



1703 W. Industrial Ave.
Midland, Texas 79701
(432) 686-8081

TETRA TECH, INC.

October 31, 2007

Mr. Gerry Guye
New Mexico Oil Conservation Division
1301 W. Grand Ave
Artesia, NM 88210

Mr. Paul Evans
U.S. Bureau of Land Management
602 E. Greene St.
Carlsbad, NM 88220

RE: Grayburg Deep 10 Battery
Crude Oil and Produced Water Release Site
Eddy County, New Mexico
Unit C, Sec. 19, T17S, R30E
API 30-015-25796
Request for Closure

Dear Gentlemen:

On behalf of ConocoPhillips, Tetra Tech, Inc. (Tetra Tech) is submitting this report describing actions taken to remediate soils at ConocoPhillips' Grayburg Deep Unit 10 Battery mixed crude oil and produced water release site (Site; Figure 1). This work is in support of ConocoPhillips' efforts to restore the area that was affected by the release of 115 barrels of mixed crude oil/produced water into an unlined 35 x 55 foot bermed catch basin (C141 attached; Figure 2). The Site is located approximately 2 miles west of Loco Hills in Eddy County, New Mexico (32° 49.514698N, 104° 0.71802W). The Bureau of Land Management is the land administrator.

BACKGROUND

The Site is located immediately north of the western portion of the Delaware Basin. The area is underlain by Guadalupian age formations, which contains a thick sequence of sandstones, shales, siltstone, and evaporites¹. In the immediate vicinity of the Site, topography is nearly level to moderately undulating. The Simona Series soil at the Site is calcareous sand overlying fractured indurated caliche.²

Depth to water in the vicinity of the Site is estimated at over 100 feet below ground surface (fbgs). This interpretation is based potentiometric surface contours (330 fbgs) described by Hiss¹ for aquifer systems in northern Eddy County. The New Mexico Office of State Engineer's database and the United States Geological Survey's database^{3,4} did not yield depth to groundwater information for this area. The U.S. Geological Survey, 1955 topographic map, 1:24,000 scale, entitled "Red Lake SE New Mexico" identifies a windmill approximately 3.3 miles

¹ Hiss, W.L. 1980. Movement of Ground Water in Permian Guadalupian Aquifer Systems, Southeastern New Mexico and Western Texas. In New Mexico Geological Society 31st Field Conference publication entitled "Trans-Pecos Region Southeastern New Mexico and West Texas." Pp 289 – 294.

² U.S. Department of Agriculture, Natural Resources Conservation Services. Webb Soil Survey Database.

³ New Mexico Office of State Engineer. W.A.T.E.R.S. Database.

⁴ United States Geological Survey. Groundwater Levels for the Nation Database.

west of the Site. No information is available on the depth of water at this location. The nearest surface water body is a playa, located approximately 1,950 feet southeast of the Site.

As indicated in Tetra Tech's Finding Report, submitted to both agencies on October 5, 2007, the assigned ranking score is as follows [As per the subsurface site assessment characterization protocol outlined in New Mexico Oil Conservation Division's (NMOCD) "Guidelines for Remediation of Leaks, Spills and Releases," dated August 13, 1993]:

<u>Criteria</u>		<u>Ranking Score</u>
Depth to groundwater	>100 feet	0
Distance from water source	>1,000 feet	0
Distance from domestic water source	>200 feet	0
Distance from surface water body	>1,000 feet	<u>0</u>
<i>Total Ranking Score</i>		0

The remediation action level for a ranking score of 0 is 10 parts per million (ppm) for benzene, 50 ppm for total benzene, toluene, ethylbenzene and total xylenes (BTEX), and 5,000 ppm for total petroleum hydrocarbons (TPH).

SCOPE OF WORK

Excavation activities were conducted at the Site from October 16 through October 19, 2007. The work plan included:

1. Soil in the area was excavated to remove the most highly affected soils. This soil was hauled to a State approved disposal facility.
2. The excavated area was TPH field screened using a PetroFLAG System⁵ and field soil vapor headspace analyzed using a Photo-Ionization Detector (PID) to determine that remediation levels had been achieved. Field tests using chloride and electrical conductivity (EC) field screened techniques^{6,7} were also used to find the vertical and lateral clean boundary of the release area.
3. Confirmation soil samples were collected from the excavation in a "W" pattern, composited into one sample for each sidewall and floor. The composite samples (5) were submitted to a laboratory for chloride (Method 300), BTEX (USEPA Method 8260), Gasoline and diesel range TPH (TPH GRO/DRO, USEPA Method 8015M) and EC (Standard Method 2510B SW-846 Method 9050A) analyses to confirm that affected soils had been removed.

⁵ U.S. Environmental Protection Agency, 2001. Innovative Technology Verification Report, Dexsil Corporation PetroFLAG System. Prepared by Tetra Tech EM Inc. for USEPA National Exposure Research Laboratory Office of Research and Development. EPA/R-01/092.

⁶ U.S. Environmental Protection Agency Grant No. R827015-01-1. IPEC Guidelines for Remediation of Small Brine Spills, January 12, 2004. Univ. of Tulsa, OK.

⁷ Conner, J.A. and C.J. Newell. 2004. Strategies for Addressing Oil Field Brine Releases to Plants, Soil and Groundwater. Publ. No. 4758, American Petroleum Institute, Washington D.C. p 25.

4. Clean backfill was placed into an irregular shaped excavation with depths ranging from approximately 4 to 14-feet. Photographs were taken to document the excavation at the Site (Appendix A - Photographs).

FINDINGS

The soils encountered during excavation activities at the Site consisted of mostly grayish loamy sandy soils at 0 – 3 fbs. The sub-soil was whitish caliche about two feet thick. The underlying unit was loamy brown sand interbedded with caliche.

A summary of field screening data and laboratory soil analytical data are presented in Table 1. A complete analytical report is presented in Appendix B.

Confirmation analysis for TPH and chlorides are presented in Table 1. TPH concentration levels were below remediation guidelines (5,000 ppm) in the composite samples from the pit floor and side walls. Benzene was not detected and BTEX was below remediation guidelines (50 ppm). Chloride levels ranged from 18 – 176 mg/Kg.

Table 1
ConocoPhillips
Grayburg Deep Unit 10 Battery
Eddy County, New Mexico
Soil Excavation Results
October 17-18, 2007

Constituents			Units	Sampling Locations				
				South Wall	West Wall	East Wall	North Wall	Floor
Field Screening	TPH		(ppm)	84	282	317	94	0.0
	VOC		(ppm)	0.0	0.0	0.0	0.0	0.0
	EC		(µS/cm)	120	570	440		50
	Chloride		(ppm)	50	200	100		50
Laboratory Analyses	TPH	GRO	(mg/Kg)	ND	ND	73.4	1.5	1.48
		DRO	(mg/Kg)	8.3	22.0	210.0	42.0	13.0
	Benzene		(mg/Kg)	ND	ND	ND	ND	ND
	Ethylbenzene		(mg/Kg)	ND	ND	ND	ND	ND
	Toluene		(mg/Kg)	ND	ND	ND	ND	ND
	Xylenes Total		(mg/Kg)	ND	ND	0.0194	ND	ND
	EC		(µmhos/cm)	243.0	962.0	738.0	227.0	352.0
	Chloride		(mg/Kg)	18.0	164.0	176.0	36.7	57.8

TPH = Total petroleum hydrocarbons

VOC = Volatile organic compounds

EC = Electrical conductivity

GRO = Gasoline range hydrocarbons

DRO = Diesel range hydrocarbons

ND = Not detected at or above laboratory level of detection

ppm = Parts per million

µS/cm = microSiemens per centimeter

µmhos/cm = micro-ohms per centimeter

mg/Kg = Milligrams per kilogram

blank = No data

CONCLUSIONS

Approximately 405 cubic yards of soil were removed from the Grayburg Deep Unit 10 Battery mixed crude oil/produced water release site and hauled to CRI-Midway for disposal. Clean material was returned from CRI-Midway and was used as backfill.

Through literature review and inspection of the iWater database, depth to groundwater was estimated to be over 100 fbg at the Site.

RECOMMENDATIONS

Based on the work performed at this Site, Tetra Tech recommends no further action. Upon your review and approval of this report, Tetra Tech on behalf of ConocoPhillips, requests closure for this mixed crude oil/produced water release location. If you have any questions or need additional information, please call Mr. Jesse Sosa (ConocoPhillips, 505-391-3126) or me.

Sincerely,

Greg W. Pope

Digitally signed by Greg W. Pope
DN: CN = Greg W. Pope, C =
US, O = Maxim Technologies
Reason: I am approving this
document
Date: 2007.10.30 17:03:16 -
0500

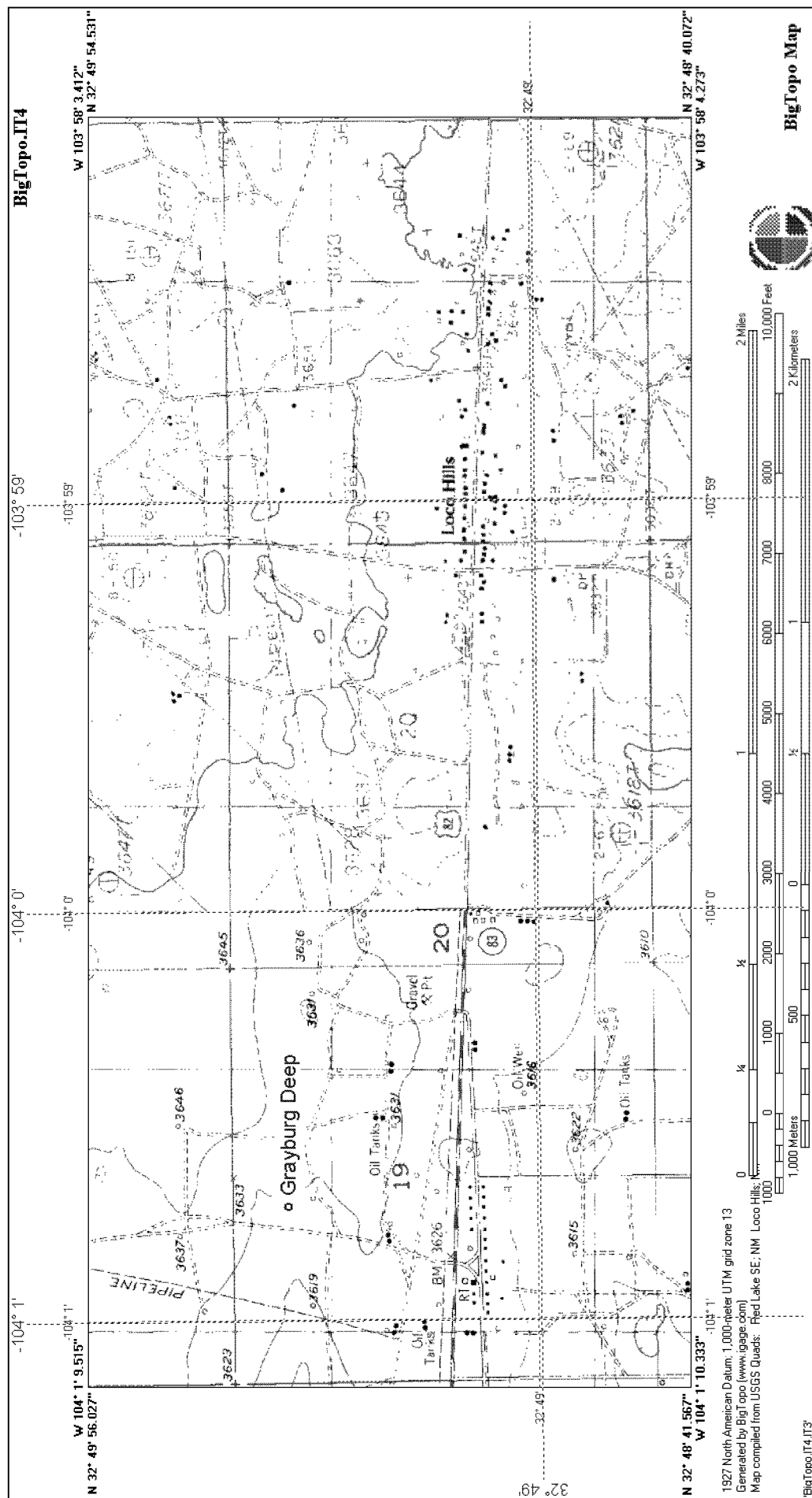
Tetra Tech, Inc.

Greg W. Pope, P.G.
Project Manager

Cc. Mr. Jesse Sosa, ConocoPhillips



TETRA TECH, INC.

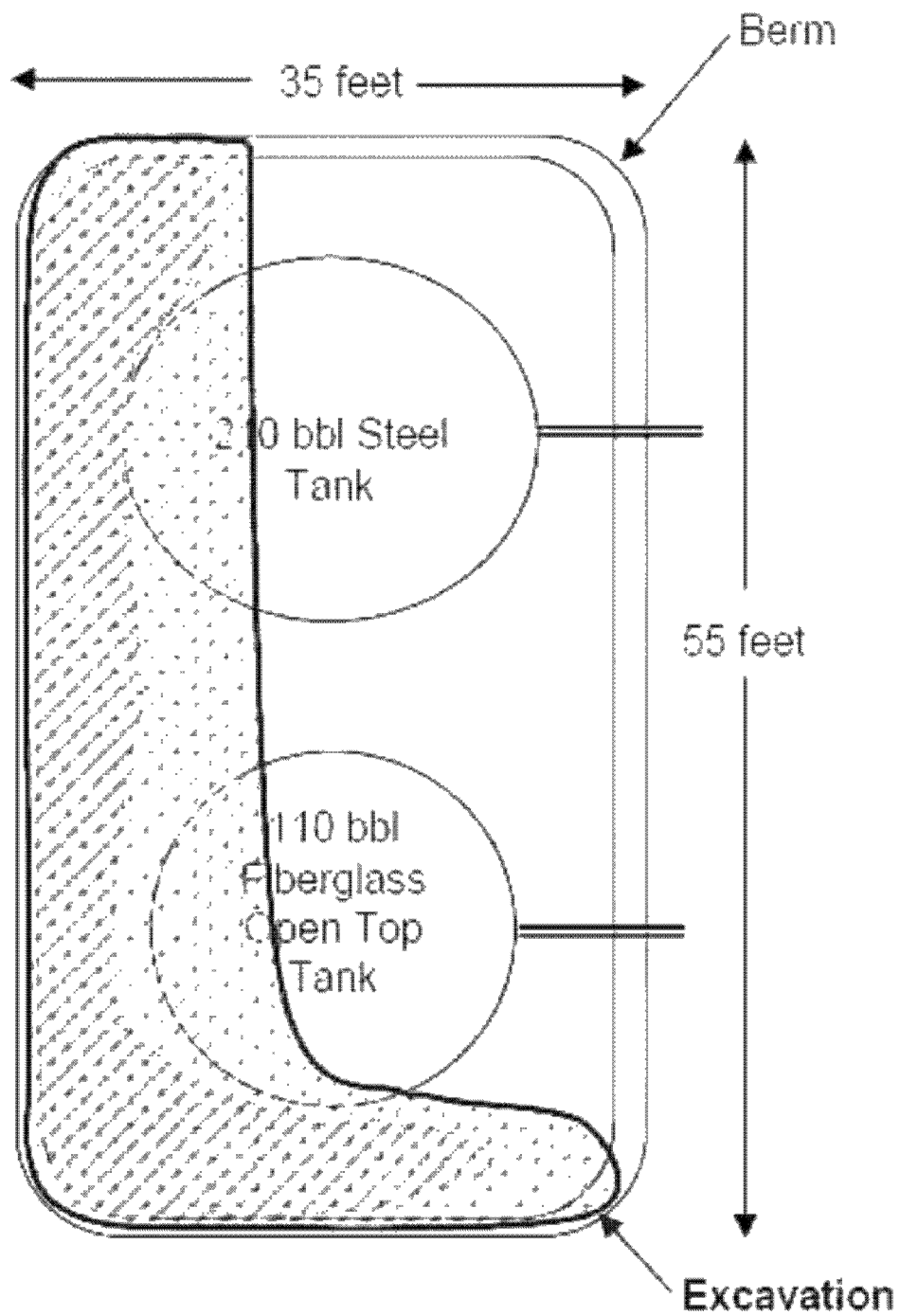


TETRA TECH, INC.

ConocoPhillips

Grayburg Unit

Figure 1. Grayburg Deep Unit 10 Battery Crude Oil/ Produced Water Release Site.



No Scale

 TETRA TECH, INC.	
	Grayburg Unit
Figure2. Foot Print and Excavation of Crude Oil/Produced Water Release at Grayburg Deep Unit 10 Battery.	

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

ATTACHMENT 1

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

30-015-25796

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company ConocoPhillips Company	Contact Jesse A. Sosa	
Address 3300 N. "A" St., Bldg. 6 #247 Midland, TX 79705-5	Telephone No. (505)391-3126	
Facility Name Grayburg Deep Unit Well #10	Facility Type Gas Well	
Surface Owner BLM	Mineral Owner BLM	Lease No. LC028793A

LOCATION OF RELEASE

Unit Letter C	Section 19	Township 17S	Range 30E	Feet from the 660	North/South Line North	Feet from the 2480	East/West Line West	County Eddy
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Latitude 32.49512 Longitude 104.00718

NATURE OF RELEASE

Type of Release Oil and Produced Water	Volume of Release 115	Volume Recovered 0
Source of Release 3 inch bullplug on tank	Date and Hour of Occurrence am 6/29/07	and Hour of Discovery 9am 7/2/07
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Jim Amos (BLM) & Mike Bratser (NMOCD)	
By Whom? Jesse Sosa	Date and Hour 2 pm 07/02/2007	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

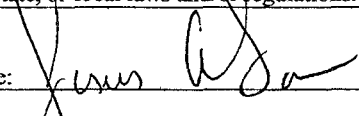
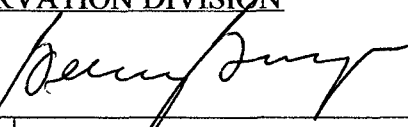
Describe Cause of Problem and Remedial Action Taken.*

While making rounds MSO found contaminated area around tank. Contamination was caused by all fluids emptying out of tank due to half inch hole in 3 inch bullplug caused by internal corrosion. MSO had last checked location on Friday June 29, 2007 and fluid was still in tank.

Describe Area Affected and Cleanup Action Taken.*

HSE arrived on location and measured spill size affected area of 9 ft X 84 ft, all was inside diked and fenced area. Area will be delineated to determine necessary clean up actions.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 		OIL CONSERVATION DIVISION	
Printed Name: Jesse A. Sosa		Approved by District Supervisor: 	
Title: HSER Lead		Approval Date: AUG 7 2007 Expiration Date: 9-07-07	
E-mail Address: Jesse.A.Sosa@conocophillips.com		Conditions of Approval:	
Date: 07/02/2007 Phone: (505)391-3126		Attached ☐	

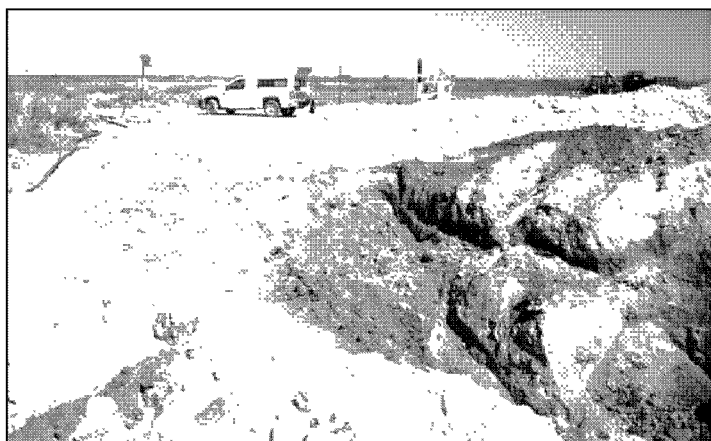
* Attach Additional Sheets If Necessary

Work Plan on file

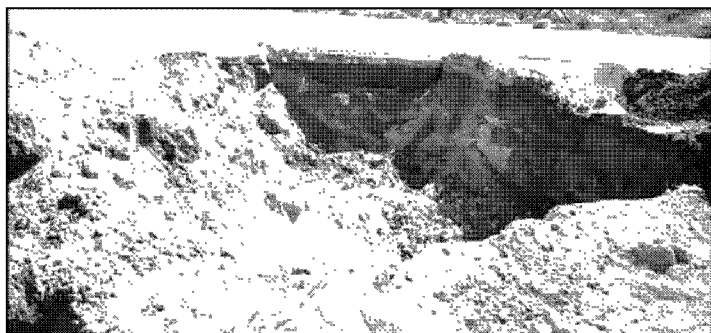
APPENDIX A PHOTOGRAPHS



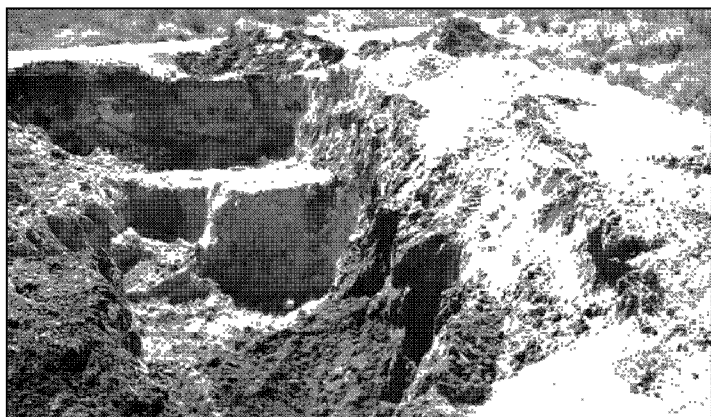
Location



View North, Northeast
North and East Walls



View South, Southeast
East and South Walls



View South
South and West Walls

APPENDIX B

LABORATORY ANALYSIS

ANALYTICAL REPORT

JOB NUMBER: 340846
Project ID: CONOCO PHILLIPS

Prepared For:

Tetra Tech-Maxim Technologies, Inc.
1703 West Industrial
Midland, TX 79701

Attention: Charlie Durret

Date: 08/29/2007



Signature

Name: Sachin G. Kudchadkar

Title: Project Manager III

E-Mail: skudchadkar@stl-inc.com

08/29/07

Date

TestAmerica Laboratories, Inc
6310 Rothway Drive
Houston, TX 77040

PHONE: 713-690-4444

TOTAL NO. OF PAGES

37

08/29/2007

Charlie Durret
Tetra Tech-Maxim Technologies, Inc.
1703 West Industrial
Midland, TX 79701

Reference:

Project : CONOCO PHILLIPS
Project No. : 340846
Date Received : 08/20/2007
TestAmerica Job : 340846

Dear Charlie Durret:

Enclosed are the analytical results for your project referenced above. The following samples are included in the report.

1. GB1 5FT
2. GB1 10FT
3. GB2 5FT
4. GB2 10FT
5. GB3 5FT
6. GB3 10FT
7. GB4 5FT
8. GB4 15FT
9. GB5 5FT
10. GB5 10FT
11. TRIP BLANK

All holding times were met for the tests performed on these samples.

Enclosed, please find the Quality Control Summary. All quality control results for the QC batch that are applicable to the sample(s) are acceptable except as noted in the QC batch reports.

The test results in this report meet all QC requirements for TestAmerica Houston's QC limits. Any exceptions to these QC requirements will be noted and included in a case narrative as a part of this report.

If the report is acceptable, please approve the enclosed invoice and forward it for payment.

Thank you for selecting TestAmerica to serve as your analytical laboratory on this project. If you have any questions concerning these results, please feel free to contact me at any time.

We look forward to working with you on future projects.

Sincerely,



Sachin G. Kudchadkar

S A M P L E I N F O R M A T I O N

Date: 08/29/2007

Job Number.: 340846

Customer...: Tetra Tech-Maxim Technologies, Inc.

Attn.....: Charlie Durret

Project Number.....: 99003817

Customer Project ID....: CONOCO PHILLIPS

Project Description....: Conoco Phillips

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
340846-1	GB1 5FT	Soil	08/15/2007	08:30	08/20/2007	09:48
340846-2	GB1 10FT	Soil	08/15/2007	08:40	08/20/2007	09:48
340846-3	GB2 5FT	Soil	08/15/2007	09:15	08/20/2007	09:48
340846-4	GB2 10FT	Soil	08/15/2007	09:30	08/20/2007	09:48
340846-5	GB3 5FT	Soil	08/15/2007	10:00	08/20/2007	09:48
340846-6	GB3 10FT	Soil	08/15/2007	10:25	08/20/2007	09:48
340846-7	GB4 5FT	Soil	08/15/2007	11:15	08/20/2007	09:48
340846-8	GB4 15FT	Soil	08/15/2007	11:40	08/20/2007	09:48
340846-9	GB5 5FT	Soil	08/15/2007	12:40	08/20/2007	09:48
340846-10	GB5 10FT	Soil	08/15/2007	12:55	08/20/2007	09:48
340846-11	TRIP BLANK	Trip Blank	08/15/2007	00:00	08/20/2007	09:48

L A B O R A T O R Y T E S T R E S U L T S

Job Number: 340846

Date: 08/29/2007

CUSTOMER: Tetra Tech-Maxim Technologies, Inc.

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Customer Sample ID: GB1 5FT
Date Sampled.....: 08/15/2007
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 340846-1
Date Received.....: 08/20/2007
Time Received.....: 09:48

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	FLAGS	REPORTING LIMIT	UNITS	DATE	TECH
EPA 120.1	Specific Conductivity @ 25 degrees C, So*1	309		1.2	* umhos/cm	08/23/07	sur
SM-2540 G Mod.	% Solids, Soil	83.8		0.01	%	08/20/07	enc
SM-2540 G Mod.	Moisture, Soil	16.2		0.01	%	08/20/07	enc
SW-846 9056	Chloride, Soil*	19.0		4.8	mg/Kg	08/25/07	sur
SW-846 8015B	Total Volatile Petroleum Hydrocarbons TVPH as GRO, Soil*	ND		1193.81	ug/Kg	08/22/07	cad
SW-846 3550B	Extraction (Ultrasonic) DRO Ultrasonic Extraction, Soil*	Complete				08/22/07	mra
SW-846 8015B	Total Extractable Petroleum Hydrocarbons TEPH - as Diesel, Soil*	ND		9.9	mg/Kg	08/24/07	jps
SW-846 8260B	Volatile Organics						
	Benzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Ethylbenzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Toluene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Xylenes (total), Soil*	ND		18	ug/Kg	08/22/07	zfl

* In Description = Dry Wgt.

L A B O R A T O R Y T E S T R E S U L T S

Job Number: 340846

Date: 08/29/2007

CUSTOMER: Tetra Tech-Maxim Technologies, Inc.

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Customer Sample ID: GB1 10FT
Date Sampled.....: 08/15/2007
Time Sampled.....: 08:40
Sample Matrix.....: Soil

Laboratory Sample ID: 340846-2
Date Received.....: 08/20/2007
Time Received.....: 09:48

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	FLAGS	REPORTING LIMIT	UNITS	DATE	TECH
EPA 120.1	Specific Conductivity @ 25 degrees C, So*1	1590		1.1	* umhos/cm	08/23/07	sur
SM-2540 G Mod.	% Solids, Soil	87.3		0.01	%	08/20/07	enc
SM-2540 G Mod.	Moisture, Soil	12.7		0.01	%	08/20/07	enc
SW-846 9056	Chloride, Soil*	26.3		4.6	mg/Kg	08/25/07	sur
SW-846 8015B	Total Volatile Petroleum Hydrocarbons TVPH as GRO, Soil*	ND		1145.13	ug/Kg	08/22/07	cad
SW-846 3550B	Extraction (Ultrasonic) DRO Ultrasonic Extraction, Soil*	Complete				08/22/07	mra
SW-846 8015B	Total Extractable Petroleum Hydrocarbons TEPH - as Diesel, Soil*	ND		9.5	mg/Kg	08/24/07	jps
SW-846 8260B	Volatile Organics						
	Benzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Ethylbenzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Toluene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Xylenes (total), Soil*	ND		17	ug/Kg	08/22/07	zfl

* In Description = Dry Wgt.

L A B O R A T O R Y T E S T R E S U L T S

Job Number: 340846

Date: 08/29/2007

CUSTOMER: Tetra Tech-Maxim Technologies, Inc.

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Customer Sample ID: GB2 5FT
Date Sampled.....: 08/15/2007
Time Sampled.....: 09:15
Sample Matrix.....: Soil

Laboratory Sample ID: 340846-3
Date Received.....: 08/20/2007
Time Received.....: 09:48

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	FLAGS	REPORTING LIMIT	UNITS	DATE	TECH
EPA 120.1	Specific Conductivity @ 25 degrees C, So*1	211		1.2	* umhos/cm	08/23/07	sur
SM-2540 G Mod.	% Solids, Soil	84.3		0.01	%	08/20/07	enc
SM-2540 G Mod.	Moisture, Soil	15.7		0.01	%	08/20/07	enc
SW-846 9056	Chloride, Soil*	14.5		4.7	mg/Kg	08/25/07	sur
SW-846 8015B	Total Volatile Petroleum Hydrocarbons TVPH as GRO, Soil*	ND		1185.98	ug/Kg	08/22/07	cad
SW-846 3550B	Extraction (Ultrasonic) DRO Ultrasonic Extraction, Soil*	Complete				08/22/07	mra
SW-846 8015B	Total Extractable Petroleum Hydrocarbons TEPH - as Diesel, Soil*	ND		9.8	mg/Kg	08/24/07	jps
SW-846 8260B	Volatile Organics						
	Benzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Ethylbenzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Toluene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Xylenes (total), Soil*	ND		18	ug/Kg	08/22/07	zfl

* In Description = Dry Wgt.

L A B O R A T O R Y T E S T R E S U L T S

Job Number: 340846

Date: 08/29/2007

CUSTOMER: Tetra Tech-Maxim Technologies, Inc.

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Customer Sample ID: GB2 10FT
Date Sampled.....: 08/15/2007
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 340846-4
Date Received.....: 08/20/2007
Time Received.....: 09:48

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	FLAGS	REPORTING LIMIT	UNITS	DATE	TECH
EPA 120.1	Specific Conductivity @ 25 degrees C, So*1	1670		1.2	* umhos/cm	08/23/07	sur
SM-2540 G Mod.	% Solids, Soil	85.3		0.01	%	08/20/07	enc
SM-2540 G Mod.	Moisture, Soil	14.7		0.01	%	08/20/07	enc
SW-846 9056	Chloride, Soil*	18.0		4.7	mg/Kg	08/25/07	sur
SW-846 8015B	Total Volatile Petroleum Hydrocarbons TVPH as GRO, Soil*	ND		1171.89	ug/Kg	08/22/07	cad
SW-846 3550B	Extraction (Ultrasonic) DRO Ultrasonic Extraction, Soil*	Complete				08/22/07	mra
SW-846 8015B	Total Extractable Petroleum Hydrocarbons TEPH - as Diesel, Soil*	ND		9.7	mg/Kg	08/24/07	jps
SW-846 8260B	Volatile Organics						
	Benzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Ethylbenzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Toluene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Xylenes (total), Soil*	ND		18	ug/Kg	08/22/07	zfl

* In Description = Dry Wgt.

L A B O R A T O R Y T E S T R E S U L T S

Job Number: 340846

Date: 08/29/2007

CUSTOMER: Tetra Tech-Maxim Technologies, Inc.

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Customer Sample ID: GB3 5FT
Date Sampled.....: 08/15/2007
Time Sampled.....: 10:00
Sample Matrix.....: Soil

Laboratory Sample ID: 340846-5
Date Received.....: 08/20/2007
Time Received.....: 09:48

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	FLAGS	REPORTING LIMIT	UNITS	DATE	TECH
EPA 120.1	Specific Conductivity @ 25 degrees C, So*1	318		1.2	* umhos/cm	08/23/07	sur
SM-2540 G Mod.	% Solids, Soil	83.7		0.01	%	08/20/07	enc
SM-2540 G Mod.	Moisture, Soil	16.3		0.01	%	08/20/07	enc
SW-846 9056	Chloride, Soil*	32.5		4.8	mg/Kg	08/25/07	sur
SW-846 8015B	Total Volatile Petroleum Hydrocarbons TVPH as GRO, Soil*	ND		1194.93	ug/Kg	08/22/07	cad
SW-846 3550B	Extraction (Ultrasonic) DRO Ultrasonic Extraction, Soil*	Complete				08/22/07	mra
SW-846 8015B	Total Extractable Petroleum Hydrocarbons TEPH - as Diesel, Soil*	ND		9.9	mg/Kg	08/24/07	jps
SW-846 8260B	Volatile Organics						
	Benzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Ethylbenzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Toluene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Xylenes (total), Soil*	ND		18	ug/Kg	08/22/07	zfl

* In Description = Dry Wgt.

L A B O R A T O R Y T E S T R E S U L T S

Job Number: 340846

Date: 08/29/2007

CUSTOMER: Tetra Tech-Maxim Technologies, Inc.

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Customer Sample ID: GB3 10FT
Date Sampled.....: 08/15/2007
Time Sampled.....: 10:25
Sample Matrix.....: Soil

Laboratory Sample ID: 340846-6
Date Received.....: 08/20/2007
Time Received.....: 09:48

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	FLAGS	REPORTING LIMIT	UNITS	DATE	TECH
EPA 120.1	Specific Conductivity @ 25 degrees C, So*1	816		1.1	* umhos/cm	08/23/07	sur
SM-2540 G Mod.	% Solids, Soil	90.9		0.01	%	08/20/07	enc
SM-2540 G Mod.	Moisture, Soil	9.08		0.01	%	08/20/07	enc
SW-846 9056	Chloride, Soil*	73.6		4.4	mg/Kg	08/25/07	sur
SW-846 8015B	Total Volatile Petroleum Hydrocarbons TVPH as GRO, Soil*	ND		1099.85	ug/Kg	08/23/07	cad
SW-846 3550B	Extraction (Ultrasonic) DRO Ultrasonic Extraction, Soil*	Complete				08/22/07	mra
SW-846 8015B	Total Extractable Petroleum Hydrocarbons TEPH - as Diesel, Soil*	ND		9.1	mg/Kg	08/24/07	jps
SW-846 8260B	Volatile Organics						
	Benzene, Soil*	ND		5	ug/Kg	08/22/07	zfl
	Ethylbenzene, Soil*	ND		5	ug/Kg	08/22/07	zfl
	Toluene, Soil*	ND		5	ug/Kg	08/22/07	zfl
	Xylenes (total), Soil*	ND		16	ug/Kg	08/22/07	zfl

* In Description = Dry Wgt.

L A B O R A T O R Y T E S T R E S U L T S

Job Number: 340846

Date: 08/29/2007

CUSTOMER: Tetra Tech-Maxim Technologies, Inc.

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Customer Sample ID: GB4 5FT
Date Sampled.....: 08/15/2007
Time Sampled.....: 11:15
Sample Matrix.....: Soil

Laboratory Sample ID: 340846-7
Date Received.....: 08/20/2007
Time Received.....: 09:48

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	FLAGS	REPORTING LIMIT	UNITS	DATE	TECH
EPA 120.1	Specific Conductivity @ 25 degrees C, So*1	24600		1.2	* umhos/cm	08/23/07	sur
SM-2540 G Mod.	% Solids, Soil	81.8		0.01	%	08/20/07	enc
SM-2540 G Mod.	Moisture, Soil	18.2		0.01	%	08/20/07	enc
SW-846 9056	Chloride, Soil*	10100		490	mg/Kg	08/25/07	sur
SW-846 8015B	Total Volatile Petroleum Hydrocarbons TVPH as GRO, Soil*	1090000		305548	ug/Kg	08/24/07	cad
SW-846 3550B	Extraction (Ultrasonic) DRO Ultrasonic Extraction, Soil*	Complete				08/22/07	mra
SW-846 8015B	Total Extractable Petroleum Hydrocarbons TEPH - as Diesel, Soil*	1300		100	mg/Kg	08/24/07	jps
SW-846 8260B	Volatile Organics	ND		6	ug/Kg	08/22/07	zfl
	Benzene, Soil*	690		60	ug/Kg	08/23/07	zfl
	Ethylbenzene, Soil*	228		6	ug/Kg	08/22/07	zfl
	Toluene, Soil*	4480		180	ug/Kg	08/23/07	zfl
	Xylenes (total), Soil*						

* In Description = Dry Wgt.

L A B O R A T O R Y T E S T R E S U L T S

Job Number: 340846

Date: 08/29/2007

CUSTOMER: Tetra Tech-Maxim Technologies, Inc.

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Customer Sample ID: GB4 15FT
Date Sampled.....: 08/15/2007
Time Sampled.....: 11:40
Sample Matrix.....: Soil

Laboratory Sample ID: 340846-8
Date Received.....: 08/20/2007
Time Received.....: 09:48

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	FLAGS	REPORTING LIMIT	UNITS	DATE	TECH
EPA300.0 REV2.	Ion Chromatography Analysis Chloride, SPLP	14.9		5.0	mg/L	08/22/07	sur
SW-846 8260B	Volatile Organics Benzene, SPLP	ND		5	ug/L	08/28/07	ydy
	Ethylbenzene, SPLP	ND		5	ug/L	08/28/07	ydy
	Toluene, SPLP	ND		5	ug/L	08/28/07	ydy
	Xylenes (total), SPLP	ND		15	ug/L	08/28/07	ydy
EPA 120.1	Specific Conductivity @ 25 degrees C, So*1	1310		1.2	* umhos/cm	08/23/07	sur
SM-2540 G Mod.	% Solids, Soil	86.3		0.01	%	08/20/07	enc
SM-2540 G Mod.	Moisture, Soil	13.7		0.01	%	08/20/07	enc
SW-846 9056	Chloride, Soil*	322		4.6	mg/Kg	08/25/07	sur
SW-846 8015B	Total Volatile Petroleum Hydrocarbons TVPH as GRO, Soil*	3570		1159.06	ug/Kg	08/23/07	cad
SW-846 3550B	Extraction (Ultrasonic) DRO Ultrasonic Extraction, Soil*	Complete				08/22/07	mra
SW-846 8015B	Total Extractable Petroleum Hydrocarbons TEPH - as Diesel, Soil*	38		9.6	mg/Kg	08/24/07	jps
SW-846 8260B	Volatile Organics Benzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Ethylbenzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Toluene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Xylenes (total), Soil*	ND		17	ug/Kg	08/22/07	zfl
SW-846 1312	Zero Head Space (ZHE) Extraction, Solid*	Complete			mL	08/28/07	twr

* In Description = Dry Wgt.

L A B O R A T O R Y T E S T R E S U L T S

Job Number: 340846

Date: 08/29/2007

CUSTOMER: Tetra Tech-Maxim Technologies, Inc.

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Customer Sample ID: GB5 5FT
Date Sampled.....: 08/15/2007
Time Sampled.....: 12:40
Sample Matrix.....: Soil

Laboratory Sample ID: 340846-9
Date Received.....: 08/20/2007
Time Received.....: 09:48

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	FLAGS	REPORTING LIMIT	UNITS	DATE	TECH
EPA 120.1	Specific Conductivity @ 25 degrees C, So*1	312		1.2	* umhos/cm	08/23/07	sur
SM-2540 G Mod.	% Solids, Soil	86.5		0.01	%	08/20/07	enc
SM-2540 G Mod.	Moisture, Soil	13.5		0.01	%	08/20/07	enc
SW-846 9056	Chloride, Soil*	33.9		4.6	mg/Kg	08/25/07	sur
SW-846 8015B	Total Volatile Petroleum Hydrocarbons TVPH as GRO, Soil*	ND		1156.71	ug/Kg	08/23/07	cad
SW-846 3550B	Extraction (Ultrasonic) DRO Ultrasonic Extraction, Soil*	Complete				08/22/07	mra
SW-846 8015B	Total Extractable Petroleum Hydrocarbons TEPH - as Diesel, Soil*	ND		9.6	mg/Kg	08/24/07	jps
SW-846 8260B	Volatile Organics						
	Benzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Ethylbenzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Toluene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Xylenes (total), Soil*	ND		17	ug/Kg	08/22/07	zfl

* In Description = Dry Wgt.

L A B O R A T O R Y T E S T R E S U L T S

Job Number: 340846

Date: 08/29/2007

CUSTOMER: Tetra Tech-Maxim Technologies, Inc.

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Customer Sample ID: GB5 10FT
Date Sampled.....: 08/15/2007
Time Sampled.....: 12:55
Sample Matrix.....: Soil

Laboratory Sample ID: 340846-10
Date Received.....: 08/20/2007
Time Received.....: 09:48

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	FLAGS	REPORTING LIMIT	UNITS	DATE	TECH
EPA 120.1	Specific Conductivity @ 25 degrees C, So*1	538		1.2	* umhos/cm	08/23/07	sur
SM-2540 G Mod.	% Solids, Soil	83.7		0.01	%	08/20/07	enc
SM-2540 G Mod.	Moisture, Soil	16.3		0.01	%	08/20/07	enc
SW-846 9056	Chloride, Soil*	82.1		4.8	mg/Kg	08/25/07	sur
SW-846 8015B	Total Volatile Petroleum Hydrocarbons TVPH as GRO, Soil*	ND		1194.58	ug/Kg	08/22/07	cad
SW-846 3550B	Extraction (Ultrasonic) DRO Ultrasonic Extraction, Soil*	Complete				08/22/07	mra
SW-846 8015B	Total Extractable Petroleum Hydrocarbons TEPH - as Diesel, Soil*	ND		9.9	mg/Kg	08/24/07	jps
SW-846 8260B	Volatile Organics						
	Benzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Ethylbenzene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Toluene, Soil*	ND		6	ug/Kg	08/22/07	zfl
	Xylenes (total), Soil*	ND		18	ug/Kg	08/22/07	zfl

* In Description = Dry Wgt.

Report Date.: 08/29/2007

ATTN: Charlie Durret

Batch(s) ...: 183865

Q U A L I T Y C O N T R O L R E S U L T S											
Job Number.: 340846						Report Date.: 08/29/2007					
CUSTOMER: Tetra Tech-Maxim Technologies, Inc.				PROJECT: CONOCO PHILLIPS				ATTN: Charlie Durret			

Test Method.....: SW-846 9056							Analyst....: sur				
Method Description.: Ion Chromatography Analysis							Units.....: mg/L		Test Code.: CHL		
Parameter.....: Chloride							Batch(s)...: 184204				
QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result *	Limits	F	Date	Time
LCS	184204--21	WCS46049	19.088		20.00		95.4	90.0-110.		08/26/2007	0220
CCV		WCS46049	19.113		20.00		95.6	90.0-110.		08/26/2007	0322
CCB			0.3409							08/26/2007	0338

Test Method.....: SW-846 9056							Analyst....: sur				
Method Description.: Ion Chromatography Analysis							Units.....: mg/L				
Parameter.....: Fluoride (F)							Batch(s)....: 184204				
QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result *	Limits	F	Date	Time
ICV		WCS46049	10.284		10.00		102.8	90.0-110.		08/25/2007	1350
ICB			0							08/25/2007	1405
MB	184204--21		0							08/25/2007	1421
LCS	184204--21	WCS46049	10.637		10.00		106.4	90.0-110.		08/25/2007	1437
OCV		WCS46049	10.511		10.00		105.1	90.0-110.		08/25/2007	1642
OCB			0							08/25/2007	1657
OCV		WCS46049	10.499		10.00		105.0	90.0-110.		08/25/2007	1934
OCB			0							08/25/2007	1949
DU	341059-1		0			0	0	0		08/25/2007	2052
MS	341059-1	WCS45524	2.0529		2.000000	0	102.6	90-110		08/25/2007	2107
OCV		WCS46049	10.776		10.00		107.8	90.0-110.		08/25/2007	2225
OCB			0							08/25/2007	2241
OCV		WCS46049	10.772		10.00		107.7	90.0-110.		08/26/2007	0133
OCB			0							08/26/2007	0148
MB	184204--21		0							08/26/2007	0204
LCS	184204--21	WCS46049	10.764		10.00		107.6	90.0-110.		08/26/2007	0220
OCV		WCS46049	10.875		10.00		108.8	90.0-110.		08/26/2007	0322
OCB			0							08/26/2007	0338

Test Method.....: SM-2540 G Mod.										Analyst....: enc	
Method Description.: Moisture (Total + Fixed Solids, Ash)						Units.....: %		Test Code.: MOIST			
Parameter.....: Moisture						Batch(s)....: 183865					
QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result *	Limits	F	Date	Time
DU	340846-10		16.2888			16.2888	0.0	10.0		08/20/2007	1630

Test Method.....: SW-846 9056							Analyst....: sur				
Method Description.: Ion Chromatography Analysis							Units.....: mg/L				
Parameter.....: Nitrogen, Nitrate as N (NO3-N)							Batch(s)....: 184204				
QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result *	Limits	F	Date	Time
ICV		WCS46049	9.4200		10.0		94.2	90.0-110.		08/25/2007	1350
ICB			0							08/25/2007	1405
MB	184204--21		0							08/25/2007	1421
LCS	184204--21	WCS46049	9.3237		10.0		93.2	90.0-110.		08/25/2007	1437
CCV		WCS46049	9.2922		10.0		92.9	90.0-110.		08/25/2007	1642
CCB			0							08/25/2007	1657
CCV		WCS46049	9.2666		10.0		92.7	90.0-110.		08/25/2007	1934

Job Number.: 340846			Q U A L I T Y C O N T R O L R E S U L T S			Report Date.: 08/29/2007		
CUSTOMER: Tetra Tech-Maxim Technologies, Inc.			PROJECT: CONOCO PHILLIPS			ATTN: Charlie Durret		

Test Method.....: SW-846 9056		Analyst...: sur
Method Description.: Ion Chromatography Analysis	Units.....: mg/L	Test Code.: NO3
Parameter.....: Nitrogen, Nitrate as N (NO3-N)	Batch(s)...: 184204	

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result *	Limits	F	Date	Time
CCB			0							08/25/2007	1949
DU	341059-1		0.7067			0.6963	0.0104	0.2500		08/25/2007	2052
MS	341059-1	WCS45524	2.4092		2.000000	0.6963	85.6	90-110	A	08/25/2007	2107
CCV		WCS46049	9.3010		10.0		93.0	90.0-110.		08/25/2007	2225
CCB			0							08/25/2007	2241
CCV		WCS46049	9.3092		10.0		93.1	90.0-110.		08/26/2007	0133
CCB			0							08/26/2007	0148
MB	184204--21		0							08/26/2007	0204
LCS	184204--21	WCS46049	9.3277		10.0		93.3	90.0-110.		08/26/2007	0220
CCV		WCS46049	9.3234		10.0		93.2	90.0-110.		08/26/2007	0322
CCB			0							08/26/2007	0338

Test Method.....: SW-846 9056		Analyst...: sur
Method Description.: Ion Chromatography Analysis	Units.....: mg/L	Test Code.: NO2
Parameter.....: Nitrogen, Nitrite as N (NO2-N)	Batch(s)....: 184204	

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result *	Limits	F	Date	Time
ICV		WCS46049	10.496		10.0		105.0	90.0-110.		08/25/2007	1350
ICB			0							08/25/2007	1405
MB	184204--21		0							08/25/2007	1421
LCS	184204--21	WCS46049	10.380		10.0		103.8	90.0-110.		08/25/2007	1437
CCV		WCS46049	10.278		10.0		102.8	90.0-110.		08/25/2007	1642
CCB			0							08/25/2007	1657
CCV		WCS46049	10.261		10.0		102.6	90.0-110.		08/25/2007	1934
CCB			0							08/25/2007	1949
DU	341059-1		0			0	0	0		08/25/2007	2052
MS	341059-1	WCS45524	1.8726		2.000000	0	93.6	90-110		08/25/2007	2107
CCV		WCS46049	10.339		10.0		103.4	90.0-110.		08/25/2007	2225
CCB			0							08/25/2007	2241
CCV		WCS46049	10.325		10.0		103.2	90.0-110.		08/26/2007	0133
CCB			0							08/26/2007	0148
MB	184204--21		0							08/26/2007	0204
LCS	184204--21	WCS46049	10.347		10.0		103.5	90.0-110.		08/26/2007	0220
CCV		WCS46049	10.349		10.0		103.5	90.0-110.		08/26/2007	0322
CCB			0							08/26/2007	0338

Test Method.....: EPA 120.1		Analyst...: sur
Method Description.: Specific Conductance @ 25 degrees C	Units.....: umhos/cm	Test Code.: COND
Parameter.....: Specific Conductivity @ 25 degrees C	Batch(s)....: 184117	

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result *	Limits	F	Date	Time
DU	340993-7		1742			1744	0.1	20		08/23/2007	1845
CCV		WC3753	1045		1000		104.5	90.0-110.		08/23/2007	1845
CCB			0.22							08/23/2007	1845
CCB			0.23							08/23/2007	1845
CCV		WC3910	103.1		100		103.1	90.0-110.		08/23/2007	1845
CCV		WC3910	103.6		100		103.6	90.0-110.		08/23/2007	1845
MS	340846-4	WC3587	1506		100.000000	1421	85.0	75-125		08/23/2007	1845
DU	340846-4		1418			1421	0.2	20		08/23/2007	1845

Job Number.: 340846			Q U A L I T Y C O N T R O L R E S U L T S			Report Date.: 08/29/2007		
CUSTOMER: Tetra Tech-Maxim Technologies, Inc.			PROJECT: CONOCO PHILLIPS			ATTN: Charlie Durret		

Test Method.....: EPA 120.1			Analyst....: sur		
Method Description.: Specific Conductance @ 25 degrees C			Units.....: umhos/cm		
Parameter.....: Specific Conductivity @ 25 degrees C			Batch(s)....: 184117		
			Test Code.: COND		

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result *	Limits	F	Date	Time
DU	340906-1		459			461	0.4	20		08/23/2007	1845
MS	340906-1	WC3587	557		100.000000	461	96.0	75-125		08/23/2007	1845
LCS	184117--21	WC3754	10.41		10		104.1	90.0-110.		08/23/2007	1845
MB	184117--21		0.28							08/23/2007	1845
MB	184117--21		0.22							08/23/2007	1845
LCS	184117--21	WC3754	10.43		10		104.3	90.0-110.		08/23/2007	1845
OCB			0.23							08/23/2007	1845
OCV		WC3753	1038		1000		103.8	90.0-110.		08/23/2007	1845
OCV		WC3910	103.9		100		103.9	90.0-110.		08/23/2007	1845
MS	340993-7	WC3587	1837		100.000000	1744	93.0	75-125		08/23/2007	1845

Test Method.....: SW-846 9056			Analyst....: sur		
Method Description.: Ion Chromatography Analysis			Units.....: mg/L		
Parameter.....: Sulfate (SO4)			Batch(s)....: 184204		
			Test Code.: SO4		

QC	Lab ID	Reagent	QC Result	QC Result	True Value	Orig. Value	Calc. Result *	Limits	F	Date	Time
ICV		WCS46049	19.603		20.00		98.0	90.0-110.		08/25/2007	1350
ICB			0							08/25/2007	1405
MB	184204--21		0							08/25/2007	1421
LCS	184204--21	WCS46049	19.320		20.00		96.6	90.0-110.		08/25/2007	1437
OCV		WCS46049	19.269		20.00		96.3	90.0-110.		08/25/2007	1642
OCB			0							08/25/2007	1657
OCV		WCS46049	19.236		20.00		96.2	90.0-110.		08/25/2007	1934
OCB			0							08/25/2007	1949
DU	341059-1		0.5181			0.5356	0.0175	0.5000		08/25/2007	2052
MS	341059-1	WCS45524	9.7710		10.000000	0.5356	92.4	90-110		08/25/2007	2107
OCV		WCS46049	19.278		20.00		96.4	90.0-110.		08/25/2007	2225
OCB			0							08/25/2007	2241
OCV		WCS46049	19.392		20.00		97.0	90.0-110.		08/26/2007	0133
OCB			0							08/26/2007	0148
MB	184204--21		0							08/26/2007	0204
LCS	184204--21	WCS46049	19.521		20.00		97.6	90.0-110.		08/26/2007	0220
OCV		WCS46049	19.509		20.00		97.5	90.0-110.		08/26/2007	0322
OCB			0							08/26/2007	0338

Q U A L I T Y C O N T R O L R E S U L T S									
Job Number.: 340846					Report Date.: 08/29/2007				
CUSTOMER: Tetra Tech-Maxim Technologies, Inc.			PROJECT: CONOCO PHILLIPS			ATTN: Charlie Durret			
QC Type	Description		Reag. Code	Lab ID	Dilution Factor	Date	Time		
Test Method.....: SW-846 8015B									

Q U A L I T Y C O N T R O L R E S U L T S								
Job Number.: 340846					Report Date.: 08/29/2007			
CUSTOMER: Tetra Tech-Maxim Technologies, Inc.			PROJECT: CONOCO PHILLIPS			ATTN:		
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time		
MSD	Matrix Spike Duplicate	EXS082007F	340846-1		08/22/2007	0902		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
TVPH as GRO, Soil	244.415	249.769	250.000000	13.2693	92.5 2.2		50-150 20	
LCS	Laboratory Control Sample	EXS082007F	184165-1		08/23/2007	1506		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
TVPH as GRO, Soil	252.394		250.000000		101.0		49-151	
MB	Method Blank		184165-1		08/23/2007	1606		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
TVPH as GRO, Soil	11.2661							
SB	Spiked Blank	EX051707A	184165-1		08/23/2007	1859		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
TVPH as GRO, Soil	264.800		250.000000	11.2661	101		49.0-151.0	
SBD	Spiked Blank Duplicate	EX051707A	184165-1		08/23/2007	1924		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
TVPH as GRO, Soil	286.617	264.800	250.000000	11.2661	110.1 7.9		49-151 20	
Test Method.....: EPA300.0 REV2.1			Units.....: mg/L			Analyst....: sur		
Method Description.: Ion Chromatography Analysis			Batch(s)....: 183995					
CCB	Continuing Calibration Blank				08/22/2007	0059		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chloride	0							
CCB	Continuing Calibration Blank				08/22/2007	0406		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chloride	0.2837							

QUALITY CONTROL RESULTS							
Job Number.: 340846				Report Date.: 08/29/2007			
CUSTOMER: Tetra Tech-Maxim Technologies, Inc.			PROJECT: CONOCO PHILLIPS		ATTN:		
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time	
CCB	Continuing Calibration Blank				08/22/2007	0730	
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits F
Chloride	0						
CCB	Continuing Calibration Blank				08/22/2007	1110	
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits F
Chloride	0						
CCB	Continuing Calibration Blank				08/22/2007	1229	
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits F
Chloride	0						
CCV	Continuing Calibration Verification	WCS46049			08/22/2007	0044	
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits F
Chloride	18.986		20.00		94.9		90.0-110.0
CCV	Continuing Calibration Verification	WCS46049			08/22/2007	0351	
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits F
Chloride	18.946		20.00		94.7		90.0-110.0
CCV	Continuing Calibration Verification	WCS46049			08/22/2007	0714	
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits F
Chloride	18.991		20.00		95.0		90.0-110.0
CCV	Continuing Calibration Verification	WCS46049			08/22/2007	1055	
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits F
Chloride	18.875		20.00		94.4		90.0-110.0
CCV	Continuing Calibration Verification	WCS46049			08/22/2007	1213	
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits F
Chloride	18.884		20.00		94.4		90.0-110.0

Q U A L I T Y C O N T R O L R E S U L T S								
Job Number.: 340846				Report Date.: 08/29/2007				
CUSTOMER: Tetra Tech-Maxim Technologies, Inc.			PROJECT: CONOCO PHILLIPS			ATTN:		
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time		
DU	Method Duplicate		340714-2	10	08/22/2007	0217		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chloride, Soil	4.8552			4.8226	0.7		20	
DU	Method Duplicate		340714-7	100	08/22/2007	0509		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chloride, Soil	0.6999			0.7149	0.0150		0.5000	
DU	Method Duplicate		340714-18	10	08/22/2007	0935		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chloride, Soil	9.7299			9.7656	0.4		20	
DU	Method Duplicate		340714-6		08/22/2007	1142		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chloride, SPLP	2.1872			2.2015	0.0143		0.5000	
ICB	Initial Calibration Blank				08/21/2007	2207		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chloride	0							
ICV	Initial Calibration Verification	WCS46049			08/21/2007	2152		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chloride	19.314		20.00		96.6		90.0-110.0	
LCS	Laboratory Control Sample	WCS46049			08/21/2007	2239		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chloride	19.120		20.00		95.6		90.0-110.0	
LCS	Laboratory Control Sample	WCS46049			08/22/2007	0801		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Chloride	18.999		20.00		95.0		90.0-110.0	

Job Number.: 340846		Q U A L I T Y C O N T R O L R E S U L T S				Report Date.: 08/29/2007	
CUSTOMER: Tetra Tech-Maxim Technologies, Inc.		PROJECT: CONOCO PHILLIPS			ATTN:		
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time	
MB	Method Blank				08/21/2007	2223	
Parameter/Test Description		QC Result	QC Result	True Value	Orig. Value	Calc. Result * Limits F	
Chloride		0					
MB	Method Blank	SPLP			08/21/2007	2254	
Parameter/Test Description		QC Result	QC Result	True Value	Orig. Value	Calc. Result * Limits F	
Chloride, SPLP		0.9568				b	
MB	Method Blank				08/22/2007	0745	
Parameter/Test Description		QC Result	QC Result	True Value	Orig. Value	Calc. Result * Limits F	
Chloride		0.2876					
MS	Matrix Spike	WCS45524	340714-2	10	08/22/2007	0233	
Parameter/Test Description		QC Result	QC Result	True Value	Orig. Value	Calc. Result * Limits F	
Chloride, Soil		13.718		10.000000	4.8226	89.0 90-110 A	
MS	Matrix Spike	WCS45524	340714-7	100	08/22/2007	0525	
Parameter/Test Description		QC Result	QC Result	True Value	Orig. Value	Calc. Result * Limits F	
Chloride, Soil		9.0887		10.000000	0.7149	83.7 90-110 A	
MS	Matrix Spike	WCS45524	340714-18	10	08/22/2007	0950	
Parameter/Test Description		QC Result	QC Result	True Value	Orig. Value	Calc. Result * Limits F	
Chloride, Soil		18.931		10.000000	9.7656	91.7 90-110	
MS	Matrix Spike	WCS45524	340714-6		08/22/2007	1157	
Parameter/Test Description		QC Result	QC Result	True Value	Orig. Value	Calc. Result * Limits F	
Chloride, SPLP		11.031		10.000000	2.2015	88.3 90-110 A	

Q U A L I T Y C O N T R O L R E S U L T S									
Job Number.: 340846					Report Date.: 08/29/2007				
CUSTOMER: Tetra Tech-Maxim Technologies, Inc.			PROJECT: CONOCO PHILLIPS			ATTN:			
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time			
Test Method.....: SW-846 8015B									

Q U A L I T Y C O N T R O L R E S U L T S									
Job Number.: 340846					Report Date.: 08/29/2007				
CUSTOMER: Tetra Tech-Maxim Technologies, Inc.			PROJECT: CONOCO PHILLIPS			ATTN:			
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time			
MS	Matrix Spike	VS082107E	340714-11		08/22/2007	1436			
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F	
Benzene, Soil	49.5414		50.00	ND	99		65-135		
Ethylbenzene, Soil	49.0176		50.00	ND	98		60-140		
Toluene, Soil	50.8901		50.00	ND	102		64-135		
Xylenes (total), Soil	146.053		150.0	ND	97		60-140		
MSD	Matrix Spike Duplicate	VS082107E	340714-11		08/22/2007	1502			
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F	
Benzene, Soil	47.3868	49.5414	50.00	ND	95		65-135		
					4.4		30.0		
Ethylbenzene, Soil	43.0145	49.0176	50.00	ND	86		60-140		
					13.0		30.0		
Toluene, Soil	45.0744	50.8901	50.00	ND	90		64-135		
					12.1		30.0		
Xylenes (total), Soil	133.137	146.053	150.0	ND	89		60-140		
					9.3		30.0		
LCS	Laboratory Control Sample	VS082107H			08/23/2007	1122			
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F	
Benzene, Soil	51.3896		50.00	ND	102.8		68-121		
Ethylbenzene, Soil	49.9869		50.00	ND	100.0		66-130		
Toluene, Soil	53.5904		50.00	ND	107.2		66-127		
Xylenes (total), Soil	156.084		150.	ND	104.1		37-160		
MB	Method Blank	VS082107C			08/23/2007	1310			
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F	
Benzene, Soil	ND								
Ethylbenzene, Soil	ND								
Toluene, Soil	ND								
Xylenes (total), Soil	ND								
MS	Matrix Spike	VS082107E	340984-1		08/23/2007	1402			
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F	
Benzene, Soil	45.8476		50.00	ND	92		65-135		
Ethylbenzene, Soil	42.7138		50.00	ND	85		60-140		
Toluene, Soil	45.8014		50.00	ND	92		64-135		
Xylenes (total), Soil	135.286		150.0	ND	90		60-140		

Q U A L I T Y C O N T R O L R E S U L T S								
Job Number.: 340846				Report Date.: 08/29/2007				
CUSTOMER: Tetra Tech-Maxim Technologies, Inc.			PROJECT: CONOCO PHILLIPS			ATTN:		
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time		
MSD	Matrix Spike Duplicate	VS082107E	340984-1		08/23/2007	1428		
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Benzene, Soil	48.6911	45.8476	50.00	ND	97		65-135	
					6.0		30.0	
Ethylbenzene, Soil	48.2473	42.7138	50.00	ND	96		60-140	
					12.2		30.0	
Toluene, Soil	50.3213	45.8014	50.00	ND	101		64-135	
					9.4		30.0	
Xylenes (total), Soil	147.862	135.286	150.0	ND	99		60-140	
					8.9		30.0	
LCS	Laboratory Control Sample	VS082107H				08/28/2007	1131	
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Benzene, Water	53.4589		50.00	ND	106.9		68-127	
Ethylbenzene, Water	43.5906		50.00	ND	87.2		64-132	
Toluene, Water	49.3157		50.00	ND	98.6		63-127	
Xylenes (total), Water	131.398		150.	ND	87.6		37-161	
MB	Method Blank	VS082107C				08/28/2007	1250	
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Benzene, Water	ND							
Ethylbenzene, Water	ND							
Toluene, Water	ND							
Xylenes (total), Water	ND							
MS	Matrix Spike	VS082107E	340826-1	100.00000		08/28/2007	1408	
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Benzene, TCLP	176.740		50.00	130.327	93		63-123	
MSD	Matrix Spike Duplicate	VS082107E	340826-1	100.00000		08/28/2007	1434	
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Benzene, TCLP	186.959	176.740	50.00	130.327	113		63-123	
					5.6		30.0	
PB	Prep. Blank	VS082107C		20.00000		08/28/2007	1224	
Parameter/Test Description	QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Benzene, TCLP	ND							
Ethylbenzene, TCLP	ND							
Toluene, TCLP	ND							
Xylenes (total), TCLP	ND							

Job Number.: 340846		Q U A L I T Y C O N T R O L R E S U L T S				Report Date.: 08/29/2007			
CUSTOMER: Tetra Tech-Maxim Technologies, Inc.		PROJECT: CONOCO PHILLIPS			ATTN:				
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time			
PB	Prep. Blank	VS082107C			08/28/2007	1527			
Parameter/Test Description		QC Result	QC Result	True Value	Orig. Value	Calc. Result	*	Limits	F
Benzene, SPLP		ND							
Ethylbenzene, SPLP		ND							
Toluene, SPLP		ND							
Xylenes (total), SPLP		ND							

S U R R O G A T E R E C O V E R I E S R E P O R T

Job Number.: 340846

Report Date.: 08/29/2007

CUSTOMER: Tetra Tech-Maxim Technologies, Inc.

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Method.....: Total Extractable Petroleum Hydrocarbons
Batch(s).....: 184223

Method Code....: 8015D
Test Matrix....: Soil

Prep Batch.....: 184002
Equipment Code: EXTGC01

Lab ID	DT	Sample ID	Date	OTERPH						
340846- 1		GB1 5FT	08/24/2007	72						
340846- 2		GB1 10FT	08/24/2007	71						
340846- 3		GB2 5FT	08/24/2007	72						
340846- 4		GB2 10FT	08/24/2007	70						
340846- 5		GB3 5FT	08/24/2007	73						
340846- 6		GB3 10FT	08/24/2007	69						
340846- 7		GB4 5FT	08/24/2007	466d						
340846- 7 MS		GB4 5FT	08/24/2007	525d						
340846- 7 MSD		GB4 5FT	08/24/2007	494d						
340846- 8		GB4 15FT	08/24/2007	71						
340846- 9		GB5 5FT	08/24/2007	72						
340846- 10		GB5 10FT	08/24/2007	81						
184002--21 LCS			08/24/2007	80						
184002--21 MB			08/24/2007	76						

Test	Test Description	Limits
OTERPH	o-Terphenyl	60 - 140

S U R R O G A T E R E C O V E R I E S R E P O R T

Job Number.: 340846

Report Date.: 08/29/2007

CUSTOMER: 483648

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Method.....: Total Volatile Petroleum Hydrocarbons
Batch(s).....: 183999 184165

Method Code....: 8015G
Test Matrix....: Soil

Prep Batch.....:
Equipment Code: BTEX07

Lab ID	DT	Sample ID	Date	ATFT	BFB					
183999-	1	LCS	08/21/2007	99.6	97.9					
183999-	1	MB	08/21/2007	103.2	97.7					
183999-	2	LCS	08/22/2007	102.2	99.6					
183999-	2	MB	08/22/2007	95.6	94.5					
184165-	1	LCS	08/23/2007	92.1	93.2					
184165-	1	MB	08/23/2007	101.0	97.3					
184165-	1	SB	08/23/2007	102.1	98.6					
184165-	1	SBD	08/23/2007	98.9	96.9					
340714-	1	MS	08/21/2007	101.9	96.0					
340714-	1	MSD	08/21/2007	93.5	92.8					
340846-	1	GB1 5FT	08/22/2007	101.0	89.8					
340846-	1	MS	08/22/2007	103.2	100.4					
340846-	1	MSD	08/22/2007	97.6	96.2					
340846-	2	GB1 10FT	08/22/2007	106.0	94.0					
340846-	3	GB2 5FT	08/22/2007	106.7	94.3					
340846-	4	GB2 10FT	08/22/2007	101.8	91.1					
340846-	5	GB3 5FT	08/22/2007	103.9	93.9					
340846-	6	GB3 10FT	08/23/2007	101.3	91.3					
340846-	7	GB4 5FT	08/24/2007	239.6d	1839.d					
340846-	8	GB4 15FT	08/23/2007	98.3	87.3					
340846-	9	GB5 5FT	08/23/2007	97.1	87.6					
340846-	10	GB5 10FT	08/22/2007	101.5	92.7					

Test	Test Description	Limits
ATFT	a,a,a-Trifluorotoluene	50 - 150
BFB	BFB (Surrogate)	50 - 150

SURROGATE RECOVERIES REPORT

Job Number.: 340846

Report Date.: 08/29/2007

CUSTOMER: 483648

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Method.....: Volatile Organics
Batch(s).....: 184344

Method Code....: 8260
Test Matrix....: Water

Prep Batch.....:
Equipment Code: GCMSVOA04

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DBRFIM	TOLD8
184344--21	LCS		08/28/2007	88.1	77.6	94.8	87.5
184344--21	MB		08/28/2007	82.5	113.2	98.8	104.5

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4	70 - 130
BRFLBE	4-Bromofluorobenzene	70 - 130
DBRFIM	Dibromofluoromethane	70 - 130
TOLD8	Toluene-d8	70 - 130

Method.....: Volatile Organics
Batch(s).....: 184344

Method Code....: 8260
Test Matrix....: SPLP

Prep Batch.....:
Equipment Code: GCMSVOA04

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DBRFIM	TOLD8
184286--21	PB		08/28/2007	82.4	111.0	97.2	105.2
340846--	8	GB4 15FT	08/28/2007	83.9	110.0	101.3	101.0

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4	70 - 130
BRFLBE	4-Bromofluorobenzene	70 - 130
DBRFIM	Dibromofluoromethane	70 - 130
TOLD8	Toluene-d8	70 - 130

Method.....: Volatile Organics
Batch(s).....: 184063 184090

Method Code....: 8260
Test Matrix....: Soil

Prep Batch.....:
Equipment Code: GCMSVOA05

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DBRFIM	TOLD8
184063--21	LCS		08/22/2007	105.5	106.4	101.9	106.8
184063--21	MB		08/22/2007	90.3	113.1	93.8	96.1
184090--21	LCS		08/23/2007	106.3	99.2	108.1	107.9
184090--21	MB		08/23/2007	90.6	114.6	91.2	100.7
340714--	11 MS	JA 6 0-6	08/22/2007	89.9	94.6	88.3	92.3
340714--	11 MSD	JA 6 0-6	08/22/2007	88.2	85.6	87.7	83.4
340846--	1	GB1 5FT	08/22/2007	96.3	101.3	92.9	93.1
340846--	2	GB1 10FT	08/22/2007	96.4	103.3	97.0	95.0
340846--	3	GB2 5FT	08/22/2007	100.5	97.5	92.9	94.0
340846--	4	GB2 10FT	08/22/2007	99.4	93.0	92.3	89.2
340846--	5	GB3 5FT	08/22/2007	97.4	92.6	89.5	92.2
340846--	6	GB3 10FT	08/22/2007	89.9	100.2	88.1	87.8
340846--	7	GB4 5FT	08/22/2007	87.5	63.1	85.9	82.3
340846--	7	GB4 5FT	08/23/2007	95.2	121.0	96.9	103.2
340846--	8	GB4 15FT	08/22/2007	99.3	88.1	92.2	87.7
340846--	9	GB5 5FT	08/22/2007	86.2	94.1	85.4	87.7
340846--	10	GB5 10FT	08/22/2007	97.6	98.6	92.1	90.1
340984--	1 MS	MW-12 (22.5-25.0')	08/23/2007	99.9	111.2	100.9	101.0
340984--	1 MSD	MW-12 (22.5-25.0')	08/23/2007	85.3	111.7	94.5	99.1
184063--21	LCS		08/22/2007	89.8	104.4	90.4	93.1
184090--21	LCS		08/23/2007	86.4	103.4	83.3	89.2

Job Number.: 340846

SURROGATE RECOVERIES REPORT

Report Date.: 08/29/2007

CUSTOMER: 483648

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Method.....: Volatile Organics
Batch(s).....: 184063 184090Method Code....: 8260
Test Matrix....: SoilPrep Batch.....:
Equipment Code: GCMSVOA04

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4	61 - 130
BRFLBE	4-Bromofluorobenzene	57 - 140
DBRFIM	Dibromofluoromethane	68 - 130
TOLD8	Toluene-d8	50 - 130

Method.....: Volatile Organics
Batch(s).....: 184344Method Code....: 8260
Test Matrix....: TCLPPrep Batch.....:
Equipment Code: GCMSVOA04

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DBRFIM	TOLD8
184285--21	PB		08/28/2007	80.9	113.9	101.6	104.7
340826--	1 MS	BTEX WATER	08/28/2007	92.0	110.5	102.6	105.0
340826--	1 MSD	BTEX WATER	08/28/2007	92.3	107.4	102.9	102.3

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4	70 - 130
BRFLBE	4-Bromofluorobenzene	70 - 130
DBRFIM	Dibromofluoromethane	70 - 130
TOLD8	Toluene-d8	70 - 130

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 08/29/2007

REPORT COMMENTS

- 1) All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.
- 2) Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.
- 3) According to 40CFR Part 136.3, pH, Chlorine Residual, and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field, (e.g. pH Field) they were not analyzed immediately, but as soon as possible on laboratory receipt.
- 4) For all USACE projects, the QC limits are based on "mean +/- 2 sigma", which are the warning limits.

General Information:

- Cresylic Acid is the combination of o,m and p-Cresol. The combination is reported as the final result.
- m-Cresol and p-Cresol co-elute. The result of the two is reported as either m&p-cresol or as p-cresol.
- m-Xylene and p-Xylene co-elute. The result of the two is reported as m,p-Xylene.
- N-Nitrosodiphenylamine decomposes in the gas chromatograph inlet forming dipheylamine and, consequently, may be detected as diphenylamine.
- Methylene Chloride and Acetone are recognized potential laboratory contaminants. Its presence in the sample up to five times the amount reported in the blank may be attributed to laboratory contamination.
- Trimethylsilyl(Diazomethane) is used to esterify acid herbicides in Method SW-846 8151A.
- For Inorganic analyses, duplicate QC limits are determined as follows: If the sample result is less than or equal to 5 times the reporting limit, the RPD limit is equal to the reporting limit. If the sample result is greater than 5 times the reporting limit, the RPD limit is the method defined RPD.
- For TRRP reports, the header on the column RL is equivalent to a MQL/PQL.
- Results for LCS and MS/MSD recoveries listed in the report are reported as ug/L on-column values which are not corrected for variables such as sample volumes or weights extracted, final volume of extracts and dilutions. To correct QC on-column recoveries to reflect actual spiking volumes for soils, multiply the values reported for Diesel Range Organics and Semivolatiles by 33.3 and Gasoline Range Organics by 20. The 8260 and 1006 results will not require correction. The only correction required for water analysis is for method 1006 where the reported concentration must be multiplied by 0.1.
- Due to limitation of the reporting software, results for the Method blank in the Semivolatile fraction are reported as "0". Which indicates there was no compound detected at the reporting limit for the compound reviewed.

Explanation of Qualifiers:

- U - This qualifier indicates that the analyte was analyzed but not detected.
- J - (Organics only) This qualifier indicates that the analyte is an estimated value between the RL and the MDL.
- B - (Inorganics only) This Qualifier indicates that the analyte is an estimated value between the RL and the MDL.
- N - (Organics only) This flag indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as "chlorinated hydrocarbon", the "N" flag is not used.

Explanation of General QC Outliers:

- A - Matrix interference present in sample.
- a - MS/MSD analyses yielded comparable poor recoveries, indicating a possible matrix interference. Method performance is demonstrated by acceptable LCS recoveries.
- b - Target analyte was found in the method blank.
- M - QC sample analysis yielded recoveries outside QC acceptance criteria. This sample was reanalyzed.
- L - LCS analysis yielded high recoveries, indicating a potential high bias. No target analytes were observed above the RL in the associated samples.
- G - Marginal outlier within 1% of acceptance criteria.
- r - RPD value is outside method acceptance criteria.
- C - Poor RPD values observed due to the non-homogenous nature of the sample.

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 08/29/2007

- O - Sample required dilution due to matrix interference.
- D - Sample reported from a dilution.
- d - Spike and/or surrogate diluted.
- P - The recovery of this analyte is outside default QC limits. The data is accepted and will be used to calculate in-house statistical limits.
- E - The reported concentration exceeds the instrument calibration.
- F - The analyte is outside QC limits. The sample data is accepted since this analyte is not reported in associated samples.
- H - Continuing Calibration Verification (CCV) standard is not associated with the samples reported.
- q - See the subcontract final report for qualifier explanation.
- W - The MS/MSD recoveries are outside QC acceptance criteria because the amount spiked is much less than the amount found in the sample.
- K - High recovery will not affect the quality of reported results.
- Z - See case narrative.

Explanation of Organic QC Outliers:

- e - Method blank analysis yielded phthalate concentrations above the RL. Phthalates are recognized potential laboratory contaminants. Its presence in the sample up to five times the amount reported in the blank may be attributed to laboratory contamination.
- S - Sample reanalyzed/reextracted due to poor surrogate recovery. Reanalysis confirmed original analysis indicating a possible matrix interference.
- T - Sample analysis yielded poor surrogate recovery.
- R - The RPD between the two GC columns is greater than 40% and no anomalies are present. The higher result is reported as per EPA Method 8000B.
- I - The RPD between the two GC columns is greater than 40% and anomalies are present. The lower of the two results has been reported.
- X - Gaseous compound. In-house QC limits are advisory.
- Y - Ketone compounds have poor purge efficiency. In-house QC limits are advisory.
- f - Surrogate not associated with reported analytes.

Explanation of Inorganic QC Outliers:

- Q - Method blank analysis yielded target analytes above the RL. Associated sample results are greater than 10 times the concentrations observed in the method blank.
- V - The RPD control limit for sample results less than 5 times the RL is +/- the RL value. Sample and duplicate results are within method acceptance criteria.
- e - Serial dilution failed due to matrix interference.
- g - Sample result quantitated by Method of Standard Additions (MSA) due to the analytical spike recovery being below 85 percent. The correlation coefficient for the MSA is greater than or equal to 0.995.
- s - BOD/cBOD seed value is not within method acceptance criteria. Due to the nature of the test method, the sample cannot be reanalyzed.
- l - BOD/cBOD LCS value is not within method acceptance criteria. Due to the nature of the test method, sample cannot be reanalyzed.
- N - Spiked sample recovery is not within control limits.
- n - Sample result quantitated by Method of Standard Additions (MSA) due to the analytical spike recovery being below 85 percent. The correlation coefficient for the MSA is less than 0.995.
- * - Duplicate analysis is not within control limits.

Abbreviations:

- Batch - Designation given to identify a specific extraction, digestion, preparation, or analysis set.
 - CCV - Continuing Calibration Verification
 - CRA - Low level standard check - GEAA, Mercury
 - CRI - Low level standard check - ICP
 - Dil Fac - Dilution Factor - Secondary dilution analysis
 - DLFac - Detection Limit Factor
-

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 08/29/2007

DU - Duplicate
EB - Extraction Blank (TCLP, SPLP, etc.)
ICAL - Initial Calibration
ICB - Initial Calibration Blank
ICV - Initial Calibration Verification
ISA - Interference Check Sample A - ICP
ISB - Interference Check Sample B - ICP
LCD - Laboratory Control Duplicate
LCS - Laboratory Control Sample
MB - Method Blank
MD - Method Duplicate
MDL - Method Detection Limit
MQL - Method Quantitation Limit (TRRP)
MS - Matrix Spike
MSD - Matrix Spike Duplicate
ND - Not Detected
PB - Preparation Blank
PREPF - Preparation Factor
RL - Reporting Limit
RPD - Relative Percent Difference
RRF - Relative Response Factor
RT - Retention Time
SQL - Sample Quantitation Limit (TRRP)
TIC - Tentatively Identified Compound

Method References:

- (1) EPA 600/4-79-020 Methods for the Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-94-111 Methods for the Determination of METals in Environmental Samples, Supplement I, May 1994.
- (3) EPA SW846 Test Methods for Evaluating Solid Waste, Third Edition, September 1986; Update I July 1992; Update II, September 1994, Update IIA August 1993; Update IIB, January 1995; Update III, December 1996, Update IVA January 1998, Update IVB November 2000.
- (4) Standard Methods for the Examination of Water and Wastewater, 16th Edition (1985), 17th Edition (1989), 18th Edition (1992), 19th Edition (1995), 20th Edition (1998).
- (5) HACH Water Analysis Handbook 3rd Edition (1997).
- (6) Federal Register, July 1, 1990 (40 CFR Part 136 Appendix A).
- (7) Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, 2nd Edition, January 1997.
- (9) Diagnosis and Improvement of Saline and Alkali Soils, Agriculture Handbook No. 60, United States Department of Agriculture, 1954.

LABORATORY CHRONICLE

Job Number: 340846

Date: 08/29/2007

CUSTOMER: Tetra Tech-Maxim Technologies, Inc.

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Lab ID: 340846-1	Client ID: GB1 5FT	Date Recvd: 08/20/2007	Sample Date: 08/15/2007		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3550B	Extraction (Ultrasonic) DRO	1	184002		08/22/2007 1000
SW-846 9056	Ion Chromatography Analysis	1	184204		08/25/2007 1452
SM-2540 G Mod.	Moisture (Total + Fixed Solids, Ash)	1	183865		08/20/2007 1630
EPA 120.1	Specific Conductance @ 25 degrees C	1	184117		08/23/2007 1845
SW-846 8015B	Total Extractable Petroleum Hydrocarbons	1	184223	184002	08/24/2007 1053
SW-846 8015B	Total Volatile Petroleum Hydrocarbons	1	183999		08/22/2007 0635
SW-846 8260B	Volatile Organics	1	184063		08/22/2007 1553
					1.00000
					1.00000
Lab ID: 340846-2	Client ID: GB1 10FT	Date Recvd: 08/20/2007	Sample Date: 08/15/2007		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3550B	Extraction (Ultrasonic) DRO	1	184002		08/22/2007 1000
SW-846 9056	Ion Chromatography Analysis	1	184204		08/25/2007 1508
SM-2540 G Mod.	Moisture (Total + Fixed Solids, Ash)	1	183865		08/20/2007 1630
EPA 120.1	Specific Conductance @ 25 degrees C	1	184117		08/23/2007 1845
SW-846 8015B	Total Extractable Petroleum Hydrocarbons	1	184223	184002	08/24/2007 1137
SW-846 8015B	Total Volatile Petroleum Hydrocarbons	1	183999		08/22/2007 0659
SW-846 8260B	Volatile Organics	1	184063		08/22/2007 1619
					1.00000
					1.00000
Lab ID: 340846-3	Client ID: GB2 5FT	Date Recvd: 08/20/2007	Sample Date: 08/15/2007		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3550B	Extraction (Ultrasonic) DRO	1	184002		08/22/2007 1000
SW-846 9056	Ion Chromatography Analysis	1	184204		08/25/2007 1610
SM-2540 G Mod.	Moisture (Total + Fixed Solids, Ash)	1	183865		08/20/2007 1630
EPA 120.1	Specific Conductance @ 25 degrees C	1	184117		08/23/2007 1845
SW-846 8015B	Total Extractable Petroleum Hydrocarbons	1	184223	184002	08/24/2007 1221
SW-846 8015B	Total Volatile Petroleum Hydrocarbons	1	183999		08/22/2007 0724
SW-846 8260B	Volatile Organics	1	184063		08/22/2007 1645
					1.00000
					1.00000
Lab ID: 340846-4	Client ID: GB2 10FT	Date Recvd: 08/20/2007	Sample Date: 08/15/2007		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3550B	Extraction (Ultrasonic) DRO	1	184002		08/22/2007 1000
SW-846 9056	Ion Chromatography Analysis	1	184204		08/25/2007 1626
SM-2540 G Mod.	Moisture (Total + Fixed Solids, Ash)	1	183865		08/20/2007 1630
EPA 120.1	Specific Conductance @ 25 degrees C	1	184117		08/23/2007 1845
SW-846 8015B	Total Extractable Petroleum Hydrocarbons	1	184223	184002	08/24/2007 1306
SW-846 8015B	Total Volatile Petroleum Hydrocarbons	1	183999		08/22/2007 0748
SW-846 8260B	Volatile Organics	1	184063		08/22/2007 1711
					1.00000
					1.00000
Lab ID: 340846-5	Client ID: GB3 5FT	Date Recvd: 08/20/2007	Sample Date: 08/15/2007		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3550B	Extraction (Ultrasonic) DRO	1	184002		08/22/2007 1000
SW-846 9056	Ion Chromatography Analysis	1	184204		08/25/2007 1728
SM-2540 G Mod.	Moisture (Total + Fixed Solids, Ash)	1	183865		08/20/2007 1630
EPA 120.1	Specific Conductance @ 25 degrees C	1	184117		08/23/2007 1845
SW-846 8015B	Total Extractable Petroleum Hydrocarbons	1	184223	184002	08/24/2007 1350
SW-846 8015B	Total Volatile Petroleum Hydrocarbons	1	183999		08/22/2007 0813
SW-846 8260B	Volatile Organics	1	184063		08/22/2007 1737
					1.00000
					1.00000
Lab ID: 340846-6	Client ID: GB3 10FT	Date Recvd: 08/20/2007	Sample Date: 08/15/2007		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3550B	Extraction (Ultrasonic) DRO	1	184002		08/22/2007 1000
SW-846 9056	Ion Chromatography Analysis	1	184204		08/25/2007 1744
SM-2540 G Mod.	Moisture (Total + Fixed Solids, Ash)	1	183865		08/20/2007 1630
EPA 120.1	Specific Conductance @ 25 degrees C	1	184117		08/23/2007 1845
SW-846 8015B	Total Extractable Petroleum Hydrocarbons	1	184223	184002	08/24/2007 1434

L A B O R A T O R Y C H R O N I C L E

Job Number: 340846

Date: 08/29/2007

CUSTOMER: Tetra Tech-Maxim Technologies, Inc.

PROJECT: CONOCO PHILLIPS

ATTN: Charlie Durret

Lab ID: 340846-6	Client ID: GB3 10FT	Date Recvd: 08/20/2007	Sample Date: 08/15/2007		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 8015B	Total Volatile Petroleum Hydrocarbons	1	184165		08/23/2007 1631
SW-846 8260B	Volatile Organics	1	184063		08/22/2007 1803
					1.0000
					1.00000
Lab ID: 340846-7	Client ID: GB4 5FT	Date Recvd: 08/20/2007	Sample Date: 08/15/2007		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3550B	Extraction (Ultrasonic) DRO	1	184002		08/22/2007 1000
SW-846 9056	Ion Chromatography Analysis	1	184204		08/25/2007 1831
SM-2540 G Mod.	Moisture (Total + Fixed Solids, Ash)	1	183865		08/20/2007 1630
EPA 120.1	Specific Conductance @ 25 degrees C	1	184117		08/23/2007 1845
SW-846 8015B	Total Extractable Petroleum Hydrocarbons	1	184223	184002	08/24/2007 0925
SW-846 8015B	Total Volatile Petroleum Hydrocarbons	1	184165		08/24/2007 1254
SW-846 8260B	Volatile Organics	1	184063		08/22/2007 1946
SW-846 8260B	Volatile Organics	1	184090		08/23/2007 1336
					10.0000
					10.0000
Lab ID: 340846-8	Client ID: GB4 15FT	Date Recvd: 08/20/2007	Sample Date: 08/15/2007		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 1312	1312 SPLP Zero Headspace Extraction	1	184286		08/28/2007 1600
SW-846 3550B	Extraction (Ultrasonic) DRO	1	184002		08/22/2007 1000
EPA300.0 REV2.	Ion Chromatography Analysis	1	183995		08/22/2007 0028
SW-846 9056	Ion Chromatography Analysis	1	184204		08/25/2007 1847
SM-2540 G Mod.	Moisture (Total + Fixed Solids, Ash)	1	183865		08/20/2007 1630
EPA 120.1	Specific Conductance @ 25 degrees C	1	184117		08/23/2007 1845
SW-846 1312	Synthetic Precipitate Leachate Procedure	1	183882		08/20/2007 1500
SW-846 8015B	Total Extractable Petroleum Hydrocarbons	1	184223	184002	08/24/2007 1519
SW-846 8015B	Total Volatile Petroleum Hydrocarbons	1	184165		08/23/2007 1656
SW-846 8260B	Volatile Organics	1	184063		08/22/2007 1829
SW-846 8260B	Volatile Organics	1	184344	184286	08/28/2007 1553
					1.0000
					1.00000
					1.00000
Lab ID: 340846-9	Client ID: GB5 5FT	Date Recvd: 08/20/2007	Sample Date: 08/15/2007		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3550B	Extraction (Ultrasonic) DRO	1	184002		08/22/2007 1000
SW-846 9056	Ion Chromatography Analysis	1	184204		08/25/2007 1918
SM-2540 G Mod.	Moisture (Total + Fixed Solids, Ash)	1	183865		08/20/2007 1630
EPA 120.1	Specific Conductance @ 25 degrees C	1	184117		08/23/2007 1845
SW-846 8015B	Total Extractable Petroleum Hydrocarbons	1	184223	184002	08/24/2007 1221
SW-846 8015B	Total Volatile Petroleum Hydrocarbons	1	184165		08/23/2007 1720
SW-846 8260B	Volatile Organics	1	184063		08/22/2007 1854
					1.0000
					1.00000
Lab ID: 340846-10	Client ID: GB5 10FT	Date Recvd: 08/20/2007	Sample Date: 08/15/2007		
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT # (S)	DATE/TIME ANALYZED
SW-846 3550B	Extraction (Ultrasonic) DRO	1	184002		08/22/2007 1000
SW-846 9056	Ion Chromatography Analysis	1	184204		08/25/2007 2005
SM-2540 G Mod.	Moisture (Total + Fixed Solids, Ash)	1	183865		08/20/2007 1630
EPA 120.1	Specific Conductance @ 25 degrees C	1	184117		08/23/2007 1845
SW-846 8015B	Total Extractable Petroleum Hydrocarbons	1	184223	184002	08/24/2007 1306
SW-846 8015B	Total Volatile Petroleum Hydrocarbons	1	183999		08/22/2007 1154
SW-846 8260B	Volatile Organics	1	184063		08/22/2007 1920
					1.0000
					1.00000

SEVERN

TRENT

STL®

3817

No. 030809

CHAIN OF CUSTODY RECORD

CUSTOMER INFORMATION		PROJECT INFORMATION		ANALYSIS/METHOD		NUMBER OF CONTAINERS		REMARKS/PRECAUTIONS	
COMPANY: Tetra Tech		PROJECT NAME/NUMBER: 7640034		TRH GRS/BTEX		2		X	
SEND REPORT TO: Charles Durett		BILL TO: C. Phillips Desje Sosa		TRH GRS/BTEX		2		X	
ADDRESS: 1703 W Industrial Ave		ADDRESS: 1410 N West County Rd		TRH GRS/BTEX		2		X	
M: 812 and Dr 79721		PHONE: 505-391-3126		TRH GRS/BTEX		2		X	
PHONE:		FAX:		TRH GRS/BTEX		2		X	
FAX: All sample taken during August		PO NO: See Bill of Materials		TRH GRS/BTEX		2		X	
SAMPLE NO.	SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER PRESERV.	ANALYSIS/METHOD		REMARKS/PRECAUTIONS	
GB1	5 ft	7/15/07	0830	Soil	Class 203	X		X	
GB2	10 ft		0840		6 203	X		X	
GB3	5 ft		0915		6 203	X		X	
GB4	10 ft		0930		6 203	X		X	
GB5	5 ft		1000		6 203	X		X	
GB6	10 ft		1025		6 203	X		X	
GB7	5 ft		1115		6 203	X		X	
GB8	15 ft		1140		6 203	X		X	
GB9	5 ft		1240		6 203	X		X	
GB10	10 ft		1255		6 203	X		X	
SAMPLER: C Durett		SHIPMENT METHOD: FedEx		AIRBILL NO: 8606-6145-2287		X		X	
REQUIRED TURNAROUND* ☐ SAME DAY ☐ 24 HOURS ☐ 48 HOURS ☐ 72 HOURS ☐ 5 DAYS ☐ 10 DAYS ☐ OTHER		ASAP		ROUTINE		X		X	
1. RELINQUISHED BY: [Signature]		DATE: 8/17/07		DATE: 8/17/07		DATE: 8/17/07		DATE: 8/17/07	
SIGNATURE: [Signature]		SIGNATURE:		SIGNATURE:		SIGNATURE:		SIGNATURE:	
PRINTED NAME/COMPANY: Charles Durett		PRINTED NAME/COMPANY:		PRINTED NAME/COMPANY:		PRINTED NAME/COMPANY:		PRINTED NAME/COMPANY:	
1. RECEIVED BY: [Signature]		DATE: 8/17/07		DATE: 8/17/07		DATE: 8/17/07		DATE: 8/17/07	
SIGNATURE: [Signature]		SIGNATURE:		SIGNATURE:		SIGNATURE:		SIGNATURE:	
PRINTED NAME/COMPANY: [Signature]		PRINTED NAME/COMPANY:		PRINTED NAME/COMPANY:		PRINTED NAME/COMPANY:		PRINTED NAME/COMPANY:	

*RUSH TURNAROUND MAY REQUIRE SURCHARGE

STL Houston

6310 Rothway Drive
Houston, TX 77040

STL8222H600 (0803)

rpjsckl	Job Sample Receipt Checklist Report	V2
Job Number.: 340846 Location.: 57216 Check List Number.: 1 Description.: Customer Job ID.....: Job Check List Date.: 08/20/2007 Date of the Report.: 08/20/2007 Project Number.: 99003817 Project Description.: Conoco Phillips Project Manager.....: sgk Customer.....: Tetra Tech-Maxim Technologies, Inc. Contact.: Charlie Durret		
Questions ?	(Y/N)	Comments
Chain of Custody Received?..... Y ...If "yes", completed properly?..... Y Custody seal on shipping container?..... N ...If "yes", custody seal intact?..... Custody seals on sample containers?..... N ...If "yes", custody seal intact?..... Samples chilled?..... N Temperature of cooler acceptable? (4 deg C +/- 2). N 14.6 ...If "no", is sample an air matrix?(no temp req.) Thermometer ID..... Y 438 Samples received intact (good condition)?..... Y Volatile samples acceptable? (no headspace)..... Correct containers used?..... Y Adequate sample volume provided?..... Y Samples preserved correctly?..... Y Samples received within holding-time?..... Y Agreement between CDC and sample labels?..... Y Radioactivity at or below background levels?..... Additional..... Comments..... Sample Custodian Signature/Date..... Y MT		