITTYI DENIZENE	SEC-BOILEDENCEINE	TED T DI TANDENIE	TETI-BOLITBENCENE		TOLOGINE TRANGLI 2-DICHI OROETHENE	łı		WETHANE		Surrogate - % recovery	12-DICHLOROETHANE-D4	4-BROMOFI LIOROBENZENE	DIBROMOFLUOROMETHANE -	

Estimated, based on QC data
Estimated, possibly biased high or false
positive based on blank contamination
Estimated, possibly biased high based upon QC data
Estimated, Value is between reporting limit
and detection limit
Not Analyzed
Undetected, Reported Detection Limit is imprecise

Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

DATA SUMMARY TABLE FOR GROUNDWATER OUS - UPPER WATER BEARING UNIT BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Supply Center Richmond	
---------------------------------------------------------------------------------------------------------------------------------------------------	--

Richmond, Virginia

Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle   Particle		Sample Type Location ID. Sample Date	Reporting (a) Limit	Normal MWANP-7 7/21/2005	Normal MWANP-10 7/21/2005	Normal MWANP-13 7/21/2005	Normal MWANP-14 7/21/2005	Normal MWANP-15 7/21/2005	Nоrmal МWANP-16 8/2/2005	Normal MWANP-17 7/21/2005	Normal MWANP-18   7/21/2005	Normal MWANP-19 8/2/2005	MWANP-20 8/2/2005
	FIELD PARAMETER: <u>Dissolved Oxygen - EPA 360.1 mg/L</u> DISSOLVED OXYGEN		0 1	8.2	9.3	7	8 8	ø	6.3	6.5	22	12	5.5
Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part	Ferrous Iron - A3500D mg/L. FERROUS IRON		0.1	⊕	0,	<b>∓</b> .	<b>6</b> .1	<b>⊕</b>	0.2	₽	9		Ţ.
Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part	xidation Reduction Potential - A2580A m/ XIDATION REDUCTION POTENTIAL	<b>&gt;</b> I	f	401	404	440	384	364	310	558	290	56	294
	<u>pH - EPA 150.1 pH Units</u> pH		ı	4.27	4.31	4.62	4.59	4.75	4 67	3.96	3.58	5 64	5.15
	pecific Conductance - EPA 120.1 mS/cm PECIFIC CONDUCTANCE		0 001	0.064	0.07	0.04	0 08	0.051	0.029	0.064	1 0 0 0 5 1	0.064	0.041
Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part   Part	emperature - EPA 170.1 deg. C EMPERATURE		I	22.1	9761	21.2	23.4	961	20.2	22 1	19.5	18.5	181
1	urbidiry - EPA 180.1 NTU JRBIDITY		_	⊽	Ÿ	-	=	∞	_	⊽	⊽	8	<b>∞</b>
	IXED BASE LABORATORY ANALYSIS nions - MCAWW 300.0A mg/L HLORIDE ITRATE AS N LEATE AS SO4				8 9 2 85 1	4.8 1.44 0.4 JQ	57 2.05 0.5 JQ	4.1 2.42 2.4	2.8 0.98 0.7 JQ	10.6 1.4 1.2	63 084 05 JQ	39 049 28	3.7 0.61 2
	issolved Gases - RSK SOP-175 ug/L. ARBON DIOXIDE FHANE FHENE ETHANE		1000 0.5 1.5 0.5		47000 J <0.5 UJ <1.5 UJ <0.5 UJ	0	31000 J <0.5 UJ <1.5 UJ 0.35 JQ	84000 J <0.5 UJ <1.5 UJ		84000 40.5 <1.5 <0.5	150000 J 40.5 UJ 41.5 UJ 04 JQ	66800 J <0.5 <1.5 19	67100 J <05 <1.5 <0.5
	ydrogen by Microseeps - AM20GAX nM YDROGEN		-	1.2	Or 1	1.6	1.7	1.5	1.6	0 72 JQ	. 0.86 JQ	-	1.7
Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   Column   C	ercury - SW846 7470 (Total) mg/L. ERCURY		0.0003	<0 0003	<0 0003	<0.0003	<0 0003	<0 0003	<0.0003	<0 0003	<0.0003	<0.0003	<0.0003
	etals - SW846 6010 (Total) mg/L LUMINUM RYLJUM ALCIUM ALCIUM ALCIUM ACRIE BALT PPER ON AGNESIUM AGNESE OLYBDENUM CKEL TASSIUM ANADIUM		0.06 0.025 0.005 0.005 0.01 0.01 0.01 0.015 0.015 0.015 0.015 0.015 0.015	0.0554 JB 0.0509 <0.005 <0.005 0.332 JQ <0.01 <0.0124 JQ <0.0124 JQ <0.01 <0.0124 JQ <0.01 <0.0124 JQ <0.01 <0.0245 0.0245 0.0245 0.0245 0.0245 0.0246 0.0246 0.0247 JQ <0.01 8.48 <0.01	0.243 0.131 0.005 0.005 0.924 <0.01 0.0075 JQ <0.01 1.54 0.0753 <0.015 1.47 <0.01 5.49 0.0068 JB	0.0825 0.0509 <0.005 <0.005 0.308 JQ <0.01 0.0084 JQ 0.004 JB <0.002 1 4 0.0049 JB 4.09 <0.01 0.0054 JB	0.765 0.0622 <0.005 <0.005 <0.397 JQ <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.017 9.85 <0.011	0.986 JH 0.0677 <0.005 <0.005 0.346 JQ <0.015 <0.015 <0.015 <0.015 0.477 1.59 0.0131 0.0062 JB <0.002 0.3 JQ 0.0023 JB 6.17 <0.01	0.0451 JQ 0.0361 <0.005 <0.005 <0.0148 JQ <0.011 <0.015 <0.010 <0.010 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <	0.0928 0.0928 0.0928 0.095 0.005 0.022 JQ 0.015 0.015 0.015 0.019 0.0191 0.0057 JB 0.0191 0.0057 JB 0.0191 0.0059 JQ 0.0146 JQ	0.0625 JB 0.0284 <0.005 <0.005 0.722 <0.01 0.0051 JQ <0.01 0.603 JQ 0.603 JQ 0.603 JQ 0.603 JQ 0.603 JQ 0.639 0.137 <0.015 <0.015 <0.016 <0.011 5.16 <0.011	0.259 0.0094 JQ <0.005 3.6 <0.011 <0.015 <0.011 1.3 0.463 0.0516 <0.015 <0.015 <0.011 5.39 <0.011 5.39	0 384 0.0117 JG <0 005 <0.005 1.5 <0 01 0.0069 JE 0.0204 <0 015 <0 0

DATA SUMMARY TABLE FOR GROUNDWATER
OUS - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Normal MW ANP-20 8/2/2005	0 00005 JB 0.00015 JQ 0 00041 JQ 0 00031 JQ <0 0001	Öf 8	0.3 JH	Q	< < < < < < < < < < < < < < < < < < <	
Normal MWANP-19 872/2005	0.00008 JB 0.00035 JQ 0.00026 JQ <0.00028 JQ	71	0.8 JH	8	X X X X X	△ △ △ △ △ △ △ △ △ △ △ △ △ △ △ △ △ △ △
Normal MWANP-18 7721/2005	40.0001 40.0005 0.00048 JQ 0.00023 JQ 40.0001	4 JH	12	ζ.	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	
Normal MWANP-17 7/21/2005	40,0001 40,0005 0,0005 40,0005	<10		4	⊅ & ∆ ∆ <u>&amp;</u>	^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^ ^
Normal MWANP-16 8/2/2005	0.00006 JB <0.00037 JQ <0.00037 Q <0.0005	2 JQ	0.2 JB	Ġ.	& & & & & & & & & & & & & & & & & & &	
Normal MWANP-15 7/21/2005	0.00005 JB 0.00011 JQ 0.00068 0.00028 JQ <0.0001	3 JH	1.3	4	△ 4. △ △ ♣	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
Normal MWANP-14 7/21/2005	0.00004 JB <0.0005 0.0009 <0.0005 <0.0001	2 JB	0.3 JQ	4	* * * * * * % % % % % %	~~~~~
Normal MWANP-13 7/21/2005	0.00008 JB <0.0005 0.00027 JQ <0.0005 <0.0001	2 JB	0.3 JQ	Q	¥ ¥ ¥ ¥ ¥	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
Normal MWANP-10 7/21/2005	<ul><li>&lt;0.0001</li><li>&lt;0.0005</li><li>&lt;0.00154</li><li>&lt;0.0005</li><li>&lt;0.0001</li></ul>	<10	O.7 JQ	۵	<b>~ ~ ~ ~ ~</b> z z z z z	> > > > > > > > > > > > > > > > > > >
Normal MWANP-7 7/21/2005	0.00006 JB <0.0005 0.00025 JQ <0.0001	2 JB		Q	<u>^</u>	.  .
Reporting (a) Limit	0.0001 0.0005 0.0005 0.0005	10	-	7	- 2 2 O	
Sample Type: Location ID: Sample Date:			린			
	Metals - SW846 6020 (Total) mg/L ANTIMONY ARSENIC LEAD SELENIUM THALLIUM	Total Alkaliniry - MCAWW 310.1 mg/L ALKALINITY, TOTAL (AS CACO3)	<u>Total Organic Carbon - SW846 9060 mg/L</u> TOTAL ORGANIC CARBON	Total Sulfide - MCAWW 376.1 mg/L SULFIDE	Volatile Fatty Acids - SM5560 mg/L ACETIC ACID BUTANOIC ACID LACTIC ACID PROPIONIC ACID PYRUVIC ACID	Volstile Organic Compounds - SW846 8260 µg/L  1,1,2-TETRACHLOROETHANE  1,1,2-TETRACHLOROETHANE  1,1,2-TRICHLOROETHANE  1,1-DICHLOROETHANE  1,1-DICHLOROETHANE  1,1-DICHLOROETHANE  1,1-DICHLOROBENZENE  1,2-TRICHLOROBENZENE  1,2-TRICHLOROBENZENE  1,2-TRICHLOROBENZENE  1,2-TRICHLOROBENZENE  1,2-DICHLOROBENZENE  2,2-DICHLOROPROPANE  2,2-DICHLOROPROPANE  2,2-DICHLOROPROPANE  2,2-DICHLOROPROPANE  2,2-DICHLOROPROPANE  2,2-DICHLOROPROPANE  2,2-DICHLOROPROPANE  2,2-DICHLOROPROPANE  2,2-DICHLOROPROPANE  3,5-TRIMETHYL-2-PENTANONE  4-METHYL-2-PENTANONE  4-METHYL-2-PENTANONE  BROMOBENZENE  BROMOFORM  BROMOFORM  BROMOFORM  BROMOFORM  BROMOFORM  BROMOFORM  CARBON TETRACHLORIDE  CHLOROBENZENE

١
ì
١

DATA SUMMARY TABLE FOR GROUNDWATER
OUS - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

CHLORODIBROMOMETHANE CHLORODIBROMOMETHANE CHLORODIBROMOMETHANE CHLOROGETHANE CIS-1,2-DICHLOROETHENE CIS-1,2-DICHLOROROPENE DIBROMOMETHANE DIBROMOMETHANE DICHLORODIFLUOROMETHANE ETHYLBENZENE HEXACHLORO-1,3-BUTADIENE ISOPROPYLBENZENE M& P-XYTENEN M& P-XYTENEN M& P-XYTENEN M& P-XYTENEN M& P-XYTENEN M& P-XYTENEN M& P-XYTENEN M& P-XYTENEN M& P-XYTENEN M& P-XYTENEN M& P-XYTENEN M& P-XYTENEN M& P-XYTENEN M& P-XYTENE ISOPROPYLBENZENE N-PROPYLBENZENE N-PROPYLBENZENE N-PROPYLBENZENE N-PROPYLBENZENE N-PROPYLBENZENE N-PROPYLBENZENE N-PROPYLBENZENE N-PROPYLBENZENE TERT-BUTYLBENZENE TERT-BUTYLBE	Normal Normal Reporting (a) MWANP-7	Normal MWANP-10	Normal MWANP-13 701005	Normal MWANP-14 7/21/2005	Nоттаl MWANP-15 7/21/2005	Normal MWANP-16 8/2/2005	Normal MWANP-17 7/21/2005	MWANP-18 7/21/2005	MWANP-19 8/2/2005	MWANP-20 8/2/2005
R ANE SR ANE SINE NE	COSTUTI					5	7	⊽	⊽	⊽
ANE SR SE SIVE NE	∇	▽	⊽	⊽	⊽ .	₹ ₹	7 7	7 ∇ ~~	. △	⊽
ANE SHE SHE SHE SHE SHE SHE SHE SHE SHE SH	⊽	⊽	⊽	⊽	⊽ '	₹.	7 7	7	. △	∀
AZE SE SE	035 10	7	0.22 JQ	⊽	⊽	⊽	<b>∀</b> ;;	7 5	טן גיניס	' ⊽
ANE SE	O1 550	⊽	⊽	⊽	0.26 JQ	0.2 JQ	Or 61.0	Dr 55.0	2 F	. &
ANE SE	045 JO	40.5	40.5	<0.5	0.5	40.5	. <del>.</del> 5. 5.	€ ₹	} ₹	} ▽
ANE SIGN SIGN SIGN SIGN SIGN SIGN SIGN SIGN	; ∵ ∀	⊽	⊽	⊽	⊽	⊽	⊽ '	⊽ ₹	7 7	7 ▽
ANE SE	' ⊽	⊽	⊽	⊽	⊽	∵	⊽ '	⊽ 5	7 7	7 7
	' ▽	⊽	⊽	⊽	⊽	⊽	⊽ '	⊽ ₹	7 7	7 ▽
AS AS AS AS AS AS AS AS AS AS AS AS AS A	∵ ⊽	⊽	⊽	⊽	⊽	⊽	⊽ '	<b>∀</b> ₹	7 5	7 ▽
RE SIGN TO THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE	7	⊽	⊽	⊽	⊽	⊽ '	⊽ ¹	⊽ ₹ 	7 🔻	- ▽
AE SIGE NE .	⊽	▽	⊽	⊽	⊽	⊽	⊽ '	√ 5	7 7	7 ⊽
AE SIGE IN .	⊽	▽	⊽	⊽	⊽	⊽ ,	⊽ ₹	7 7	7 ▽	. △
9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	∇	7	⊽	⊽	⊽	⊽	∵ :	. F	į, ε.	- √
9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	⊽	⊽	0 23 JB	⊽	⊽	0.22 JB	0.17 JB	97.0 -	ar 17:0	; ⊽
9 H H H H H H H H H H H H H H H H H H H	⊽	⊽	∀	⊽	⊽	⊽ '	⊽ •	7 7	7 7	. △
9 EN S	. ▽	▽	⊽	⊽	⊽	⊽ '	⊽ .	⊽ ₹	7 7	. △
A E E E E E E E E E E E E E E E E E E E	⊽	$\nabla$	⊽	▽	⊽	⊽ '	⊽ ¹	√ √ ~~	7 7	. △
A E E E E E E E E E E E E E E E E E E E	⊽	⊽	⊽	⊽	⊽	▽ ¹	⊽ ₹	7 7	7 7	. △
A E E E E E E E E E E E E E E E E E E E	⊽	⊽	⊽	⊽	⊽ '	⊽ :	⊽ ₹	7 7	7 🔽	. △
SNE SNE SNE SNE SNE SNE SNE SNE SNE SNE	⊽	⊽	⊽	⊽	⊽ .	√ 7	7 7	7 ∇ 	. △	\
SNE SNE SNE SNE SNE SNE SNE SNE SNE SNE	⊽	⊽	⊽	⊽	∵ '	⊽ ;	7 7	7 7		⊽
NE GNE	▽	⊽	⊽	⊽	⊽ :	⊽ ₹	7 2	01 89 0	. △	0.2 JO
NE SNE	0 84 JQ	⊽	⊽	▽ .	7.	<b>⊽</b> ₹	), 02.U	2 2 2	. △	\
NE NE NE NE NE NE NE NE NE NE NE NE NE N	∇	▽	⊽	⊽	⊽ :	√ \$	7 🤅	7 6	20.5	\$ 8
TRANS-1,3-DICHLOROPROPENE TRICHLOROETHENE TRICHLOROFLUOROMETHANE VINYL CHLORIDE  Surrogate - % recovery 1,2-DICHLOROETHANE-D4 4-BROMOFLUOROBENZENE - DIRROMOFLUOROMETHANE	<0.5	40.5	₽.5	<del>0</del> 5	€.05	c.0>	9 5	} <	3 ⊽	⊽
TRICHLOROETHENE TRICHLOROFLUOROMETHANE TRICHLORIDE VINYL CHLORIDE  Surrogate - % recovery 1,2-DICHLOROETHANE-D4 4-BROMOFLUOROBENZENE - DIRROMOFLUOROMETHANE	⊽	⊽	⊽	▽ '	∵ ;	⊽ ₹	7 7	7 <del>-</del> -	- ▽	0.54 JO
TRICHLOROFLUOROMETHANE  VINYL CHLORIDE  Surrogate - % recovery  1,2-DICHLOROETHANE-D4	0 39 JQ	⊽	⊽	⊽	1.7	₹.	9:I		. △	,
VINYL CHLORIDE  Surrogate - % recovery 1,2-DICHLOROETHANE-D4	74	⊽	⊽	⊽	⊽	⊽ .	⊽ ₹	7 T	7 ⊽	⊽
Surrogate - % recovery 1,2-DICHLOROETHANE-D4 4-BROMOFLUOROBENZENE - DIRROMOFLUOROMETHANE -	⊽	⊽	⊽	⊽ .	⊽	v	7	<del>,</del>	<del>,</del>	•
1,2-DICHLOROETHANE-D4 4-BROMOFLUOROBENZENE DIRROMOFLIOROMETHANE				•	ŗ	100	116		107	113
4-BROMOFLUOROBENZENE – hibromofilioromethane –	116	108	601	011	511	001	001	. «	8	102
DIBROMOFILIOROMETHANE	66	94	26	100	90 ;	701	5 1	- 5	2	105
	113	107	801	601	1.00	103	711	7; 86 	8	111
TOLUENE-D8	100	92	86	100	201	101				

Notes: J JB

Ĕζ

Estimated, based on QC data
Estimated, possibly biased high or false
positive based on blank contamination
Estimated, value is between reporting limit
and detection limit
Not Analyzed
Undetected; Reported Detection Limit is imprecise
Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions

DATA SUMMARY TABLE FOR GROUNDWATER
OUS - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

Normal USGS-2 7/21/2005	4 5	ф. 1.	561	4.43	0.041	206	7	2 1 2 3	44000 J <0.5 UJ <1.5 UJ <0.5 UJ	1.1	<0.0003	0.0284 <0.00284 <0.0005 <0.0005 <0.0015 <0.0115 <0.015 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.017 <0.002 2.21 0.0029 JB 2.01 0.0024 JQ 0.0028 JQ
Normal OS72MW-1 7/21/2005	3.7	- ♥	343	4.91	0.053	21.9	\$	6.1 1.78 0.7 JQ	110000 J <0.5 UJ <1.5 UJ 0.54 J	1.5	<0.0003	0 153 0 0596 <0.005 <0 005 2 08 <0 01 0 015 <0 01 0 0272 0 0272 0 00272 0 002722 0 00272 0 002
Normal <sup>1</sup> MWANP-27 8/3/2005	6.2	-0-	342	4.71	0.037	198	01	3.8 JB 136 06 JQ	68100 <0.5 <1.5 <0.5	15	<0.0003	0.139 0.0323 0.0323 0.005 0.005 0.005 0.015 0.0466 0.393 0.0196 0.0196 0.0196 0.0196 0.0196 0.0196 0.0197 1B
Normal MWANP-26 8/3/2005	5.3	<b>⇔</b>	375	4.67	0 043	19.2	6	4.5 JB 1.36 1.6	78800 J 40.5 41.5 40.5	1.5	<0 0003	0.322 0.0343 <0.005 <0.005 0.882 <0.01 0.0098 JQ <0.01 1.04 0.462 0.0806 <0.015 <0.01 4.28 <0.01 4.28 <0.01 0.0035 JB
Normal MWANP-25 8/2/2005	5.3	₩	306	4.61	0.046	20 1	9	4.3 JB 1.54 3 8	110000 J 40 S < 1 S <0.5	Ξ	<0 0003	0 117 0 048 <0 005 <0 005 <0 001 <0.001 0 0284 0 0 18 <0 0 18 <0 0 15 <0 0 15 <0 0 15 <0 0 15 <0 0 10 <0 0 0 0 10 <0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Normal MWANP-24 8/2/2005	7.3	6.1	375	4.42	0.055	22.2	20	7.5 JB 188 0.7 JQ	64500 J <0.5 <1.5 <0.5	12	<0 0003	0.562 0.0892 <0.005 0.0016 JB 0.707 <0.01 0.0075 JB <0.01 0.941 1.18 0.0703 <0.015 <0.015 <0.015 <0.017 3 42 <0.018
Normal MWANP-23 7/21/2005	1.5	₽.	352	4.91	0.038	21.2	7	3.8 1.1 0.7 JQ	70000 J <0.5 UJ <1.5 UJ 0.31 JQ	1.5	<0 0003	0.234 0.0225 JQ <0.005 <0.005 0.087 JQ <0.015 <0.015 <0.015 <0.017 0.027 0.027 0.0073 JB <0.02 0.513 JQ 0.0023 JB 5.39 <0.011
Normal MWANP-22 7/20/2005	7.1	₽.	342	4 29	0 052	-216	7	6 2 06 0.7 JQ	39600 J <0.5 <1.5 <0.5	13	<0 0003	0.0731 <0.005 <0.005 <0.005 <0.005 <0.015 <0.015 <0.015 <0.016 0.323 1.02 0.106 0.0045 JQ <0.016 4.52 <0.0104 JB
Normal MWANP-21 7/21/2005	0.5	26	102	5 74	0.037	20 5	т	3.2 0.24 1.9	22000 J <0.5 UJ <1 5 UJ 0.69 J	9.4	<0.0003	0 183 0 0138 JQ <0 005 <0.005 2.7 <0.015 0 0153 2 96 0.408 0.0873 <0.015 <0 01 <0 01 0.896 <0 01
Reporting (a)	10	0.1	1	I	0 001	1	-	- 7	1000 0.5 1.5 0.5		0 0003	0.06 0.025 0.005 0.005 0.5 0.01 0.015 0.015 0.005 0.015 0.015 0.015 0.015 0.015 0.015 0.015 0.015
Sample Type: Location ID: Sample Date			<u>0A mV</u> AL		<u>//cm</u>			LYSIS:	ı	Mu X		
	FIELD PARAMETER:  Dissolved Oxygen - EPA 360,1 mg/L  DISSOLVED OXYGEN	Ferrous Iron - A3500D mg/L FERROUS IRON	Oxidation Reduction Potential - A2580A mV OXIDATION REDUCTION POTENTIAL	<b>pH - EPA 150.1 pH Units</b> pH	Specific Conductance - EPA 120.1 mS/cm SPECIFIC CONDUCTANCE	Temperature - EPA 170.1 deg. C TEMPERATURE	Turbidity - EPA 180.1 NTU TURBIDITY	FIXED BASE LABORATORY ANALYSIS: Anions - MCAWW 300.0A mg/L CHLORIDE NITRATE AS N SULFATE AS SO4	Dissolved Cases - RSK SOP-175 ug/L CARBON DIOXIDE ETHANE ETHENE METHANE	Hydrogen by Microseeps - AM20GAX nM HYDROGEN	Mercury - SW846 7470 (Total) mg/L MERCURY	Metals - SW846 6010 (Total) mg/L ALUMINUM BARTUM BERYLLIUM CADMIUM CALCIUM CHROMIUM COPER IRON MAGNESTUM MAGNESTUM MAGNESTUM MAGNESTUM MAGNESTUM SILVEL POTASSIUM SILVER SODIUM VANADIUM ZINC

DATA SUMMARY TABLE FOR GROUNDWATER
OUS - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond

	Normal
	Normal
	Normal
	Normal
Richmond, Virginia	Normal
	Normal
	Normal
	Sample Type:

Normal USGS-2 7/21/2005	0.00007 JB <0.00035 0.00035 JQ <0.0003	2 JB	1.8	Q	< < < < < z z z z z z	
Normal OS72MW-1 7/21/2005	0 00004 JB <0.0005 0.0002 JQ <0 0005 <0.0001	5 JH	13	4	△	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
Normal , MWANP-27 8/3/2005	0.00004 JB 0.00025 JQ 0.00018 JQ 0.00018	3 JQ	04 JH	7	Y Y X X X	
Normal MWANP-26 8/3/2005	<ul> <li>40 0001</li> <li>0,00012 JQ</li> <li>0,00037 JQ</li> <li>0 00023 JQ</li> <li>&lt;0 0001</li> </ul>	3 JQ	0.5 JH	Q	4 4 4 4 4 2 2 2 2 2	
Normal MWANP-25 8/2/2005	<ul> <li>0 0001</li> <li>0.0005</li> <li>0 00059</li> <li>0 00027 JQ</li> <li>0 0001</li> </ul>	2 JQ	НГ 90	4	4 4 4 4 4 2 2 2 2 2	> > > > > > > > > > > > > > > > > > >
Normal MWANP-24 8/2/2005	<ul><li>&lt;0.0001</li><li>0.00014</li><li>1Q</li><li>0.00189</li><li>0.00029</li><li>1Q</li><li>&lt;0.0001</li></ul>	01>	Н. 9.0	Q	<b>&amp; &amp; &amp; &amp; &amp;</b> Z Z Z Z Z	
Normal MWANP-23 7/21/2005	0.00004 JB <0.0005 0.0003 JQ <0.0005 <0.0005	4 JH	0.4 JQ	4	* * * * * * *	¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬¬
Normal MWANP-22 7/20/2005	<ul><li>-0.0001</li><li>-0.0005</li><li>0.0003 JQ</li><li>-0.0001</li></ul>	2 JQ	НГ 5.0	4	* * * * * * * * * * * *	
Normal MWANP-21 7/21/2005	0.00014 JB 0.00438 0.00076 0.00192 <0.0001	Hf 9	26	4	* * * * * * * * * * * * * * * * * * *	△ △ △ △ △ △ △ △ ﴿ △ △ △ △ △ △ △ ﴿ △ △ ﴿ △ △ △ △ △ △ △ △ △ △ △ △ △ △ △ △ △ △ △ △
Reporting (a) Limit	0.0001 0.0005 0.0005 0.0005	01	-	74	0 2 1 1 2 2	
Sample Type: Location ID: Sample Date:		. 11	<u>17</u>			8260 <u>ng/L</u>
	Metals - SW846 6020 (Total) mg/L ANTIMONY ARSENIC LEAD SELENIUM THALLIUM	Total Alkaliniry - MCAWW 310.1 mg/L ALKALINITY, TOTAL (AS CACO3)	Total Organic Carbon - SW846 9060 mg/L TOTAL ORGANIC CARBON	Total Sulfide - MCAWW 376.1 mg/L SULFIDE	Volatile Fatry Acids - SM5560 mg/L ACETIC ACID BUTANOIC ACID LACTIC ACID PROPIONIC ACID PYRUVIC ACID	Volatile Organic Compounds - SW846 8260 110.1.1.1.1.2.TETRACHLOROETHANE 11,1.1.2.TETRACHLOROETHANE 11,1.2.TETRACHLOROETHANE 11,1.2.TETRACHLOROETHANE 11,2.TERCHLOROETHANE 11,2.TERCHLOROETHANE 11,2.TRICHLOROETHANE 11,1.DICHLOROPEOPENE 12,3.TRICHLOROPEOPENE 12,3.TRICHLOROPENE 12,3.TRICHLOROBENZENE 12,4.TRICHLOROBENZENE 12,4.TRIMETHYLBENZENE 12,DICHLOROBENZENE 12,DICHLOROETHANE 12,DICHLOROETHANE 12,DICHLOROETHANE 12,DICHLOROETHANE 12,DICHLOROENZENE 13,DICHLOROBENZENE 13,DICHLOROPROPANE 13,DICHLOROPROPANE 14,DICHLOROPROPANE 15,DICHLOROPROPANE 14,DICHLOROPROPANE 15,DICHLOROPROPANE 15,DICHLOROPROPANE 15,DICHLOROPROPANE 15,DICHLOROPROPANE 15,DICHLOROPROPANE 16,DICHLOROPROPANE 16,DICHLOROPROPANE 16,DICHLOROPROPANE 17,DICHLOROPROPANE 1

PREPARED/DATE: RMB 9/26/05 CHECKED/DATE: JAH 9/27/05

# TABLE B-7

DATA SUMMARY TABLE FOR GROUNDWATER
OUS - UPPER WATER BEARING UNIT
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Sample Type: Location ID: Sample Date:	Reporting (a) Limit	Normal MWANP-21 7/21/2005	Normal MWANP-22 7/20/2005	Nomal MWANP-23 7/21/2005	Normal MWANP-24 8/2/2005	Normal MWANP-25 8/2/2005	Normal MWANP-26 8/3/2005	MWANP-27 8/3/2005	OS72MW-1	USGS-2 7/21/2005
			Ç.	7	⊽	⊽	⊽	⊽	⊽	⊽	⊽
CHLORODIBROMOMETHANE		_ ,	کر 2000	77	7 ⊽	7 ▽	. △	⊽	⊽	⊽	⊽ '
CHLOROETHANE			7 ?	7 7	7 ⊽	0.29 JB	. △	0.21 JB	⊽	⊽	⊽ ;
CHLOROFORM		·	47.0	7 7	01 71 0	021.10	0.23 JO	0.21 JB	0 28 JB	0.52 JQ	0 13 JQ
CHLOROMETHANE		<b>-</b> ;	کار دو.0 دو.0	7 4	۲ ، ۶ ۲ ، ۶	¥ . €	\ \ \	<b>∆</b> .5	₩ ₩	<b>₽</b> .5	₩.
CIS-1,2-DICHLOROETHENE		0.5	₹ .	Ç,	<u> </u>	} \	} ⊽	÷⊽	⊽	⊽	⊽
CIS-1,3-DICHLOROPROPENE			⊽	⊽ .	₹ 5	7 7	7	. Δ	⊽	⊽	⊽
DIBROMOMETHANE		-	⊽	⊽	⊽ .	<b>∵</b> ¹	7 7	7 7	- <del>-</del> -	⊽	⊽
DICHLORODIFLUOROMETHANE			⊽	⊽	⊽	⊽ '	<b>∵</b> •	7 5		' ⊽	⊽
ETHYLBENZENE		,	⊽	⊽	⊽	⊽ '	⊽ ¹	7 7	7 5	. △	⊽
HEXACHLORO-1 3-BITTADIENE			⊽	▽	⊽	⊽	⊽	▽ .	7 5	7	√
ICOPRODYI RENZENE		_	⊽	⊽	⊽	⊽	⊽	⊽	<del></del>	7 7	. △
M & P_XVI FNFC		_	⊽	⊽	⊽	⊽	⊽	⊽		7 7	. ^
METUVI TEDT BITTVI ETTED		. –	0.58 10	⊽	⊽	⊽	⊽	⊽	▽ `	7 7	7 7
METHYL TENT ORIDE		. –	0.29 JB	⊽	⊽	0 28 JB	0 22 JB	⊽ '	▽ '	7 5	7 7
N DI ITVI DENZENE		. –	⊽	∀	⊽	⊽	⊽	⊽	⊽ '	7 7	7 7
N BBOBY BENZENE		•	. △	⊽	⊽	⊽	⊽	⊽	⊽	7 ;	7 7
NADITTIAL ENE		-	. △	∵ ⊽	⊽	⊽	⊽	⊽	⊽	⊽ .	7 7
NAFRI PALEINE O VVI ENE			- ▽	. △	⊽	⊽	⊽	⊽	▽	⊽ :	7 7
D-A1 LEINE P ISOPBORYT TOLLIENE			- ⊽	. △	⊽	⊽	⊽	⊽	⊽	⊽ ¹	7 7
CEC DITY! DENZENE			. △	⊽	⊽	⊽	⊽	⊽	⊽ '	<b>⊽</b> '	7 7
SEC-BOIL LIBERALINE STYVP ENIE			. △	∀	▽	⊽	⊽	⊽	⊽ '	⊽ 5	7 7
SI INCINE		• -	. 2	. ∠	⊽	∇	7	⊽	<u>v</u>	▼ .	7 4
TEKI-BUI YLBENZENE			7 🔽	7 ▽	- ⊽	⊽	0.34 JQ	1.3	0.42 JQ	Of 8.0	کار 22.0
TELENACHLOROETHENE			7 7	- ▽	. △	⊽	0.22 JQ	⊽	0.22 JQ	⊽ :	√ 9
TEANS 13 DICHI OBORTHENE		50		0.5	<0.5	<0.5	<0.5	<0.5 0	<0.5		
TRAING-1,Z-DICHLONOETHENE		; -	; ▽	∀	⊽	⊽		⊽		⊽ ;	7 6
TRAINS-1,5-DICHEOROPROFEINE			- ▽	. △	⊽	0 55 JQ	14	3.2	0.84 JQ	3.6	Or 78.0
TRICHLOROET HEINE			2.8	5.4	⊽	⊽	⊽	⊽	⊽	▼ '	7 7
VINICALOROFICOROMEI I AGNE			; ⊽	. ⊽	⊽	⊽	∵	⊽	⊽	⊽	<del>⊽</del>
VINTECILLONDE		-	•								
Surrogate - % recovery					-	11.3	117	113	113	118	115
1,2-DICHLOROETHANE-D4		ı	011	111	71.	501	103	101	101	101	26
4-BROMOFLUOROBENZENE		:	\$ !	<u>s</u> :	16	<u> </u>	6 =	601	107	114	111
DIBROMOFLUOROMETHANE		ı	221	71.	/07	10.5	108	108	106	66	86
TOLUENE-D8		1	66	IOO	74	22.					

Notes: J JB

ĦŸ Ž∃®

Estimated, based on QC data
Estimated, possibly biased high or false
positive based on blank contamination
Estimated, possibly biased high based upon QC data
Estimated, Value is between reporting limit
and detection limit
Not Analyzed
Undetected, Reported Detection Limit is imprecise

Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions

TABLE B-8

	Sample Type Location ID Sample Date	Reporting (a) Limit	Normal MWANP-4D 7/20/2005	Duplicate MWANP-4D 7/20/2005	Normal MWANP-12D 7/21/2005	Normal USGS-5 7/21/200
PIPI D DADAMETER.	-					
FIELD PARAMETER:	•					
Dissolved Oxygen - EPA 360,1 mg/J	Ŀ					
DISSOLVED OXYGEN		0,1	1.1	1,1	2,8	2,9
Ferrous Iron A35000 4						
Ferrous Iron - A3500D mg/L FERROUS IRON					_	
PERKUUS IKUN		0.1	<0.1	<0.1	<0 1	<01
Ovidation Dadwater Beauty to Am	F00.4 57					
Oxidation Reduction Potential - A2				_		
OXIDATION REDUCTION POTEN	HAL	-	331	331	-180	494
pH - EPA 150.1 pH Units						
рН		-	4.87	4.87	9.81	4.44
Specific Conducts PD 4 450 4						
Specific Conductance - EPA 120.1 n	ns/cm	0.05			•	
SPECIFIC CONDUCTANCE		0 001	0 047	0.047	0 23	0 064
Tomorous ED 1801 1						
Temperature - EPA 170.1 deg. C						
TEMPERATURE		-	21.1	21.1	22 1	218
Turkidia. Ebi 100 t burit						
Turbidity - EPA 180,1 NTU						
TURBIDITY		1	6	6	<1	4
PIVED BACE Y ABOD (MOD-1)						
PIXED BASE LABORATORY AN	ALYSIS:					
Anions - MCAWW 300,0A mg/L		_	_			
CHLORIDE		1	74	7.6	2.5	8.2
NITRATE AS N		0.1	0 37	0 44	0.89	2.19
SULFATE AS SO4		1	1.7	1.7	6	16
Disabled Const. DOV COR 155	~					
Dissolved Gases - RSK SOP-175 µg/	<u>L</u>					
CARBON DIOXIDE		1000	119000 J	122000 J	<1000 UJ	100000 ,
ETHANE		0.5	<0.5	<0.5	<0.5 UJ	<0.5 UJ
ETHENE		1.5	<1.5	<1,5	<1.5 UJ	<1.5 UJ
METHANE		0 5	<0.5	<0.5	068 J	<0.5 UJ
Orden by her						
Hydrogen by Microseeps - AM20GA	X nM					
HYDROGEN		1	18 J	13J	2.7	36
Manager C3310 40 = 450						
Mercury - SW846 7470 (Total) mg/I	Ļ					
	Ļ	0 0003	0 000394	0 000344	<0.0003	<0.0003
MERCURY	ŗ	0 0003	0 000394	0 000344	<0.0003	<0.0003
MERCURY Metals - SW846 6010 (Total) mg/L	Γ					
MERCURY Metals - SW846 6010 (Total) mg/L ALUMINUM	Ŀ	0.06	0 0435 JB	0,0554 JB	0.106	<0.0003 0.145
MERCURY Metals - SW846 6010 (Total) mg/L ALUMINUM BARIUM	<u>L</u>	0.06 0 025	0 0435 JB 0 0258	0.0554 JB 0 0269		
MERCURY Metals - SW846 6010 (Total) mg/L ALUMINUM BARIUM BERYLLIUM	ŗ	0.06	0 0435 JB	0.0554 JB 0 0269 <0.005	0.106 0.157 <0.005	0.145
MERCURY Metals - SW846 6010 (Total) mg/L ALUMINUM BARIUM BERYLLIUM CADMIUM	Ē	0.06 0 025	0 0435 JB 0 0258	0.0554 JB 0 0269	0.106 0.157	0.145 0.0509
MERCURY  Metals - SW846 6010 (Total) mg/L  ALUMINUM  BARIUM  BERYLLIUM  CADMIUM  CALCIUM  CALCIUM	Ļ	0.06 0 025 0 005 0 005 0 5	0 0435 JB 0 0258 <0.005 <0 005 1.32	0.0554 JB 0 0269 <0.005	0.106 0.157 <0.005	0.145 0.0509 <0.005
MERCURY  Metals - SW846 6010 (Total) mg/L  ALUMINUM  BARIUM  BERYLLIUM  CADMUM  CALCIUM  CHROMIUM  CHROMIUM	Ļ	0.06 0 025 0 005 0 005 0 5 0 01	0 0435 JB 0 0258 <0.005 <0 005	0.0554 JB 0 0269 <0.005 <0.005	0.106 0.157 <0.005 <0.005	0.145 0.0509 <0 005 <0 005
MERCURY  Metals - SW846 6010 (Total) mg/L  ALUMINUM  BARIUM  BERYLLIUM  CADMIUM  CALCIUM  CHROMIUM  COBALT	Ŀ	0.06 0 025 0 005 0 005 0 5	0 0435 JB 0 0258 <0.005 <0 005 1.32	0.0554 JB 0 0269 <0.005 <0.005 1.36	0.106 0.157 <0.005 <0.005 33.7	0.145 0.0509 <0 005 <0 005 2.51 <0 01
MERCURY  Metals - SW846 6010 (Total) mg/L  ALUMINUM  BARIUM  BARIUM  CADMIUM  CALCIUM  CHROMIUM  COBALT  COPPER	<u>L</u>	0.06 0 025 0 005 0 005 0 5 0 01	0 0435 JB 0 0258 <0.005 <0 005 1.32 <0.01	0.0554 JB 0 0269 <0.005 <0.005 1.36 <0.01	0.106 0.157 <0.005 <0.005 33.7 <0.01	0.145 0.0509 <0 005 <0 005 2.51 <0 01 <0.015
MERCURY  Metals - SW846 6010 (Total) mg/L  ALUMINUM  BARIUM  BERYLLIUM  CADMIUM  CALCIUM  CHROMIUM  COBALT  COPPER  RON	Ļ	0.06 0 025 0 005 0 005 0 5 0 01	0 0435 JB 0 0258 <0.005 <0 005 1.32 <0.01 <0 015	0.0554 JB 0 0269 <0.005 <0.005 1.36 <0.01 <0 015	0.106 0.157 <0.005 <0.005 33.7 <0.01 <0.015 <0.01	0.145 0.0509 <0.005 <0.005 2.51 <0.01 <0.015
MERCURY  Metals - SW846 6010 (Total) mg/L  ALUMINUM  BARIUM  BARIUM  CADMIUM  CALCIUM  CHROMIUM  COBALT  COPPER  RON	Ĺ	0.06 0.025 0.005 0.005 0.5 0.01 0.015	0 0435 JB 0 0258 <0.005 <0 005 1.32 <0.01 <0 015 <0 01	0.0554 JB 0 0269 <0.005 <0.005 1.36 <0.01 <0 015 <0 01	0.106 0.157 <0.005 <0.005 33.7 <0.01 <0.015 <0.01 0.0935 JQ	0.145 0.0509 <0.005 <0.005 2.51 <0.015 0.0028 JC
MERCURY  Metals - SW846 6010 (Total) mg/L  ALUMINUM  BARIUM  BERYLLIUM  CADMIUM  CALCIUM  CHROMIUM  COBALT  COPPER  RON  MAGNESIUM	Ĺ	0.06 0 025 0 005 0 005 0 5 0 01 0 015 0 01	0 0435 JB 0 0258 <0.005 <0.005 1.32 <0.01 <0.015 <0.01 0 0171 JQ	0.0554 JB 0 0269 <0.005 <0.005 1.36 <0.01 <0 015 <0 01 0.0218 JQ 0.516	0.106 0.157 <0.005 <0.005 33.7 <0.01 <0.015 <0.01 0.0935 JQ 0.823	0.145 0.0509 <0 005 <0 005 2.51 <0 01 <0.015 0.0028 JC 0.101 1.23
MERCURY  Metals - SW846 6010 (Total) mg/L  ALUMINUM  BARIUM  BERYLLIUM  CADMIUM  CALCIUM  CHROMIUM  COBALT  COPPER  RON  MAGNESIUM  MANGANESE	Ĺ	0.06 0 025 0 005 0 005 0 5 0 01 0 015 0 01 0.1	0 0435 JB 0 0258 <0,005 <0 005 1.32 <0.01 <0 015 <0 01 0 0171 JQ 0.467 0.0425	0.0554 JB 0 0269 <0.005 <0.005 1.36 <0.01 <0 015 <0 01 0.0218 JQ 0.516 0.0429	0.106 0.157 <0.005 <0.005 33.7 <0.01 <0.015 <0.01 0.0935 JQ 0.823 0.0926	0.145 0.0509 <0 005 <0 005 2.51 <0 01 <0.015 0.0028 JG 0.101 1.23 0 0123
MERCURY  Metals - SW846 6010 (Total) mg/L  ALUMINUM  BARIUM  BERYLLIUM  CADMIUM  CALCIUM  CHROMIUM  COBALT  COPPER  RON  MAGNESIUM  MANGANESE  MOLYBDENUM	Ļ	0.06 0 025 0 005 0 005 0 5 0 01 0 015 0 01 0.1 0 2 0 005 0.015	0 0435 JB 0 0258 <0.005 <0 005 1.32 <0.01 <0 015 <0 01 0 0171 JQ 0.467 0.0425 <0.015	0.0554 JB 0 0269 <0.005 <0.005 1.36 <0.01 <0 015 <0 01 0.0218 JQ 0.516 0.0429 <0.015	0.106 0.157 <0.005 <0.005 33.7 <0.01 <0.015 <0.01 0.0935 JQ 0.823 0.0926 0.0068 JB	0.145 0.0509 <0 005 <0 005 2.51 <0 01 <0.015 0.0028 JG 0.101 1.23 0 0123 0 0079 JE
Mercury - SW846 7470 (Total) mg/I MERCURY  Metals - SW846 6010 (Total) mg/L ALUMINUM BERYLLIUM CADMIUM CALCIUM CHROMIUM COBALT COPPER RON MAGNESIUM MANGANESE MOLYBDENUM NICKEL POTASSIUM	<u>L</u>	0.06 0 025 0 005 0 005 0 5 0 01 0 015 0 01 0.1 0 2 0 005 0.015	0 0435 JB 0 0258 <0.005 <0 005 1.32 <0.01 <0 015 <0 01 0 0171 JQ 0.467 0.0425 <0.015 <0.015	0.0554 JB 0 0269 <0.005 <0.005 1.36 <0.01 <0 015 <0 01 0.0218 JQ 0.516 0.0429 <0.015 <0 02	0.106 0.157 <0.005 <0.005 33.7 <0.01 <0.015 <0.01 0.0935 JQ 0.823 0.0926 0.0068 JB <0.02	0.145 0.0509 <0.005 <0.005 2.51 <0.01 0.015 0.0028 JC 0.101 1.23 0.0123 0.0079 JE <0.02
MERCURY  Metals - SW846 6010 (Total) mg/L ALUMINUM BERYLLIUM CADMIUM CALCIUM CHROMIUM COBALT COPPER RON MAGNESIUM MANGANESE MOLYBDENUM NICKEL	Ļ	0.06 0 025 0 005 0 005 0 5 0 01 0 015 0 01 0.1 0 2 0 005 0.015 0 02	0 0435 JB 0 0258 <0.005 <0 005 1.32 <0.01 <0 015 <0 01 0 0171 JQ 0.467 0.0425 <0.015 <0.015	0.0554 JB 0 0269 <0.005 <0.005 1.36 <0.01 <0 015 <0 01 0.0218 JQ 0.516 0.0429 <0.015 <0 02 1 52	0.106 0.157 <0.005 <0.005 33.7 <0.01 <0.015 <0.01 0.0935 JQ 0.823 0.0926 0.0068 JB <0.02 6.31	0.145 0.0509 <0.005 <0.005 2.51 <0.01 0.015 0.0028 JC 0.101 1.23 0.0123 0.0079 JE <0.02 2.51
MERCURY  Metals - SW846 6010 (Total) mg/L ALUMINUM BARIUM BERYLLIUM CADMIUM CALCIUM CHROMIUM COBALT COPPER RON MAGNESIUM MANGANESE MOLYBDENUM NICKEL POTASSIUM SILVER	Ĺ	0.06 0 025 0 005 0 005 0 5 0 01 0 015 0 01 0.1 0 2 0 005 0.015 0 02 1	0 0435 JB 0 0258 <0.005 <0 005 1.32 <0.01 <0 015 <0 01 0 0171 JQ 0.467 0.0425 <0.015 <0.02 1.53 <0 01	0.0554 JB 0 0269 <0.005 <0.005 1.36 <0.01 <0 015 <0 01 0.0218 JQ 0.516 0.0429 <0.015 <0 02 1 52 <0 01	0.106 0.157 <0.005 <0.005 33.7 <0.01 <0.015 <0.01 0.0935 JQ 0.823 0.0926 0.0068 JB <0.02 6.31 <0.01	0.145 0.0509 <0 005 <0 005 2.51 <0 01 <0.015 0.0028 JC 0.101 1.23 0 0123 0 0079 JF <0.02 2.51 0 0049 JE
MERCURY  Metals - SW846 6010 (Total) mg/L  ALUMINUM  BERYLLIUM  CADMIUM  CALCIUM  CHROMIUM  COBALT  COPPER  RON  MAGNESIUM  MANGANESE  MOLYBDENUM  NICKEL  POTASSIUM	Ĺ	0.06 0 025 0 005 0 005 0 5 0 01 0 015 0 01 0.1 0 2 0 005 0.015 0 02	0 0435 JB 0 0258 <0.005 <0 005 1.32 <0.01 <0 015 <0 01 0 0171 JQ 0.467 0.0425 <0.015 <0.015	0.0554 JB 0 0269 <0.005 <0.005 1.36 <0.01 <0 015 <0 01 0.0218 JQ 0.516 0.0429 <0.015 <0 02 1 52	0.106 0.157 <0.005 <0.005 33.7 <0.01 <0.015 <0.01 0.0935 JQ 0.823 0.0926 0.0068 JB <0.02 6.31	0.145 0.0509 <0.005 <0.005 2.51 <0.01 0.015 0.0028 JC 0.101 1.23 0.0123 0.0079 JE <0.02 2.51

# DATA SUMMARY TABLE FOR GROUNDWATER OU8 - LOWER WATER BEARING UNIT SEMI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005

Defense Supply Center Richmond Richmond, Virginia

	Sample Type: Location ID	Reporting (a)	Normal MWANP-4D	Duplicate MWANP-4D	Normal MWANP-12D	Normal USGS-5
	Sample Date	Limit	7/20/2005	7/20/2005	7/21/2005	7/21/2009
Metals - SW846 6020 (Total) mg/L						
ANTIMONY		0 0001	< 0.0001	A) 0001	0.00013 ID	~0.0001
				<0.0001	0 00012 ЈВ	< 0.0001
ARSENIC		0 0005	0.00011	<0.0005	0.00015 JQ	<0 0005
LEAD		0 0005	0 00005 ЛВ	0 00011 JQ	0 00062	0 00043 J
SELENIUM		0.0005	O 00018 JQ	<0 0005	<0.0005	<0 0005
THALLIUM		0 0001	<0.0001	<0 0001	<0.0001	<0 0001
Total Alkalinity - MCAWW 310.1 mg/	L					
ALKALINITY, TOTAL (AS CACO3)	<b>-</b>	10	6 1Q	5 JQ	89	4 ЈН
Total Organic Carbon - SW846 9060 n	ng/L					
TOTAL ORGANIC CARBON		1	0.5 ЛН	0.4 JH	1.7	1.1
Total Sulfide - MCAWW 376.1 mg/L						
SULFIDE		2	<2	<2	<2	<2
		_	-	-	•	•
Volatile Fatty Acids - SM5560 mg/L ACETIC ACID		ı	<b>~</b> 1	NA	NΑ	NIA
BUTANOIC ACID			<1 -	NA NA	NA NA	NA
		2	<2	NA	NA	NA
LACTIC ACID		1	<1	NA	NA	NA
PROPIONIC ACID		1	<1	NA	NA	NA
PYRUVIC ACID		0.5	<0.5	NA	NA	NA
Volatile Organic Compounds - SW846	8260 µg/L					
1,1,1,2-TETRACHLOROETHANE		1	<i< td=""><td>&lt;1</td><td>&lt;1</td><td>&lt;1</td></i<>	<1	<1	<1
1,1,1-TRICHLOROETHANE		1	<1	<1	<1	<1
1,1,2,2-TETRACHLOROETHANE		1	<i< td=""><td>&lt;1</td><td>&lt;1</td><td>&lt;1</td></i<>	<1	<1	<1
1,1,2-TRICHLOROETHANE		1	<1	<1	<1	<1
1,1-DICHLOROETHANE		1	<1	<1	<1	<1
1,1-DICHLOROETHYLENE		ı	<1	<1	<1	<1
1,1-DICHLOROPROPENE		1	<i< td=""><td>&lt;1</td><td>&lt;1</td><td><i< td=""></i<></td></i<>	<1	<1	<i< td=""></i<>
1,2,3-TRICHLOROBENZENE		1	<1	<1	<1	<i< td=""></i<>
1,2,3-TRICHLOROPROPANE		i	<i< td=""><td>&lt;1</td><td>&lt;1</td><td>&lt;1</td></i<>	<1	<1	<1
1,2,4-TRICHLOROBENZENE		i	<1	·<1	<1	<1
1,2,4-TRIMETHYLBENZENE		i	<1	<1	<1	
1,2-DIBROMO-3-CHLOROPROPANE		2,5	<25			<1
				<2.5	<2.5	<2.5
1,2-DIBROMOETHANE		1	</td <td>&lt;1</td> <td>&lt;1</td> <td>&lt;1</td>	<1	<1	<1
1,2-DICHLOROBENZENE		1	<1	</td <td>&lt;1</td> <td>&lt;1</td>	<1	<1
1,2-DICHLOROETHANE		i	<1	<1	<1	<1
1,2-DICHLOROPROPANE		1	<1	<1	<1	<1
1,3,5-TRIMETHYLBENZENE		ì	<1	<1	<1	<1
1,3-DICHLOROBENZENE		1	<1	<1	<1	<1
1,3-DICHLOROPROPANE		1	<1	<i< td=""><td>&lt;1</td><td>&lt;1</td></i<>	<1	<1
1,4-DICHLOROBENZENE		1	<1	<1	<1	<1
2,2-DICHLOROPROPANE		1	<1	<1	<1	<1
2-BUTANONE		10	<10	<10	<10	<10
2-CHLOROTOLUENE		1	<1	<1	<1	<1
2-HEXANONE		10	<10	<10	<10	<10
4-CHLOROTOLUENE		1	<1	<1	<1	<1
4-METHYL-2-PENTANONE		10	<10	<10	<10	<10
ACETONE		10	2.2 ЛВ	23 JB	3,5 JB	28 JB
BENZENE		1	2.2 JB <]	23 JB <1	ا> عر د.د	
BROMOBENZENE		1	<1			<1 <1
				<1	<1	<1 -1
BROMODICHLOROMETHANE		l	<1	<1	<1	<1
BROMOFORM		1	<1	<1	<1	<1
BROMOMETHANE		1	<1	<1	<1	<1
CARBON DISULFIDE		1	<1	<1	<1	<1
CARBON TETRACHLORIDE		1	<1	<1	<1	<i< td=""></i<>
CHLOROBENZENE		1	<1	<1	<1	<i< td=""></i<>
CHLOROBROMOMETHANE		1	<1	<1	<1	<1
CHLORODIBROMOMETHANE		1	<1	<1	<1	<1

# DATA SUMMARY TABLE FOR GROUNDWATER OU8 - LOWER WATER BEARING UNIT SEMI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005

Defense Supply Center Richmond Richmond, Virginia

	Sample Type Location ID; Sample Date	Reporting (a) Limit	Normal MWANP-4D 7/20/2005	Duplicate MWANP-4D 7/20/2005	Normal MWANP-12D 7/21/2005	Normal USGS-5 7/21/200
CHLOROFORM		1	<1	<1	<1	0.29 ЛВ
CHLOROMETHANE		1	<1	<1	0.35 JQ	0.29 JD
CIS-1,2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE		1	<1	<1	<0.5 <1	<1
DIBROMOMETHANE		1	<1	<1	<1	<1
DICHLORODIFLUOROMETHANE		1	<1	<1	<1	<1
ETHYLBENZENE		1	<1	<i< td=""><td>&lt;1</td><td>&lt;1</td></i<>	<1	<1
HEXACHLORO-1,3-BUTADIENE		1	<1	<1 <1	<1	<1
ISOPROPYLBENZENE		i	<1	<1	<1	<1
M & P-XYLENES		1	<1 <1	<1	<1	<1
METHYL TERT-BUTYL ETHER		1	<1 <1	<1	<1	0.46 JÇ
METHYLENE CHLORIDE		1	<l< td=""><td><!--</td--><td>&lt;1</td><td>0.40 JQ &lt;1</td></td></l<>	</td <td>&lt;1</td> <td>0.40 JQ &lt;1</td>	<1	0.40 JQ <1
N-BUTYLBENZENE		1	<1 <1	<i< td=""><td>&lt;1</td><td>&lt;1</td></i<>	<1	<1
N-PROPYLBENZENE		1	<1 <1	<1	<1	<1 <1
NAPHTHALENE		•	<1 <1	<1	<1	<i< td=""></i<>
O-XYLENE		1	<1	<1	<1 <1	<1 <1
P-ISOPROPYLTOLUENE		,	<1	<1	<1 <1	<1
SEC-BUTYLBENZENE		1	<i< td=""><td>&lt;1</td><td><li>&lt;1</li></td><td>&lt;1</td></i<>	<1	<li>&lt;1</li>	<1
STYRENE		i	<i< td=""><td>&lt;1</td><td>&lt;1</td><td>&lt;1</td></i<>	<1	<1	<1
TERT-BUTYLBENZENE		i	<1	<1	<1	<1 <1
TETRACHLOROETHENE		i	<1	<1	<1	<1 <1
TOLUENE		1	<1	<1	0.38 JQ	0.32 JQ
TRANS-1,2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.58 JQ <0.5	0.32 JC <0.5
TRANS-1,3-DICHLOROPROPENE		1	<03 <1	<03 <1	<1·	<0,5 <1
TRICHLOROETHENE		1	<i< td=""><td><li>&lt;1</li></td><td>&lt;1</td><td>&lt;1</td></i<>	<li>&lt;1</li>	<1	<1
TRICHLOROFLUOROMETHANE		; 1	<1	<1	<1 .	_
VINYL CHLORIDE		1	<1	<1	<1	<1 <1
Surrogate - % recovery						
1,2-DICHLOROETHANE-D4		_	113	106	112	114
4-BROMOFLUOROBENZENE		_	102	98	98	100
DIBROMOFLUOROMETHANE		_	111	108	110	110
TOLUENE-D8			97	93	97	97

### Notes:

J Estimated; based on QC data

JB Estimated; possibly biased high or false positive based on blank contamination

JH Estimated; possibly biased high based upon QC data

JQ Estimated; Value is between reporting limit

and detection limit

NA Not Analyzed

UJ Undetected; Reported Detection Limit is imprecise

Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

PREPARED/DATE: RMB 9/26/05 CHECKED/DATE: JAH 9/27/05 DATA SUMMARY TABLE FOR QUALITY CONTROL SAMPLES
OUG, OU7, OU8, IDW
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

TABLE B-9

	mk Trip Blank 105 TB-071805 205 7/18/2005		AZ Z			(11 0001>		<1.5			V.	A X X													A A		A Z Z					A NA	NA NA	NA NA
	ank Trip Blank 605 TB-071705 005 7/172005		AN .			71000					A NA	AN NA													<b>∀</b>		NA NA		NA NA	AA NA		NA	Z VX	Z. AN
900 9	ank Trip Blank 505 TB-071605 7/16/2005			A Z			1000 <1000 UJ		11 <0.5		NA A	AN .				AN AN						Z			NA NA		Z Z			N AN		Z V	Z <b>Y</b> Z	Z
PINO	Trip Blank TB-071505	-	_ Ż	Y Z	Ž		₹_5	\_\ ^ .5	0.51	<b>-</b>	×	YZ :	Z 2	2 2	Z	Z	Z 2								<u>~</u> ~	<u>-</u>	- <del></del>	-,-						
9110	Trip Blank TB-071405	1/14/2003	NA	YZ ;	<b>Y</b> Z		<1000 UJ	(U.) 2. \$.	<0.5		V V	N	Y S	<b>∀</b> Z	Y X	NA	Y ?	¢ ¢ Z	ΨN	¥X :	₹ Z	X X	Ϋ́	Y Z	NA :	V V	Y Z	<b>4</b>	X X	Z Z		Y Y	Y Z	472
200	Trip Blank TB-071305	7/13/2005	Ä	NA	Ϋ́		<1000	\$ \$ \$ \$. \$	<0.5		K N	Ϋ́	YY :	₹ X	K 42	Ϋ́	AN :	Y Z	V.	NA	¥ ;	ΑΖ ΑΖ	Ç Z	Z Z	NA	Y.	NA	Y S	Y X	Z Z		Ϋ́ V	N A	;
	<b>.</b> .	7/12/2005	Ž	Ϋ́Z	NA V		rn 0001>	0.5 2.0.5	034 JO	<b>,</b>	A X	N A	Y V	Y ;	<b>⊄</b>	Ç X	AN	₹ ×Z	S X	NA	YZ :	¥ ×	K Z	₹ ₹ Z	Y Y	NA	N A	YZ :	¥ ×	ζ <del>ζ</del> Z		N A	N A	
	OU8 Equipment Blank )U8-BLAD-EQB-0705	8/2/2005	"	.0°	0.3 JQ		<1000	<0.5 7 ;	<1.5 031 IB	G. 16.0	<0.0003	90.0>	<0.025	<0.005	<0.005	1.03 <0.01	0.0054 JB	<0.01 1.64	 60.±	0.0011	<0.015	<0.02	√ ₹	<0.01	<0,01	0 0245	0 00006 JB	<0.0005	0.00012 JB	<0.0005 <0.0001		<10	7	
	OU8 Equipment Blank Equipment Blank OU8-BLAD-EQB-0705 )U8-BLAD-EQB-0705-2	7/20/2005	7	7 <del>0</del>	⊽		1180	<0.5	∆S 3S	C-05	<0.0003	0.05 IB	<0.025	<0 005	<0.005	0.24 JQ ≤∬]	<0.015	<0.01	0.1	<0.00>	<0.015	<0.02		0.0031 JB	or 1.50 <0.01	Or 9910:0	0.00005 JB	<0.0005	0.00013 JQ	<0.0005		3 JQ	Н. 9.0	
			;	√ §	. □		<1000 UJ	<0.5 UJ		046 JB	<0.0003	0 12100	<0.025	<0.005	<0 002	0.135	<0.015	<0.01	-0° 6	20°5 <0.005		<0.02	⊽	<0.01 0.02 0.03 0.03 0.03 0.03 0.03 0.03 0.03	0.524	<0.02	0.00005 TB	<0.0005	0.00003 JB	<0.0005	1000.07	5 JQ	Ξ	
	OU6 OU7 Equipment Blank Equipment Blank OU6-BLAD-EQB-0705 OU7-BLAD-EQB-0705	7/16/2005	,	⊽ 5			<1000 UJ	<0.5	<1.5	<0.5	<0.0003	30 00	\$0.05 \$0.025	<0.005	<0.005	0.119 JQ	<0.01 <0.015	<0.01	<b>6.1</b>	20.0 20.00\$	<0.015	<0.02	⊽	<0.01	0.362 JQ	Or 8010.0	0000	<0.0005	0.00003 JB	<0.0005	<0.0001	2 JQ	Of 9:0	
	Reporting (a)	Limit			1.0		1000	0.5	1.5	0.5	0.0003	ć	0.06	0.005	0.005	0.5	0.01	0.01	0.1	0.2	0.00	0.02	_	0.01	0.5	0.02	1000	0.0005	0.0005	0.0005	0.0001	10		
	Site Association: Sample Type: Location ID:	Sample Date:																							ù,		٠		•					
			Anions - MCAWW' 300,0A mg/L	CHLORIDE	NITRATE AS N SULFATE AS SO4		Dissolved Gases - RSK SOP-175 ug/L	CARBON DIOXIDE ETHANE	ETHENE	METHANE	Mercury - SW846 7470 (Total) mg/L MERCURY	Metals - SW846 6010 (Total) mg/L	ALUMINUM	BARIUM BERVI I II IM	CADMIUM	CALCIUM	CHROMIUM	COPPER	IRON	MAGNESIUM	MANGANESE MOI VEDENI IM	MOCKEL NICKEL	POTASSIUM	SILVER	SODIUM	VANALDIUM ZINC	Metals - SW846 6020 (Total) mg/L	ANTIMONY	ANSEMIC I FAD	SELENIUM	THALLIUM	Total Alkalinity - MCAWW 310.1 mg/L ALKALINITY, TOTAL (AS CACO3)	Total Organic Carbon - SW846 9060 mg/L TOTAL ORGANIC CARBON	Trees Cuitan MCAWW 276 1 mall

# DATA SUMMARY TABLE FOR QUALITY CONTROL SAMPLES OUG, OU7, OU8, IDW BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Supply Center Richmond Richmond, Virginia

						0110	210	2110	310	-  -  -  -  -  -  -	0136	900	900
	Site Association.		OU6 Equinament Blank		OU8 Equipment Blank	OUS Equipment Blank	OUG Trip Blank	Trip Blank	Trip Blank	TripBlank	Trip Blank	Trip Blank	Trip Blank
	Location ID:	Reporting (a)	OUG-BLAD-EQB-0705 OUT-BLAD-EQB-0705		OU8-BLAD-EQB-0705	OU8-BLAD-EQB-0705 )U8-BLAD-EQB-0705-2	TB-071205	TB-071305	TB-071405	TB-(71505 7/15/2005	TB-071605 7/16/2005	TB-071705 7/17/2005	7/18/2005
	Sample Date:	Limit	7/16/2005	7/19/2005	7/20/2005	8/2/2005	11177003	11312003	50071-111				
Volatile Organic Compounds - SW846 8260 ug/L.	.0 ug/L										,	7	7
1,1,1,2-TETRACHLOROETHANE			▽	⊽	▽	⊽	⊽	⊽ '	⊽ '	⊽_:	⊽ ₹	77	7 ⊽
1,1,1-TRICHLOROETHANE			⊽	⊽	⊽	⊽ '	⊽.	⊽ :	⊽ ₹	⊽ ⊽	7 7	7 ▽	' ⊽
1,1,2,2-TETRACHLOROETHANE		-	▽	⊽	⊽ '	⊽ :	⊽ 7	⊽ ₹	√ √	7 7	7 ▽	. △	7
1,1,2-TRICHLOROETHANE		-	▽ '	▽ .	⊽ ;	⊽ ₹	⊽ √	<b>7</b> 7	7 🕏	7 ∑	7 ▽	. △	⊽
1,1-DICHLOROETHANE		,	⊽ '	⊽ ¹	⊽ ∜	7 5	7 7	7 7	7 ▽	_ ⊽	. △	⊽	⊽
1,1-DICHLOROETHYLENE		, her	⊽ ₹	⊽ ₹	⊽ √	7 7	7 ⊽	7 ▽	;	. △	√ ⊽	⊽	⊽
I,I-DICHLOROPROPENE		·	⊽ ;	⊽ 5	7 5	7 7	7 7	. △	. △	. ⊽	⊽	⊽	⊽'
1,2,3-TRICHLOROBENZENE		<del></del> -	⊽ ₹	⊽ 7	⊽ ₹	7 \	7 ▽	⊽ ⊽	7 ▽	`_⊽	⊽	⊽	⊽
1,2,3-TRICHLOROPROPANE		<u> </u>	⊽ ₹	⊽ ₹	7 7	7 7	7 5	. △	' ⊽	_ ⊽_	⊽	⊽	⊽
1,2,4-TRICHLOROBENZENE		<b>-</b> ,	⊽ ₹	⊽ 7	77	7 ∇	7 ▽	. △	. △	_ ▽	▽	⊽	⊽
1.2,4-1KIMETHYLBENZENE		1 5	7 7	7 6	2.0	2.5	2.5	2.5	2.5	5.5	2.5	2.5	2.5
1,2-DIBROMO-3-CHLOROPROPANE		C.7	7 (	} ⊽	) ⊽	Ì⊽	i <del>∨</del>	~	⊽	⊽	⊽	⊽	⊽ '
12.DICHI OROBENZENE		<b>-</b> , -	7 ▽	<del>,</del> △	. △	' ⊽	⊽	⊽	∵	<u>\\</u>	⊽	⊽ .	⊽ ¹
12-DICHLOROBETHANE			√ ∨	- ▽	· ⊽	⊽	⊽	▽	⊽	⊽_	⊽ '	⊽ '	⊽ ₹
1 2-DICHI OROPROPANE			. △	. △	⊽	⊽	⊽	⊽	⊽	⊽_	⊽	⊽ '	⊽ ₹
1.3. TRIMETHYLBENZENE		. ,	. △	. △	. △	$\nabla$	⊽	⊽	⊽	⊽	⊽ '	⊽ ₹	⊽ ∜
1.3-DICHLOROBENZENE			. △	∵ ⊽	⊽	▽	▽	⊽'	⊽	⊽∵	⊽ .	⊽ ₹	7 7
1.3-DICHLOROPROPANE		. –	\	⊽	⊽	⊽	⊽	⊽	⊽	▽ '	⊽ '	⊽ ₹	7 7
1,4-DICHLOROBENZENE		_	▽	⊽	⊽	⊽	▽.	⊽.	⊽ '	⊽ :	⊽ 7	₹ 5	7 \
2,2-DICHLOROPROPANE		_	⊽	⊽	▽	▽	⊽	⊽ :	⊽ :	⊽ <sup>€</sup>	⊽ ₹	7 7	7 🗸
2-BUTANONE		10	J.7 JQ	1.4 JQ	<10	01	<10 <	~10 -	<u>0 ;</u>	01 7 V	₹ 7	Q \ 	; ⊽
2-CHLOROTOLUENE		-	⊽	⊽	▽ ¹	⊽ :	⊽ ₹	√ જ	⊽ ₹	7 5	7 🕏	01>	01>
2-HEXANONE		10	<10	<10	<10	<u>0</u>	0 ₹	)   	? <u>`</u>	<u>}</u> \[	6, ∨	; ⊽	: ▽
4-CHLOROTOLUENE		<b>-</b> :	⊽ ¹	⊽ :	⊽ ;	⊽ ∜	⊽ ₹	7 5	7 01	7 5	; 0 <del>.</del>	_ <10	<10
4-METHYL-2-PENTANONE		10	0 \   √10	01>	01> 2.1.12	7.3 IB	24 B	2 K	3 BB	2.7 JB	2.5 JB	3.5 JQ	1.8 JQ
ACETONE		JO 1	9.7 JB	ar c.c	0.1 .9 	j ⊽	7	. ∀	⊽	▽	⊽		⊽
BENZENE		<b></b> ,	7 ⊽	7 ▽	7 ▽	7 ▽	' ▽	∀	⊽	⊽	⊽	⊽	⊽ '
BROMODICHI OROMETHANE		<b>-</b>	7 ▽	. △	' ▽	▽	⊽	⊽	⊽	⊽	⊽ '	⊽ '	⊽ ;
BROMOFORM			. △	. △	⊽	▽	⊽	⊽	⊽	▽ '	⊽ :	⊽ ₹	⊽ 7
BROMOMETHANE		1	▽	⊽	⊽	⊽	⊽	⊽ '	⊽ :	⊽ ₹	⊽ 7	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7 7
CARBON DISULFIDE		-	0.3 JQ	0.24 JQ	0.33 JQ	▽ .	⊽;	⊽ 7	⊽ ₹	<b>⊽</b> √	7 ⊽	>r 17:0	7 ▽
CARBON TETRACHLORIDE		_	⊽ '	⊽ :	⊽ ¹	⊽ 7	⊽ 7	<b>7</b> ₹	7 \	7 ∇ -~-	7 ▽	. △	' ⊽
CHLOROBENZENE			⊽ 7	⊽ ₹	⊽ ₹	7 7	7 ⊽	7 ▽	√ ⊽	∵ ⊽	⊽	∵	⊽
CHLORUBROMOME I HANE			⊽ ⊽	7 ⊽	7 ▽	7 ⊽	7 ▽	' ▽	⊽		⊽	⊽	⊽
CHLOROETHANE			. △	. △	▽	⊽	∵	⊽	⊽	⊽	⊽ `	⊽ ₹	⊽ ₹
CHLOROFORM		_	2.2	1.4	1.5	1.7		⊽ '	⊽ '	▽ '	⊽ ₹	⊽ ₹	7 7
CHLOROMETHANE		-	⊽	⊽	0.2 JB	▽ ¹	⊽ :	⊽ \$	⊽ ₹	√	7 6		, <u>,</u>
CIS-1,2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.5	<0.5	5.5	Ç ₹	Ç. 7	() ()	; ∀	} ⊽	∫ ∇
CIS-1,3-DICHLOROPROPENE			⊽ ∜	⊽ 7	⊽ ₹	⊽ ⊽	√ \	7 ⊽	7 ▽	7 🗸	₹ ▽	∵ ⊽	~
DIBKOMOME I HANE			7 7	7 7	7 7	7 ▽	7 ▽	. △	. △	▽	⊽	∇	⊽
DICHEUKUDIFLUOKUMETHANE		<b>.</b> ,	7 ⊽	7 ▽	7 ▽	7 ▽	' ⊽	' ⊽'	⊽	~	⊽	⊽	⊽ '
HEXACHIORO-1 3-BITTADIENE			7 ▽	√ ∨	. △	' ▽	⊽	⊽	⊽	▽	⊽	⊽ .	⊽.
ISOPROPYLBENZENE			' ▽	' ▽	⊽	▽	⊽	⊽	⊽ '	⊽ ` :	⊽ ;	⊽ ₹	⊽ √
M & P-XYLENES		1	⊽	⊽	⊽	⊽	⊽	⊽	∵ .	⊽ :	⊽ ₹	⊽ ₹	7 7
METHYL TERT-BUTYL ETHER		_	⊽ '	⊽ ;	⊽ :	⊽ ;	⊽ 7	\ \ \ \	Z 1.10		7 ▽	7 ▽	0.4 30
METHYLENE CHLORIDE			⊽ 7	0.18 JB	⊽⊽	⊽ ⊽	⊽ ⊽	Σή 	ar 11.0  >	7 (56) 1> ;	7 ▽	. △	₹ ⊽
N-BOLLEBENZENE N-BOODVI BENZENE		<b>-</b> -	7 🔽	7 ⊽	7 ▽	. △	√	~	⊽	⊽	⊽	⊽	⊽ .
NAPHTHALENE			' ⊽	√	⊽	▽	⊽	⊽	⊽	⊽	⊽	⊽	⊽
										==_:			

# TABLE 8-9

DATA SUMMARY TABLE FOR QUALITY CONTROL SAMPLES
OUG, OU7, OU8, IDW
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

	Site Association: Sample Type:		OU6 Equipment Blank	OU7 Equipment Blank	OU8 Equipment Blank	OU8 Equipment Blank	OU6 Trip Blank	OU6 Trip Blank	OU6 Trip Blank	OU6 TripBlank	OU6 Trip Blank	OU6 Trip Blank	OU0 Trip Blank
	Location ID: Sample Date.	Reporting (a) Limit	OU6-BLAD-EQB-0705 O 7/16/2005	U7-BLAD-EQB-0705 7/19/2005	OU8-BLAD-EQB-0705 7/20/2005	OU8-BLAD-EQB-0705 )U8-BLAD-EQB-0705-2 7/20/2005	TB-071205 7/12/2005	TB-071305 7/13/2005	TB-071405 7/14/2005	TB-0/1505 7/1 <b>\$</b> /2005	7/16/2005	7/17/2005	7/18/2005
O-XY ENE		<b></b> -	⊽		⊽	⊽	⊽	⊽	7		⊽ '	⊽ 5	⊽ ₹
P-ISOPROPYLTOLUENE		-	⊽	⊽	⊽	⊽	⊽	⊽	⊽ '	V.	⊽ ;	⊽ 5	7 7
SEC-BUTYLBENZENE		-	⊽	▽	⊽	7	⊽	⊽	⊽ '	<u>V_</u>	⊽ ;	7 7	7 7
STYRENE		-	⊽	▽	⊽	0.29 JQ	⊽	⊽ '	⊽ .	<u>v</u>	⊽ ;	7 7	7 7
TERT-BUTYLBENZENE		-	⊽	⊽	⊽	⊽	⊽	⊽	⊽ '	⊽.	⊽ ;	7 7	7 7
TETRACHLOROETHENE		-	⊽	⊽	⊽	7	∵	⊽	⊽ '	<u>v</u> _	⊽ :	7 7	7 7
TOLUENE		-	0.14 JQ	∀	0.16 JQ	0.25 JQ	⊽	⊽	⊽ :	⊽	⊽ \$	7 5	7 6
TRANS-1.2-DICHLOROETHENE		0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<u>. 0</u> 5	ე,	<u>/</u>	, (
TRANS-1,3-DICHLOROPROPENE		-	∵	⊽	⊽	⊽	⊽	⊽	⊽ '	⊽	<b>∵</b> ¹	7 7	7 7
TRICHLOROETHENE		-	⊽	⊽	⊽	⊽	⊽	⊽	⊽ '	<u>v</u>	⊽ 5	7 7	7 7
TRICHLOROFLUOROMETHANE		-	⊽	⊽	∵	⊽	⊽	⊽ '	⊽.	⊽_`	⊽ ₹	7 7	7 7
VINYL CHLORIDE		-	⊽	⊽	⊽	⊽	⊽	⊽	⊽	⊽	7	7	7
Surrogate - %									;		,	10.	113
1,2-DICHLOROETHANE-D4		ı	108	100	105	111	101	104	101	<u> </u>	60.	101	C11
4-BROMOFLUOROBENZENE		1	76	<b>6</b>	101	103	102	<u>점</u>	16	76	101	201	†IT
DIBROMOFLUOROMETHANE		1	107	8	901	106	100	102	<b>3</b> 6 1	<u>103</u>	90 2	) (i	201
TOLUENE-D8		t	95	94	86	102	95	8	3	9.3	8	OAT	/01

Estimated; based on QC data
Estimated; possibly biased high or false
positive based on blank contamination
Estimated; possibly biased high based upon QC data
Estimated; Value is between reporting limit
and detection limit
Not Analyzed
Undetected; Reported Detection Limit is imprecise

¥∃ ₃

Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

DATA SUMMARY TABLE FOR QUALITY CONTROL SAMPLES
OU6, OU7, OU8, IDW
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

		ž a	DATA SUMMARY TABLE FOR QUALITY CONTROL SAME LESS OUG, OUT, OUB, IDW BLANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Simply Center Richmond	ON TABLE FOR COALLY CONTROL OUG, OUT, OUR, IDW OUNDWATER SAMPLING EVE	LING EVENT - JR	JLY 2005			-	
				Richmond, Virginia	inia					
	Site Association: Sample Type: Location ID: Sample Date:	Reporting (a) Limit	OU7 Trip Blank TB-071805-02 7/18/2005	OU7 Trip Blank TB-071905 7/19/2005	OU7 Trip Blank TB-072005 7/20/2005	OU8 Trip Blank TB-072005-02 7/20/2005	OU8 Trip Blank TB-072105 7/21/2005	OU8 Trip Blank TB-080205-01 8/2/2005	QU8 Trip Blank TB-080305-01 8/32005	IDW Trip Blank TB-080305-02 8/3/2005
Anions - MCAWW 300.0A mg/L			;	ž	<u>*</u>	<b>*</b>	<b>∀</b> 2	<b>∀</b> Z	— <del>Z</del>	Ϋ́Z
CHLORIDE			¥ 5	۷ × ۲	<b>₹</b> ₹ ₹	₹ ₹ 2 2	X X	Z Z	¥Z.	Y Z
NIIKA IE AS N SULFATE AS SO4			Y X	N AN	N A	. Y	٧X	NA VA	V.	X X
									<u> </u>	
CARRON DIOXIDE		1000	<1000 UJ	<1000	<1000 UJ	<1000 UJ		<1000 UJ	<1000 UJ	¥Z;
ETHANE		6.0	<0.5	<0.5	<0.5	<0.5		<0.5	<del>√</del> 0.5	<b>₹</b> 2
ETHENE METHANE		1.5	<1.5 <0.5	<1.5 0.52	<1.5 0.54	<1.5 <0.5	4.5 € 6.5 U	0.44 JQ	Or \$10	N V
Mercury - SW846 7470 (Total) mg/L MERCURY		0.0003	Ϋ́	X	N A	Z A	Ϋ́	NA	<del>_</del> _ <del>Z</del> _	Ϋ́Z
Metals - SW846 6010 (Total) m9/1.										;
ALIMINIM		90'0	N.	NA	ΝΑ	NA	NA	NA	Y.	AN .
BARUM		0.025	NA	Ν	NA	NA	NA	YN ;	Y.	Y S
BERYLLIUM		0.005	N AN	ΝA	NA	Y Y	Y ;	Y ;	Y .	₹ <b>7</b>
CADMIUM		0 005	N A	YY :	YZ :	¥;	ď ;	<b>∀</b> ₹ ₹	Y Y	ξ <b>4</b>
CALCIUM		0.5	¥Z ;	ΨZ:	¥ ;	Υ ×	Z Z	Z Z	ζ Z	Z Z
CHROMIUM		0.01	¥ ;	¥ *	Y X	X X	ζ Z	Ç X	Y Z	Ϋ́
COBALT		0.015	<b>₹</b> ₹	ζ <b>Ζ</b>	C Z	X X	Y X	Ϋ́	Y Y	N AN
RON		0.1	Z Z	Z X	NA A	NA	ΝΑ	NA A	AN	¥Z ;
MAGNESIUM		0.2	NA	NA	Ϋ́	Ϋ́	Ϋ́Z;	Y X	YZ Z	₹ <b>2</b>
MANGANESE		0.005	¥Z ;	YZ :	¥ :	¥ X	K Z	K Z	A Z	ξ X
MOLYBDENUM		0.015	V V	<b>♥ ♥</b> Z Z	⊄	Z Z	Y X	NA A	YZ.	Ϋ́Z
NICKEL		70.0	ξ Z	( V	Y X	×Z	N A	NA	NA	ΑN
CULASSICIA SII VER		10.0	Ϋ́	N N	ΥN	ΥN	NA	NA	Y Z	YZ :
Wildos		0.5	ΝΑ	NA	NA	ΝΑ	ΝΑ	YN :	YZ ;	Ϋ́ Z
VANADIUM ZINC		0.01	N N A	N N N A	A A	N N V V	A A	X X	X X X	K Z Z
Metals - SW846 6020 (Total) mg/l										
ANTIMONY		0.0001	Ϋ́Z	Y Y	Y S	YZ ;	YZ;	Y X	Y Z	<b>₹</b> 7
ARSENIC		0.0005	YZ :	YZ;	¥ ;	A N	A Z	¥ 2	¥ Z Z	(
LEAD		0.0005	Y ;	ď:	A N	¥ × ×	4 Z	Y X	Z Z	Ϋ́
SELENIUM THALLIUM		0.0005	N A	X X	X X	NA AN	N A	N V	Y Z	Y.
Total Alkalinity - MCAWW 310.1 mg/L ALKALINITY, TOTAL (AS CACO3)		10	NA	- <b>V</b>	ΥN	NA	N A	NA	NA	NA
<u>Total Organic Carbon - SW846 9060 mg/L</u> TOTAL ORGANIC CARBON	<del>刀</del>	-	NA	NA	ΑN	ΝΑ	NA	Ϋ́	Z Y	Ä
Total Sulfide - MCAWW 376.1 mg/L SULFIDE		7	٧	ĄN.	ΥN	NA	· V	¥Z	N A	NA

# DATA SUMMARY TABLE FOR QUALITY CONTROL SAMPLES OUG, OUT, OUB, IDW BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Supply Center Richmond Richmond, Virginia

•

Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Transport   Tran	Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Section   Sect			DA E	DATA SUMMARY TABLI OUG BI-ANNUAL GROUNDW	ABLE FOR QUALITY OUG, OU7, OU8, IDW ADWATER SAMPLING	E FOR QUALITY CONTROL SAMPLES 6, OU7, OU8, IDW ATER SAMPLING EVENT - JULY 2005	AMPLES JLY 2005				
Note   Company   Note   Company	Substitution				DEICO TO	nse Supply Center Richmond, Virg	ricumond Inia				<del></del>	
			Site Association: Sample Type: Location ID: Sample Date:	Reporting (a)	OU7 Trip Blank TB-071805-02 7/18/2005	OU7 Trip Blank TB-071905	OU7 Trip Blank TB-072005 7/20/2005	OU8 Trip Blank TB-072005-02 7/20/2005	OU8 Trip Blank TB-072105 7/21/2005	OU8 Ттр Blank ТВ-080205-01 8/2/2005	008 Trip Blank TB-080305-01 8/3/2005	IDW Trip Blank TB-080305-02 8/3/2005
		Volatile Organic Compounds - SW846 826	0 ng/L	•	7	7	7	٧	⊽	⊽	V	⊽
		1,1,2-TETRACHLOROETHANE			⊽ ⊽	7 ⊽	7 ⊽	7 🔽	7 ▽	7 ▽	<u>.</u>	∵ ⊽
		1,1,7,7 TETP ACHI ODOSTHANE			<b>7</b> ▽	7 ▽	√ ⊽	' ⊽	` ⊽	7	-⊽	⊽
		1.1.2.TRICHI OROETHANE		•	7 ▽	' ⊽	. Δ	∵ ⊽	⊽	▽	⊽_	⊽
		1. DICHLOROETHANE		•	. △	' ▽	. △	⊽	⊽	⊽	.\\ -\\	⊽
		1.1-DICHLOROETHYLENE			⊽	⊽	⊽	⊽	⊽	⊽	⊽_	⊽ '
		1,1-DICHLOROPROPENE	1		⊽	⊽	₹		Ż.	⊽.	.V`	⊽ ₹
MART 12. 1		1,2,3-TRICHLOROBENZENE		-	⊽	⊽	⊽	⊽ '	⊽ '	⊽ 5	<u>.</u>	⊽ √
MME  1.		1,2,3-TRICHLOROPROPANE		-	⊽	⊽	⊽	⊽ '	⊽ '	⊽ :	<b>⊽</b> ⊽	₹ 5
MME 123 425 425 425 425 425 425 425 425 425 425	MART 12.	1,2,4-TRICHLOROBENZENE			⊽ '	⊽ '	⊽ .	⊽ ;	⊽ ;	⊽ ₹	⊽ ∵	<b>₹</b> ₹
		1,2,4-TRIMETHYLBENZENE		- ;	⊽ ₹	⊽ ₹	⊽ ∛	⊽ Ϋ	⊽ Ϋ	₹,	7.0	50
		1,2-DIBROMO-3-CHLOROPROPANE		2.5	\$ 5	5,	2.5	Ç. 7	Ç; 7	} ⊽	}_⊽	) ⊽
		1,2-DIBROMOETHANE			⊽ 7	⊽ ∜	⊽ 7	<b>₹</b> ₹	7 5	7 ▽	7_⊽	. △
		1,2-DiCHLOROBENZENE			⊽ √	⊽ √	7 7	7 \	7 ⊽	7 ▽	_ ▽	' ▽
10	10	1,2-DICHLOROELHANE			7 ⊽	7 5	7 ▽	7 ▽	7 ▽	' ⊽	V	⊽
10   10   10   10   10   10   10   10	10	1.2.5.TEINETHYI DENIZENE			7 0	7 ▽	- ▽	. △	. △	⊽	_⊽_	⊽
1	1	13.51-IMMETHTERNZENE			7 ⊽	7 ▽	₹ ▽	. △	' ⊽	⊽	_∇_	⊽
1	1	1 3-DICHLOROPROPANE			. △	. △	' ⊽	⊽	∵	∇	∇_	⊽
1	1	1.4-DICHLOROBENZENE		-	\ ₹	⊽	⊽	⊽	⊽	⊽	⊽	⊽
10	10	2,2-DICHLOROPROPANE		1	∵	⊽	⊽	⊽	▽ ๋	⊽ ;	∑_;	⊽ 5
1	10	2-BUTANONE		10	<10	<10	<10	<10	· <10	0[ V	24 JQ	کار وزا کار وزا
10	10	2-CHLOROTOLUENE		<b>-</b> ;	⊽ :	⊽ ;	⊽ ₹	⊽ ₹	⊽ ₹	v 5	<u>.</u> 5	7 🕏
10	10	2-HEXANONE		<u></u> 은 ,	0 √	<u>9</u> ₹	0. √ √	9; 7	? ?	27 V		; ⊽
1	1	4-CHLOKO JOLUENE		٦ <u>-</u>	7 🖯	7 5	7 V	, o	; 01>	· 10	<u>0</u> 2	<10
	## A	ACETONE		01	3.1 JO	2 JB	5.1 JQ	5.5 JQ	2.7 JQ	4 JQ	4j3 JB	4.4 JB
	### ### ### ### ### ### ### ### ### ##	BENZENE			. ✓	⊽	, \( \nabla \)		⊽	⊽	▽	⊽ '
	1	BROMOBENZENE			⊽	⊽	⊽	⊽	⊽ '	⊽ :	⊽ :	⊽ 7
MET 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10 12 10		BROMODICHLOROMETHANE		-	⊽ .	⊽ :	⊽ ₹	⊽ 7	⊽ 7	7 7	7 7	7 ∇
1	1	BROMOFORM		<b>-</b> , -	⊽ ₹	⊽ √	7 7	7 √	7 ▽	7 ▽	7 ▽	' ⊽
NH	NE	DROMOME I HANE		<del>-</del>	7 ▽	7 ▽	7 ▽	7 ▽	. △	⊽	0.36 JQ	⊽
		CARBON TETRACHI ORIDE			₹ ▽	∵ ∀	. △	. △	⊽	⊽		⊽
	1	CHLOROBENZENE		_	. △	⊽	⊽	⊽	⊽	⊽	∇	⊽.
1		CHLOROBROMOMETHANE		-	⊽		⊽	⊽ '	∵ '	⊽ :	<u> </u>	∵ √
ANE	AME    1	CHLORODIBROMOMETHANE		_	⊽ '	⊽ '	⊽ '	⊽ ₹	⊽ ₹	⊽ ₹	<del>⊽ \</del>	7 7
ANE  1	ANE  1	CHLOROETHANE		_	⊽ '	⊽ ;	⊽ ;	⊽ √	<b>⊽</b> ₹	7 7	<u>7 V</u>	7 🗸
ANE	ANE  1	CHLOROFORM			⊽ ₹	⊽' ₹	<u>.</u>	6.15 0.15	7 7	7 √	0.7	0.26 JO
ANE 1	ANGE 1	CHLOROME I AND CIS 13 DICHI OBORTUBNE		- 5	7 6	7 S	Σι 24.0 Σ (>>	λ. 6.1.9 Σ. 6.5 Σ. 6.5	<0,5	<0.5	[<0.5]	<0.5
ANE	ANE	CISTA-DICHEOROPENE		Ç -	} ⊽	} ⊽	} ⊽	₹ ▽	⊽	⊽	▽	∀
		DIBROMOMETHANE			. △	' ▽	√ ⊽	⊽	<b>!</b>	⊽	▽	<b>-</b>
1		DICHLORODIFLUOROMETHANE		1	⊽	⊽	⊽	⊽	√	▽ '	▽ '	⊽ ;
1		ETHYLBENZENE		-	▽	⊽	⊽	⊽	⊽	⊽ '	▽ .	⊽ ₹
	1	HEXACHLORO-1,3-BUTADIENE		1	⊽ '	⊽ '	⊽ :	⊽ ₹	⊽ 7	⊽ ₹	⊽ ₹	₹ ⊽
		ISOPROPYLBENZENE		_	⊽ '	⊽ :	⊽ ₹	⊽ ₹	⊽ √	7 7	7 7	7 ▽
		M & P-XYLENES		<b></b> .	⊽ :	⊽ ¹	⊽ ₹	⊽ 5	₹ ₹	7 7	7 7	7 ▽
		METHYL TERT-BUTYL ETHER			⊽ 7	· ·	\ 01.7.10	7 7	01 98 0	Of 150	7 🔽	7 ▽
		METHY BENZENE			7 ⊽	∑, √	χ Σ. ∇	7 ▽	y } ∇	₹ ⊽	' ▽	⊽
		N-BOLLIEBENZENE N-PROPYLRENZENE			7 ▽	7 ▽	√ ⊽	. △	∵ ⊽	~	⊽	⊽

DATA SUMMARY TABLE FOR QUALITY CONTROL SAMPLES
OU6, OU7, OU8, IDW
BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005
Defense Supply Center Richmond
Richmond, Virginia

O-XYLENE SEC-BUTYLBENZENE STYRENE TERT-BUTYLBENZENE TERT-BUTYLBENZENE TERT-BUTYLBENZENE TERT-BUTYLBENZENE TERT-BUTYLBENZENE TRANS-1,2-DICHLOROFTHENE TRANS-1,3-DICHLOROFTHENE TRICHLOROFTHENE TRICHLOROFTHENE TRICHLOROFTHENE TRICHLOROFTHENE TRICHLOROFTHANE VINYL CHLORIDE Surrogate - % 1,2-DICHLOROFTHANE DIBROMOFLUOROBENZENE DIBROMOFLUOROBENZENE DIBROMOFLUOROBENZENE DIBROMOFLUOROMETHANE TOLUENE-D8 Estimated; based on QC data Estimated; based on QC data Estimated; possibly biased high or false positive based on blank contamination Estimated; bossibly biased high based upon QC Estimated; bossibly biased high based upon QC Estimated; Value is between reporting limit and detection limit Not Analyzed Undetected, Reported Detection Limit is imprec Reporting limits presented are the best that can b normal operating procedures with the method-rec volume extracted and analyzed. Sample reportin due to sample volume/sample weight extracted a dilutions.	Sample Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type   Type		Site Association:		00.7	OU7	OU7	800	SUO	8no	800	MCII
Location Discovering to The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties   The Properties	Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Location December   Loca		Sample Type.		Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank	Trip Blank TR-080205-01	Trip/Blank TR-086305-01	1 np Blank TB-080305-02
O-WYLENE  O-WYLENE  SEC-SHITMERICENE  SEC-SHITME	O-YVENE STREAM CONTINUE STREAM		Location ID: Sample Date:	Reporting (a) Limit	TB-071805-02 7/18/2005	TB-071905 7/19/2005	TB-072005 7/20/2005	TB-072005-02 7/20/2005	7/21/2005	8/2/2005 8/2/2005	8/3/2005	8/3/2005
Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act   Act	PLEASURED HEAT PROCESSES I C C C C C C C C C C C C C C C C C C										····	,
P.SCOPKOPALTOLLENE   1	SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC BITTLE   SEC	O-XVI ENE		_	⊽	⊽	⊽	⊽	⊽	⊽	<u>v</u> _	7 7
TRANSLEADER	FECHTY LIBROLDS   1	D ISOBDODYI TOI I IENIE		,_	⊽	⊽	⊽	⊽	⊽	⊽	⊽	<b>∵</b>
STATE   TEREVENUE	March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   March   Marc	CTC PIETO PERIODE			. ^	⊽	▽	⊽	⊽	▽	⊽	⊽
STYRENE	STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   STATES   S	SEL-BUT LBENZENE			7 7		. 7	⊽	$\overline{\vee}$	⊽	⊽_	⊽
TETRACHICARCE THENE   1	TRY-DIVIDAGE NEW LINE   1	STYRENE		-	√ '	7 '	7 7	; ;	. 7	7	_\\	▽
TETRACHLOROETHENE  1	TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE   TRINGADE	TERT-BUTYLBENZENE		_	⊽	⊽	₹	7	7	7 7	ت:	. 4
CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUCKET   CHUC	TROMSOLEDING   1   4   4   4   4   4   4   4   4   4	TETR ACHI OROETHENE		_	⊽	⊽	0.22 JQ	⊽	⊽	₹	7_	7 3
FARMS-1, 2DCHLOROPHENE	Parks 1	TOUTENE		-	⊽	▽	⊽		⊽	⊽	⊽_	₹ :
FANNAL_2-DICHLONCUS HINNE   1	TACKNOST-CATACHER   1	TOLOGINE		3 0	, 0,	, 0>	\$ ()>	\$ <del>0</del> \$	<0.5	<0.5	₹0.5	<0.5
TRICHLOROPROPENE	TRANSL-JUCHING/PORDER	TRANS-1,2-DICHLOROETHENE		C'A	/	7	} 7	7	: 7	⊽	▽	⊽
TRICHLOROETHENE   1	TRICHIOROCETIENE   1	TRANS-1,3-DICHLOROPROPENE		_	⊽	⊽	₹ ;	7,	7 7			~
TRICHLOROFELHOROMETHANE	THECHLOROMETHANE 1 C C C C C C C C C C C C C C C C C C	TRICHLOROETHENE		_	⊽	⊽	0.25 JQ	⊽	∵	7 '	7_5	
Surregate - %	Surrogate - %   C    C    C    C    C    C    C	TRICHI ORDEI HOROMETHANE		_	⊽	⊽	⊽	⊽	⊽	⊽	<u>v</u> _	7 '
Surregate - No.   110   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105   105	Servegate -	VINVI CHI ORIDE		-	. △	⊽	⊽	⊽	⊽	⊽	⊽	⊽
Surrogate - %         Surrogate - %           Surrogate - %         - 98         102         120         110         105         98         107         103         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98         98<	Surget - W											•
1,2-DiCHLOROETHANE_D4	12-DOCHLOROCHENANE  1.2-DOCHLOROCHENANE  1.2-DOCHLOROCHENANE  1.2-DOCHLOROCHENANE  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1.05  1	Surrogate - %						;		301	011	
4-BROMOFLUOROBENZENE	4-BROMOFLUROMETHANE	1.2-DICHLOROETHANE-D4		1	86	102	120	110	CO 1	cor cor	2 60	<u> </u>
DIRROMORELUGNOMETHANE  — 103 99 116 106 103 99 TOLUENE-D8  Estimated, based on OC data Estimated, possibly biased high or false positive based on Porting limit and detection limit Not Analyzed Undetected, Reported Detection Limit is imprecise Browner extracted and analyzed. Sample reporting limits may vary due to sample volume extracted and/or sample dilutions.	DBROMOFLUCROMETHANE	4-BROMOET LIOROBENZENE		ł	106	88	107	103	55	86	8 3	79.
Estimated; based on OC data Estimated; based on Bank contamination possitive based on blank contamination Estimated; possibly biased high or false possitive based on blank contamination Estimated; value is between reporting limit and detection limit Not Analyzed Reporting limit is impresse Reporting limit presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dijutions.	TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIUENE D8  TOLIU	DIBROMOEI FIOROMETHANE		1	103	66	116	106	103	8	501	507
Estimated; based on QC data Estimated; possibly biased high or false positive based on blank contamination Estimated; possibly biased high based upon QC data Estimated; possibly biased high based upon QC data Estimated; Value is between reporting limit and detection limit Not Analyzed Undetected. Reported Detection Limit is imprecise Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed. Sample reporting limits may vary due to sample volume/sample weight extracted andor sample dilutions.	Estimatel, based on QC data Estimatel, possibly by bissed high or false possibly by bissed high or false possibly by bissed high hased upon QC data Estimatel, possibly by bissed high hased upon QC data Estimatel, value is between reporting limit and detection Limit is between reporting limit Not Analyzed Not Analyzed Reported Detection Limit is imprecise Reporting procedures with the metabor-dequated sample volume retracted and of analyzed due to sample volume/sample weight extracted and for sample dilutions.	TOT HENE-D8		ı	101	76	102	76	95	86	1102	106
		Estimated; based on QC data Estimated; possibly biased high or false positive based on blank contamination Estimated; possibly biased high based up Estimated; Value is between reporting lir and detection limit Not Analyzed Undetected, Reported Detection Limit is Reporting limits presented are the best th normal operating procedures with the mevolume extracted and analyzed. Sample it to sample volume/sample weight extribitations.	on QC data nit imprecise at can be achieved under thod-required sample reporting limits may vary acted and/or sample						·		PREPARED/DATE CHECKED/DATE	RMB 10/13/05
											<u>-</u>	1

# DATA SUMMARY TABLE INVESTIGATIVE DERIVED WASTE BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Supply Center Richmond Richmond, Virginia

	Sample Type: Location ID.	Reporting (a)	Normal IDW
	Sample Date:	Limit	8/3/2005
Biochemical Oxygen Demand - EPA 405.1 mg/	<u>L</u>		
BIOCHEMICAL OXYGEN DEMAND (5-DAY)			280
Chlorinated Herbicides - SW846 8151 µg/L			
2,4,5-T		02	<0.2
2,4,5-TP SILVEX		0.2	<0.2
2,4-D		2	<2
2,4-DB		2	<2
DALAPON		5	<5
DICAMBA		0.2	0.24
DICHLORPROP		2	<2
DINOSEB		1	<1
MCPA (2-METHYL-4-CHLOROPHENOXYAC	ETIC ACID)	200	<200
MCPP	·	200	<200
S			
Surrogate - % recovery 2,4-DICHLOROPHENYLACETIC ACID		-	122 *
·			
Mercury - SW846 7470 (Total) mg/L MERCURY		0.0003	<0 0003
MERCORT		0.0005	-0 0003
Metals - SW846 6010 (Total) mg/L		0.045	0.0017 1
ARSENIC		0.045	0 0217 J
BARIUM		0.025	011
CADMIUM		0.005	<0.005
CHROMIUM		0.01	0,006 JG
COPPER		0 01	0 0035 J
LEAD		0 05	<0.05
NICKEL		0.02	<0.02
SELENIUM		0.1	<0.1
SILVER ZINC		0.01 0.02	<0 01 0.121
ZINC		0.02	0.121
Organochlorine Pesticides - SW846 8081 µg/L			
4,4'-DDD		0.1	<0.1
4,4'-DDE		01	<0.1
4,4'-DDT		0.1	<0.1
ALDRIN		0.05	<0.05
ALPHA-BHC		0.05	<0.05
ALPHA-CHLORDANE		0.05	<0.05
BETA-BHC		0.05	<0.05
DELTA-BHC		0.05	<0.05
DIELDRIN		0.1	<01
ENDOSULFAN I		0.05	<0.05
ENDOSULFAN II		0.1	<01
ENDOSULFAN SULFATE		0.1	<0.1
ENDRIN		01	<0.1
ENDRIN ALDEHYDE		01	<0.1
ENDRIN KETONE		0.1	<0.1
GAMMA-BHC		0.05	< 0.05
GAMMA-CHLORDANE		0.05	<0.05
HEPTACHLOR		0.05	<0.05
HEPTACHLOR EPOXIDE		0.05	<0.05
METHOXYCHLOR		0 1	<01
TOXAPHENE		2	<2

# DATA SUMMARY TABLE INVESTIGATIVE DERIVED WASTE BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Supply Center Richmond Richmond, Virginia

	Sample Type: Location ID.	Reporting (a)	Normal IDW
	Sample Date:	Limit	8/3/2005
Surrogate - % recovery			
DECACHLOROBIPHENYL		_	15
TETRACHLORO-M-XYLENE		_	64
Semi-Volatile Organic Compounds - SW84	<u>6 8270 μg/L</u>		
1,2,4-TRICHLOROBENZENE		10	<10
1,2-DICHLOROBENZENE		10	3 JQ
1,2-DIPHENYLHYDRAZINE		10	<10
1,3-DICHLOROBENZENE		10	<10
1,4-DICHLOROBENZENE		10	<10
2,4,5-TRICHLOROPHENOL		50	<50
2,4,6-TRICHLOROPHENOL		10	<10
2,4-DICHLOROPHENOL		10	<10
2,4-DIMETHYLPHENOL		10	<10
2,4-DINITROPHENOL		50	<50
2,4-DINITROTOLUENE		10	<10
2,6-DINITROTOLUENE		10	<10
2-CHLORONAPHTHALENE		10	<10
2-CHLOROPHENOL		10	<10
2-METHYLNAPHTHALENE		10	<10
2-METHYLPHENOL		10	<10
2-NITROANILINE		50	<50
2-NITROPHENOL		10	<10
3,3'-DICHLOROBENZIDINE		10	<10
3-NITROANILINE		50	<50
4,6-DINITRO-2-METHYLPHENOL		50	<50
4-BROMOPHENYL PHENYL ETHER		10	<10
4-CHLORO-3-METHYLPHENOL		10	<10
4-CHLOROPHENYL PHENYL ETHER		10	<10
4-METHYLPHENOL		10	<10
4-NITROPHENOL		50	< <b>5</b> 0
ACENAPHTHENE ACENAPHTHYLENE		10 10	<10 <10
ANTHRACENE		10	<10
BENZ(A)ANTHRACENE		10	<10
BENZO(A)PYRENE		10	<10 UJ
BENZO(B)FLUORANTHENE		10	<10 UJ
BENZO(GHI)PERYLENE		10	<10 UJ
BENZO(K)FLUORANTHENE		10	<10 UJ
BENZOIC ACID		50	<50
BENZYL ALCOHOL		10	<10
BENZYL BUTYL PHTHALATE		10 ~ .	<10
BIS(2-CHLOROETHOXY)METHANE		10	<10
BIS(2-CHLOROETHYL) ETHER		10	<10
BIS(2-CHLOROISOPROPYL) ETHER		10	<10
BIS(2-ETHYLHEXYL) PHTHALATE		10	<10
CHRYSENE		10	<10
DI-N-BUTYL PHTHALATE		10	<10
DI-N-OCTYL PHTHALATE		10	<10 UJ
DIBENZO(A,H)ANTHRACENE		10	<10 UJ
DIBENZOFURAN		10	<10
DIETHYL PHTHALATE		10	<10
DIMETHYL PHTHALATE		10	65
FLUORANTHENE		10	<10
FLUORENE		10	<10
HEXACHLORO-1,3-BUTADIENE		10	<10
HEXACHLOROBENZENE		10	<10
HEXACHLOROCYCLOPENTADIENE		10	<10 UI
HEXACHLOROETHANE		10	<10
HEXACHLOROPROPENE		10	<10

e jeden er

# DATA SUMMARY TABLE INVESTIGATIVE DERIVED WASTE BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Supply Center Richmond Richmond, Virginia

	Sample Type. Location ID.	Reporting (a)	Normal IDW
	Sample Date:	Limit	8/3/200:
INDENO(1,2,3-CD)PYRENE		10	<10 U.
ISOPHORONE		10	<10
N-NITROSODI-N-PROPYLAMINE		10	<10
N-NITROSODIPHENYLAMINE		10	<10
NAPHTHALENE		10	<10
NITROBENZENE		. 10	· <10
P-CHLOROANILINE		10	<10
P-NITROANILINE		50	<50
PENTACHLOROPHENOL		50	<50
PHENANTHRENE		10	<10
PHENOL		10	<10
PYRENE		10	<10
Surrogate - % recovery			
2,4,6-TRIBROMOPHENOL			10 <del>9</del>
2-FLUOROBIPHENYL		-	100
2-FLUOROPHENOL			84
NITROBENZENE-D5			76
PHENOL-D5		_	19 *
TERPHENYL-D14		-	95
Total Suspended Solids - EPA 160.2 mg/L			
TOTAL SUSPENDED SOLIDS			. 21
Volatile Organic Compounds - SW846 8260;	ue/L		
1,1,1,2-TETRACHLOROETHANE		1	<1
1,1,1-TRICHLOROETHANE		1	40
1,1,2,2-TETRACHLOROETHANE		1	<1
1,1,2-TRICHLOROETHANE		1	<1
1,1-DICHLOROETHANE		1	2,8
1,1-DICHLOROETHYLENE		1	3
1,1-DICHLOROPROPENE		1	<1
1,2,3-TRICHLOROBENZENE		1	<1
1,2,3-TRICHLOROPROPANE		1	<1
1,2,4-TRICHLOROBENZENE		1	<1
1,2,4-TRIMETHYLBENZENE		1	<1
1,2-DIBROMO-3-CHLOROPROPANE		2.5	<2.5
1,2-DIBROMOETHANE		1	<1
1,2-DICHLOROBENZENE		ì	4
1,2-DICHLOROETHANE		1	<1
1,2-DICHLOROPROPANE		1	<1
1,3,5-TRIMETHYLBENZENE		1	</td
1,3-DICHLOROBENZENE		1	<1
1,3-DICHLOROPROPANE		1	<1
1,4-DICHLOROBENZENE		1	1.2
2,2-DICHLOROPROPANE		1	<1
2-BUTANONE		10	<10
2-CHLOROTOLUENE		1	<1
2-HEXANONE		10	<10
4-CHLOROTOLUENE		1	<1
4-METHYL-2-PENTANONE		10	<10
ACETONE DENIZENTE		10	42 JB
BENZENE		1	<1
BROMOBENZENE		1	<1
BROMODICHLOROMETHANE		1	<1
BROMOFORM BROMOMETUANE		1	<1
BROMOMETHANE		1	<1
CARBON DISULFIDE CARBON TETRACHLORIDE		1	0.53 JQ
		1	<1

# DATA SUMMARY TABLE INVESTIGATIVE DERIVED WASTE BI-ANNUAL GROUNDWATER SAMPLING EVENT - JULY 2005 Defense Sapply Center Richmond Richmond, Virginia

	Sample Type		Normal
	Location ID	Reporting (a)	IDW
	Sample Date:	Limit	8/3/2005
CHLOROBROMOMETHANE		1	<1
CHLORODIBROMOMETHANE		1	<1
CHLOROETHANE		1	<1
CHLOROFORM		1	1.6
CHLOROMETHANE		1	0.83 JB
CIS-1,2-DICHLOROETHENE		0.5	90
CIS-1,3-DICHLOROPROPENE		1	<1
DIBROMOMETHANE		1	<1
DICHLORODIFLUOROMETHANE		1	<1
ETHYLBENZENE		1	<1
HEXACHLORO-1,3-BUTADIENE		1	<1
ISOPROPYLBENZENE		1	<1
M & P-XYLENES		1	<1
METHYL TERT-BUTYL ETHER		1	<1
METHYLENE CHLORIDE		1	0.21 JQ
N-BUTYLBENZENE		1	<1
N-PROPYLBENZENE		1	<1
NAPHTHALENE		1	<1
O-XYLENE		1	<1
P-ISOPROPYLTOLUENE		1	<1
SEC-BUTYLBENZENE		1	<1
STYRENE		1	<1
TERT-BUTYLBENZENE		1	<1
TETRACHLOROETHENE		1	14
TOLUENE		1	0.55 JQ
TRANS-1,2-DICHLOROETHENE		0.5	0 85
TRANS-1,3-DICHLOROPROPENE		i	<1
TRICHLOROETHENE		i	150
TRICHLOROFLUOROMETHANE		1	<1
VINYL CHLORIDE		1	61
Surrogate - % recovery			
1,2-DICHLOROETHANE-D4			108
4-BROMOFLUOROBENZENE			94
DIBROMOFLUOROMETHANE			103
TOLUENE-D8		_	96

# Notes:

- JB Estimated, possibly biased high or false positive based on blank contamination
- IQ Estimated; Value is between reporting limit and detection limit
- UJ Undetected; Reported Detection Limit is imprecise
- UL Undetected, Data biased low Reported Detection Limit is higher than indicated
- \* Surrogate recovery exceeds QC limits
- (a) Reporting limits presented are the best that can be achieved under normal operating procedures with the method-required sample volume extracted and analyzed Sample reporting limits may vary due to sample volume/sample weight extracted and/or sample dilutions.

PREPARED/DATE, RMB 9/25/05 CHECKED/DATE: JAH 9/27/05

816 561

December 2005 Revision 0

Results of Bi-Annual Groundwater Sampling – July 2005 Operable Units 6,7, and 8 Defense Supply Center Richmond

1

2

APPENDIX C

APPROVAL FOR DISCHARGE OF LIQUID IDW

From:

Edlavitch, Steven R (DSCR) [Steven.Edlavitch@dla.mil]

Sent:

Friday, September 30, 2005 10:07 AM

To:

Jenkins, Josh

Subject:

FW: IDW Discharge Approval

We got the go ahead to discharge, see below

Steven R. Edlavitch, Environmental Engineer Defense Supply Center Richmond, DSCR-SD 8000 Jefferson Davis Highway Richmond, VA 23297-5000 Steven.Edlavitch@dla.mil Ph: (804) 279-5099

Fx: (804) 279-3397 ----Original Message-----

From: Hufford, Francis D (DSCR)

Sent: Friday, September 30, 2005 9:46 AM To: 'Jenkins, Josh'; Edlavitch, Steven R (DSCR)

Subject: FW: IDW Discharge Approval

----Original Message-----

From: Harper, Tiffany [mailto:HarperT@chesterfield.gov]

Sent: Friday, September 30, 2005 9:37 AM

To: Hufford, Francis D (DSCR)

Cc: Sharma, Abha

Subject: IDW Discharge Approval

After reviewing the analytical results of the July 2005 IDW sampling, I find that at this time it is acceptable to discharge 130 gallons of wastewater, provided DSCR does not exceed its permit limit for flow at any given time. This approval is specific to this batch discharge. Any future request for discharge will require similar analytical testing, review and approval.

If you have any questions you can contact me at the number or email address listed below. Thank you.

Sincerely,

Tiffany Harper **Engineering Assistant** Chesterfield County Dept. of Utilities **Industrial Wastewater Pretreatment** 

P.O. Box 608 Chesterfield, VA 23832

Office: (804) 768-7706

Email: harpert@chesterfield.gov

December 2005 Revision 0

Results of Bi-Annual Groundwater Sampling – July 2005 Operable Units 6,7, and 8 Defense Supply Center Richmond

1

2

APPENDIX D

DATA QUALITY EVALUATION SUMMARY

# TABLE OF CONTENTS

2				<u>Page</u>
3	EXEC	UTIVE	SUMMARY	D-ES-1
4	D-1.0	DATA	QUALITY EVALUATION SUMMARY	
5		D-1.1	INTRODUCTION	D-1-1
6		D-1.2	ANALYTICAL LABORATORY	D-1-1
7		D-1.3	DATA QUALITY OBJECTIVES	D-1-2
8		D-1.4	DATA QUALITY EVALUATION PROCEDURES	
9			D-1.4.1 Evaluation of Field Data Quality	
10			D-1.4.2 Evaluation of Laboratory Data Quality	
11		D-1.5	ANALYTICAL RESULTS	D-1-3
12		D-1.6	DATA QUALITY EVALUATION	D-1-4
13	D-2.0	OPER	RABLE UNIT 6 DATA QUALITY EVALUATION	D-2-1
14		D-2.1	GROUNDWATER – JULY 2005	D-2-1
15		D-2.2	UPPER WATER BEARING UNIT	D-2-1
16		D-2.3	LOWER WATER BEARING UNIT/BEDROCK	D-2-14
17		D-2.4	COMPLETENESS	D-2-25
18	D-3.0	OPER	RABLE UNIT 7 DATA QUALITY EVALUATION	D-3-1
19		D-3.1		
20			D-3.1.1 Upper Water Bearing Unit	D-3-1
21			D-3.1.2 Lower Water Bearing Unit	D-3-14
22		D-3.2	COMPLETENESS	D-3-24
23	D-4.0	OPER	RABLE UNIT 8 DATA QUALITY EVALUATION	D-4-1
24		D-4.1	GROUNDWATER – JULY 2005	D-4-1
25			D-4.1.1 Upper Water Bearing Unit	D-4-2
26			D-4.1.2 Lower Water Bearing Unit	D-4-13
27		D-4.2	COMPLETENESS	D-4-20
28	D-5.0	REFE	CRENCES	D-5-1

December 2005 Revision 0

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

l LIST OF TABLES

- 2 Table
- 3 D-1 Data Qualifiers and Descriptions

050016.08 D-ii

# LIST OF ACRONYMS AND ABBREVIATIONS

2	AFCEE	Air Force Center for Environmental Excellence
3	ASTM	American Society for Testing and Materials
4	CAS	Columbia Analytical Services, Inc.
5	CCB	Continuing Calibration Blank
6	cDCE	cis-1,2-Dichloroethene
7	COC	Chain of Custody
8	DCE	Dichloroethene
9	DQE	Data Quality Evaluation
10	DQI	Data Quality Indicator
11	DQO	Data Quality Objective
12	DSCR	Defense Supply Center Richmond
13	ICP	Inductively Coupled Plasma
14	ID	Identification
15	Law	Law Engineering and Environmental Services, Inc.
16	LCS	Laboratory Control Sample
17	MACTEC	MACTEC Engineering and Consulting, Inc.
18	MC	Methylene Chloride
19	MDL	Method Detection Limit
20	mg/L	Milligram per Liter
21	MNA	Monitored Natural Attenuation
22	MS	Matrix Spike
23	MSD	Matrix Spike Duplicate
24	OU	Operable Unit
25	PCE	Tetrachloroethene
26	QA	Quality Assurance
27	QAPP	Quality Assurance Project Plan
28	QC	Quality Control
29	RL	Reporting Limit
30	RPD	Relative Percent Difference
31	SAP	Sampling and Analysis Plan
32	SDG	Sampling Delivery Group
3	SMF	Sporadic Marginal Failure

050016.08 D-iii

December 2005 Revision 0

# Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

2		(Continued)
3	TCE	Trichloroethene
4	TOC	Total Organic Carbon
5	USACE	U.S. Army Corps of Engineers
6	USEPA	U.S. Environmental Protection Agency
7	VC	Vinyl Chloride
8	VFA	Volatile Fatty Acid
9	VOC	Volatile Organic Compound
10	WBU	Water Bearing Unit
11	μg/L	Microgram per Liter
12	%R	Percent Recovery

LIST OF ACRONYMS AND ABBREVIATIONS

050016.08 D-iv

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

#### EXECUTIVE SUMMARY

- 2 A Data Quality Evaluation (DQE) was performed on the data reported for the bi-annual groundwater
- 3 sampling event conducted at Operable Units (OUs) 6, 7, and 8 in July 2005. The following sections
- 4 provide summary discussions of the required data qualifications for each OU and the analytical method
- 5 for groundwater samples collected at the Defense Supply Center Richmond (DSCR). A Level II DQE
- 6 was performed, and the data quality indicators (DQIs) that were evaluated included sample integrity,
- 7 holding times, trip blanks, equipment rinsates, method blanks, internal standards, surrogate recoveries,
- 8 matrix spike (MS)/matrix spike duplicate (MSD) recoveries, laboratory control samples (LCSs), and field
- 9 duplicate precision. These DQIs are expressed in terms of precision, accuracy, representativeness,
- 10 comparability, sensitivity, and completeness. The results of the DQE are summarized below.

## **Precision**

11

1

- 12 Field duplicates were collected to assess sampling precision. They consisted of replicate grab samples
- 13 collected concurrently with the associated field samples. Precision is best expressed in terms of relative
- 14 percent difference (RPD). In general, the precision goals were acceptable with the following exceptions.
- 15 Field precision goals exceeded quality control (OC) limits for various groundwater parameters in the
- duplicate sample pairs collected from OUs 6, 7, and 8. Specific samples and the analytes with elevated RPDs
- 17 are listed below by OU. Those analytes requiring qualification included volatile organic compounds (VOCs),
- dissolved gases, hydrogen, sulfate, alkalinity, and total organic carbon (TOC). The samples with failing
- 19 VOCs required dilution and re-analysis because of high levels of target analytes, which may have been a
- 20 contributing factor to the RPD failures for VOCs.
- 21 OU 6 The groundwater field duplicate pair AEHA-5/OU6DUP-1 resulted in the qualification of results
- 22 for ethane and zinc.
- 23 The groundwater field duplicate pair AEHA-23A/OU6DUP-2 resulted in the qualification of results for
- VOCs (dichlorofluoromethane, vinyl chloride, chloroform, and trichloroethene), sulfate, and hydrogen.
- 25 The groundwater field duplicate pair AEHA-30B/OU6DUP-5 resulted in the qualification of results for
- 26 two VOCs (tetrachloroethene and 1,2-dichlorobenzene), ethane, TOC, and alkalinity.

- 1 OU 7 The groundwater field duplicate pair OU7DUP-3/MWFTA-20 resulted in the qualification of
- 2 results for hydrogen.
- 3 OU 8 The groundwater field duplicate pair DMW-31A/OU8DUP-2 resulted in the qualification of
- 4 results for mercury and sulfate.
- 5 The groundwater field duplicate pair DP-11/OU8DUP-3 resulted in the qualification of results for one
- 6 VOC (trichlorofluoromethane), sulfate, and hydrogen.
- 7 The groundwater field duplicate pair OU8DUP-4/MWANP-4D resulted in the qualification of results for
- 8 hydrogen.

## 9 Accuracy

- 10 Accuracy was measured through the analyses of LCSs and MS/MSDs. Sample-specific accuracy is
- measured through surrogate recovery. Accuracy is expressed as percent recovery.
- Recoveries for LCSs in associated groundwater samples indicated estimated ("J"-flagged) data qualification
- for hexachlorobutadiene and pyruvic acid results. However, the LCS recovery was high, and there were no
- 14 positive results in any of the associated samples. In addition, the batch MS/MSD recovered within QC
- limits; therefore, no qualification to the hexachlorobutadiene and pyruvic acid results were necessary for
- 16 project samples. Project sample surrogate recoveries were within specified limits. MS/MSD recoveries
- 17 resulted in qualification for various VOCs, anions, and sulfide data in project samples, as discussed below.
- 18 OU 6 Recoveries for MS/MSDs in groundwater resulted in estimated ("J"-flagged) data qualification for
- 19 dichlorodifluoromethane, zinc, and sulfide results in sample MWA50-37 and naphthalene, nitrate, and
- 20 sulfate results in sample USGS-G4.
- 21 OU 7 Recoveries for MS/MSDs in groundwater sample MWFTA-1 resulted in estimated ("J"- or
- 22 "UJ"-flagged) data qualification for arsenic and mercury results. Additionally, the MS/MSD recoveries of
- 23 sulfide in MWFTA-1 and sulfide and naphthalene in MWFTA-19 were high; however, there were no positive
- 24 results in the samples and no flagging of the data was necessary. Recoveries for MS/MSDs in groundwater
- sample MWFTA-19 resulted in estimated ("J"- or "UJ"-flagged) data qualification for 2,2-dichloropropane.

OU 8 — Recoveries for MS/MSDs in groundwater sample DMW-23A indicated estimated ("J"- or "UJ"-flagged) data qualification for sulfide, mercury, dichlorodifluoromethane, trichlorofluoromethane, acetone, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone. The results for dichlorodifluoromethane, trichlorofluoromethane, and acetone were considered estimated and qualified "J/UJ". No qualification was necessary for sulfide, mercury, 2-butanone, 4-methyl-2-pentanone, and 2-hexanone due to high recoveries because the sample was nondetect for these analytes. High recoveries for MS/MSDs in groundwater sample DMW-23A resulted in estimated ("JH"-flagged) data qualification (estimated with possible high bias) for aluminum. High recoveries for MS/MSDs in groundwater sample MWANP-15 indicated estimated ("J"-flagged) data qualification for sulfide; however, no flagging of the data was necessary because the sample was nondetect for sulfide.

## Representativeness

1 2

3

4

5

6

7

8

9

10

11

29

- Representativeness refers to the degree to which sample data accurately and precisely describe the population of samples at a sampling point or under certain environmental conditions. Samples that are not properly preserved or are analyzed beyond holding times may not be considered representative. Review of sampling procedures, laboratory preparation, analysis holding times, and trip blank and field blank analysis helps in providing this assessment.
- 17 Sampling procedures followed the Final Work Plan Addendum for the Bi-annual Groundwater Sampling 18 (MACTEC Engineering and Consulting, Inc., 2005; Work Plan) and were considered representative of the 19 matrices collected. Laboratory preparation and analysis followed method guidelines. The project-specified 20 holding time of 7 days for carbon dioxide and 14 days for methane, ethane, and ethene was never clearly 21 communicated to the laboratory, which referenced the 28-day holding time stated in the Air Force Center 22 for Environmental Excellence (AFCEE, 2001) Quality Assurance Project Plan, Version 3.1. The carbon 23 dioxide and methane, ethane, and ethene results for samples analyzed outside specified limits were 24 considered estimated (flagged "J" or "UJ") because of project holding time exceedance. Although they were 25 qualified as estimated, the sample results associated with the holding time exceedances are considered 26 representative because the 28-day AFCEE holding time was achieved. Furthermore, dissolved gas data are 27 generally used to monitor the oxidation reduction conditions in the subsurface environment that control 28 contaminant migration and degradation.
  - Trip blanks, equipment rinsates, and method blanks contained low levels of VOCs, metals, and wet chemistry parameters, which resulted in the qualification of results as possibly laboratory or field artifact. Associated

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

- 1 positive sample results less than 5 times (10 times for common constituents) the blank value were qualified as
- 2 estimated (flagged "JB") for each method. Additionally, for TOC and alkalinity, sample results between the
- 3 blank value and five times the blank value were qualified as estimated (flagged "JH") with possible high bias
- 4 because of blank contamination. Acetone, chloroform, chloromethane, methylene chloride, o-xylene,
- 5 methane, aluminum, antimony, cadmium, copper, iron, lead, molybdenum, silver, vanadium, zinc, chloride,
- 6 TOC, and alkalinity results in various samples were qualified as possible laboratory or field artifact. The
- 7 effect on project data quality objectives (DQOs) is minimal because most of the qualified data results were
- 8 near or below the reporting limit (RL).

## Completeness

9

24

25

26 27

28 29

30

- 10 Completeness is determined for field and analytical objectives. Field completeness is calculated from the
- 11 number of samples proposed verses the actual number of samples collected. Analytical completeness is
- 12 expressed in terms of usable data. The project completeness goal for DSCR is 90 percent. Overall
- percent completeness for the data collection efforts and DQO attainment for the bi-annual groundwater
- sampling is 99.97. A discussion of compound and/or method completeness compared to project objectives,
- as well as effects of field conditions on project objectives, is presented below.
- Field Completeness Samples were collected and parameters analyzed from each well proposed in OUs 6.
- 17 7, and 8, with the exception of hydrogen from monitoring well USGS-K4 located in OU 6. Hydrogen
- could not be collected from monitoring well USGS-K4 because of insufficient volume. Hydrogen results,
- in addition to several other parameters, are used to evaluate the water system's ability for natural
- attenuation. Because an evaluation of natural attenuation processes depends on several parameters, the
- 21 lack of hydrogen results for this location does not adversely impact the project objectives.
- 22 Analytical Completeness The groundwater data reported for the bi-annual groundwater sampling were
- 23 usable with qualifications, with the exception of total zinc results in six samples:
  - OU 6: Zinc. Although five zinc results were qualified as unusable because of
    professional judgment, the completeness for zinc was greater than 90 percent, and
    the effect of data completeness based on the project objectives is negligible. Zinc is a
    common mineral found in groundwater and surface water, and was qualified based
    on historical site data and the inability to determine a specific reason for the elevated
    zinc levels. Therefore, the unusable zinc data in the groundwater samples are not
    believed to impact the overall DOOs.

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

- OU 7: Zinc. One zinc result was qualified as unusable because of professional judgment, and the completeness for zinc was greater than 90 percent. The effect of data completeness based on the DQOs is negligible.
  - OU 8: There were no results qualified as unusable and no effect on the project completeness DQOs.

## 6 **Comparability**

4 5

12

- 7 The selection of standardized methods aids in the comparison of past data to recent studies. Past
- 8 investigation data are comparable to recent studies, with the exception of the unusable zinc results
- 9 described above. The samples that were found to be significantly different from previous quarterly data
- were OU 6 AEHA-30A, AEHA-32A, USGS-D4, USGS-F2, and USGS-H2, and OU 7 MWFTA-5.
- 11 There is no effect on the overall DOOs.

## Sensitivity

- 13 Analytical sensitivity is the concentration at which the measurement system can quantitate target analytes
- 14 in the environmental matrices of concern. The ultimate expression of analytical sensitivity is the
- quantitation RL. The analytical method RLs and method detection limits were compared to groundwater
- 16 protection standards and were determined to meet the overall project objectives within reasonable budget
- 17 constraints.
- 18 Sensitivity was mainly affected with the analysis of VOCs. A number of samples required dilution
- because of the presence of VOCs in elevated concentrations, which resulted in higher RLs. Most of these
- 20 samples were also analyzed with no dilution to quantitate analytes that were within the normal instrument
- 21 calibration range.

## 22 Summary

- 23 Data obtained in July 2005 from the three groundwater OUs at DSCR are sufficient to provide data to
- evaluate the monitored natural attenuation process.

1	D-1.0 DATA QUALITY EVALUATION SUMMARY
2	OPERABLE UNITS 6, 7, AND 8
3	BI-ANNUAL GROUNDWATER SAMPLING EVENT – JULY 2005
4	D-1.1 INTRODUCTION
5	The following sections present the analytical laboratory used, the data quality objectives (DQOs) for the
6	project, results of the analyses of quality control (QC) samples, and a discussion of the quality of the
7	analytical data for Operable Unit (OU) 6 (groundwater beneath the Open Storage Area [OU 1], the Area 50
8	Landfill [OU 2], and the National Guard Area [OU 3]), OU 7 (groundwater beneath the former Fire Training
9	Area [OU 4] and the Polycyclic Aromatic Hydrocarbon [PAH] Area [OU 13]), and OU 8 (groundwater
10	beneath the Acid Neutralization Pits [OU 5]) at the Defense Supply Center Richmond (DSCR). This Data
11	Quality Evaluation (DQE) narrative summarizes the quality of the data collected during the July 2005
12	bi-annual groundwater sampling event at the three OUs.
13	The data validation was performed in general accordance with the Final General Sampling and Analyses
14	Plan (SAP; MACTEC Engineering and Consulting, Inc., [MACTEC] 2004); Requirements for the
15	Preparation of Sampling and Analysis Plans (USACE, 2001); USEPA Region III National Functional
16	Guidelines for Organic and Inorganic Data Review as modified (U.S. Environmental Protection Agency,
17	[USEPA] 1999, 1994); and the appropriate analytical method requirements as presented in Test Methods for
18	Evaluating Solid Wastes, Physical/Chemical Methods, SW-846, Update III and Subsequent Updates
19	(USEPA, 1996).
20	D-1.2 ANALYTICAL LABORATORY
21	Groundwater samples collected from monitoring wells in July 2005 were analyzed by Columbia Analytical
22	Services, Inc., (CAS) of Redding, California, for volatile organic compounds (VOCs) by Method 8260B,
23	total metals by Method 6010B/6020, mercury by Method 7470A, volatile fatty acids (VFAs) by American
24	Society for Testing and Materials (ASTM) D5560, anions (chloride, nitrate, and sulfate) by Method 300A,
25	dissolved gases (carbon dioxide, methane, ethane, and ethene) by Method RSK 175, total organic carbon
26	(TOC) by Method 9060, total sulfide by Method 376.1, and alkalinity by Method 310.1. Additionally,

050016.08 D-1-1

samples were analyzed by Microseeps, Inc., of Pittsburgh, Pennsylvania, for hydrogen.

2627

## D-1.3 DATA QUALITY OBJECTIVES

1

- 2 Project-specific DQOs are described in Sections 2.3.2, 3.3.2, and 4.3.2 of the Final Quarterly Groundwater
- 3 Sampling Plan for Operable Unit 6, Operable Unit 7, Operable Unit 8, and Post Exchange Gas Station
- 4 (Law Engineering and Environmental Services, Inc., [Law] 2002b), and amendments to the sampling for the
- 5 bi-annual event are presented in the Final Work Plan Addendum for the Bi-annual Groundwater Sampling
- 6 (MACTEC, 2005). Once the environmental data have been collected and analyzed, the consultants assess the
- 7 laboratory data for their usability as prescribed by project goals. The criteria that measure the usability of
- 8 environmental data as it relates to project objectives are data accuracy, precision, and completeness.
- 9 Evaluation of these criteria ultimately reveals the representativeness and bias, if any, present in the sampling
- and analytical processes. These criteria are explained in detail in Section 3.2 of the Quality Assurance Project
- Plan (QAPP) section of the Final General Sampling and Analyses Plan (MACTEC, 2004).

## 12 D-1.4 DATA QUALITY EVALUATION PROCEDURES

- 13 The procedures used by MACTEC for data evaluation and validation are described in the Data Quality
- 14 Evaluation Standard Operating Procedures for USEPA SW 846 Methods 8260B, 6010B/6020, 7471A, 9060,
- 15 300A, 310.1, 376.1, ASTM Method D1552, RSK Method 175, and Miscellaneous Wet Chemistry Methods
- 16 (Law, 2001, 2002a). The primary DQE was performed by MACTEC's staff or project chemist. The DQE
- 17 narrative and qualified (flagged) data tables were reviewed by a senior chemist.
- 18 The laboratory data, field QC data, and field notes provide the information to evaluate the analytical data for
- 19 accuracy, precision, completeness, and representativeness with respect to the project-specific DQOs. The
- 20 data are first evaluated based on field notes taken during collection of the samples to assess sampling
- 21 conditions and sampling procedures or determine whether changes to the planned procedures were necessary.
- 22 Secondly, upon receipt, each sample shipment sent to the laboratory is assessed for adherence to method-
- 23 prescribed holding times, proper chain of custody (COC) documentation, correct use of sample containers,
- 24 and sample integrity.
- 25 The laboratory's internal QC procedures for calibration, method validation, and performance evaluation
- 26 include appraisal of method-prescribed tune (for gas chromatograph/mass spectrometer) and calibration
- 27 criteria, method blank analyses, laboratory control sample (LCS) analysis, matrix spike (MS)/matrix spike
- duplicate (MSD) analyses, and assessment of surrogate and internal standard recovery where applicable.
- MACTEC's evaluation of the laboratory data focuses on exceptions to the planned QC activities, problems

050016.08 D-1-2

- 1 encountered, and the effectiveness of the methodologies used within the laboratory. The data are then
- 2 evaluated overall with respect to the project DQOs, providing the completeness. The following sections
- 3 present the evaluation procedures used for the analytical data with respect to the project-specific DQOs.

## 4 D-1.4.1 Evaluation of Field Data Quality

- 5 QC and quality assurance (QA) samples were collected to assess the quality and representativeness of the
- 6 field sampling activities and the accuracy of analytical results from the primary laboratory. Field QC and QA
- samples are required by the USACE (2001) protocols and were collected, and their use is specified in the
- 8 SAP (MACTEC, 2004). Field QC samples consisted of trip blanks, equipment rinsate blanks, and field
- 9 duplicate samples. The results of the field QC samples are presented in data summary Table B-9 in
- 10 Appendix B.

## 11 D-1.4.2 Evaluation of Laboratory Data Quality

- 12 Laboratory data are evaluated to assess adherence to method-prescribed calibration and/or continuing
- 13 calibration criteria, method blank analysis results, analyte recoveries from LCS, MS/MSD recoveries and
- 14 relative percent differences (RPDs), surrogate recoveries, and ultimately completeness. Except for
- 15 completeness, these criteria are used to evaluate the accuracy and precision of the data generated by the
- 16 laboratory. Furthermore, the USACE-specified control limits for the major USEPA SW-846 methodologies
- are presented in the shell document (USACE, 2001), and data were evaluated based on those limits. The
- analytical methods and the associated limits used for analysis of the environmental samples collected during
- the July 2005 sampling event are included in the shell document.
- 20 In general, control limits not addressed by USACE in the shell document default to laboratory-generated
- 21 limits. Laboratory-established control limits are based on the mean percent recovery plus or minus 3 standard
- deviations of the mean using a minimum population of 20 recovery values. Specific laboratory OC elements
- 23 considered in the calculation of precision, accuracy, representativeness, and completeness are presented in
- Section 3.2 (in the QAPP) of the SAP (MACTEC, 2004).

#### D-1.5 ANALYTICAL RESULTS

25

- The comprehensive analytical results for samples associated with each OU are summarized in Appendix B as
- Tables B-1 through B-9. Analytical results are quantitated at the reporting limit (RL) but evaluated down to
  - the method detection limit (MDL). The MDL is defined as the minimum concentration of a substance that

050016.08 D-1-3

- 1 can be measured and reported with 99 percent confidence that the value is above zero. The RL is defined
- 2 as the lowest level that can be reliably achieved within specified limits of precision and accuracy during
- 3 routine laboratory operating conditions as defined by SW-846. Data points reported at concentrations
- 4 above the MDL, but less than the RL, are considered estimated quantitative values and are qualified as "JQ".
- 5 RLs are adjusted by the sample weight/volume extracted and analyzed, moisture content (soils and
- 6 sediments only), and/or dilution, and therefore may be different for each sample.

# 7 D-1.6 DATA QUALITY EVALUATION

- 8 The following sections provide summary discussions of data quality for the July 2005 sampling event for
- 9 OUs 6, 7, and 8. Each section highlights the main points of data quality indicators (DQIs) and identifies data
- points that require qualification. Data qualification flags and their descriptions are presented in the footnotes
- 11 to Table D-1.
- 12 DQE forms were generated and used by MACTEC to document the evaluated data components. These
- forms are arranged so that parameters affecting all samples are reviewed first, such as proper execution of
- 14 COC, temperature of the samples upon receipt at the laboratory, and appropriate sample
- 15 containers/preservatives. These original forms and the respectively flagged data tables are filed with each
- sample delivery group (SDG) after senior review.
- 17 A Level II review was performed on each parameter for sample data collected during the bi-annual
- 18 groundwater sampling at DSCR.

050016.08 D-1-4

## D-2.0 OPERABLE UNIT 6 DATA QUALITY EVALUATION

- 2 The following sections provide summary discussions of data quality for samples collected during the July
- 3 2005 bi-annual sampling event at OU 6. Groundwater samples were collected from monitoring well
- 4 locations to evaluate monitored natural attenuation (MNA) characteristics of each water bearing unit
- 5 (WBU). The comprehensive analytical results for samples associated with the bi-annual OU 6 sampling
- 6 event are summarized in Appendix B (Tables B-1 through B-3). Field duplicate, trip blank, and
- 7 equipment blank associations are presented in Appendix B, Table B-9.

## D-2.1 GROUNDWATER – JULY 2005

- 9 A total of 57 groundwater wells were sampled in July 2005. Samples were collected and parameters
- analyzed from each well proposed, with the exception of USGS-K4. Hydrogen could not be collected from
- monitoring well USGS-K4 because of insufficient volume. All wells except AEHA-18A, DMW-9B,
- DMW-18A, USGS-A4, USGS-BR2, USGS-D4, USGS-F4, USGS-G4, USGS-J4, USGS-K4, USGS-M4,
- 13 and USGS-P4 were sampled with dedicated bladder pumps. Equipment blank OU6-BLAD-EQB was
- 14 collected on 16 July 2005 to represent these groundwater samples. The correct sample containers and
- preservatives were used for the analytical methods specified on the COC. Additionally, the correct methods
- were employed for extraction/digestion and analysis as outlined in the Work Plan. The appropriate units,
- 17 detection limits, and compounds were reported by the laboratory per the 2005 subcontracts agreements
- between MACTEC and CAS and MACTEC and Microseeps, Inc.

### 19 D-2.2 UPPER WATER BEARING UNIT

- 20 A total of 31 groundwater and 3 duplicate samples were collected from the upper WBU. Samples
- 21 AEHA-18A, DMW-18A, OU6DUP-1, OU6DUP-2, OU6DUP-3, USGS-A4, USGS-D4, USGS-F4,
- 22 USGS-G4, USGS-J4, USGS-K4, USGS-M4, and USGS-P4 were collected with non-dedicated bladder
- 23 pumps.

1

8

- 24 <u>VOCs (SW-8260B)</u> VOC data collected from OU 6 were evaluated using a Level II approach that
- consisted of a review of holding times, method, calibration, trip and equipment blanks, LCS recoveries,
- 26 MS/MSD recoveries and RPDs, and field duplicate precision, in addition to method-specific QC such as
- 27 surrogates and internal standards. Any failures among the method listed are discussed below. Initial and
- 28 continuing calibration information was assumed to be within QC limits.

Revision 0

- 1 All holding times for the groundwater samples analyzed for VOCs were met. The batch-specific method
- 2 blanks associated with the samples were analyzed and reported to contain VOCs, as indicated below. The
- 3 samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and
- 4 methylene chloride [MC]) were accordingly qualified as estimated based on blank contamination and
- 5 flagged as "JB", unless overridden by qualifications for other QC exceedances. Associated samples that
- 6 were nondetects required no qualification.

7	Blank ID	<b>Analyte</b>	Concentration	Action/Affected Samples
8 9 10 11	U0718W01	Acetone	5.1 μg/L (JQ)	AEHA-5, AEHA-15A, AEHA-18A, AEHA-24A, AEHA-25A, DMW-7A, MWA50-36, MWA50-38, OU6DUP-1, TB-071205, TB-071305
12 13 14	U0719W01	Acetone	2.5 μg/L	AEHA-12A, AEHA-16A, AEHA-23A, AEHA-33A, MWA50-37, USGS-P4, TB-071405, TB-071505
15 16		Methylene chloride	0.13 μg/L	AEHA-23A, AEHA-33A, MWA50-37, USGS-P4, TB-071405, TB-071505
17 18 19 20	U0720W01	Acetone  Methylene Chloride	3.5 μg/L 0.16 μg/L	AEHA-22A, AEHA-34A, DMW-9A DMW-18A, MWA50-35, OU6-BLAD-EQB, USGS-D4, USGS-F4, TB-071605 USGS-F4
21 22 23	U0722W01 U0728W01	Acetone Methylene Chloride Hexachlorobutadiene	0.84 μg/L 0.10 μg/L 0.18 μg/L (JQ)	AEHA-30A, OU6DUP-2 OU6DUP-2 None

- 24 In addition, the MC results present in samples AEHA-28A and OU6DUP-3 were qualified as estimated
- 25 possibly biased high and flagged "JB" because of professional judgment. The associated method blank
- 26 U0727W01 was nondetect for MC; however, results were similar to levels detected in several site samples
- 27 collected within the analytical batch.
- 28 Batch-specific LCSs were analyzed, and recoveries were within acceptable QC criteria. The surrogates
- and internal standards added to the samples by the laboratory were recovered within specified limits. An
- 30 MS/MSD was performed on upper WBU samples MWA50-37 and USGS-G4. The percent recovery
- 31 (%R) was within QC limits or sporadic marginal failure (SMF) QC limits of ±40 percent, with the
- 32 exception of dichlorodifluoromethane in MWA50-37 and naphthalene in sample USGS-G4. The
- 33 dichlorodifluoromethane and naphthalene data were considered estimated and flagged "UJ" in their

34 respective samples.

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

1	Three	field	duplicate	pairs	(AEHA-5/OU6DUP-1,	AEHA-23A/OU6DUP-2,	and
---	-------	-------	-----------	-------	-------------------	--------------------	-----

2 AEHA-28A/OU6DUP-3) were collected from the upper WBU. The differences between the samples and

3 their duplicates were out of QC limits for the analytes listed below in AEHA-23A/OU6DUP-2:

4	Sample Duplicate Pair	<u>Analyte</u>	<b>Action</b>
5	AEHA-23A/OU6DUP-2	Dichlorofluoromethane	Flag both "J"
6		Vinyl Chloride	Flag both "J"
7		Chloroform	Flag both "J"
8		Trichloroethene	Flag both "J"

An equipment blank sample (OU6-BLAD-EQB) was collected to represent samples collected with a non-dedicated bladder pump. Low levels of VOCs were detected in the equipment blank. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were accordingly qualified as estimated based on blank contamination and flagged as "JB", unless overridden by qualifications for other QC exceedances. Associated samples that were nondetects required no qualification.

14 No qualification of the data was required for analytes detected in the equipment blank below the RL.

15	<u>Analyte</u>	<b>Concentration</b>	Associated Samples
16	Chloroform	2.2 μg/L	USGS-A4, USGS-G4, USGS-M4

The trip blanks associated with the groundwater samples were analyzed and reported to contain several analytes as shown below. Sample results less than 10 times the blank value for common laboratory contaminants and 5 times the blank value for other target analytes were qualified as estimated with possible trip blank contamination and flagged "JB". Sample results were previously qualified because of

22	<u>Blank ID</u>	<b>Analyte</b>	Concentration	Affected Samples
23 24	TB-071205	Acetone	3.5 μg/L (JB)	Previously qualified "JB" because of method blank
25 26	TB-071305	Acetone	3.0 JB μg/L	Previously qualified "JB" because of method blank
27 28 29		Methylene chloride	0.10 JQ μg/L	MWA50-37 (previously qualified "JB" because of method blank – no qualification required for trip blank)

050016.08 D-2-3

21

method blank contamination.

1	Blank ID	Analyte C	Concentration	Affected Samples
2 3	TB-071505	Acetone Methylene chloride	2.7 μg/L 0.095 μg/L	Previously qualified Previously qualified
4 5	TB-071605	Acetone	2.5 μg/L (JB)	Previously qualified "JB" because of method blank
6 7	TB-071705	Acetone Carbon disulfide	3.5 μg/L (JQ) 0.21 μg/L (JQ)	USGS-A4, USGS-J4, USGS-K4 None
8 9	TB-071805	Acetone Methylene chloride	1.8 μg/L (JQ) 0.40 μg/L (JQ)	AEHA-32A None

- 10 The following samples were diluted to place certain VOC results within the range of the calibration curve,
- 11 resulting in elevated RLs:

12		<u>Dilut</u> i	<u>ion</u>
13	<u>Sample</u>	<b>Factor</b>	<u>Compound</u>
14	AEHA-5	10×	Chlorobenzene
15	AEHA-23A	20×	cis-1,2-Dichloroethene
16	AEHA-25A	10×	cis-1,2-Dichloroethene; trichloroethene
17	AEHA-28A	10×, 100×	All; cis-1,2-dichloroethene; and trichloroethene
18	AEHA-34A	2×	Naphthalene
19	DMW-18A	10×	cis-1,2-Dichloroethene; trichloroethene
20	OU6DUP-1	10×	Chlorobenzene
21	OU6DUP-2	20×	cis-1,2-Dichloroethene
22	OU6DUP-3	10×, 100×	All; cis-1,2-dichloroethene; trichloroethene

- 23 Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the
- 24 MDL were qualified as estimated and flagged "JQ".

25	Sample ID	Affected Analytes
26	AEHA-5	1,1-Dichloroethane; 1,2-dichloroethane; cis-1,2-dichloroethene; ethylbenzene;
27		o-xylene; p-isopropyltoluene; toluene; trichloroethene; vinyl chloride
28	AEHA-15A	Trichlorofluoromethane, tetrachloroethene
29	AEHA-18A	1,1-Dichloroethane; 1,2-dichlorobenzene; benzene; tetrachloroethene; toluene
30	AEHA-22A	Naphthalene
31	AEHA-23A	1,1-Dichloroethene; 1,1-dichloroethane; 1,2-dichlorobenzene;
32		1,2-dichloroethane; 1,4-dichlorobenzene; chlorobenzene; tetrachloroethene
33	AEHA-24A	Chlorobenzene, trichloroethene, vinyl chloride
34	AEHA-25A	1,1-Dichloroethane;1,1-dichloroethene; 1,2-dichloroethane;
35		1,4-dichlorobenzene; benzene
36	AEHA-25B	1,1-Dichloroethene; tetrachloroethene; trans-1,2-dichlroethene
37	AEHA-26A	Vinyl chloride, trichloroethene, tetrachloroethene
_		

1	Sample ID	Affected Analytes
2	AEHA-28A	Carbon tetrachloride; dichlorodifluoromethane; 1,3-dichlorobenzene;
3		trans-1,2-dichloroethene; 1,1,2-trichloroethane; naphthalene
4	AEHA-30A	Vinyl chloride
5	AEHA-31A	Chloromethane; cis-1,2-dichloroethene
6	AEHA-32A	1,1-Dichloroethene; 1,2-dichloroethane; 1,4-dichlorobenzene; chloroform;
7		chloromethane; vinyl chloride
8	AEHA-33A	tert-Butylmethylether; sec-butylbenzene
9	AEHA-34A	Ethylbenzene; o-xylene; 1,3,5-trimethylbenzene; tert-butylbenzene
10	DMW-9A	Naphthalene
11	DMW-18A	1,1-Dichloroethane; 1,1-dichloroethene; toluene; trans-1,2-dichloroethene
12	LAWMW-Q	Chloromethane
13	MWA50-35	1,1-Dichloroethane; 1,3-dichlorobenzene; trans-1,2-dichloroethene
14	MWA50-36	Benzene
15	MWA50-37	1,1-Dichloroethene; carbon disulfide; trans-1,2-dichloroethene;
16		benzene; 1,2-dichloroethane; 1,4-dichlorobenzene; 1,2-dichlorobenzene
17	USGS-A4	1,4-Dichlorobenzene; chlorobenzene; chloromethane; 2-butanone;
18		tetrachloroethene
19	USGS-F4	trans-1,2-Dichloroethene; trichloroethene; chlorobenzene; ethylbenzene;
20		styrene; toluene
21	USGS-J4	Chloromethane, toluene
22	USGS-K4	Toluene
23	USGS-P4	Trichloroethene; 1,2,4-trimethylbenzene; m-, p-xylene; o-xylene
24	OU6DUP-1	1,1-Dichloroethane; 1,2-dichloroethane; cis-1,2-dichloroethene; ethylbenzene;
25		methylene chloride; o-xylene; p-isopropyltoluene; toluene; vinyl chloride
26	OU6DUP-2	1,1-Dichloroethene; 1,2-dichlorobenzene; 1,4-dichlorobenzene; chlorobenzene;
27		tetrachlorethene; trans-1,2-dichloroethene
28	OU6DUP-3	Dichlorodifluoromethane; 1,3-dichlorobenzene; trans-1,2-dichloroethene;
29		1,1,2-trichloroethane
30	OU6-BLAD-EQB-0705	
31	TB-071305	Methylene chloride
32	TB-071705	Acetone, carbon disulfide
33	TB-071805	Acetone, methylene chloride
34	Any value reported belo	

- Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently
- 35 overridden by the "JQ" qualifier.
- 36 <u>Dissolved Gases (RSK-175)</u> Dissolved gas data (carbon dioxide, methane, ethane, and ethene) were
- 37 evaluated using a Level II approach that consisted of a review of holding times, method blanks, LCS
- 38 recoveries, field duplicate precision, trip blanks, and rinsate blanks. MS/MSD analyses are not assayed
- 39 for dissolved gas analysis. Any failures among the method listed are discussed below.
- The initial and continuing calibration for each instrument used for the analysis of dissolved gases was assumed to be within acceptable criteria. The project-specified 7-day holding time for carbon dioxide

- 1 was exceeded; however, the method-specified holding time of 14 days was met. Carbon dioxide results
- 2 for samples analyzed outside the project holding time (AEHA-5, AEHA-18A, AEHA-22A, AEHA-24A,
- 3 AEHA-25A, AEHA-31A, AEHA-32A, AEHA-34A, DMW-9A, OU6-BLAD-EQB, OU6DUP-1,
- 4 OU6DUP-2, USGS-A4, USGS-F4, USGS-G4, USGS-J4, USGS-K4, USGS-M4, USGS-P4, TB-071205,
- 5 TB-071405, TB-071605, and TB-071805) were qualified as estimated and flagged "J". The laboratory
- 6 batch preparation blanks (method blanks) did not contain reportable concentrations of carbon dioxide,
- 7 methane, ethane, or ethene. Batch LCSs for dissolved gases were within acceptable limits.
- 8 Three field duplicate pairs (AEHA-5/OU6DUP-1, AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3)
- 9 were collected and analyzed for dissolved gases. The RPD between the sample and the duplicate was
- outside QC limits for ethane in AEHA-5/OU6DUP-1, and the associated results were qualified as estimated
- 11 and flagged "J".
- 12 An equipment blank sample (OU6-BLAD-EQB) was collected to represent samples collected with a
- 13 non-dedicated bladder pump, and the dissolved gas results were nondetect. Two trip blanks (TB-071505
- and TB-071205) associated with groundwater samples were reported to contain methane below the RL.
- Sample results associated with those trip blank samples and less than five times the blank value for
- 16 methane (AEHA-24A) were qualified as estimated with possible trip blank contamination and
- 17 flagged "JB".
- Results were reported at the RL and evaluated down to the MDL. Flagging of dissolved gas results less
- 19 than the RL, but greater than the MDL (JQ), was necessary for methane in AEHA-15A, AEHA-32A,
- 20 DMW-7A, and TB-071205; ethene in AEHA-5; and ethane in AEHA-23A.
- 21 VFAs (ASTM D1552) Samples AEHA-23A, AEHA-26A, AEHA-28A, AEHA-30A, AEHA-32A,
- 22 MWA50-35, MWA50-37, and OU6DUP-2 were assayed for VFAs. VFA data (acetic, butyric, lactic,
- 23 propionic, and pyruvic acids) were evaluated using a Tier II approach that consisted of a review of
- 24 holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- 25 rinsate blanks. Any failures among the method listed are discussed below.
- 26 The initial and continuing calibration for each instrument used for the analysis of VFAs was assumed to
- 27 be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain
- 28 reportable concentrations of VFAs. The batch LCS recovered above the acceptable limits (high) for

- 1 pyruvic acid. However, the MS/MSD performed on project-specified sample MWA50-37 was within QC
- 2 limits, and there were no positive results in the OU 6 samples. Therefore, no qualification of the data was
- 3 required.
- 4 One field duplicate pair (AEHA-23A/OU6DUP-2) was collected and analyzed for VFAs. The RPD
- 5 between the sample and the sample duplicate could not be calculated because the results were nondetect.
- 6 Results were reported at the RL and evaluated down to the MDL. Flagging of VFA results less than the
- 7 RL but greater than the MDL (JQ) was not necessary.
- 8 Total Metals (SW-6010B/6020) Antimony, arsenic, lead, selenium, and thallium were analyzed by
- 9 Inductively Coupled Plasma (ICP)/Mass Spectrometry Method SW-6020. Remaining metals were
- analyzed by ICP Method SW-6010B.
- 11 Collected metals data were evaluated using a Tier II approach that consisted of a review of holding times,
- method blanks, LCS, MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in
- addition to method-specific QC such as post-digestion spikes and serial dilutions. Any failures among the
- 14 method listed are discussed below. Initial and continuing calibration information was assumed to be
- 15 within QC limits.
- 16 All holding times for the groundwater samples were met. The laboratory batch preparation blanks
- 17 (method blanks) and/or continuing calibration blanks (CCBs) were less than the RL but above the MDL
- for some metals. Only the sample results less than five times the blank value and qualified as estimated
- with possible method blank contamination and flagged "JB" are shown below.

20	<u>Metal</u>	Affected Samples
21	Antimony	AEHA-12A, AEHA-16A, AEHA-22A, AEHA-23A, AEHA-28A, AEHA-33A,
22		AEHA-34A, DMW-9A, DMW-18A, MWA50-35, OU6DUP-2, OU6DUP-3,
23		USGS-A4, USGS-D4, USGS-J4, USGS-K4, USGS-M4
24	Copper	AEHA-18A, AEHA-25A, DMW-18A
25	Iron	AEHA-32A
26	Lead	OU6-BLAD-EQB, USGS-G4, USGS-J4
27	Molybdenum	AEHA-5, AEHA-24A, AEHA-32A, OU6DUP-1
28	Potassium	AEHA-5, OU6DUP-1
29	Zinc	AEHA-15A, AEHA-16A, AEHA-24A, AEHA-31A, AEHA-32A, DMW-9A,
30		MWA50-35, MWA50-38, OU6DUP-1, USGS-J4, USGS-M4

- 1 The batch LCS for total metals was within USACE-prescribed limits (80 to 120 %R) or SMF criteria.
- 2 MS/MSDs were performed for metals on samples MWA50-37 and USGS-G4. Recoveries and RPDs
- 3 were within QC limits.
- 4 An equipment blank sample (OU6-BLAD-EQB) was collected and reported to contain metals. Calcium,
- 5 sodium, and zinc were detected in the equipment blank sample below the RL but above the MDL.
- 6 Natural earth metals (calcium and sodium) were present in the equipment blank and are expected to be
- 7 present in the water and soil matrices. Therefore, no qualification of the data for these results was
- 8 applied. In addition, no qualification of the data was required for analytes detected in the equipment
- 9 blank below the RL.
- 10 Elevated levels of zinc were detected in samples AEHA-30A (1,180 μg/L), AEHA-32A (304 μg/L), and
- 11 USGS-D4 (225 µg/L). A review of laboratory procedures, glassware, sample containers, and
- preservatives did not indicate a source for the elevated zinc. The unprepared samples were re-analyzed,
- and the zinc levels supported the analytical results. Field procedures were also reviewed, and no source
- 14 for the zinc could be determined. Historical review of results showed that zinc was present at
- concentrations ranging from 101 to 485 µg/L in sample AEHA-30A, from 20.7 to 91.2 µg/L in sample
- AEHA-32A, and from <20 to 33.6 μg/L in sample USGS-D4. Therefore, because the historical results
- 17 indicated that the zinc results were not representative of the groundwater results reported for samples
- AEHA-30A, AEHA-32A, and USGS-D4, the zinc results were considered unusable and flagged "R".
- 19 Three field duplicate pairs (AEHA-5/OU6DUP-1, AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3)
- 20 were collected and analyzed for metals. The RPD between the sample and the duplicate was outside QC
- 21 limits for zinc in samples AEHA-5/OU6DUP-1, and the results were qualified as estimated and flagged "J".
- A serial dilution to assess matrix effects was performed on total metal samples MWA50-37 and USGS-G4.
- 23 Recoveries were within QC limits, with the exception of total zinc in sample MWA50-37, and the associated
- 24 result was qualified as estimated and flagged "J". In addition, the laboratory flagging indicated that the zinc
- 25 results reported for samples AEHA-15A, AEHA-26A, DMW-7A, MWA50-36, MWA50-37, and
- MWA50-38 are estimated because of interferences; therefore, zinc results for each sample were qualified as
- 27 estimated and flagged "J".

- 1 Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the
- 2 MDL were qualified as estimated and flagged "JQ". Any value reported below the RL but above the
- 3 MDL that was previously flagged "J" was subsequently overridden by the "JO" qualifier.
- 4 Total Mercury (SW-7470A) Mercury data were evaluated using a Tier II approach that consisted of a
- 5 review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and
- 6 field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial
- 7 dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration
- 8 information was assumed to be within QC limits. The laboratory batch preparation blanks (method
- 9 blanks) did not contain mercury.
- 10 Batch LCSs for mercury were within acceptable limits. MS/MSDs were performed on samples
- 11 MWA50-37 and USGS-G4, and the recoveries and RPDs were within QC limits. The equipment blank
- sample (OU6-BLAD-EQB) did not contain mercury. Three field duplicate pairs (AEHA-5/OU6DUP-1,
- 13 AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3) were collected and analyzed for mercury. The
- 14 RPD for the duplicate pairs was within QC requirements or could not be calculated because the parent
- and duplicate samples did not contain mercury.
- A serial dilution was performed on samples MWA50-37 and USGS-G4, and the recoveries were within
- 17 QC limits.
- 18 Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the
- MDL were qualified as estimated and flagged "JQ" in samples AEHA-15A, AEHA-23A, AEHA-26A,
- 20 AEHA-28A, AEHA-30A, AEHA-33A, DMW-7A, MWA50-36, MWA50-37, MWA50-38 USGS-P4.
- 21 OU6DUP-2, and OU6DUP-3.
- 22 Anions (300.0A) Anion (chloride, nitrate, and sulfate) data were evaluated using a Tier II approach that
- 23 consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field
- 24 duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.
- 25 The initial and continuing calibration for each instrument used for the analysis of chloride, nitrate, and sulfate
- was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks)
- 27 contained no reportable concentrations of chloride, nitrate, and sulfate.

- 1 Batch LCSs for anions were within acceptable limits. The MS/MSD recoveries and RPDs for sample
- 2 MWA50-37 were within acceptable limits. The MS/MSD recoveries for nitrate and sulfate in sample
- 3 USGS-G4 were out of acceptable limits. The associated results in USGS-G4 were qualified as estimated and
- 4 flagged "J".
- 5 Three field duplicate pairs (AEHA-5/OU6DUP-1, AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3)
- 6 were collected and analyzed for anions. The RPD between the sample and the duplicate was outside QC
- 7 limits for sulfate in AEHA-23A/OU6DUP-2. The associated results in both samples were qualified as
- 8 estimated and flagged "J".
- 9 An equipment blank sample (OU6-BLAD-EQB) was collected and analyzed to assess possible
- 10 contamination from using non-dedicated sampling equipment, and was nondetect for chloride, nitrate, and
- 11 sulfate.
- 12 The following samples were diluted to place certain anion results within the range of the calibration
- curve, resulting in elevated RLs:

14		<u>Dilu</u>	<u>tion</u>
15	<b>Sample</b>	<u>Factor</u>	<b>Analyte</b>
16	AEHA-5	10×	Chloride
17	AEHA-12A	10×	Chloride
18	AEHA-16A	10×	Chloride
19	AEHA-18A	10×	Chloride, sulfate
20	AEHA-22A	10×	Chloride
21	AEHA-23A	10×	Chloride
22	AEHA-25A	10×	Chloride
23	AEHA-28A	25×	Chloride
24	AEHA-33A	10×	Chloride
25	AEHA-34A	10×	Chloride
26	DMW-9A	10×	Chloride
27	DMW-18A	10×	Chloride
28	MWA50-35	10×	Chloride, sulfate
29	MWA50-36	10×	Chloride, sulfate
30	MWA50-37	10×	Chloride, sulfate
31	OU6DUP-1	10×	Chloride
32	OU6DUP-2	10×	Chloride
33	OU6DUP-3	25×	Chloride
34	USGS-F4	10×	Chloride
35	USGS-G4	2×	Chloride
36	USGS-J4	2×	Chloride

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

1		<u>Dilution</u>		
2	<u>Sample</u>	<b>Factor</b>	<u>Analyte</u>	
3	USGS-K4	2×	Chloride	
4	USGS-M4	2×	Chloride	
5	USGS-P4	10×	Chloride	

- 6 Results were reported at the RL and evaluated down to the MDL. Flagging of anion results less than the RL
- but greater than the MDL (JQ) was necessary for nitrate in samples AEHA-16A and AEHA-26A, and
- 8 sulfate in samples DMW-18A and USGS-P4. Any value reported below the RL but above the MDL that
- 9 was previously flagged "J" was subsequently overridden by the "JQ" qualifier.
- 10 TOC (9060) TOC data were evaluated using a Tier II approach that consisted of a review of holding
- times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate
- 12 blanks. Any failures among the method listed are discussed below.
- 13 The initial and continuing calibration for each instrument used for the analysis of TOC was assumed to meet
- 14 acceptable criteria. The laboratory batch preparation blanks (method blank) contained TOC below the RL at
- 15 0.1, 0.2, and 0.5 JQ milligram per liter (mg/L), respectively. TOC sample results for samples AEHA-15A,
- AEHA-24A, AEHA-32A, and DMW-7A were flagged "JH" because the sample result was greater than the
- 17 blank concentration but less than five times the blank value.
- Batch LCSs for TOC were within acceptable limits. The MS/MSD recoveries of spiked samples MWA50-37
- 19 and USGS-G4 for TOC were within acceptable QC limits.
- 20 Three field duplicate pairs (AEHA-5/OU6DUP-1, AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3)
- 21 were collected and analyzed for TOC. The RPD between the samples and duplicates were within QC
- 22 limits.
- 23 An equipment blank (OU6-BLAD-EQB) was collected and analyzed to assess possible contamination
- 24 from non-dedicated sampling equipment, and TOC was detected below the RL at 0.6 JQ mg/L. No
- 25 qualification of the data was required for analytes detected in the equipment blank below the RL.

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

- 1 The following samples were diluted to place TOC within the range of the calibration curve, resulting in
- 2 elevated RLs:

3	<u>Sample</u>	<b>Dilution Factor</b>
4	AEHA-5	10×
5	OU6DUP-1	10×

- 6 Results were reported at the RL and evaluated down to the MDL. Flagging of TOC results less than the RL
- but greater than the MDL (JQ) was necessary for samples AEHA-12A, AEHA-33A, OU6-BLAD-EQB,
- 8 USGS-D4, USGS-M4, and USGS-P4.
- 9 Alkalinity (310.1) Alkalinity data were evaluated using a Tier II approach that consisted of a review of
- 10 holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- rinsate blanks. Any failures among the method listed are discussed below.
- 12 The project-specific hold times for alkalinity were not met, but the samples were analyzed within the method
- 13 hold time. Therefore, no additional qualification was necessary.
- 14 The titration standardization performed for the analysis of alkalinity was assumed to meet acceptable
- 15 criteria, as were the initial and continuing calibration checks. One of the laboratory batch preparation
- blanks (method blanks) contained alkalinity below the RL at 2.0 JQ mg/L. Alkalinity results for sample
- 17 AEHA-32A were considered biased high or false positive based on the blank data and flagged "JB".
- 18 Batch LCSs for alkalinity were within acceptable limits. The MS/MSD recoveries of spiked samples
- 19 MWA50-37 and USGS-G4 for alkalinity were within acceptable QC limits.
- Three field duplicate pairs (AEHA-5/OU6DUP-1, AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3)
- 21 were collected and analyzed for alkalinity. The RPD for the duplicate pairs was within QC limits.
- 22 An equipment blank (OU6-BLAD-EQB) was collected and analyzed to assess possible contamination
- from non-dedicated sampling equipment, and alkalinity was detected below the RL at 2.0 JQ mg/L. No
- 24 qualification of the data was required for analytes detected in the equipment blank below the RL.

- 1 The following samples were diluted to place alkalinity results within the range of the calibration curve,
- 2 resulting in elevated RLs:

3	<u>Dilution</u>		
4	<b>Sample</b>	<u>Factor</u>	
5	AEHA-5	2×	
6	MWA50-36	2×	
7	MWA50-37	$2 \times$	
8	OU6DUP-1	2×	

- 9 Results were reported at the RL and evaluated down to the MDL. Flagging of alkalinity results less than the
- 10 RL but greater than the MDL (JQ) was necessary for samples AEHA-15A, AEHA-22A, AEHA-23A,
- 11 AEHA-25A, DMW-7A, DMW-9A, MWA50-38, OU6-BLAD-EQB, OU6DUP-2, USGS-A4, USGS-D4,
- 12 USGS-G4, USGS-K4, USGS-M4, and USGS-P4. Any value reported below the RL but above the MDL
- that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.
- 14 Sulfide (376.1) Sulfide data were evaluated using a Tier II approach that consisted of a review of
- 15 holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- rinsate blanks. Any failures among the method listed are discussed below.
- 17 The titration standardization performed for the analysis of sulfide was assumed to meet acceptable criteria.
- 18 The laboratory batch preparation blanks (method blanks) did not contain sulfide. One of the batch LCSs for
- 19 sulfide was outside acceptable limits. Associated sulfide results (USGS-A4, USGS-G4, USGS-J4,
- 20 USGS-K4, and USGS- M4) were qualified as estimated and flagged "UJ". MS/MSDs were performed on
- 21 upper WBU samples MWA50-37 and USGS-G4. The MS/MSD recoveries for spiked sample MWA50-37
- were outside the QC limits. The original sample result for MWA50-37 was qualified as estimated ("UJ").
- 23 The MS/MSD recoveries and RPDs for spiked sample USGS-G4 were within acceptable laboratory limits.
- 24 Three field duplicate pairs (AEHA-5/OU6DUP-1, AEHA-23A/OU6DUP-2, and AEHA-28A/OU6DUP-3)
- were collected and analyzed for sulfide. The RPD for the duplicate pairs could not be calculated because
- the results were nondetect. An equipment blank sample (OU6-BLAD-EQB) was collected and analyzed
- 27 to assess possible contamination from using non-dedicated sampling equipment. The equipment blank
- 28 was nondetect for total sulfide.

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

- 1 Results were reported at the RL and evaluated down to the MDL. Flagging of sulfide results less than the RL
- 2 but greater than the MDL (JQ) was not necessary.
- 3 <u>Dissolved Hydrogen (AM20GAX)</u> Hydrogen data were evaluated using a Tier II approach that consisted
- 4 of a review of holding times, method and calibration blanks, LCS recoveries, and field duplicate
- 5 precision. MS/MSD samples were not required for hydrogen analysis. Any failures among the method
- 6 listed are discussed below. Initial and continuing calibration information was assumed to be within QC
- 7 limits.
- 8 A hydrogen sample could not be collected for well USGS-K4 because of insufficient water volume and
- 9 extremely slow recharge. Samples were received intact, and holding times were met for the samples
- submitted to Microseeps, Inc., for analysis. Method blanks were within method-stated control limits. LCS
- results were also within laboratory-established limits.
- 12 Three field duplicate pairs (OU6DUP-1/AEHA-5, OU6DUP-2/AEHA-23A, and OU6DUP-3/AEHA-28A)
- 13 were collected and analyzed. The RPD between the parent sample and the duplicate sample was outside
- specified limits (<20 percent) for OU6DUP-2/AEHA-23A. The associated results in both samples were
- 15 qualified as estimated and flagged "J".
- Results were reported at the RL and evaluated down to the MDL. There were no results less that the RL but
- 17 above the MDL.

## 18 D-2.3 LOWER WATER BEARING UNIT/BEDROCK

- 19 A total of 24 groundwater and 2 duplicate samples were collected from the lower WBU, and 2 groundwater
- samples and 1 duplicate sample were collected from the bedrock wells. The bedrock well samples,
- 21 DMW-28E and USGS-BR2/OU6DUP-6, were analyzed for VOCs only. Samples DMW-9B, OU6DUP-6,
- and USGS-BR2 were collected with non-dedicated bladder pumps.
- 23 VOCs (SW-8260B) VOC data were evaluated using a Tier II approach that consisted of a review of
- 24 holding times; method, calibration, trip, and equipment blanks; LCS recoveries; MS/MSD recoveries and
- 25 RPDs; and field duplicate precision, in addition to method-specific QC such as surrogates and internal
- standards. Any failures among the method listed are discussed below. Initial and continuing calibration
- information was assumed to be within QC limits.

- 1 All holding times for water samples in this SDG were met. The batch-specific method blanks associated
- 2 with the samples were analyzed and reported to contain VOCs, as indicated below. The samples with
- 3 concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were
- 4 accordingly qualified as estimated based on blank contamination and flagged as "JB", unless overridden
- 5 by qualifications for other QC exceedances. Associated samples that were nondetects required no
- 6 qualification.

7	Blank ID	Analyte Co	<u>ncentration</u>	Action/Affected Samples
8	U0718W01	Acetone	5.1 μg/L (JQ)	AEHA-18B, AEHA-21B, AEHA-24B,
9				AEHA-25B, OU6DUP-4
10	U0719W01	Acetone	2.5 μg/L	AEHA-26B, AEHA-28B, DMW-28E,
11				OU6DUP-5, USGS-P2
12		Methylene chloride	0.13 μg/L	OU6DUP-5, USGS-P2
13	U0720W01	Acetone	3.5 μg/L	AEHA-27B, DMW-9B, LAWMW-Q,
14				OU6DUP-6, USGS-BR2, USGS-C2,
15				USGS-F2, USGS-H2, USGS-K2,
16				USGS-N1
17		Methylene chloride	0.16 μg/L	LAWMW-Q, OU6DUP-6
18	U0722W01	Acetone	0.84 μg/L	AEHA-23B, AEHA-33B
19		Methylene chloride	0.10 μg/L	AEHA-23B, AEHA-33B
20	U0728W01	Hexachlorobutadien		None

- 21 Batch-specific LCSs were analyzed, and recoveries were within acceptable QC criteria. The surrogates
- and internal standards added to the samples by the laboratory were recovered within specified limits. An
- 23 MS/MSD was performed on sample AEHA-21B. The percent recovery was within QC limits. No
- 24 qualification was necessary.
- 25 Three field duplicate pairs (AEHA-25B/OU6DUP-4, AEHA-30B/OU6DUP-5, and USGS-BR2/OU6DUP-6)
- 26 were collected from the lower WBU and bedrock wells. The differences between the samples and their
- duplicates were out of QC limits for the analytes listed below in AEHA-30B/OU6DUP-5.

28	Sample Duplicate Pair	<u>Analyte</u>	<u>Action</u>
29	AEHA-30B/OU6DUP-5	Tetrachloroethene	Flag both "J"
30		1,2-Dichlorobenzene	Flag Dup "J"

- 31 An equipment blank sample (OU6-BLAD-EQB) was collected to represent samples collected with a
- 32 non-dedicated bladder pump. Low levels of VOCs were detected in the equipment blank. The samples
- with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were

- 1 accordingly qualified as estimated based on blank contamination and flagged "JB", unless overridden by
- 2 qualifications for other QC exceedances. Associated samples that were nondetects required no qualification.
- 3 No qualification of the data was required for analytes detected in the equipment blank below the RL.
- 4 The trip blanks associated with the groundwater samples were analyzed and reported to contain several
- 5 analytes, as shown below. Sample results less than 10 times the blank value for common laboratory
- 6 contaminants and 5 times the blank value for other target analytes were qualified as estimated with
- 7 possible trip blank contamination and flagged "JB". Sample results were previous qualified because of
- 8 method blank contamination.

9	Blank ID	<b>Analyte</b>	Concentration	Affected Samples
10	TB-071205	Acetone	$3.5 \mu g/L (JB)$	Previously qualified "JB" because of method
11				blank
12 13	TB-071305	Acetone	3.0 JB μg/L	Previously qualified "JB" because of method
			0.10.70 7	blank
14		Methylene chloride	0.10 <b>J</b> Q μg/L	Previously qualified "JB" because of method
15				blank – no qualification required for trip blank
16	TB-071405	Acetone	$3.0 \mu g/L (JB)$	Previously qualified "JB" because of method
17				blank
18		Methylene chloride	$0.11 \mu g/L (JB)$	Previously qualified "JB" because of method
19				blank
20	TB-071505	Acetone	2.7 μg/L	Previously qualified
21		Methylene chloride	0.095 μg/L	Previously qualified
22	TB-071705	Acetone	3.5 μg/L (JQ)	USGS-G3, USGS-L2, USGS-M2
23		Carbon disulfide	$0.21 \mu g/L (JQ)$	None
24	TB-071805	Acetone	1.8 μg/L (JQ)	None
25		Methylene chloride	$0.40 \mu g/L (JQ)$	None

- 26 The following samples were diluted to place certain VOC results within the range of the calibration curve,
- 27 resulting in elevated RLs:

36

28		<u>Dilut</u>	<u>ion</u>
29	<u>Sample</u>	<u>Factor</u>	<u>Analyte</u>
30	AEHA-24B	20×	cis-1,2-Dichloroethene, trichloroethene
31	AEHA-25B	10×	Trichloroethene
32	AEHA-30B	10×, 100×	All; cis-1,2-dichloroethene; trichloroethene
33	OU6DUP-4	10×	Trichloroethene
34	OU6DUP-5	2×, 200×	Tetrachloroethene; cis-1,2-dichloroethene; trichloroethene; vinyl chloride
35			

Results were reported at the RL and evaluated down to the MDL. Results less that the RL but above the MDL were qualified as estimated and flagged "JQ".

1	Sample ID	Affected Analytes
2	AEHA-24B	1,1-Dichloroethane; 1,1-dichloroethene; 1,2-dichlorobenzene; benzene;
3		dichlorodifluoromethane
4	AEHA-25A	1,1-Dichloroethane; 1,1-dichloroethene; 1,2-dichloroethane;
5		1,4-dichlorobenzene; benzene
6	AEHA-25B	1,1-Dichloroethene; tetrachloroethene; trans-1,2-dichloroethene
7	AEHA-27B	Chlorobenzene
8	AEHA-30B	Dichlorodifluoromethane; 1,1-dichloroethane; 1,1-dichloroethene;
9		1,2-dichloroethane; 1,2-dichlorobenzene; 1,4-dichlorobenzene;
10		trans-1,2-dichloroethene
11	AEHA-31B	Tetrachloroethene, trichloroethylene
12	DMW-9B	Trichloroethene, tetrachloroethene
13	LAWMW-Q	Chloromethane
14	USGS-BR2	1,2,4-Trimethylbenzene; ethylbenzene; o-xylene; styrene; m,p-xylenes
15	USGS-C2	Tetrachloroethene
16	USGS-G3	Chloromethane
17	USGS-F2	1,1-Dichloroethane
18	USGS-H2	Trichloroethene
19	USGS-K2	1,1-Dichloroethane
20	USGS-L2	Chloromethane
21	USGS-M2	Chloromethane
22	OU6DUP-4	1,1-Dichloroethene; tetrachloroethene; trans-1,2-dichloroethene; m,p-xylenes
23	OU6DUP-5	Benzene; 1,3-dichlorobenzene; o-xylene; toluene; 1,1,2-trichloroethane
24	OU6DUP-6	1,2,4-Trimethylbenzene; ethylbenzene; o-xylene; styrene; m,p-xylenes

- 25 Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently
- 26 overridden by the "JQ" qualifier.
- 27 <u>Dissolved Gases (RSK-175)</u> Dissolved gas data collected from the lower WBU (carbon dioxide,
- 28 methane, ethane, and ethene) were evaluated using a Tier II approach that consisted of a review of
- 29 holding times, method blanks, LCS recoveries, field duplicate precision, trip blanks, and rinsate blanks.
- 30 MS/MSD analyses are not assayed for dissolved gas analysis. Any failures among the method listed are
- 31 discussed below.
- 32 The initial and continuing calibration for each instrument used for the analysis of dissolved gases was
- 33 assumed to be within acceptable criteria. The project-specified 7-day holding time for carbon dioxide
- 34 was exceeded; however, the method-specified holding time of 14 days was met. Carbon dioxide results
- 35 for samples analyzed outside the project holding time (AEHA-18B, AEHA-24B, AEHA-25B,
- 36 AEHA-31B, AEHA-32B, AEHA-33B, DMW-9B, OU6DUP-4, USGS-B2, USGS-F2, USGS-G3,
- 37 USGS-K2, USGS-L2, USGS-M2, and USGS-P2) were qualified as estimated and flagged "J". The

- 1 laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of carbon
- dioxide, methane, ethane, or ethene. Batch LCSs for dissolved gases were within acceptable limits.
- 3 Two field duplicate pairs (AEHA-25B/OU6DUP-4 and AEHA-30B/OU6DUP-5) were collected and
- 4 analyzed for dissolved gases. The RPD between the sample and the duplicate was outside QC limits for
- 5 ethane in AEHA-30B/OU6DUP-5, and the associated results were qualified as estimated and flagged
- 6 "UJ" and "J", respectively.
- 7 An equipment blank sample (OU6-BLAD-EQB) was collected to represent samples collected with a
- 8 non-dedicated bladder pump, and the dissolved gas results were nondetect. Two trip blanks (TB-071505
- 9 and TB-071205) associated with groundwater samples were reported to contain methane below the RL.
- 10 Sample results associated with those trip blank samples and less than five times the blank value for
- 11 methane (USGS-C2 and USGS-N1) were qualified as estimated, possibly biased high or false positive
- 12 based on trip blank data, and flagged "JB".
- 13 Results were reported at the RL and evaluated down to the MDL. Flagging of dissolved gas results less
- 14 than the RL but greater than the MDL (JQ) was necessary for methane in AEHA-28B and ethene in
- 15 samples AEHA-30B and OU6DUP-5.
- 16 VFAs (ASTM D1552) Samples AEHA-25B, AEHA-30B, USGS-F2, USGS-G3, and USGS-H2 were
- 17 assayed for VFAs. VFA data collected from the lower WBU (acetic, butyric, lactic, propionic, and
- 18 pyruvic acids) were evaluated using a Tier II approach that consisted of a review of holding times,
- method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks.
- 20 Any failures among the method listed are discussed below.
- 21 The initial and continuing calibration for each instrument used for the analysis of VFAs was assumed to
- be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain
- 23 reportable concentrations of VFAs. The batch LCS recovered above the acceptable limits (high) for
- 24 pyruvic acid. However, the MS/MSD performed on project-specified sample MWA50-37 (upper WBU)
- 25 was within QC limits and there were no positive results in the samples. Therefore, no qualification of the
- 26 data was required.

- 1 No field duplicate pairs were collected from the lower WBU and analyzed for VFAs. Results were
- 2 reported at the RL and evaluated down to the MDL. Flagging of VFA results less than the RL but greater
- 3 than the MDL (JQ) was not necessary.
- 4 Total Metals (SW-6010B/6020) Antimony, arsenic, lead, selenium, and thallium were analyzed by
- 5 ICP/Mass Spectrometry Method SW-6020. Remaining metals were analyzed by ICP Method SW-6010B.
- 6 Metals data collected from the lower WBU were evaluated using a Tier II approach that consisted of a
- 7 review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and
- 8 field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial
- 9 dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration
- 10 information was assumed to be within QC limits.
- All holding times for the groundwater samples were met. The laboratory batch preparation blanks
- 12 (method blanks) and/or CCBs were less than the RL but above the MDL for some metals. Only the
- sample results less than five times the blank value and qualified as estimated with possible method blank
- 14 contamination and flagged "JB" are shown below.

15	<u>Metal</u>	Affected Samples
16	Antimony	AEHA-23B, AEHA-30B, DMW-9B, OU6DUP-5, USGS-B2, USGS-C2, USGS-F2,
17		USGS-H2, USGS-L2, USGS-P2
18	Copper	AEHA-18B, AEHA-25B, AEHA-27B, OU6DUP-4
19	Lead	AEHA-28B, DMW-9B, USGS-F2, USGS-G3, USGS-K2, USGS-L2, USGS-M2,
20		USGS-P2
21	Molybdenum	AEHA-18B, AEHA-31B, USGS-G3
22	Potassium	AEHA-24B
23	Vanadium	AEHA-18B
24	Zinc	AEHA-21B, AEHA-27B, AEHA-28B, DMW-9B, OU6DUP-4, USGS-N1, USGS-K2,
25		OU6DUP-4

- 26 The batch LCS for total metals was within USACE-prescribed limits (80 to 120 %R) or within SMF
- 27 criteria. An MS/MSD was performed for metals on sample AEHA-21B. Recoveries and RPDs were
- 28 within QC limits.
- 29 An equipment blank sample (OU6-BLAD-EQB) was collected and reported to contain metals. Calcium,
- 30 sodium, and zinc were detected in the equipment blank sample below the RL but above the MDL.
- 1 Natural earth metals (calcium and sodium) were present in the equipment blank and are expected to be

- 1 present in the water and soil matrices. Therefore, no qualification of the data for these results was
- 2 applied. In addition, no qualification of the data was required for analytes detected in the equipment
- 3 blank below the RL.
- 4 Elevated levels of zinc were detected in samples USGS-F2 (674 μg/L) and USGS-H2 (710 μg/L).
- 5 Review of laboratory procedures, glassware, sample containers, and preservatives did not indicate a
- 6 source for the elevated zinc. The unprepared samples were re-analyzed, and the zinc levels supported the
- 7 analytical results. Field procedures were also reviewed, and no source for the zinc could be determined.
- 8 However, a review of the historical data for these samples indicated that zinc has not been detected (<20
- 9 µg/L) in sample USGS-F2 in the past eight sampling events. Therefore, the zinc results reported for
- sample USGS-F2 were considered unusable and flagged "R". Historically, zinc was present at low
- 11 concentrations ranging from 12.1 JQ to 355 μg/L in sample USGS-H2. Therefore, the zinc result reported
- for sample USGS-H2 was considered unusable and flagged "R".
- 13 Two field duplicate pairs (AEHA-25B/OU6DUP-4 and AEHA-30B/OU6DUP-5) were collected and
- analyzed for metals. The RPDs between the samples and the duplicates were within QC limits. A serial
- dilution to assess matrix effects was performed on total metals sample AEHA-21B, and recoveries were
- within QC limits. In addition, the laboratory flagging indicated that the zinc results reported for samples
- 17 AEHA-21B and AEHA-26B are estimated because of interferences; therefore, zinc results for each sample
- were qualified as estimated and flagged "J".
- 19 Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the
- 20 MDL were qualified as estimated and flagged "JQ". Any value reported below the RL but above the
- 21 MDL that was previously flagged "J" was subsequently overridden by the "JO" qualifier.
- 22 Total Mercury (SW-7470A) Mercury data collected from the lower WBU were evaluated using a Tier II
- 23 approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and
- 24 RPDs, equipment blanks, and field duplicate precision, in addition to method-specific OC such as post-
- 25 digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial
- and continuing calibration information was assumed to be within QC limits. The laboratory batch
- 27 preparation blanks (method blanks) did not contain mercury.

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

- 1 Batch LCSs for mercury were within acceptable limits. An MS/MSD was performed on sample
- 2 AEHA-21B, and the recoveries and RPDs were within QC limits. The equipment blank sample
- 3 (OU6-BLAD-EQB) did not contain mercury. Two field duplicate pairs (AEHA-25B/OU6DUP-4 and
- 4 AEHA-30B/OU6DUP-5) was collected and analyzed for mercury. The RPD for the duplicate pairs was
- 5 within QC requirements or could not be calculated because the parent and duplicate samples did not
- 6 contain mercury.
- A serial dilution was performed on sample AEHA-21B, and percent differences were within QC limits.
- 8 Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the
- 9 MDL were qualified as estimated and flagged "JQ" in samples AEHA-21B, AEHA-23B, AEHA-24B,
- 10 AEHA-26B, AEHA-28B, AEHA-30B, AEHA-33B, DMW-28E, and USGS-P2.
- Anions (300.0A) Anion (chloride, nitrate, and sulfate) data were evaluated using a Tier II approach that
- 12 consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field
- duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.
- 14 The initial and continuing calibration for each instrument used for the analysis of chloride, nitrate, and sulfate
- was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks)
- 16 contained no reportable concentrations of chloride, nitrate, and sulfate.
- 17 Batch LCSs for anions were within acceptable limits. The MS/MSD recoveries and RPD for sample
- 18 AEHA-21B were within acceptable limits.
- 19 Two field duplicate pairs (AEHA-24B/OU6DUP-4 and AEHA-30B/OU6DUP-5) were collected and
- analyzed for anions. The RPD between the samples and the duplicates was within QC limits.
- 21 An equipment blank sample (OU6-BLAD-EQB) was collected and analyzed to assess possible
- 22 contamination from using non-dedicated sampling equipment, and was nondetect for chloride, nitrate, and
- 23 sulfate.
- 24 The following samples were diluted to place certain anion results within the range of the calibration
- 25 curve, resulting in elevated RLs:

1		<u>Dilution</u>				
2	<b>Sample</b>	<b>Factor</b>	<b>Compound</b>			
3	AEHA-24B	10×	Chloride			
4	AEHA-30B	10×	Chloride			
5	AEHA-33B	10×	Chloride, sulfate			
6	AEHA-31B	10×	Chloride			
7	OU6DUP-5	10×	Chloride			
8	USGS-B2	2×	Chloride			
9	USGS-K2	10×	Chloride			
10	USGS-P2	10×	Sulfate			

- Results were reported at the RL and evaluated down to the MDL. Flagging of anion results less than the RL
- but greater than the MDL (JQ) was necessary for nitrate in samples AEHA-21B, AEHA-23B,
- 13 AEHA-26B, AEHA-28B, DMW-9B, USGS-G3, USGS-H2, and USGS-L2, and chloride in sample
- 14 AEHA-26B. Any value reported below the RL but above the MDL that was previously flagged "J" was
- 15 subsequently overridden by the "JQ" qualifier.
- 16 TOC (9060) TOC data were evaluated using a Tier II approach that consisted of a review of holding
- 17 times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate
- blanks. Any failures among the method listed are discussed below.
- 19 The initial and continuing calibration for each instrument used for the analysis of TOC was assumed to meet
- 20 acceptable criteria. The laboratory batch preparation blanks (method blank) contained TOC below the RL at
- 21 0.1, 0.2, and 0.5 JQ mg/L, respectively. TOC sample results for samples AEHA-21B, AEHA-24B,
- 22 AEHA-25B, AEHA-26B, AEHA-31B, AEHA-32B, DMW-9B, and OU6DUP-4 were flagged "JH" because
- the sample result was greater than the blank concentration but less than five times the blank value.
- 24 Batch LCSs for TOC were within acceptable limits. The MS/MSD recoveries for TOC in spiked sample
- 25 AEHA-21B were within acceptable QC limits.
- 26 Two field duplicate pairs (AEHA-25B/OU6DUP-4 and AEHA-30B/OU6DUP-5) were collected and
- 27 analyzed for TOC. The RPD between the sample and the duplicate was outside OC limits for
- AEHA-30B/OU6DUP-5, and both results were qualified as estimated and flagged "J".

- 1 An equipment blank (OU6-BLAD-EQB) was collected and analyzed to assess possible contamination
- 2 from non-dedicated sampling equipment, and TOC was detected below the RL at 0.6 JQ mg/L. No
- 3 qualification of the data was required for analytes detected in the equipment blank below the RL.
- 4 Results were reported at the RL and evaluated down to the MDL. Flagging of TOC results less than the RL
- 5 but greater than the MDL (JQ) was necessary for samples AEHA-23B, AEHA-28B, AEHA-33B,
- 6 LAWMW-Q, USGS-C2, USGS-G3, USGS-M2, USGS-N1, and USGS-P2.
- 7 Alkalinity (310.1) Alkalinity data were evaluated using a Tier II approach that consisted of a review of
- 8 holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- 9 rinsate blanks. Any failures among the method listed are discussed below.
- The project-specific hold times for alkalinity were not met, but the samples were analyzed within the method
- 11 hold time. Therefore, no additional qualification was necessary.
- 12 The titration standardization performed for the analysis of alkalinity was assumed to meet acceptable
- 13 criteria, as were the initial and continuing calibration checks. The laboratory batch preparation blanks
- 14 (method blanks) did not contain alkalinity. Batch LCSs for alkalinity were within acceptable limits. The
- 15 MS/MSD recoveries for alkalinity in spiked sample AEHA-21B were within acceptable QC limits.
- 16 Two field duplicate pairs (AEHA-25B/OU6DUP-4 and AEHA-30B/OU6DUP-5) were collected and
- 17 analyzed for alkalinity. The RPD for the duplicate pairs was outside OC requirements for
- 18 AEHA-30B/OU6DUP-5, and both associated results were qualified as estimated and flagged "J".
- 19 An equipment blank (OU6-BLAD-EQB) was collected and analyzed to assess possible contamination
- 20 from non-dedicated sampling equipment, and alkalinity was detected below the RL at 2.0 JQ mg/L. No
- 21 qualification of the data was required for analytes detected in the equipment blank below the RL.
- 22 Results were reported at the RL and evaluated down to the MDL. Flagging of alkalinity results less than the
- 23 RL but greater than the MDL (JQ) was necessary for samples AEHA-24B and DMW-9B. Any value
- 24 reported below the RL but above the MDL that was previously flagged "J" was subsequently overridden by
- 25 the "JQ" qualifier.

- 1 <u>Sulfide (376.1)</u> Sulfide data were evaluated using a Tier II approach that consisted of a review of
- 2 holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- 3 rinsate blanks. Any failures among the method listed are discussed below.
- 4 The titration standardization performed for the analysis of sulfide was assumed to meet acceptable criteria.
- 5 The laboratory batch preparation blanks (method blanks) did not contain sulfide. One of the batch LCSs for
- 6 sulfide was outside acceptable limits. Associated sulfide results (USGS-B2, USGS-G3, USGS-L2, and
- 7 USGS-M2) were qualified as estimated and flagged "UJ". The MS/MSD recoveries and RPDs for spiked
- 8 sample AEHA-21B were within acceptable laboratory limits.
- 9 Two field duplicate pairs (AEHA-25B/OU6DUP-4 and AEHA-30B/OU6DUP-5) were collected and
- analyzed for sulfide. The RPD for the duplicate pairs could not be calculated because the results were
- 11 nondetect. An equipment blank sample (OU6-BLAD-EQB) was collected and analyzed to assess possible
- 12 contamination from using non-dedicated sampling equipment. The equipment blank was nondetect for
- 13 total sulfide.
- Results were reported at the RL and evaluated down to the MDL. Flagging of sulfide results less than the RL
- but greater than the MDL (JQ) was not necessary.
- 16 <u>Dissolved Hydrogen (AM20GAX)</u> Hydrogen data were evaluated using a Tier II approach that consisted
- 17 of a review of holding times, method and calibration blanks, LCS recoveries, and field duplicate
- 18 precision. MS/MSD samples were not required for hydrogen analysis. Any failures among the method
- 19 listed are discussed below. Initial and continuing calibration information was assumed to be within OC
- 20 limits.
- 21 Samples were received intact, and holding times were met for the samples submitted to Microseeps, Inc., for
- 22 analysis. Method blanks were within method-stated control limits. LCS results were also within
- 23 laboratory-established limits.
- 24 Two field duplicate pairs (OU6DUP-4/AEHA-25B and OU6DUP-5/AEHA-30B) were collected and
- 25 analyzed. RPD between the parent sample and the duplicate sample was within specified limits
- 26 (<20 percent).

- 1 Results were reported at the RL and evaluated down to the MDL. Results less that the RL but above the
- 2 MDL (AEHA-23B, USGS-G3, USGS-K2, USGS-M2, and USGS-P2) were qualified as estimated and
- 3 flagged "JQ".

### 4 D-2.4 COMPLETENESS

- 5 Except as previously noted, the DQIs were within the USACE-prescribed QC limits and require only the
- 6 qualifications described. Percent completeness for the data collection efforts and DQO attainment is 99.94
- 7 percent. A discussion of compound and/or method completeness compared to project objectives, as well as
- 8 the effects of field conditions on project objectives, is presented below.
- 9 Samples were collected and parameters analyzed from each well proposed, with the exception of
- 10 USGS-K4. Hydrogen could not be collected from monitoring well USGS-K4 because of insufficient
- 11 volume. Hydrogen results, in addition to several other parameters, are used to evaluate the water
- 12 system's ability for natural attenuation. Because an evaluation of natural attenuation processes depends
- on several parameters, the lack of hydrogen results for this location does not adversely impact the project
- 14 objectives.
- 215 Zinc results were unusually elevated in five of the samples (AEHA-30A, AEHA-32A, USGS-D4, USGS-F2,
- and USGS-H2); however, no reasonable explanation could be generated by laboratory QC checks, including
- 17 re-evaluation of the raw data and analysis of the nitric acid preservative. A review of field procedures and
- 18 conditions could illicit no explanation for the anomaly. Five zinc results were qualified as unusable and
- 19 flagged "R" because of professional judgment from a review of historical data from eight previous sampling
- 20 events, resulting in a completeness of 91.9 percent. This completeness is within the project DOO of
- 21 90 percent. Zinc is a relatively common metal found in natural waters, and sporadic absence of zinc data
- does not adversely impact the project MNA objectives.

## D-3.0 OPERABLE UNIT 7 DATA QUALITY EVALUATION

- 2 The following sections provide summary discussions of data quality for samples collected during the July
- 3 2005 bi-annual sampling event at OU 7. Groundwater samples were collected from monitoring well
- 4 locations to evaluate MNA characteristics of each WBU. The comprehensive analytical results for
- 5 samples associated with the bi-annual sampling event are summarized in Appendix B (Tables B-4 through
- 6 B-6). Field duplicate, trip blank, and equipment blank associations are presented in Appendix B,
- 7 Table B-9.

1

## 8 D-3.1 GROUNDWATER – JULY 2005

- 9 A total of 27 groundwater wells and 3 piezometers were sampled in July 2005. All wells except MW112-2,
- 10 MWFOS-3, OU7PZ-2, OU7PZ-4, and OU7PZ-8 were sampled with dedicated bladder pumps. Equipment
- blank OU7-BLAD-EQB was collected on 19 July 2005 to represent these groundwater samples. The correct
- 12 sample containers and preservatives were used for the analytical methods specified on the COC.
- Additionally, the correct methods were employed for extraction/digestion and analysis as outlined in the
- Work Plan. The appropriate units, detection limits, and compounds were reported by the laboratory per the
- 15 2005 subcontract agreements between MACTEC and CAS and MACTEC and Microseeps, Inc.

#### 16 D-3.1.1 Upper Water Bearing Unit

- 17 A total of 22 groundwater and 2 duplicate samples were collected from the upper WBU. Samples MW112-2,
- 18 MWFOS-3, OU7PZ-2, OU7PZ-4, and OU7PZ-8 were collected with non-dedicated bladder pumps. To
- 19 minimize cross-contamination from the use of non-dedicated equipment, each sample was collected with a
- 20 disposable bladder.
- 21 VOCs (SW-8260B) VOC data collected from the upper WBU were evaluated using a Tier II approach
- 22 that consisted of a review of holding times; method, calibration, trip, and equipment blanks; LCS
- 23 recoveries; MS/MSD recoveries and RPDs, and field duplicate precision, in addition to method-specific
- QC such as surrogates and internal standards. Any failures among the method listed are discussed below.
- 25 Initial and continuing calibration information was assumed to be within QC limits.
- 26 All holding times for the initial analysis of water samples were met; however, six samples required
- 27 re-analysis outside the holding time. Samples DMW-26A, MWFTA-1, and MWFTA-9 were re-analyzed
  - because of possible target analyte carryover, and samples AEHADG-10, OU7DUP-1, and DMW-33A

050016.08 D-3-1

1 were re-analyzed for dilution outside the recommended holding time. The initial run was used for sample 2 DMW-26A because carryover was ruled out. Sample MWFTA-1 was re-analyzed three days past the 3 holding time because of possible target analyte carryover. Carryover was confirmed in the original 4 analysis, and the re-analysis data were used and qualified "UJ/J" for holding time exceedances. 5 Carryover was confirmed in MWFTA-9, and the re-analysis was used and qualified "UJ/J" for holding 6 time exceedances. Sample AEHADG-10 was analyzed for dilutions three and six days outside the 7 holding time, and sample OU7DUP-1 was re-analyzed at a dilution three days outside the holding time. 8 In both samples, the diluted results were similar to the undiluted results, and diluted results were 9 necessary for 1.1.1-trichloroethane: 1,1-dichloroethane; 1,1-dichloroethene (DCE); 10 1,2-dichlorobenzene; carbon tetrachloride; chloroform; cis-1,2-dichloroethene (cDCE); naphthalene; 11 tetrachloroethene (PCE); trans-1,2-dichloroethene; trichloroethylene; vinyl chloride (VC); and total xylenes (for OU7DUP-1 only); therefore, qualification of the diluted analytes was not necessary. In 12 13 sample DMW-33A, the diluted results were similar to the undiluted results, and diluted results were 14 necessary only for 1,1,1-TCA; 1,1-dichloroethane; 1,1-DCE; cDCE; PCE; and trichloroethene; therefore, 15 qualification of the diluted analytes was not necessary.

The batch-specific method blanks associated with the samples were analyzed and reported to contain VOCs, as indicated below. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were accordingly qualified as estimated based on blank contamination and flagged as "JB", unless overridden by qualifications for other QC exceedances.

20 Associated samples that were nondetects required no qualification.

16

17

18

19

21	Blank ID	<u>Analyte</u>	Concentration	Action/Affected Samples
22	U0728W01	Hexachlorobutadiene	0.18 μg/L (JQ)	None
23	C0802W01	Hexachlorobutadiene	$0.31 \mu g/L (JQ)$	None
24	K0802W01	Acetone	1.5 μg/L (JQ)	DMW-26A
25		Chloroform	0.11 μg/L (JQ)	None
26		1,2,4-Trimethylbenzene	0.28 μg/L (JQ)	None
27		o-Xylene	0.25 μg/L (JQ)	DMW-33A
28	U0801W02	Acetone	0.88 μg/L (JQ)	MWFTA-5, MWFTA-10,
29				OU7-BLAD-EQB, OU7PZ-2, OU7PZ-4,
30				OU7PZ-8, TB-071905
31		Naphthalene	0.11 μg/L (JQ)	None
32		1,2,3-Trichlorobenzene	$0.13 \mu g/L (JQ)$	None
33	C0803W01	Hexachlorobutadiene	$0.44 \mu g/L (JQ)$	None
34	C0804W02	1,2,3-Trichlorobenzene	0.14 μg/L (JQ)	None
35	K0809W01	Acetone	1.8 μg/L (JQ)	None
36		Bromomethane	0.29 μg/L (JQ)	None

050016.08 D-3-2

- 1 The batch-specific LCSs were analyzed, and recoveries were within acceptable QC criteria, with the
- 2 exception of hexachlorobutadiene in LCS U0801W02. No qualification of the data was necessary
- 3 because the recovery was high (142 percent) and the associated samples were nondetect. An MS/MSD
- 4 was performed on sample MWFTA-1, and the recoveries and RPDs were within the QC and/or SMF
- 5 limits.
- 6 The internal standards added to the samples by the laboratory were recovered outside QC limits for the
- 7 diluted analysis and subsequent diluted re-analysis of samples MWFOS-3 and MWFTA-23. The
- 8 recovery of internal standard 3 (dichlorobenzene-d4) was low, and the associated positive results were
- 9 qualified as estimated and flagged "J" as shown below. Flags were applied only to analytes that were
- above the calibration range in the initial analysis and reported from the diluted instrument run.

11	Sample ID	Affected Analytes
12	MWFTA-23	1,2-Dichlorobenzene; 1,4-dichlorobenzene;
13		cis-1,2-dichloroethene; trans-1,2-dichloroethene; vinyl chloride
14	MWFOS-3	cis-1,2-Dichloroethene

- The surrogates added to the samples by the laboratory recovered outside QC limits for the diluted
- 16 re-analysis of samples MWFTA-23 and MWFOS-3. However, the results of this analysis were not used
- 17 because of the previously described internal standard failure in the diluted re-analysis. No additional
- 18 flagging of the data was necessary.
- 19 Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected. The
- 20 RPD between the samples and their duplicates was within the QC limits.
- 21 An equipment blank sample (OU7-BLAD-EQB) was collected to represent samples collected with a
- 22 non-dedicated bladder pump. Low levels of VOCs were detected in the equipment blank. The samples
- 23 with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were
- 24 accordingly qualified as estimated based on blank contamination and flagged as "JB", unless overridden by
- 25 qualifications for other QC exceedances. Associated samples that were nondetects required no qualification.
- No qualification of the data was required for analytes detected in the equipment blank below the RL.

27	<u>Analyte</u>	<b>Concentration</b>	Associated Samples
28	Chloroform	1.4 μg/L	None

- 1 The trip blanks associated with the groundwater samples were reported to contain several analytes, as
- 2 shown below. Sample results less than 10 times the blank value for common laboratory contaminants and
- 3 5 times the blank value for other target analytes were qualified as estimated with possible trip blank
- 4 contamination and flagged "JB".

5	Blank ID	<b>Analyte</b>	<b>Concentration</b>	Affected Samples
6	TB-071805-2	Acetone	3.1 μg/L (JQ)	DMW-22A, DMW-25A,
7				DMW-27A, MW-112-2
8	TB-071905	Methylene chloride	0.4 μg/L (JQ)	DMW-26A, DMW-33A, MWFTA-5,
9				MWFTA-10, OU7PZ-4,
10				OU7-BLAD-EQB
11	TB-072005	Acetone	5.1 μg/L (JQ)	DMW-13A, DMW-20A,
12				DMW-35A, OU7DUP-2
13		Chloromethane	0.42 μg/L (JQ)	AEHADG-10, DMW-13A,
14				DMW-20A, DMW-35A,
15				MWFTA-3, OU7DUP-1,
16				OU7DUP-2
17		Trichloroethene	0.25 μg/L (JQ)	MWFTA-1*
18		Tetrachloroethene	0.22 μg/L (JQ)	DMW-20A*, MWFTA-1*

- 19 \*The "JB" qualifiers were removed from the PCE and trichloroethene (TCE) results for samples
- 20 MWFTA-1 and DMW-20A because these compounds historically have been detected in these wells along
- 21 with daughter product cDCE and are believed to be representative of groundwater conditions.
- 22 The following samples were diluted to place certain VOC results within the range of the calibration curve,
- 23 resulting in elevated RLs:

24		<u>Dilution</u>	1
25	<u>Sample</u>	<u>Factor</u>	Analyte
26	MWFOS-3	10×, 250×	All; cis-1,2-dichloroethene; trichloroethene
27	MWFTA-23	200×	1,2-Dichlorobenzene; 1,4-dichlorobenzene; chlorobenzene;
28			cis-1,2-dichloroethene; trans-1,2-dichloroethene; trichloroethene; vinyl
29			chloride
30	OU7DUP-3	5×	cis-1,2-Dichloroethene
31	DMW-33A	50×	1,1,1-Trichloroethane; 1,1-dichloroethane; 1,1-dichloroethene;
32			cis-1,2-dichloroethene; tetrachloroethene; trichloroethene
33	OU7PZ-4	5×	Trichloroethene
34	AEHADG-10	10×	1,2-Dichlorobenzene; 1,1-dichloroethane; carbon tetrachloride; chloroform;
35			trans-1,2-dichloroethene; naphthalene; vinyl chloride
36	AEHADG-10	500×	1,1-Dichloroethene; cis-1,2-dichloroethene; 1,1,1-trichloroethane;
37			tetrachloroethene

1		<u>Diluti</u>	<u>on</u>
2	<b>Sample</b>	<b>Factor</b>	<u>Analyte</u>
3 4 5 6 7	AEHADG-10 OU7DUP-1 OU7DUP-1	1000× 10× 1000×	Trichloroethene 1,2-Dichlorobenzene; 1,1-dichloroethane; carbon tetrachloride; chloroform; trans-1,2-dichloroethene; m,p-xylenes; naphthalene; vinyl chloride 1,1-Dichloroethene; cis-1,2-dichloroethene; 1,1,1-trichloroethane; tetrachloroethene; trichloroethene

- 8 Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the
- 9 MDL were qualified as estimated and flagged "JQ".

10	Sample ID	Affected Analytes
11	AEHADG-10	1,1,2,2-Tetrachloroethane; 1,1,2-trichloroethane; 1,2,3-trichlorobenzene;
12		1,2,4-trichlorobenzene; 4-methyl-2-pentanone; benzene; chloroethane;
13		p-isopropyltoluene; and t-butylbenzene
14	DMW-20A	trans, 1-2-Dichloroethene; tetrachloroethene; trichloroethene
15	DMW-22A	Chloromethane; trans-1,2-dichloroethene; vinyl chloride
16	DMW-25A	Chloromethane, trichloroethylene
17	DMW-26A	Chloromethane, tetrachloroethene, trichloroethene
18	DMW-27A	Chloromethane
19	DMW-33A	Chlorobenzene; chloroethane; chloromethane; 1,3-dichlorobenzene;
20		trichlorofluoromethane
21	DMW-35A	1,1-Dichloroethene
22	MW112-2	Chloromethane, toluene
23	MWFOS-3	1,3-Dichlorobenzene; toluene
24	MWFTA-1	1,1-Dichloroethane; cis-1,2-dichloroethene; tetrachloroethene; trichloroethene
25	MWFTA-3	1,1-Dichloroethane
26	MWFTA-5	Chloromethane
27	MWFTA-7	Chloromethane
28	MWFTA-9	Chloromethane
29	MWFTA-10	Chloromethane
30	MWFTA-23	1,1,2-Trichloroethane; 1,2,4-trichlorobenzene; benzene; chloromethane
31	OU7PZ-2	1,1-Dichloroethane; chloromethane; 2-butanone
32	OU7PZ-4	1,2-Dichlorobenzene; chloromethane; methyl t-butyl ether;
33		trans-1,2-dichloroethene; vinyl chloride
34	OU7PZ-8	1,1-Dichloroethane; 1,2-dichloroethene; chloromethane; 2-butanone; methyl
35		t-butyl ether; tetrachloroethene
36	OU7DUP-1	1,1,2,2-Tetrachloroethane; 1,1,2-trichloroethane; 1,2,3-trichlorobenzene;
37		1,2,4-trichlorobenzene; benzene; chloroethane; p-isopropyltoluene
38	OU7DUP-2	1,1-Dichloroethane; carbon disulfide
39	OU7-BLAD-EQB	Carbon disulfide, 2-butanone
40	TB-071805-2	Acetone
41	TB-071905	Methylene chloride
42	TB-072005	Acetone, chloromethane, methylene chloride, tetrachloroethene, trichloroethene

- 1 Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently
- 2 overridden by the "JQ" qualifier.
- 3 <u>Dissolved Gases (RSK-175)</u> Dissolved gas data collected from the upper WBU (carbon dioxide,
- 4 methane, ethane, and ethene) were evaluated using a Tier II approach that consisted of a review of
- 5 holding times, method blanks, LCS recoveries, field duplicate precision, trip blanks, and rinsate blanks.
- 6 Any failures among the method listed are discussed below.
- 7 The project-specified seven-day holding time for carbon dioxide was exceeded for all samples, and
- 8 associated results were qualified as estimated and flagged "J" or "UJ". However, the method-specified
- 9 holding time of 14 days was met. Additionally, the holding time for methane, ethane, and ethene was
- exceeded in samples DMW-26A, DMW-33A, MWFTA-5, MWFTA-9, MWFTA-10, OU7-BLAD-EOB,
- OU7PZ-2, OU7PZ-4, OU7PZ-8, and TB-071905. The associated dissolved gas results were qualified as
- estimated for exceeding the holding time and flagged "J" or "UJ". Discussions with laboratory personnel
- 13 indicated that they referenced the 28-day holding time stated in the OAPP (Air Force Center for
- 14 Environmental Excellence [AFCEE], 2001); therefore, holding times for the other samples were
  - considered as being met. For future DSCR projects, a 14-day holding time for dissolved gases will be
- 16 utilized.

15

- 17 The initial and continuing calibration for each instrument used for the analysis of dissolved gases was
- assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did
- 19 not contain reportable concentrations of carbon dioxide, methane, ethane, or ethene. Batch LCSs for
- 20 dissolved gases were within acceptable limits.
- 21 Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected and
- analyzed for dissolved gases. The RPDs between the samples and duplicates were within QC limits.
- 23 The trip blanks associated with the groundwater samples were reported to contain methane, as shown
- 24 below. Sample results less than five times the blank value were qualified as estimated with possible trip
- 25 blank contamination and flagged "JB".

1	Blank ID	<u>Analyte</u>	<b>Concentration</b>	Affected Samples
2	TB-071905	Methane	0.52 μg/L	MWFTA-5,MWFTA-9,
3				OU7-BLAD-EQB
4	TB-072005	Methane	0.54 μg/L	DMW-13A, DMW-35A

- 5 An equipment blank sample (OU7-BLAD-EQB) was collected to represent samples collected with a
- 6 non-dedicated bladder pump, and there was a positive result for methane at 0.46 μg/L (JB). However, the
- 7 positive result was itself flagged "JB" for trip blank contamination, and no flagging of the data was
- 8 necessary.
- 9 Results were reported at the RL and evaluated down to the MDL. Flagging of dissolved gas results less
- than the RL but greater than the MDL (JQ) was necessary for methane in MWFOS-1.
- 11 VFAs (ASTM D1552) Samples AEHADG-10, DMW-27A, MWFOS-3, DMW-33A, and OU7DUP-1
- 12 were assayed for VFA analysis. VFA data (acetic, butyric, lactic, propionic, and pyruvic acids) were
- evaluated using a Tier II approach that consisted of a review of holding times, method blanks, LCS and
- 14 MS/MSD recoveries and RPDs, field duplicate precision, and rinsate blanks. Any failures among the
- 15 method listed are discussed below.
- 16 The initial and continuing calibration for each instrument used for the analysis of VFAs was assumed to
- be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain
- 18 reportable concentrations of VFAs. The batch LCS recovered above the acceptable limits (high) for
- 19 pyruvic acid. However, the MS/MSD recoveries in sample DMW-27A were within QC limits and there
- were no positive results in the samples. Therefore, no qualification of the data was required.
- 21 One field duplicate pair (AEHADG-10/OU7DUP-1) was collected and analyzed for VFAs. The RPD
- between the sample and the duplicate could not be calculated because the results were nondetect. Results
- 23 were reported at the RL and evaluated down to the MDL. Flagging of VFA results less than the RL but
- 24 greater than the MDL (JQ) was not necessary.
- 25 Total Metals (SW-6010B/6020) Antimony, arsenic, lead, selenium, and thallium were analyzed by
- 26 ICP/MS Method SW-6020. Remaining metals were analyzed by ICP Method SW-6010B.

- 1 Metals data collected from the upper WBU were evaluated using a Tier II approach that consisted of a
- 2 review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and
- 3 field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial
- 4 dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration
- 5 information was assumed to be within QC limits.
- 6 All holding times for the groundwater samples were met. The laboratory batch preparation blanks
- 7 (method blanks) and/or CCBs were less than the RL but above the MDL for some metals. Only the
- 8 sample results less than five times the blank value and qualified as estimated with possible method blank
- 9 contamination and flagged "JB" are shown below.

10	Metal (SW-6010)	Affected Samples
11	Aluminum	AEHADG-10, DMW-20A, DMW-35A, MWFTA-1, MWFTA-3, OU7DUP-1.
12		OU7DUP-2
13	Copper	DMW-25A
14	Iron	DMW-25A, MWFOS-1
15	Molybdenum	MWFOS-1
16	Silver	MWFTA-3
17	Zinc	AEHADG-10, DMW-22A, DMW-25A, MW-112-2, MWFOS-1, MWFTA-23,
18		MWFTA-7, MWFTA-1, MWFTA-3, OU7DUP-1, OU7DUP-2
19	Metal (SW-6020)	Affected Samples
20	Antimony	DMW-13A, DMW-26A, DMW-33A, DMW-35A, MWFTA-1, MWFTA-3,
21	·	MWFTA-9, MWFTA-10, OU7-BLAD-EQB, OU7DUP-1, OU7DUP-2,
22		OU7PZ-2, OU7PZ-8
23	Lead	AEHADG-10, DMW-33A, DMW-35A, MWFTA-1, MWFTA-5, MWFTA-10,
24		OU7-BLAD-EQB, OU7PZ-2, OU7PZ-4, OU7PZ-8, OU7DUP-1

- 25 The batch LCS for total metals was within USACE-prescribed limits (80 to 120 %R) or within SMF
- 26 criteria. An MS/MSD was performed for metals on sample MWFTA-1, and the recovery of arsenic was
- 27 outside QC limits. The associated arsenic result in MWFTA-1 was qualified as estimated and flagged
- 28 "J". A serial dilution to assess matrix effects was performed on total metals sample MWFTA-1. Recoveries
- were within QC limits for all metals present at >50 times the MDL.
- 30 An equipment blank sample (OU7-BLAD-EQB) was collected and reported to contain metals.
- 31 Aluminum, antimony, calcium, and lead were detected in the equipment blank sample below the RL but
- 32 above the MDL. Sodium was detected above the RL. Natural earth metals (aluminum, calcium, and
- 33 sodium) were present in the equipment blank and are expected to be present in the water and soil

December 2005 Revision 0

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

- 1 matrices. Therefore, no qualification of the data of these results was applied. In addition, no qualification
- 2 of the data was required for analytes detected in the equipment blank below the RL.
- 3 Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected and
- 4 analyzed for metals. The RPD for the duplicate pairs was within QC requirements.
- 5 Elevated levels of zinc were detected in sample MWFTA-5 (759 μg/L). A review of laboratory
- 6 procedures, glassware, sample containers, and preservatives did not indicate a source for the elevated
- 7 zinc. The unprepared samples were re-analyzed, and the zinc levels supported the analytical results.
- 8 Field procedures were also reviewed, and no source for the zinc could be determined. However, a review
- 9 of the historical data for this sample indicated that zinc has not been detected above the RL (<20 µg/L) in
- sample MWFTA-5 in the past eight sampling events. Therefore, the zinc results reported for sample
- 11 MWFTA-5 were considered unusable and flagged "R".
- Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the
- 13 MDL were qualified as estimated and flagged "JQ". Any value reported below the RL but above the
- MDL that was previously flagged "J" was subsequently overridden by the "JQ" qualifier.
- 15 Total Mercury (SW-7470A) Mercury data collected from the upper WBU were evaluated using a Tier II
- approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and
- 17 RPDs, equipment blanks, and field duplicate precision, in addition to method specific OC such as post-
- digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial
- 19 and continuing calibration information was assumed to be within OC limits. The laboratory batch
- 20 preparation blanks (method blanks) did not contain mercury.
- 21 Batch LCSs for mercury were within acceptable limits. An MS/MSD was performed on sample
- 22 MWFTA-1, and the recovery was outside QC limits. The associated mercury result was qualified as
- 23 estimated and flagged "UJ". A serial dilution was performed on sample MWFTA-1, and the recovery
- 24 was within QC limits.
- 25 The equipment blank sample (OU7-BLAD-EQB) did not contain mercury.
- Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected and analyzed for mercury. The RPDs for the duplicate pairs were within QC requirements.

- 1 Results were reported at the RL and evaluated down to the MDL. Flagging of mercury results less than the
- 2 RL but above the MDL (JQ) was not required.
- 3 Anions (300.0A) Anion data were evaluated using a Tier II approach that consisted of a review of
- 4 holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- 5 rinsate blanks. Any failures among the method listed are discussed below.
- 6 The initial and continuing calibration for each instrument used for the analysis of chloride, nitrate, and sulfate
- 7 was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did
- 8 not contain reportable concentrations of chloride, nitrate, and sulfate.
- 9 Batch LCSs for anions were within acceptable limits. The MS/MSD recoveries for spiked sample
- 10 MWFTA-1 were within QC or SMF limits. No flagging of the data was necessary.
- 11 Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected and
- 12 analyzed for anions. The RPD between the samples and duplicates was within QC limits.
- An equipment blank sample (OU7-BLAD-EQB) was collected and analyzed to assess possible
- 14 contamination from using non-dedicated sampling equipment, and was nondetect for chloride, nitrate, and
- 15 sulfate.
- 16 The following samples were diluted to place certain anion results within the range of the calibration
- 17 curve, resulting in elevated RLs:

18	<u>Dilution</u>				
19	<b>Sample</b>	<b>Factor</b>	<b>Compound</b>		
20	AEHADG-10	10×	Chloride, sulfate		
21	DMW-13A	10×	Chloride, sulfate		
22	DMW-20A	10×	Chloride		
23	DMW -22A	10×	Chloride		
24	DMW-25A	10×	Sulfate		
25	DMW-26A	10×	Chloride		
26	DMW-27A	10×	Chloride		
27	DMW-35A	10×	Chloride		
28	DMW-33A	10×	Chloride		
29	MW112-2	10×	Chloride		
80	MWFTA-1	10×	Chloride		
31	MWFTA-3	10×	Chloride		

1		<u>Dilution</u>			
2	<b>Sample</b>	<b>Factor</b>	Compound		
3	MWFTA-9	10×	Chloride, sulfate		
4	MWFTA-23	10×	Chloride		
5	MWFOS-3	10×	Sulfate		
6	OU7DUP-1	10×	Chloride, sulfate		
7	OU7DUP-2	10×	Chloride		
8	OU7PZ-2	10×	Chloride		
9	OU7PZ-4	10×	Chloride		

- 10 Results were reported at the RL and evaluated down to the MDL. Flagging of anion results less than the RL
- but greater than the MDL (JQ) was necessary for nitrate in samples MWFTA-5 and MWFTA-10 and for
- 12 chloride and nitrate in OU7PZ-4. Any value reported below the RL but above the MDL that was previously
- 13 flagged "J" was subsequently overridden by the "JQ" qualifier.
- 14 TOC (9060) TOC data were evaluated using a Tier II approach that consisted of a review of holding
- 15 times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate
- blanks. Any failures among the method listed are discussed below.
- 17 The initial and continuing calibration for each instrument used for the analysis of TOC was assumed to meet
- 18 acceptable criteria. The batch-specific method blanks associated with the samples were analyzed and
- 19 reported to contain TOC as indicated below. The samples with concentrations less than or equal to five
- 20 times the blank concentrations were accordingly qualified as estimated with possible high bias because of
- 21 blank contamination and flagged "JH", unless overridden by qualifications for other OC exceedances.
- 22 Samples with concentrations less than the blank value were qualified as estimated with possible method
- 23 blank contamination and flagged "JB". Associated samples that were nondetects required no
- 24 qualification.

25	Blank Date	Concentration	<u>Flag</u>	Affected Samples
26	7/18/05	0.5 mg/L	ЛН	DMW-22A, MW112-2, MWFOS-1
27	7/19/05	0.2 mg/L	JH	MWFTA-5, MWFTA-9, MWFTA-10
28	7/20/05	0.2 mg/L	JH	DMW-35A

- 29 Batch LCSs for TOC were within acceptable limits. The MS/MSD recoveries of spiked sample MWFTA-1
- 30 for TOC were within acceptable QC limits.

Revision 0

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

- 1 Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected and
- 2 analyzed for TOC. The RPD between the sample and the duplicate was within QC limits.
- 3 An equipment blank (OU7-BLAD-EQB) was collected and analyzed to assess possible contamination
- 4 from non-dedicated sampling equipment, and TOC was detected above the RL at 1.1 mg/L. Associated
- 5 samples less than five times the blank value not previously qualified (MWFOS-3) were qualified as
- 6 estimated with possible equipment blank contamination and flagged "JB" or "JH" (OU7PZ-2 and
- 7 OU7PZ-4).
- 8 Results were reported at the RL and evaluated down to the MDL. Flagging of TOC results less than the RL
- 9 but greater than the MDL (JQ) was not necessary because of previous qualification for method blank
- 10 contamination.
- Alkalinity (310.1) Alkalinity data were evaluated using a Tier II approach that consisted of a review of
- 12 holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- rinsate blanks. Any failures among the method listed are discussed below.
- 14 The project-specific hold times for alkalinity were not met, but the samples were analyzed within the method
- 15 hold time. Therefore, no additional qualification was necessary.
- 16 The titration standardization performed for the analysis of alkalinity was assumed to meet acceptable criteria,
- as were the initial and continuing calibration checks. One laboratory batch preparation blank (method blank)
- 18 contained alkalinity at 2.0 mg/L (JQ), and the associated result in sample MW112-2 was qualified as
- estimated with possible high bias and flagged "JH". Batch LCSs for alkalinity were within acceptable limits.
- 20 The MS/MSD recoveries of spiked sample MWFTA-1 for alkalinity were within acceptable QC limits.
- 21 Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected and
- 22 analyzed for alkalinity. The RPD for the duplicate pairs was within QC requirements.
- 23 An equipment blank (OU7-BLAD-EQB) was collected and analyzed to assess possible contamination
- from non-dedicated sampling equipment, and alkalinity was detected below the RL at 5.0 JO mg/L. No
- 25 qualification of the data was required for analytes detected in the equipment blank below the RL.

- 1 The following samples were diluted to place certain alkalinity results within the range of the calibration
- 2 curve, resulting in elevated RLs:

3	<u>Sample</u>	<b>Dilution</b>	<u>Factor</u>

- 4 MWFTA-1 5×
- 5 Results were reported at the RL and evaluated down to the MDL. Flagging of alkalinity results less than the
- 6 RL but greater than the MDL (JQ) was necessary for samples DMW-35A, OU7-BLAD-EQB, and OU7PZ-2.
- Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently
- 8 overridden by the "JQ" qualifier.
- 9 Sulfide (376.1) Sulfide data were evaluated using a Tier II approach that consisted of a review of
- 10 holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- 11 rinsate blanks. Any failures among the method listed are discussed below.
- 12 The titration standardization performed for the analysis of sulfide was assumed to meet acceptable criteria.
- 13 The laboratory batch preparation blanks (method blanks) did not contain sulfide. Batch LCSs for sulfide
- were within acceptable limits. The MS/MSD recoveries for spiked sample MWFTA-1 were above
- 15 acceptable laboratory QC limits because of possible matrix interference. No qualification was necessary
- because the sulfide recovered high but the samples were nondetect for sulfide.
- 17 Two field duplicate pairs (AEHADG-10/OU7DUP-1 and MWFTA-3/OU7DUP-2) were collected and
- analyzed for sulfide. The RPD for the duplicate pairs could not be calculated because the results were
- 19 nondetect.
- 20 An equipment blank sample (OU7-BLAD-EQB) was collected and analyzed to assess possible
- 21 contamination from using non-dedicated sampling equipment. The equipment blank was nondetect for
- 22 total sulfide. Results were reported at the RL and evaluated down to the MDL. Flagging of sulfide results
- 23 less than the RL but greater than the MDL (JQ) was not necessary.
- 24 <u>Dissolved Hydrogen (AM20GAX)</u> Hydrogen data were evaluated using a Tier II approach that consisted
- 25 of a review of holding times, method and calibration blanks, LCS recoveries, and field duplicate
- 26 precision. MS/MSD samples were not required for hydrogen analysis. Any failures among the method

December 2005 Revision 0

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

- l listed are discussed below. Initial and continuing calibration information was assumed to be within QC
- 2 limits.
- 3 Samples were received intact, and holding times were met for the samples submitted to Microseeps, Inc., for
- 4 analysis. Method blanks were within method-stated control limits. LCS results were also within
- 5 laboratory-established limits.
- 6 Two field duplicate pairs (OU7DUP-1/AEHADG-10 and OU7DUP-2/MWFTA-3) were collected and
- 7 analyzed. The RPD between the parent sample and the duplicate sample was within specified limits
- 8 (<20 percent).
- 9 Results were reported at the RL and evaluated down to the MDL. There were no results less that the RL but
- 10 above the MDL.

#### 11 D-3.1.2 Lower Water Bearing Unit

- 12 Seven groundwater samples were collected from the lower WBU, and one groundwater sample and one
- duplicate sample were collected from the bedrock. There were no samples collected with non-dedicated
- 14 bladder pumps.
- 15 VOCs (SW-8260B) VOC data collected from the lower WBU were evaluated using a Tier II approach
- that consisted of a review of holding times; method, calibration, trip, and equipment blanks; LCS and
- 17 MS/MSD recoveries and RPDs; and field duplicate precision, in addition to method-specific QC such as
- surrogates and internal standards. Any failures among the method listed are discussed below. Initial and
- continuing calibration information was assumed to be within QC limits.
- 20 All holding times for the analysis of water samples were met. The batch-specific method blanks
- 21 associated with the samples were analyzed and reported to contain VOCs, as indicated below. The
- 22 samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and
- 23 MC) were accordingly qualified as estimated based on blank contamination and flagged "JB", unless
- 24 overridden by qualifications for other QC exceedances. Associated samples that were nondetects required
- 25 no qualification.

15

16

17

18

19

20

21

22

26

27

28

29

30

1	Blank ID	<u>Analyte</u>	Concentration	<b>Action/Affected Samples</b>
2	U0728W01	Hexachlorobutadiene	0.18 μg/L (JQ)	None
3	C0802W01	Hexachlorobutadiene	$0.31  \mu g/L  (JQ)$	None
4	K0802W01	Acetone	1.5 μg/L (JQ)	MWFTA-17
5		Chloroform	0.11 μg/L (JQ)	None
6		1,2,4-Trimethylbenzene	$0.28 \mu g/L (JQ)$	MWFTA-17
7		o-Xylene	0.25 μg/L (JQ)	MWFTA-17
8	U0801W02	Acetone	0.88 μg/L (JQ)	MWFTA-14, MWFTA-28B
9		Naphthalene	0.11 μg/L (JQ)	None
10		1,2,3-Trichlorobenzene	$0.13  \mu g/L  (JQ)$	None
11	C0803W01	Hexachlorobutadiene	0.44 μg/L (JQ)	None
12	C0804W02	1,2,3-Trichlorobenzene	0.14 μg/L (JQ)	None
13	K0809W01	Acetone	1.8 μg/L (JQ)	None
14		Bromomethane	0.29 μg/L (JQ)	None

- The batch-specific LCSs were analyzed, and recoveries were within acceptable QC criteria, with the exception of hexachlorobutadiene in LCS U0801W02. No qualification of the data was necessary because the recovery was high (142 percent) and the associated samples were nondetect. An MS/MSD was performed on sample MWFTA-19. The %Rs were outside QC limits and SMF QC limits of ±40 percent for 2,2-dichloropropane (low recovery) and naphthalene (high recovery). The 2,2-dichloropropane results in sample MWFTA-19 were considered estimated and flagged "UJ". The naphthalene results were not qualified because the recovery showed a high bias and the sample results were nondetect.
- The surrogates and internal standards added to the samples by the laboratory were recovered within QC limits. One bedrock field duplicate pair (MWFTA-20/OU7DUP-3) was collected. The RPDs between the sample and duplicate were within the QC limits.
  - An equipment blank sample (OU7-BLAD-EQB) was collected to represent samples collected with a non-dedicated bladder pump. Low levels of VOCs were detected in the equipment blank. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were accordingly qualified as estimated based on blank contamination and flagged "JB", unless overridden by qualifications for other QC exceedances. Associated samples that were nondetects required no qualification.
- No qualification of the data was required for analytes detected in the equipment blank below the RL.

32	<u>Analyte</u>	<b>Concentration</b>	<b>Associated Samples</b>
33	Chloroform	1.4 μg/L	None

- 1 The trip blanks associated with the groundwater samples were reported to contain several analytes, as
- 2 shown below. Sample results less than 10 times the blank value for common laboratory contaminants and
- 3 5 times the blank value for other target analytes were qualified as estimated with possible trip blank
- 4 contamination and flagged "JB".

5	<u>Blank ID</u>	<u>Analyte</u>	<u>Concentration</u>	Affected Samples
6	TB-071805-2	Acetone	3.1 μg/L (JQ)	MWFTA-16, MWFTA-20,
7				MWFTA-29B, OU7DUP-3
8	TB-071905	Methylene chloride	0.4 μg/L (JQ)	MWFTA-14, MWFTA-19,
9				MWFTA-28B

- 10 The following samples were diluted to place certain VOC results within the range of the calibration curve,
- 11 resulting in elevated RLs:

12		<u>Dilu</u>	<u>ıtion</u>
13	<b>Sample</b>	<u>Factor</u>	<b>Analyte</b>
14	MWFTA-16	100×	cis-1,2-Dichloroethene, vinyl chloride
15	MWFTA-20	5×	cis-1,2-Dichloroethene
16	OU7DUP-3	5×	cis-1,2-Dichloroethene

- 17 Results were reported at the RL and evaluated down to the MDL. Results less that the RL but above the
- MDL were qualified as estimated and flagged "JQ".

19	Sample 1D	Affected Analytes
20	MWFTA-16	1,2-Dichloroethane; benzene; chloromethane; 1,3-dichlorobenzene;
21		methylene chloride
22	MWFTA-20	1,2-Dichlorobenzene; tetrachloroethene
23	MWFTA-29B	Carbon disulfide, chloromethane, methylene chloride, toluene
24	OU7DUP-3	1,2-Dichlorobenzene; chloromethane; tetrachloroethene
25	MWFTA-14	Chloromethane, 2-butanone
26	MWFTA-17	Chloromethane
27	MWFTA-19	Chloromethane, 2-butanone, methyl t-butyl ether,
28		trichloroethene
29	MWFTA-28B	Chloromethane, 2-butanone

- Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently
- 31 overridden by the "JQ" qualifier.

- 1 <u>Dissolved Gases (RSK-175)</u> Dissolved gas data collected from the lower WBU (carbon dioxide,
- 2 methane, ethane, and ethene) were evaluated using a Tier II approach that consisted of a review of
- 3 holding times, method blanks, LCS recoveries, field duplicate precision, trip blanks, and rinsate blanks.
- 4 Any failures among the method listed are discussed below.
- 5 The project-specified seven-day holding time for carbon dioxide was exceeded for all samples, and
- 6 associated results were qualified as estimated and flagged "J" or "UJ". However, the method-specified
- 7 holding time of 14 days was met. Additionally, the holding time for methane, ethane, and ethene was
- 8 exceeded in samples MWFTA-14, MWFTA-17, MWFTA-19, and MWFTA-28B. The associated
- 9 dissolved gas results were qualified as estimated for exceeding the holding time and flagged "J" or "UJ".
- 10 Discussions with the laboratory personnel indicated that they referenced the 28-day holding time stated in
- the QAPP (AFCEE, 2001); therefore, holding times for the other samples were considered as being met.
- For future DSCR projects, a 14-day holding time for dissolved gases will be utilized.
- 13 The initial and continuing calibration for each instrument used for the analysis of dissolved gases was
- assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did
- not contain reportable concentrations of carbon dioxide, methane, ethane, or ethene. Batch LCSs for
- 16 dissolved gases were within acceptable limits.
- 17 One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed for dissolved gases. The
- 18 RPDs between the samples and the duplicates were within OC limits.
- 19 The trip blanks associated with the groundwater samples were reported to contain methane, as shown
- 20 below. Sample results less than five times the blank value were qualified as estimated with possible trip
- 21 blank contamination and flagged "JB".

22	Blank ID	<u>Analyte</u>	<b>Concentration</b>	Affected Samples
23	TB-071905	Methane	0.52 μg/L	MWFTA-14

- 24 An equipment blank sample (OU7-BLAD-EQB) was collected to represent samples collected with a
- 25 non-dedicated bladder pump, and there was a positive result for methane at 0.46 µg/L (JB). However, the
- 26 positive result was itself flagged "JB" for trip blank contamination, and no flagging of the data was
- 27 necessary.

- Results were reported at the RL and evaluated down to the MDL. Flagging of dissolved gas results less
- 2 than the RL but greater than the MDL (JQ) was necessary for ethene in sample MWFTA-18 and ethane in
- 3 MWFTA-29B.
- 4 VFAs (ASTM D1552) Samples MWFTA-16 and MWFTA-20 were assayed for VFA analysis. VFA
- 5 data (acetic, butyric, lactic, propionic, and pyruvic acids) were evaluated using a Tier II approach that
- 6 consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field
- 7 duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.
- 8 The initial and continuing calibration for each instrument used for the analysis of VFAs was assumed to
- 9 be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain
- 10 reportable concentrations of VFAs. The batch LCS recovered above the acceptable limits (high) for
- 11 pyruvic acid. However, the MS/MSD recoveries in sample DMW-27A were within QC limits and there
- were no positive results in the samples. Therefore, no qualification of the data was required.
- 13 No field duplicate pairs from the lower WBU or bedrock wells were collected for VFAs. The RPD
- between the sample and the duplicate could not be calculated because the results were nondetect. Results
- were reported at the RL and evaluated down to the MDL. Flagging of VFA results less than the RL but
- 16 greater than the MDL (JQ) was not necessary.
- 17 Total Metals (SW-6010B/6020) Antimony, arsenic, lead, selenium, and thallium were analyzed by
- 18 ICP/MS Method SW-6020. Remaining metals were analyzed by ICP Method SW-6010B.
- 19 Metals data collected from the lower WBU were evaluated using a Tier II approach that consisted of a
- 20 review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and
- 21 field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial
- 22 dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration
- 23 information was assumed to be within QC limits.
- 24 All holding times for the groundwater samples were met. The laboratory batch preparation blanks
- 25 (method blanks) and/or CCBs were less than the RL but above the MDL for some metals. Only the
- sample results less than five times the blank value and qualified as estimated with possible method blank
- contamination and flagged "JB" are shown below.

1	Metal (SW-6010B)	Affected Samples
2	Iron Molybdenum	MWFTA-20, OU7DUP-3 MWFTA-29B
4	Zinc	MWFTA-29B MWFTA-20
5	Metal (SW-6020)	Affected Samples
6 7	Antimony Lead	MWFTA-14, MWFTA-17, MWFTA-19, MWFTA-28B MWFTA19, MWFTA-28B

- 8 The batch LCS for total metals was within USACE-prescribed limits (80 to 120 %R) or within SMF
- 9 criteria. An MS/MSD was performed for metals on sample MWFTA-19. Recoveries and RPDs were
- 10 within QC limits. A serial dilution to assess matrix effects was performed on total metals sample
- 11 MWFTA-19. Recoveries were within QC limits for all metals present at >50 times the MDL.
- 12 An equipment blank sample (OU7-BLAD-EQB) was collected and reported to contain metals.
- 13 Aluminum, antimony, calcium, and lead were detected in the equipment blank sample below the RL but
- 14 above the MDL. Sodium was detected above the RL. Natural earth metals (aluminum, calcium, and
- 15 sodium) were present in the equipment blank and are expected to be present in the water and soil
- 16 matrices. Therefore, no qualification of the data for these results was applied. In addition, no
- 17 qualification of the data was required for analytes detected in the equipment blank below the RL.
- One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed for metals. The RPD for
- 19 the duplicate pair was within QC requirements. Results were reported at the RL and evaluated down to the
- 20 MDL. Results less than the RL but above the MDL were qualified as estimated and flagged "JQ". Any
- 21 value reported below the RL but above the MDL that was previously flagged "J" was subsequently
- 22 overridden by the "JQ" qualifier.
- 23 Total Mercury (SW-7470A) Mercury data were evaluated using a Tier II approach that consisted of a
- 24 review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and
- 25 field duplicate precision, in addition to method-specific QC such as post-digestion spikes and serial
- 26 dilutions. Any failures among the method listed are discussed below. Initial and continuing calibration
- 27 information was assumed to be within QC limits. The laboratory batch preparation blanks (method
- 28 blanks) did not contain mercury.

- 1 Batch LCSs for mercury were within acceptable limits. An MS/MSD was performed on sample
- 2 MWFTA-19, and the recoveries and RPDs were within QC limits. A serial dilution was performed on
- 3 sample MWFTA-19, and the recoveries were within QC limits. The equipment blank sample
- 4 (OU7-BLAD-EQB) did not contain mercury. No flagging of the mercury data for equipment blank
- 5 contamination is necessary.
- 6 One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed for mercury. The RPD for
- 7 the duplicate pairs was within QC requirements.
- 8 Results were reported at the RL and evaluated down to the MDL. Mercury results less than the RL but
- 9 above the MDL (MWFTA-17) were qualified as estimated and flagged "JQ".
- 10 Anions (300.0A) Anion data were evaluated using a Tier II approach that consisted of a review of
- 11 holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- 12 rinsate blanks. Any failures among the method listed are discussed below.
- The initial and continuing calibration for each instrument used for the analysis of chloride, nitrate, and sulfate
- was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did
- 15 not contain reportable concentrations of chloride, nitrate, and sulfate.
- 16 Batch LCSs for anions were within acceptable limits. The MS/MSD recoveries for spiked sample
- 17 MWFTA-19 were within QC or SMF limits. No flagging of the data was necessary.
- One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed for anions. The RPDs
- 19 between the sample and the duplicate were within QC limits.
- 20 An equipment blank sample (OU7-BLAD-EQB) was collected and analyzed to assess possible
- 21 contamination from using non-dedicated sampling equipment and was nondetect for chloride, nitrate, and
- 22 sulfate.

1 The following samples were diluted to place certain anion results within the range of the calibration 2 curve, resulting in elevated RLs:

3		<u>Dilution</u>		
4	<b>Sample</b>	<u>Factor</u>	Compound	
5	MWFTA-16	10×	Chloride	
6	MWFTA-14	10×	Chloride	
7	MWFTA-19	10×	Sulfate	
8	MWFTA-28B	10×	Chloride	

- 9 Results were reported at the RL and evaluated down to the MDL. Flagging of anion results less than the RL
- 10 but greater than the MDL (JQ) was necessary for nitrate in sample MWFTA-20. Any value reported below
- the RL but above the MDL that was previously flagged "J" was subsequently overridden by the "JO"
- 12 qualifier.
- 13 TOC (9060) TOC data were evaluated using a Tier II approach that consisted of a review of holding
- 14 times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate
- 15 blanks. Any failures among the method listed are discussed below.
- 16 The initial and continuing calibration for each instrument used for the analysis of TOC was assumed to meet
- 17 acceptable criteria. The batch-specific method blanks associated with the samples were analyzed and
- 18 reported to contain TOC, as indicated below. The samples with concentrations less than or equal to five
- 19 times the blank concentrations were accordingly qualified as estimated with possible high bias because of
- 20 blank contamination and flagged "JH", unless overridden by qualifications for other QC exceedances.
- 21 Samples with concentrations less than the blank value were qualified as estimated with possible method
- 22 blank contamination and flagged "JB". Associated samples that were nondetects required no
- 23 qualification.

24	Blank Date	<b>Concentration</b>	<u>Flag</u>	Affected Samples
25	18 July 2005	0.5 mg/L	JH	MWFTA-16, MWFTA-18,
26				MWFTA-20, OU7DUP-3
27	19 July 2005	$0.2~\mathrm{mg/L}$	JH	MWFTA-28B

- 28 Batch LCSs for TOC were within acceptable limits. The MS/MSD recoveries of spiked sample MWFTA-19
- 29 for TOC were within acceptable QC limits.

- 1 One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed for TOC. The RPD
- 2 between the sample and the duplicate was within QC limits.
- 3 An equipment blank (OU7-BLAD-EQB) was collected and analyzed to assess possible contamination
- 4 from non-dedicated sampling equipment, and TOC was detected above the RL at 1.1 mg/L. There were
- 5 no associated samples less than five times the blank value.
- 6 Results were reported at the RL and evaluated down to the MDL. Flagging of TOC results less than the RL
- 7 but greater than the MDL (JQ) was not necessary because of previous qualification for method blank
- 8 contamination.
- 9 Alkalinity (310.1) Alkalinity data were evaluated using a Tier II approach that consisted of a review of
- 10 holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- 11 rinsate blanks. Any failures among the method listed are discussed below.
- 12 The project-specific hold times for alkalinity were not met, but the samples were analyzed within the method
- hold time. Therefore, no additional qualification was necessary. The titration standardization performed for
- 14 the analysis of alkalinity was assumed to meet acceptable criteria, as were the initial and continuing
- 15 calibration checks. The laboratory batch preparation blank contained alkalinity below the RL, but there were
- 16 no associated positive results less than five times the blank value and no qualification was necessary. Batch
- 17 LCSs for alkalinity were within acceptable limits. The MS/MSD recoveries of spiked sample MWFTA-19
- 18 for alkalinity were within acceptable QC limits.
- 19 One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed for alkalinity. The RPD
- 20 for the duplicate pair was within QC requirements.
- 21 An equipment blank (OU7-BLAD-EQB) was collected and analyzed to assess possible contamination
- from non-dedicated sampling equipment, and alkalinity was detected below the RL at 5.0 JQ mg/L. No
- 23 qualification of the data was required for analytes detected in the equipment blank below the RL.

- The following samples were diluted to place certain alkalinity results within the range of the calibration
- 2 curve, resulting in elevated RLs:

3	<u>Sample</u>	<b>Dilution Factor</b>
4	MWFTA-16	<b>4</b> ×
5	MWFTA-29B	4×
6	MWFTA-17	5×
7	MWFTA-19	2×

- 8 Results were reported at the RL and evaluated down to the MDL. Flagging of alkalinity results less than the
- 9 RL but greater than the MDL (JQ) was not necessary for samples collected from the lower WBU or bedrock.
- Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently
- 11 overridden by the "JO" qualifier.
- 12 Sulfide (376.1) Sulfide data were evaluated using a Tier II approach that consisted of a review of
- 13 holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- 14 rinsate blanks. Any failures among the method listed are discussed below.
- The titration standardization performed for the analysis of sulfide was assumed to meet acceptable criteria.
- 16 The laboratory batch preparation blanks (method blanks) did not contain sulfide. Batch LCSs for sulfide
- 17 were within acceptable limits. The MS/MSD recoveries for spiked sample MWFTA-19 were above
- 18 acceptable laboratory QC limits because of possible matrix interference. No qualification was necessary
- because the sulfide recovered high but the samples were nondetect for sulfide.
- One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed for sulfide. The RPD for
- 21 the duplicate pairs could not be calculated because the results were nondetect.
- 22 An equipment blank sample (OU7-BLAD-EQB) was collected and analyzed to assess possible
- 23 contamination from using non-dedicated sampling equipment. The equipment blank was nondetect for
- 24 total sulfide. Results were reported at the RL and evaluated down to the MDL. Flagging of sulfide results
- 25 less than the RL but greater than the MDL (JQ) was not necessary.
- 26 <u>Dissolved Hydrogen (AM20GAX)</u> Hydrogen data were evaluated using a Tier II approach that consisted
- 27 of a review of holding times, method and calibration blanks, LCS recoveries, and field duplicate
- precision. MS/MSD samples were not required for hydrogen analysis. Any failures among the method

- listed are discussed below. Initial and continuing calibration information was assumed to be within QC
- 2 limits.
- 3 Samples were received intact, and holding times were met for the samples submitted to Microseeps, Inc., for
- 4 analysis. Method blanks were within method-stated control limits. LCS results were also within
- 5 laboratory-established limits.
- 6 One field duplicate pair (MWFTA-20/OU7DUP-3) was collected and analyzed. The RPD between the
- 7 parent sample and the duplicate sample was outside specified limits (<20 percent). The associated results in
- 8 both samples were qualified as estimated and flagged "J".
- 9 Results were reported at the RL and evaluated down to the MDL. There were no results less that the RL but
- 10 above the MDL.

11

#### D-3.2 COMPLETENESS

- 12 Except as previously noted, the DQIs were within the USACE-prescribed QC limits and require only the
- qualifications described. Percent completeness for the data collection efforts and DOO attainment is 99.97
- 14 percent. A discussion of compound and/or method completeness compared to project objectives, as well as
- the effects of field conditions on project objectives, is presented below.
- 16 Zinc results were unusually elevated in sample MWFTA-5; however, no reasonable explanation could be
- 17 generated by laboratory QC checks, including re-evaluation of the raw data and analysis of the nitric acid
- 18 preservative. Re-analysis of field conditions and procedures also could illicit no reason for the anomaly.
- 19 Zinc results were qualified as unusable and flagged "R" because of professional judgment from a review of
- 20 historical data from eight previous sampling events, resulting in completeness of 96.97 percent. This
- 21 completeness is within the project DQO of 90 percent. Zinc is a relatively common metal found in natural
- waters, and sporadic absence of zinc data does not adversely impact the project MNA objectives.

1	D-4.0 OPERABLE UNIT 8 DATA QUALITY EVALUATION
2	The following sections provide summary discussions of data quality for samples collected during the July
3	2005 bi-annual sampling event at OU 8. Groundwater samples were collected from monitoring well
4	locations to evaluate MNA characteristics of each WBU. The comprehensive analytical results for
5	samples associated with the bi-annual sampling event are summarized in Appendix B (Tables B-7 through
6	B-8). Field duplicate, trip blank, and equipment blank associations are presented in Appendix B.
7	Table B-9.
8	D-4.1 GROUNDWATER – JULY 2005
9	A total of 27 groundwater wells and 12 dual-phase wells were sampled in July and August 2005. All wells
10	except MWANP-12D, MWANP-18, MWANP-24, MWANP-25, MWANP-26, MWANP-27, and USGS-5
11	were sampled with dedicated bladder pumps. The correct sample containers and preservatives were used for
12	the analytical methods specified on the COC. Additionally, the correct methods were employed for
13	extraction/digestion and analysis as outlined in the Work Plan (MACTEC, 2005). The appropriate units,
14	detection limits, and compounds were reported by the laboratory per the 2005 subcontract agreement between
15	MACTEC and CAS and MACTEC and Microseeps, Inc.
16	Equipment blank OU8-BLAD-EQB was collected on 20 July 2005 to represent the groundwater samples
17	collected with a non-dedicated bladder pump in July 2005. Associated samples are listed below:
18	Associated Samples
19	MWANP-12D, MWANP-18, USGS-5
20	Another equipment blank inadvertently also named "OU8-BLAD-EQB-2" was collected on 2 August 2005
21	to represent the groundwater samples re-collected with a non-dedicated bladder pump in August 2005
22	because of a FedEx delivery error. Associated samples are listed below:
23	Associated Samples
24	MWANP-24, MWANP-25, MWANP-26, MWANP-27

Revision 0

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

### D-4.1.1 Upper Water Bearing Unit

- 2 A total of 36 groundwater samples and 3 duplicate samples were collected from the upper WBU. Samples
- 3 MWANP-18, MWANP-24, MWANP-25, MWANP-26, and MWANP-27 were collected with non-dedicated
- 4 bladder pumps.

1

- 5 VOCs (SW-8260B) VOC data collected from the upper WBU were evaluated using a Tier II approach
- 6 that consisted of a review of holding times; method, calibration, trip, and equipment blanks; LCS and
- 7 MS/MSD recoveries and RPDs; and field duplicate precision, in addition to method-specific QC such as
- 8 surrogates and internal standards. Any failures among the method listed are discussed below. Initial and
- 9 continuing calibration information was assumed to be within QC limits.

Holding times for the initial VOC analyses were achieved. However, samples DMW-30A, DMW-31A, and OU8DUP-2 were re-analyzed at a dilution three days outside the holding time. Diluted results were necessary for cDCE and PCE in DMW-30A, and for PCE and TCE in DMW-31A and OU8DUP-2. The

diluted results were used without qualification. The batch-specific method blanks associated with the

diluted results were used without qualification. The batch-specific method blanks associated with the samples were analyzed and reported to contain VOCs as indicated below. The samples with

samples were analyzed and reported to contain VOCs, as indicated below. The samples with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were

16 accordingly qualified as estimated based on blank contamination and flagged "JB", unless overridden by

qualifications for other QC exceedances. Associated samples that were nondetects required no

18 qualification.

17

30

19	<u>Blank ID</u>	<u>Compound</u>	<b>Concentration</b>	Action/Affected Samples
20	C0802W01	Hexachlorobutadiene	0.31 μg/L (JQ)	None
21 22 23 24 25 26	U0809W01	Acetone  Bromomethane	1.8 μg/L 0.29 μg/L	DP-1, DP-2, DP-3 DP-4, DP-5, DP-6, DP-7, DP-8, DP-9, DP-10, DP-11, DP-12, MWANP-26, MWANP-27, OU8DUP-3, TB-080305-01 None
		2.0	0.25 Mg/L	TAOHC

27 Batch-specific LCSs were analyzed, and recoveries were within QC criteria. An MS/MSD was

28 performed on project-specified sample MWANP-15, and the recoveries were within QC or SMF limits of

29 ±40 percent. An MS/MSD was also performed on sample DMW-23A. In DMW-23A, the %Rs were

outside QC and SMF limits of ±40 percent for dichlorodifluoromethane, trichlorofluoromethane, acetone,

2-butanone, 4-methyl-2-pentanone, and 2-hexanone. The results for dichlorodifluoromethane,

- 1 trichlorofluoromethane, and acetone were considered estimated and qualified "J/UJ"; no qualification was
- 2 necessary for 2-butanone, 4-methyl-2-pentanone, and 2-hexanone due to high recoveries because the
- 3 sample was nondetect for these analytes. The surrogates and internal standards added to the samples by
- 4 the laboratory were recovered within specified limits.
- 5 Three field duplicate pairs (MWANP-3/OU8DUP-1, DMW-31A/OU8DUP-2, and DP-11/OU8DUP-3)
- 6 were collected from the upper WBU wells and analyzed. The RPD between the sample and the duplicate
- 7 was outside QC limits for trichlorofluoromethane in DP-11/OU8DUP-3. The associated results in both
- 8 samples were qualified as estimated and flagged "J".
- 9 Equipment blank samples (OU8-BLAD-EQB and OU8-BLAD-EQB-2) were collected to represent
- 10 samples collected with non-dedicated bladder pumps. Low levels of VOCs were detected in both
- 11 equipment blanks. The samples with concentrations less than or equal to 5 times these concentrations
- 12 (10 times for acetone and MC) were accordingly qualified as estimated based on blank contamination and
- 13 flagged "JB", unless overridden by qualifications for other QC exceedances. Associated samples that were
- 14 nondetects required no qualification. However, no qualification of the data was required for analytes
- detected in the equipment blank below the RL.

16	Blank ID	<u>Analyte</u>	<b>Concentration</b>	<b>Affected Samples</b>
17	OU8-BLAD-EQB	Chloroform	1.5 μg/L	None
18	OU8-BLAD-EQB-2	Chloroform	2.2 μg/L	MWANP-24,
19				MWANP-26

- 20 The trip blank associated with the groundwater samples in this SDG was analyzed and reported to contain
- 21 several analytes, as shown below. Sample results less than 10 times the blank value for common
- 22 laboratory contaminants and 5 times the blank value for other target analytes were qualified as estimated
- 23 with possible trip blank contamination and flagged "JB". Sample results were previously qualified
- because of method blank contamination.

25	<u>Blank ID</u>	<u>Analyte</u>	<b>Concentration</b>	Affected Samples
26 27	TB-072005-02	Acetone	5.5 μg/L (JQ)	DMW-23A, DMW-24A, OU8DUP-2, OU8-BLAD-EOB
28		Chloromethane	0.42 μg/L (JQ)	DMW-30A, DMW-31A, OU8-BLAD-EQB

1	Blank ID	<u>Analyte</u>	Concentration	Affected Samples
2 3 4 5	TB-072105	Acetone	2.7 μg/L (JQ)	MWANP-7, MWANP-13, MWANP-14, MWANP-15, MWANP-17, MWANP-18, MWANP-21, MWANP-23, OS72MW-1, OU8DUP-1, USGS-2
6 7		Methylene chloride	0.36 μg/L (JQ)	MWANP-13, MWANP-17, MWANP-18, MWANP-21
8 9 10	TB-080205-01	Acetone	4.0 μg/L (JQ)	MWANP-16, MWANP-19, MWANP-20, MWANP-24, MWANP-25, OU8-BLAD-EQB-2
11 12		Methylene chloride	0.31 μg/L (JQ)	MWANP-16, MWANP-19, MWANP-24, MWANP-25
13 14 15 16 17 18	TB-080305-01	Acetone Carbon disulfide 2-Butanone Chloromethane	4.3 μg/L (JB) 0.36 μg/L (JQ) 2.4 μg/L (JQ) 0.24 μg/L (JQ)	Previously qualified None DP-11, DP-12 DP-1, DP-2, DP-3, DP-4, DP-7, DP-8, DP-10, DP-11, DP-12, OU8DUP-3, MWANP-26, MWANP-27

19 The following samples were diluted to place certain VOC results within the range of the calibration curve,

20 resulting in elevated RLs:

21	<u>Dilution</u>					
22	<u>Sample</u>	<b>Factor</b>	Analyte			
23	DMW-30A	10×	cis-1,2-Dichloroethene; tetrachloroethene			
24	DMW-31A	10×	Tetrachloroethene, trichloroethene			
25	DP-11	10×	Tetrachloroethene			
26	OU8DUP-2	10×	Tetrachloroethene, trichloroethene			
27	OU8DUP-3	10×	Tetrachloroethene			

- 28 Results were reported at the RL and evaluated down to the MDL. Results less that the RL but above the
- 29 MDL were qualified as estimated and flagged "JQ".

30	Sample ID	Affected Analytes
31	DMW-23A	Dichlorodifluoromethane
32	DMW-30A	1,2-Dichloroethane
33	DMW-31A	1,1-Dichloroethene; 1,2-dichloroethane; chloroform
34	DP-1	Chloroform, tetrachloroethene, trichlorofluoromethane
35	DP-2	Methylene chloride
36	DP-3	Methylene chloride
37	DP-4	Methylene chloride
38	DP-6	Chloroform, tetrachloroethene, trichlorofluoromethane
89	DP-7	Trichlorofluoromethane; chloroform; 1,2-dichloroethane

1	Sample ID	Affected Analytes
2	DP-8	Methylene chloride
3	DP-9	Chloroform; 1,2-dichloroethane
4	DP-10	Methylene chloride; chloroform; 1,2-dichloroethane
5	DP-11	Dichlorodifluoromethane; trans-1,2-dichloroethene; tert-butylmethylether;
6		chloroform; bromodichloromethane; dibromochloromethane
7	DP-12	Chloroform
8	MWANP-3	Chloroform
9	MWANP-7	Bromodichloromethane; chloroform; chloromethane; cis-1,2-dichloroethene;
10		tetrachloroethene; trichloroethene
11	MWANP-13	Chloroform
12	MWANP-15	Chloromethane
13	MWANP-16	Chloromethane
14	MWANP-17	Chloromethane, tetrachloroethene
15	MWANP-18	Chloromethane, tetrachloroethene, toluene
16	MWANP-19	Chloromethane
17	MWANP-20	Trichloroethene, tetrachloroethene
18	MWANP-21	Chlorodibromomethane, chloromethane, tert-butylmethylether
19	MWANP-23	Chloromethane
20	MWANP-24	Chloromethane, trichloroethene
21	MWANP-25	Chloromethane, tetrachloroethene, toluene
22	MWANP-27	Trichloroethene, toluene, tetrachloroethene
23	OS72MW-1	Chloromethane, tetrachloroethene
24	OU8DUP-1	Chloroform, chloromethane
25	OU8DUP-2	1,1-Dichloroethene; chloroform
26	OU8DUP-3	Methylene chloride; trans-1,2-dichloroethene; tert-butylmethylether; chloroform;
27		bromodichloromethane; dibromochloromethane
28	OU8-BLAD-EQB	Carbon disulfide, toluene
29	OU8-BLAD-EQB-2	Toluene, styrene
30	USGS-2	Chloroform, tetrachloroethene, trichloroethene
31	TB-072005-02	Acetone, chloromethane
32	TB-072105	Acetone, methylene chloride
33	TB-080205-01	Acetone, methylene chloride
34	TB-080305-01	Chloromethane; carbon disulfide; cis-1,2-dichloroethene

- 35 Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently
- overridden by the "JQ" qualifier.
- 37 <u>Dissolved Gases (RSK-175)</u> Dissolved gas data collected from the upper WBU (carbon dioxide,
- 38 methane, ethane, and ethene) were evaluated using a Tier II approach that consisted of a review of
- 39 holding times, method blanks, LCS recoveries, field duplicate precision, trip blanks, and rinsate blanks.
- 40 MS/MSD analyses are not assayed for dissolved gas analysis. Any failures among the method listed are
- 41 discussed below.

- 1 The initial and continuing calibration for each instrument used for the analysis of dissolved gases was
- 2 assumed to be within acceptable criteria. The project-specified 7-day holding time for carbon dioxide in
- 3 all samples, and the 14-day holding time for methane, ethane, and ethane, were exceeded for samples
- 4 MWANP-3, MWANP-10, MWANP-13, MWANP-14, MWANP-15, MWANP-17,
- 5 MWANP-18, MWANP-21, MWANP-23, OS72MW-1, and USGS-2. The dissolved gas results were
- 6 qualified as estimated for exceeding holding time and flagged "J" or "UJ". Discussions with the
- 7 laboratory personnel indicated that they referenced the 28-day holding time stated in the QAPP
- 8 (AFCEE, 2001). For future DSCR projects, a 14-day holding time for dissolved gases will be utilized.
- 9 The laboratory batch preparation blanks (method blanks) did not contain reportable concentrations of
- 10 carbon dioxide, methane, ethane, or ethene. Batch LCSs for dissolved gases were within acceptable limits.
- 11 Three field duplicate pairs (MWANP-3/OU8DUP-1, DMW-31A/OU8DUP-2, and
- 12 MWANP-4D/OU8DUP-4) were collected and analyzed for dissolved gases. The RPD between the
- 13 sample and duplicate was within QC limits.
- 14 Trip blank sample TB-080205-01 was reported to contain methane below the RL at 0.44 (JQ) μg/L. The
- methane result in equipment blank sample OU8-BLAD-EQB-2 was considered estimated, possibly false
- positive or biased high based on the trip blank data, and flagged "JB". In addition, trip blank sample
- 17 TB-080305-01 was reported to contain methane below the RL at 0.31  $\mu$ g/L (JQ). There were no sample
- 18 results less than five times the blank value, and no flagging of the data was necessary. Equipment blank
- 19 samples OU8-BLAD-EQB and OU8-BLAD-EQB-2 were collected to represent samples collected with a
- 20 non-dedicated bladder pump. Methane was detected at 0.30 µg/L (JB) in OU8-BLAD-EQB-2. No
- 21 flagging was necessary because the result in the equipment blank sample was flagged "JB" because of the
- 22 trip blank results. Carbon dioxide was detected at 1,180 μg/L (J) in OU8-BLAD-EQB. There were no
- associated results less than five times the blank value.
- 24 Results were reported at the RL and evaluated down to the MDL. Flagging of dissolved gas results less
- 25 than the RL but greater than the MDL (JQ) was necessary for methane in samples MWANP-3,
- 26 MWANP-14, MWANP-18, MWANP-23, TB-080205-01, and TB-080305-01.
- 27 VFAs (ASTM-D1552) Samples DMW-30A, DMW-31A, MWANP-3, MWANP-7, MWANP-15,
- 28 MWANP-17, OS72MW-1, and OU8DUP-1 were assayed for VFAs. VFA data collected from the upper
- WBU (acetic, butyric, lactic, propionic, and pyruvic acids) were evaluated using a Tier II approach that

- 1 consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field
- 2 duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.
- 3 The initial and continuing calibration for each instrument used for the analysis of VFAs was assumed to
- 4 be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain
- 5 reportable concentrations of VFAs. The batch LCS recovered above the acceptable limits (high) for
- 6 pyruvic acid. However, the MS/MSD performed on project-specified sample MWANP-15 was within
- 7 QC limits and there were no positive results in the samples in this SDG. Therefore, no qualification of
- 8 the data was required.
- 9 One field duplicate pair (MWANP-3/OU8DUP-1) was collected and analyzed for VFAs, and the results
- were nondetect. Results were reported at the RL and evaluated down to the MDL. Flagging of VFA results
- less than the RL but greater than the MDL (JQ) was not necessary.
- 12 Total Metals (SW-6010B/6020) Antimony, arsenic, lead, selenium, and thallium were analyzed by
- 13 ICP/MS Method SW-6020. Remaining metals were analyzed by ICP Method SW-6010B.
- Metals data were evaluated using a Tier II approach that consisted of a review of holding times, method
- 15 blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in
- 16 addition to method-specific QC such as post-digestion spikes and serial dilutions. Any failures among the
- 17 method listed are discussed below. Initial and continuing calibration information was assumed to be
- 18 within QC limits.
- 19 All holding times for the groundwater samples were met. The laboratory batch preparation blanks
- 20 (method blanks) and/or CCBs were less than the RL but above the MDL for some metals. Only the
- sample results less than five times the blank value, qualified as estimated with possible method blank
- contamination, and flagged "JB" are shown below.

23	<u>Metal (6010B)</u>	Affected Samples
24	Aluminum	DMW-23A, DMW-24A, DMW-30A, DMW-31A, MWANP-7, MWANP-18,
25		MWANP-16, MWANP-19, MWANP-20, MWANP-22, OU8DUP-2,
26		OU8-BLAD-EQB, OU8-BLAD-EQB-2
27	Cobalt	DP-1, MWANP-20, MWANP-24, MWANP-25,
28		OU8-BLAD-EQB-2
29	Cadmium	MWANP-24
9	Copper	MWANP-20

1	<u>Metal (6010B)</u>	Affected Samples
2 3	Molybdenum	MWANP-7, MWANP-13, MWANP-15, MWANP-17, MWANP-23, OS72MW-1, OU8DUP-1
4	Silver	MWANP-13, MWANP-15, MWANP-23, OS72MW-1, USGS-2,
5		OU8-BLAD-EQB
6	Sodium	OU8-BLAD-EQB
7	Zinc	DMW-23A, DMW-24A, DMW-30A, DMW-31A, MWANP-10,
8		MWANP-13, MWANP-14, MWANP-15, MWANP-18, MWANP-22,
9		MWANP-23, OU8DUP-1, OU8DUP-2
10		
11	<b>Metal (6020)</b>	Affected Samples
12	Antimony	DP-1, DP-2, DP-3, DP-4, DP-6, DP-9, DP-10, DP-11, DMW-30A,
13	·	DMW-31A, MWANP-7, MWANP-13, MWANP-14, MWANP-15,
14		MWANP-16, MWANP-19, MWANP-20, MWANP-21, MWANP-23,
15		MWANP-27, OS72MW-1, OU8-BLAD-EQB, OU8-BLAD-EQB-2,
16		OU8DUP-2, USGS-2
17	Lead	OU8-BLAD-EQB-2

- 18 The batch LCS for total metals was within USACE-prescribed limits (80 to 120 %R) or SMF criteria. An
- 19 MS/MSD was performed for metals on samples MWANP-15 and DMW-23A. Recoveries and RPDs
- were above QC limits for aluminum in MWANP-15. The aluminum result was qualified as estimated and
- 21 flagged "JH". The recovery of cadmium was outside QC limits in the MSD only in DMW-23A;
- 22 therefore, no flagging of the data was necessary. A serial dilution to assess matrix effects was performed
- 23 on total metals samples DMW-23A and MWANP-15. The recovery of aluminum was outside QC limits in
- 24 MWANP-15; however, the results were previously flagged for MS/MSD criteria. No further flagging of the
- 25 data was necessary.
- 26 Equipment blank samples (OU8-BLAD-EQB and OU8-BLAD-EQB-2) were reported to contain metals
- 27 below the RL but above the MDL. No qualification of the data was required for analytes detected in the
- equipment blank below the RL. Zinc was detected in OU8-BLAD-EQB-2, and the associated results in
- 29 samples MWANP-24, MWANP-25, MWANP-26, and MWANP-27 were qualified as estimated with
- 30 possible equipment blank contamination and flagged "JB".
- 31 Three field duplicate pairs (MWANP-3/OU8DUP-1, DMW-31A/OU8DUP-2, and DP-11/OU8DUP-3)
- 32 were collected with this SDG. The RPD between the samples and their duplicates was outside QC limits
- 33 for aluminum in duplicate pair DMW-31A/OU8DUP-2. No further qualification was required because
- 34 sample results were flagged "JB" because of method blank results.

- 1 Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the
- 2 MDL were qualified as estimated and flagged "JQ". Any value reported below the RL but above the
- 3 MDL that was previously flagged "J" was subsequently overridden by the "JO" qualifier.
- 4 Total Mercury (SW-7470A) Mercury data collected from the upper WBU were evaluated using a Tier II
- 5 approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and
- 6 RPDs, equipment blanks, and field duplicate precision, in addition to method-specific QC such as post-
- 7 digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial
- 8 and continuing calibration information was assumed to be within QC limits. The laboratory batch
- 9 preparation blanks (method blanks) did not contain mercury.
- 10 Batch LCSs for mercury were within acceptable limits. An MS/MSD was performed on samples
- 11 MWANP-15 and DMW-23A, and the recoveries were outside QC limits in DMW-23A. No qualification
- was necessary for DMW-23A because the mercury recovered high but the sample was nondetect for
- 13 mercury. A serial dilution was performed on samples DMW-23A and MWANP-15, and the recoveries
- 14 were within QC limits.
- 15 The equipment blank samples (OU8-BLAD-EQB and OU8-BLAD-EQB-2) did not contain mercury.
- 16 Three field duplicate pairs (MWANP-3/OU8DUP-1, DMW-31A/OU8DUP-2, and DP-11/OU8DUP-3)
- 17 were collected and analyzed for mercury. The RPD between the sample and duplicate was outside QC
- limits for DMW-31A/OU8DUP-2, and the associated results were qualified as estimated and flagged "J"
- 19 or "UJ".
- 20 Results were reported at the RL and evaluated down to the MDL. Flagging of anion results less than the RL
- but greater than the MDL (JQ) was necessary for mercury in sample DMW-30A.
- 22 Anions (300.0A) Anion data (chloride, nitrate, and sulfate) were evaluated using a Tier II approach that
- 23 consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field
- duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.
- 25 The initial and continuing calibration for each instrument used for the analysis of chloride, nitrate, and sulfate
- was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks)
  - contained no reportable concentrations of chloride, nitrate, and sulfate.

- 1 Batch LCSs for anions were within acceptable limits. The MS/MSD recoveries for spiked samples
- 2 DMW-23A and MWANP-15 were within QC limits. Three field duplicate pairs (MWANP-3/OU8DUP-1,
- 3 DMW-31A/OU8DUP-2, and DP-11/OU8DUP-3) were collected and analyzed for anions. The RPD
- 4 between the sample and duplicate was outside QC limits for sulfate in DMW-31A/OU8DUP-2. The
- 5 associated sulfate results were qualified as estimated and flagged "J".
- 6 One equipment blank sample (OU8-BLAD-EQB) was nondetect for chloride, nitrate, and sulfate. The
- 7 other equipment blank sample (OU8-BLAD-EQB-2) was reported to contain chloride (3.3 mg/L) and
- 8 sulfate (0.3 JQ mg/L). The associated chloride results in samples MWANP-24, MWANP-25,
- 9 MWANP-26, and MWANP-27 were qualified as estimated with possible equipment blank contamination
- 10 and flagged "JB".

12

- The following samples were diluted to place certain anion results within the range of the calibration
- 12 curve, resulting in elevated RLs:

13		<u>Dilution</u>		
14	<u>Sample</u>	<b>Factor</b>	<u>Analyte</u>	
15	DMW-30A	10×	Chloride	
16	MWANP-3	10×	Nitrate	
17	OU8DUP-1	10×	Nitrate	
18	DP-11	10×	Chloride	
19	OU8DUP-3	10×	Chloride	

D21..4\*-

- 20 Results were reported at the RL and evaluated down to the MDL. Flagging of anion results less than the RL
- but greater than the MDL (JQ) was necessary for sulfate in samples DP-1, DP-2, DP-3, DP-4, DP-5, DP-6,
- 22 DP-7, DP-8, DP-11, DP-12, MWANP-7, MWANP-13, MWANP-14, MWANP-16, MWANP-18,
- 23 MWANP-22, MWANP-23, MWANP-24, MWANP-27, OS72MW-1, OU8DUP-3, and OU8-BLAD-EQB-2.
- 24 Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently
- 25 overridden by the "JQ" qualifier.
- 26 TOC (9060) TOC data were evaluated using a Tier II approach that consisted of a review of holding
- 27 times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate
- 28 blanks. Any failures among the method listed are discussed below.

- 1 The initial and continuing calibration for each instrument used for the analysis of TOC was assumed to meet
- 2 acceptable criteria. The laboratory batch preparation blank (method blank) contained TOC at 0.2 mg/L (JQ).
- 3 Associated results in samples DMW-23A, DMW-24A, DMW-30A, DMW-31A, DMW-35A, MWANP-19.
- 4 MWANP-20, MWANP-22, MWANP-24, MWANP-25, MWANP-26, MWANP-27, and OU8-BLAD-EQB
- 5 were qualified as estimated with possible high bias from method blank contamination and flagged "JH".
- 6 Sample MWANP-16 was qualified as estimated with possible method blank contamination and flagged "JB".
- 7 Batch LCSs for TOC were within acceptable limits. The MS/MSD recoveries of spiked samples DMW-23A
- 8 and MWANP-15 for TOC were within acceptable QC limits.
- 9 Two field duplicate pairs (MWANP-3/OU8DUP-1 and DMW-31A/OU8DUP-2) were collected for TOC.
- 10 The RPD between the parent and duplicate was within QC limits. TOC was detected in equipment blank
- sample OU8-BLAD-EQB below the RL at 0.6 mg/L and in sample OU8-BLAD-EQB-2 at 2.0 mg/L.
- 12 Associated results were previously flagged for method blank contamination, and no additional
- 13 qualification of the data was necessary.
- Results were reported at the RL and evaluated down to the MDL. Flagging of TOC results less than the RL
- but greater than the MDL (JQ) was necessary for MWANP-10, MWANP-13, MWANP-14, and
- 16 MWANP-23.
- 17 Alkalinity (310.1) Alkalinity data were evaluated using a Tier II approach that consisted of a review of
- holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- 19 rinsate blanks. Any failures among the method listed are discussed below.
- 20 The project-specific hold times for alkalinity were not met, but the samples were analyzed within the method
- 21 hold time. Therefore, no additional qualification was necessary.
- 22 The titration standardization performed for the analysis of alkalinity was assumed to meet acceptable
- 23 criteria, as were the initial and continuing calibration checks. The laboratory batch preparation blanks
- 24 (method blanks) contained alkalinity at 2.0 mg/L (JQ). Associated results greater than the blank value but
- less than five times the blank value (MWANP-3, MWANP-15, MWANP-18, MWANP-21, MWANP-23,
- and OS72MW-1) were qualified as estimated with possible high bias and flagged "JH". Associated

December 2005 Revision 0

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

- results less than the blank value (MWANP-7, MWANP-13, MWANP-14, OU8DUP-1, and USGS-2)
- 2 were qualified as estimated with possible method blank contamination and flagged "JB".
- 3 Batch LCSs for alkalinity were within acceptable limits. The MS/MSD recoveries of spiked samples
- 4 DMW-23A and MWANP-15 for alkalinity were within acceptable QC limits.
- 5 Three field duplicate pairs (MWANP-3/OU8DUP-1, DMW-31A/OU8DUP-2, and DP-11/OU8DUP-3)
- 6 were collected and analyzed for alkalinity. The RPD between the sample and duplicate was within QC
- 7 limits. Equipment blank samples OU8-BLAD-EQB and OU8-BLAD-EQB-2 did not contain alkalinity
- 8 above the RL.
- 9 Results were reported at the RL and evaluated down to the MDL. Flagging of alkalinity results less than the
- RL but greater than the MDL (JQ) was necessary for DP-1, DP-7, DP-8, DP-9, DP-10, DP-11, DP-12,
- 11 DMW-23A, DMW-30A, DMW-31A, MWANP-16, MWANP-20, MWANP-22, MWANP-25, MWANP-26,
- 12 MWANP-27, OU8DUP-2, OU8DUP-3, and OU8-BLAD-EQB.
- 13 Sulfide (376.1) Sulfide data were evaluated using a Tier II approach that consisted of a review of
- holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- 15 rinsate blanks. Any failures among the method listed are discussed below.
- 16 The titration standardization performed for the analysis of sulfide was assumed to meet acceptable criteria.
- 17 The laboratory batch preparation blanks (method blanks) did not contain sulfide. The batch LCS for sulfide
- was within acceptable limits. The MS/MSD recoveries for spiked samples DMW-23A and MWANP-15
- 19 were above acceptable laboratory QC limits because of possible matrix interference. The sulfide results in
- 20 DMW-23A and MWANP-15 were not qualified for high bias because the sample results were nondetect.
- Two field duplicate pairs (MWANP-3/OU8UP-1 and DMW-31A/OU8DUP-2) were analyzed for sulfide.
- 22 The results of the samples and their duplicates were nondetect. Equipment blank samples
- 23 OU8-BLAD-EQB and OU8-BLAD-EQB-2 were nondetect for total sulfide.
- 24 Results were reported at the RL and evaluated down to the MDL. Flagging of sulfide results less than the RL
- but greater than the MDL (JQ) was not necessary.

Revision (

- l <u>Dissolved Hydrogen (AM20GAX)</u> Hydrogen data were evaluated using a Tier II approach that consisted
- 2 of a review of holding times, method and calibration blanks, LCS recoveries, and field duplicate
- 3 precision. MS/MSD samples were not required for hydrogen analysis. Any failures among the method
- 4 listed are discussed below. Initial and continuing calibration information was assumed to be within QC
- 5 limits.
- 6 Samples were received intact, and holding times were met for the samples submitted to Microseeps, Inc., for
- 7 analysis. Method blanks were within method-stated control limits. LCS results were also within
- 8 laboratory-established limits.
- 9 Two field duplicate pairs (OU8DUP-1/MWANP-3 and OU8DUP-2/DMW-31A) were collected and
- 10 analyzed. The RPD between the parent sample and duplicate sample was within specified limits
- 11 (<20 percent).
- 12 Results were reported at the RL and evaluated down to the MDL. Results less that the RL but above the
- 13 MDL (DMW-24A, MWANP-10, MWANP-17, and MWANP-18) were qualified as estimated and
- 14 flagged "JQ".

#### 15 D-4.1.2 Lower Water Bearing Unit

- 16 A total of three groundwater samples and one duplicate sample were collected from the lower WBU.
- 17 Samples MWANP-12D and USGS-5 were collected with non-dedicated bladder pumps. The associated
- 18 equipment blank sample is OU8-BLAD-EQB.
- 19 VOCs (SW-8260B) VOC data collected from the lower WBU were evaluated using a Tier II approach
- 20 that consisted of a review of holding times; method, calibration, trip, and equipment blanks; LCS and
- 21 MS/MSD recoveries and RPDs; and field duplicate precision, in addition to method-specific QC such as
- 22 surrogates and internal standards. Any failures among the method listed are discussed below. Initial and
- 23 continuing calibration information was assumed to be within OC limits.
- 24 Holding times for the VOC analyses were met. The batch-specific method blanks associated with the
- 25 samples were analyzed and reported to contain VOCs, as indicated below. The samples with
- 26 concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were
- 27 accordingly qualified as estimated based on blank contamination and flagged "JB", unless overridden by

qualifications for other QC exceedances. Associated samples that were nondetects required no qualification.

3	<u>Blank ID</u>	<b>Compound</b>	<b>Concentration</b>	Action/Affected Samples
4	C0802W01	Hexachlorobutadiene	0.31 μg/L (JQ)	None
5	U0809W01	Acetone	1.8 μg/L	None
6		Bromomethane	0.29 μg/L	None

7 Batch-specific LCSs were analyzed, and recoveries were within QC criteria. There were no MS/MSDs

8 performed on samples collected from the lower WBU. The surrogates and internal standards added to the

9 samples by the laboratory were recovered within specified limits. One field duplicate pair

10 (MWANP-4D/OU8DUP-4) was collected and analyzed. The RPDs between the sample and its duplicate

11 were within the QC limits.

12 Equipment blank sample OU8-BLAD-EQB was collected to represent samples collected with

13 non-dedicated bladder pumps. Low levels of VOCs were detected in the equipment blank. The samples

with concentrations less than or equal to 5 times these concentrations (10 times for acetone and MC) were

accordingly qualified as estimated based on blank contamination and flagged "JB", unless overridden by

16 qualifications for other QC exceedances. Associated samples that were nondetects required no qualification.

17 However, no qualification of the data was required for analytes detected in the equipment blank below the

18 RL.

14 115

19	Blank ID	<u>Analyte</u>	<b>Concentration</b>	Affected Samples
20	OU8-BLAD-EQB	Chloroform	1.5 µg/L	USGS-5

21 The trip blank associated with the groundwater samples in this SDG was analyzed and reported to contain

22 several analytes, as shown below. Sample results less than 10 times the blank value for common

23 laboratory contaminants and 5 times the blank value for other target analytes were qualified as estimated

24 with possible trip blank contamination and flagged "JB". Sample results were previously qualified

25 because of method blank contamination.

26	Blank ID	<b>Analyte</b>	Concentration	Affected Samples
27	TB-072005-02	Acetone	5.5 μg/L (JQ)	MWANP-4D, OU8DUP-4
28		Chloromethane	0.42 μg/L (JQ)	None
29	TB-072105	Acetone	2.7 μg/L (JQ)	MWANP-12D, USGS-5
B0		Methylene chloride	0.36 μg/L (JQ)	None

- 1 Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the
- 2 MDL were qualified as estimated and flagged "JQ".

#### 3 Sample ID Affected Analytes

- 4 MWANP-12D Chloromethane, toluene
- 5 USGS-5 Chloromethane, methyl t-butyl ether, toluene
- 6 Any value reported below the RL but above the MDL that was previously flagged "J" was subsequently
- 7 overridden by the "JQ" qualifier.
- 8 <u>Dissolved Gases (RSK-175)</u> Dissolved gas data collected from the lower water WBU (carbon dioxide,
- 9 methane, ethane, and ethene) were evaluated using a Tier II approach that consisted of a review of
- 10 holding times, method blanks, LCS recoveries, field duplicate precision, trip blanks, and rinsate blanks.
- 11 MS/MSD analyses are not assayed for dissolved gas analysis. Any failures among the method listed are
- 12 discussed below.
- 13 The initial and continuing calibration for each instrument used for the analysis of dissolved gases was
- 14 assumed to be within acceptable criteria. The project-specified 7-day holding time for carbon dioxide in
- 15 all samples, and the 14-day holding time for methane, ethane, and ethane, were exceeded for samples
- 16 MWANP-12D and USGS-5. The dissolved gas results were qualified as estimated for exceeding holding
- 17 time and flagged "J" or "UJ". Discussions with the laboratory personnel indicated that they referenced
- the 28-day holding time stated in the QAPP (AFCEE, 2001). For future DSCR projects, a 14-day holding
- 19 time for dissolved gases will be utilized. The laboratory batch preparation blanks (method blanks) did not
- 20 contain reportable concentrations of carbon dioxide, methane, ethane, or ethene. Batch LCSs for dissolved
- 21 gases were within acceptable limits.
- One field duplicate pair (MWANP-4D/OU8DUP-4) was collected and analyzed for dissolved gases. The
- 23 RPD between the sample and duplicate was within QC limits.
- 24 The trip blanks were reported to contain methane below the RL; however, there were no sample results
- less than five times the blank value and no flagging of the data was necessary. Equipment blank sample
- 26 OU8-BLAD-EQB was collected to represent samples collected with a non-dedicated bladder pump.
- 27 Carbon dioxide was detected at 1,180 µg/L (J); however, there were no associated results less than five
- 28 times the blank value.

- 1 Results were evaluated and reported down to the MDL. Flagging of dissolved gas results less than the RL
- 2 but greater than the MDL (JQ) was not necessary.
- 3 VFAs (ASTM-D1552) Sample MWANP-4D was assayed for VFAs. VFA data collected from the
- 4 lower WBU (acetic, butyric, lactic, propionic, and pyruvic acids) were evaluated using a Tier II approach
- 5 that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field
- 6 duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.
- 7 The initial and continuing calibration for each instrument used for the analysis of VFAs was assumed to
- 8 be within acceptable criteria. The laboratory batch preparation blanks (method blanks) did not contain
- 9 reportable concentrations of VFAs. The batch LCS recovered above the acceptable limits (high) for
- 10 pyruvic acid. However, the MS/MSD performed on project-specified sample MWANP-15 was within
- 11 QC limits and there were no positive results in the samples in this SDG. Therefore, no qualification of
- 12 the data was required.
- 13 No field duplicate pairs were collected from the lower WBU wells for VFAs. Results were reported at the
- RL and evaluated down to the MDL. Flagging of VFA results less than the RL but greater than the MDL
- 15 (JQ) was not necessary.
- 16 Total Metals (SW-6010B/6020) Antimony, arsenic, lead, selenium, and thallium were analyzed by
- 17 ICP/MS Method SW-6020. Remaining metals were analyzed by ICP Method SW-6010B.
- Metals data were evaluated using a Tier II approach that consisted of a review of holding times, method
- 19 blanks, LCS and MS/MSD recoveries and RPDs, equipment blanks, and field duplicate precision, in
- addition to method-specific QC such as post-digestion spikes and serial dilutions. Any failures among the
- 21 method listed are discussed below. Initial and continuing calibration information was assumed to be
- 22 within QC limits.
- 23 All holding times for the groundwater samples were met. The laboratory batch preparation blanks
- 24 (method blanks) and/or CCBs were less than the RL but above the MDL for some metals. Only the
- sample results less than five times the blank value, qualified as estimated with possible method blank
- contamination, and flagged "JB" are shown below.

December 2005
Revision 0

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

1	Metal (6010B)	Affected Samples
2	Aluminum	MWANP-4D, OU8DUP-4
3	Molybdenum	MWANP-12D, USGS-5
4	Silver	USGS-5
5	Zinc	MWANP-4D, OU8DUP-4
6		
7	Metal (6020)	Affected Samples
8	Antimony	MWANP-12D
9	Lead	MWANP-4D

- Natural earth metals (calcium and sodium) were present in the blank and are expected to be present in the
- water matrix. Therefore, no qualification of the data for these results was applied.
- 12 The batch LCS for total metals was within USACE-prescribed limits (80 to 120 %R) or SMF criteria. No
- 13 MS/MSDs were performed for metals on samples collected from the lower WBU.
- 14 Equipment blank sample OU8-BLAD-EQB was reported to contain metals below the RL but above the
- 15 MDL. No qualification of the data was required for analytes detected in the equipment blank below
- 16 the RL.
- One field duplicate pair (MWANP-4D/OU8DUP-4) was collected from the lower WBU. The RPD
- between the sample and duplicate was within QC limits.
- 19 Results were reported at the RL and evaluated down to the MDL. Results less than the RL but above the
- 20 MDL were qualified as estimated and flagged "JQ". Any value reported below the RL but above the
- 21 MDL that was previously flagged "J" was subsequently overridden by the "JO" qualifier.
- 22 Total Mercury (SW-7470A) Mercury data collected from the lower WBU were evaluated using a Tier II
- 23 approach that consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and
- 24 RPDs, equipment blanks, and field duplicate precision, in addition to method-specific QC such as post-
- 25 digestion spikes and serial dilutions. Any failures among the method listed are discussed below. Initial
- 26 and continuing calibration information was assumed to be within QC limits. The laboratory batch
- 27 preparation blanks (method blanks) did not contain mercury.
- Batch LCSs for mercury were within acceptable limits. No MS/MSDs were performed on samples collected from the lower WBU. Equipment blank sample OU8-BLAD-EQB did not contain mercury.

- 1 One field duplicate pair (MWANP-4D/OU8DUP-4) was collected and analyzed for mercury. The RPD
- 2 between the sample and duplicate was within QC limits. Results were reported at the RL and evaluated
- down to the MDL. There were no mercury results less than the RL but above the MDL.
- 4 Anions (300.0A) Anion (chloride, nitrate, and sulfate) data were evaluated using a Tier II approach that
- 5 consisted of a review of holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field
- 6 duplicate precision, and rinsate blanks. Any failures among the method listed are discussed below.
- 7 The initial and continuing calibration for each instrument used for the analysis of chloride, nitrate, and sulfate
- 8 was assumed to be within acceptable criteria. The laboratory batch preparation blanks (method blanks)
- 9 contained no reportable concentrations of chloride, nitrate, and sulfate.
- 10 Batch LCSs for anions were within acceptable limits. There were no MS/MSDs collected from the lower
- WBU. One field duplicate pair (MWANP-4D/OU8DUP-4) was collected and analyzed for anions. The
- 12 RPD between the sample and duplicate was within the QC limits.
- Equipment blank sample OU8-BLAD-EQB was nondetect for chloride, nitrate, and sulfate. Results were
- reported at the RL and evaluated down to the MDL. Flagging of anion results less than the RL but greater
- 15 than the MDL (JQ) was not necessary.
- 16 TOC (9060) TOC data were evaluated using a Tier II approach that consisted of a review of holding
- 17 times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and rinsate
- 18 blanks. Any failures among the method listed are discussed below.
- 19 The initial and continuing calibration for each instrument used for the analysis of TOC was assumed to meet
- acceptable criteria. The laboratory batch preparation blank (method blank) contained TOC at 0.2 mg/L (JQ).
- 21 Associated results in samples MWANP-4D and OU8DUP-4 were qualified as estimated with possible high
- bias from method blank contamination and flagged "JH".
- 23 Batch LCSs for TOC were within acceptable limits. There were no MS/MSDs collected from the lower
- 24 WBU.

- 1 One field duplicate pair (MWANP-4D/OU8DUP-4) was collected for TOC. The RPD between the parent
- 2 and duplicate was within QC limits. The equipment blank OU8-BLAD-EQB was analyzed, and TOC
- 3 was not detected above the RL.
- 4 Results were reported at the RL and evaluated down to the MDL. Flagging of TOC results less than the RL
- 5 but greater than the MDL (JQ) was not necessary.
- 6 Alkalinity (310.1) Alkalinity data were evaluated using a Tier II approach that consisted of a review of
- 7 holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- 8 rinsate blanks. Any failures among the method listed are discussed below.
- 9 The project-specific hold times for alkalinity were not met, but the samples were analyzed within the
- 10 method hold time. Therefore, no additional qualification was necessary. The titration standardization
- 11 performed for the analysis of alkalinity was assumed to meet acceptable criteria, as were the initial and
- 12 continuing calibration checks. The laboratory batch preparation blanks (method blanks) contained
- 13 alkalinity at 2.0 mg/L (JQ). Associated results greater than the blank value but less than five times the
- blank value (USGS-5) were qualified as estimated with possible high bias and flagged "JH".
- 15 Batch LCSs for alkalinity were within acceptable limits. There were no MS/MSDs collected from the
- 16 lower WBU.
- One field duplicate pair (MWANP-4D/OU8DUP-4) was collected and analyzed for alkalinity. The RPD
- between the sample and duplicate was within QC limits. The equipment blank (OU8-BLAD-EQB) was
- analyzed, and alkalinity was not detected above the RL.
- 20 Results were reported at the RL and evaluated down to the MDL. Flagging of alkalinity results less than the
- 21 RL but greater than the MDL (JQ) was necessary for MWANP-4D and OU8DUP-4.
- 22 Sulfide (376.1) Sulfide data were evaluated using a Tier II approach that consisted of a review of
- 23 holding times, method blanks, LCS and MS/MSD recoveries and RPDs, field duplicate precision, and
- 24 rinsate blanks. Any failures among the method listed are discussed below.

- 1 The titration standardization performed for the analysis of sulfide was assumed to meet acceptable criteria.
- 2 The laboratory batch preparation blanks (method blanks) did not contain sulfide. The batch LCS for sulfide
- 3 was within acceptable limits. There were no MS/MSD samples collected from the lower WBU.
- 4 One field duplicate pair (MWANP-4D/OU8DUP-4) was analyzed for sulfide. The results of the samples
- 5 and their duplicate were nondetect. Equipment blank sample OU8-BLAD-EQB was analyzed and was
- 6 nondetect for total sulfide.
- 7 Results were reported at the RL and evaluated down to the MDL. Flagging of sulfide results less than the RL
- 8 but greater than the MDL (JQ) was not necessary.
- 9 <u>Dissolved Hydrogen (AM20GAX)</u> Hydrogen data were evaluated using a Tier II approach that consisted
- of a review of holding times, method and calibration blanks, LCS recoveries, and field duplicate
- 11 precision. MS/MSD samples were not required for hydrogen analysis. Any failures among the method
- 12 listed are discussed below. Initial and continuing calibration information was assumed to be within OC
- 13 limits.
- Samples were received intact, and holding times were met for the samples submitted to Microseeps, Inc., for
- 15 analysis. Method blanks were within method-stated control limits. LCS results were also within
- 16 laboratory-established limits.
- One field duplicate pair (MWANP-4D/OU8DUP-4) was collected and analyzed. The RPD between the
- parent sample and duplicate sample was outside specified limits (<20 percent). The associated results in both
- samples were qualified as estimated and flagged "J".
- 20 Results were reported at the RL and evaluated down to the MDL. There were no results less that the RL but
- 21 above the MDL.

#### 22 D-4.2 COMPLETENESS

- 23 Except as previously noted, the DQIs were within the USACE-prescribed QC limits and require only the
- 24 qualifications described. No data were qualified as unusable; therefore, percent completeness for the data
- 25 collection efforts and DQO attainment is 100 percent.

1

2	AFCEE, 2001. Quality Assurance Project Plan, Headquarters Air Force Center for Environmental
3	Excellence, Version 3.1, Brooks Air Force Base, Texas, 2001.
4	Law, 2001/2002a. Data Quality Evaluation Standard Operating Procedures for USEPA SW 846 Methods
5	8260B, 6010B/6020, 7471A, 9060, 300A, 310.1, 376.1, ASTM Method D1552, RSK Method 175,
6	and Miscellaneous Wet Chemistry Methods, Defense General Supply Center, Richmond,
7 8	Virginia, Contract DACW87-90-D0023, Law Engineering and Environmental Services, Inc., January 2001.
9	Law, 2002b. Final Quarterly Groundwater Sampling Plan for Operable Unit 6, Operable Unit 7,
10	Operable Unit 8, and Post Exchange Gas Station, Defense Supply Center, Richmond, Virginia,
11	Contract DACA87-94-D-0016, Law Engineering and Environmental Services, Inc., February
12	2002.
13	MACTEC, 2004. Final General Sampling and Analyses Plan, Defense General Supply Center,
14	Richmond, Virginia, Contract DACW87-02-D-0007, MACTEC Engineering and Consulting,
15	Inc., October, 2004.
16	MACTEC, 2005. Final Work Plan Addendum for the Bi-annual Groundwater Sampling, Defense Supply
17	Center, Richmond, Virginia, Contract F41624-03-D-8606, MACTEC Engineering and Consulting,
18	Inc., July 2005.
19	USACE, 2001. Requirements for the Preparation of Sampling and Analysis Plans - USACE Shell for
20	Analytical Chemistry Requirements, Appendix I, U.S. Army Corps of Engineers, E200-1-3,
21	February 1, 2001.
22	USEPA, 1999/1994. USEPA Region III National Functional Guidelines for Organic and Inorganic Data
23	Review, U.S. Environmental Protection Agency, October 1999 and February 1994.
24	USEPA, 1996. Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods, SW-846, Update
25	III and Subsequent Updates, U.S. Environmental Protection Agency, September 1986 and
6	December 1996.

D-5.0 REFERENCES

050016.08 D-5-1

Revision 0

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

- USEPA, 2001. USEPA Contract Laboratory Program National Functional Guidelines for Low
   Concentration Organic Data Review, U.S. Environmental Protection Agency, EPA 540/R00/006,
- 3 June 2001.

050016.08 D-5-2

816 648
December 2005
Revision 0

Results of Bi-Annual Groundwater Sampling – July 2005 Appendix D – Data Quality Evaluation Summary Defense Supply Center Richmond

TABLES

050016.08

1

#### TABLE D-1

## DATA QUALIFIERS AND DESCRIPTIONS APPENDIX D – DATA QUALITY EVALUATION BI-ANNUAL GROUNDWATER MONITORING REPORT

## Defense Supply Center Richmond Richmond, Virginia

DATA QUALIFIER	DESCRIPTION
	DATA USABLE WITH QUALIFICATION
J	Estimated quantitation based upon QC data
JB	Estimated quantitation: possibly biased high or false positive based upon blank data
JH	Estimated quantitation: possibly biased high based upon QC data
JL	Estimated quantitation: possibly biased low based upon QC data
JQ	Estimated quantitation: result below the PQL
UĴ	Undetected, reporting limit is inaccurate or imprecise
UL	Undetected, reporting limit is higher than indicated
	Unusable Data
R	Data rejected based upon QC data
	Flagging Hierarchy
	R > JB > JH  or  JL > JQ > J JH + JL = J

PREPARED/DATE: <u>DWK 10/12/05</u> CHECKED/DATE: <u>JAH 10/14/05</u>

# FINAL PAGE

## **ADMINISTRATIVE RECORD**

FINAL PAGE