TETRA TECH, INC.

1910 N. Big Spring St.
Midland, Texas 79705
432-686-8081

August 18, 2010

Mr. Justin Wright
ConocoPhillips
HC60 Box 66
Lovington, NM 88260

RE: MCA 2A Header
Findings Report and Recommendations
Lea County, New Mexico
Unit G, Sec. 29, T17S, R32E
1RP 2300

Dear Mr. Wright:

Tetra Tech submits this findings report for the subsurface investigations performed on November 4, 2009, May 21, 2010 and August 12-13, 2010, at ConocoPhillips' MCA 2A Header produced water release site. This work was performed in support of ConocoPhillips efforts to delineate and remediate a recent 878.4 barrel produced water release reported to the New Mexico Oil Conservation Division (NMOCD; C141 Attached). The Site is located below Mescalero Ridge, approximately 1.1 miles southwest of the ConocoPhillips MCA Unit office in Lea County, New Mexico (32.805893°N, 103.788380°W; Figure 1). The U.S. Bureau of Land Management (BLM) is the land administrator.

The Site is located in the Querecho Plains of eastern New Mexico. This area generally consists of a thin cover of Quaternary sand dunes overlying the undivided Triassic Upper Chinle Group[1]. The Pyote-Kermit soil association at the Site is gently undulating deep sandy soil that is well drained, non-calcareous sands.[2]

The Site is heavily populated with oil field pipelines. Observations made by Tetra Tech during an initial site overview revealed that there are at least 5 pipelines running through the site.

Exposure Pathway Analysis

Depth to water in the vicinity of the Site is estimated to be approximately 76 feet below ground surface (fbgs). This interpretation is based on information gathered at monitoring well MW-20 that is described in ConocoPhillips' remediation project entitled "*Maljamar Gas Plant GW-020*"

[1] U.S. Department of Agriculture, Natural Resources Conservation Services. Web Soil Survey Database.
[2] Turner, M.T., D.N. Cox, B.C Mickelson, A.J. Roath, and C.D Wilson, 1973. Soil Survey Lea County, New Mexico. U.S. Depart of Agr Soil Conser Ser, 89p.

(log attached). The monitoring well is located approximately 3,515 feet northeast of the Site. The nearest playa is approximately 0.6 miles east-southeast of the Site.

Following the ranking criteria presented in "*Guidelines for Remediation of Leaks, Spills, and Releases*" promulgated on August 13, 1993, by the NMOCD, this Site has the following score:

Criteria		Ranking Score
Depth to groundwater	50 - 99 feet	10
Distance from water source	>1,000 feet	0
Distance from domestic water source	>200 feet	0
Distance from surface water body	>1,000 feet	0
Total Ranking Score		10

The remediation action level for a ranking score of 10-19 is 10 parts per million (ppm) for benzene, 50 ppm for total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 1,000 ppm for total petroleum hydrocarbons (TPH).

In the event of oil/gas releases to the environment, the NMOCD uses the New Mexico Water Quality Control Commission's maximum contaminate level of 250 ppm for chloride (20.6.2.3103 NMAC, Subsection A) for delineation.

Scope of Work

The lateral extent of the release area is defined by soil discoloration (Figure 2). To delineate the vertical extent of the produced water affected area, a hand auger was utilized in November 2009, a backhoe in May 2010, and an air rotary boring unit in August 2010 to collect soil samples.

November 4, 2009 – Six hand auger locations were bored to describe subsurface conditions at the Site. A findings report, a laboratory report, and recommendations were submitted on December 2, 2009 to the BLM and NMOCD for approval.

February 8, 2010 - ConocoPhillips and Tetra Tech representatives met with NMOCD to discuss safety concerns surrounding the planned excavation work at the MCA 2A Header. Seventeen flowlines enter the header with numerous other lines in the vicinity of the produced water release. In addition, if the excavation were to go beyond 4 fbgs, a 2:1 sloped excavation would be performed to prevent caving, which would substantially increase the size of the excavation (moving into the sand dunes). Owing to the number of lines and the potential for an expanded excavation, ConocoPhillips agreed to dig one exploratory trench (collect a sample for chloride analysis), limit the depth of the proposed excavation to 4-feet, lay down a 40-mil geomembrane, and backfill. The BLM expressed disappointment at not being involved in the meeting. Since the meeting, the BLM has changed remediation strategies in sand dune lands under Federal control and now requires clay be used as a barrier to prevent water penetration into affected soils left in-place.

May 21, 2010 – Tetra Tech returned to the Site to collect 8 backhoe samples. A brief findings report and laboratory report were submitted to the NMOCD and BLM for review on August 3, 2010.

July 20, 2010 – BLM issued a warning to ConocoPhillips concerning Site remediation and indicated that re-sampling was required to determine the depth and width of chloride impact. The agency requested that a sampling and remediation plan be submitted within 30 days.

August 2, 2010 – ConocoPhillips, NMOCD and BLM met to discuss implementation of remediation at the Site. The agencies set the following schedule: a soil boring sampling plan delivered by August 4, 2010; execution of the plan to begin no later than August 10, 2010 and soil laboratory analyses submitted to the agencies by August 13, 2010. An excavation work plan will be submitted to the agencies by August 18, 2010.

The BLM and NMOCD placed a tight schedule on collecting additional data, so ConocoPhillips hired a water well drilling company to provide an air rotary boring unit. ConocoPhillips informed NMOCD that the unit was not capable of collecting discrete depth samples (split spoon) and volatile organic compounds and petroleum hydrocarbons could volatize during the sampling process. The air rotary unit was used in August 2010 in the affected area to describe vertical and horizontal environmental conditions.

The 12 soil samples collected from the six hand auger borings in November 2009, and 8 soil samples collected from a backhoe trench in May 2010 were submitted to a laboratory for analyses. The NMOCD requested that the 50 soil cutting samples collected from the 7 borings in August 2010 be analyzed and these samples were submitted to a laboratory for analyses. All samples were placed into glass sample jars, sealed with Teflon-lined lids, and placed on ice for transportation with a chain-of-custody to an analytical laboratory where they were analyzed for diesel and gasoline range TPH (TPH_{DRO} and TPH_{GRO}, Method 8015), BTEX (Method 8021), and chloride (Method 300).

Findings

Soil encountered at the Site was moist yellowish brown sands from the surface to varying depths. Locally, the dune sands overlie red sandy clay.

TPH and BTEX laboratory analyses for the investigative events are presented in Table 1, 2 and 3. TPH concentrations were detected in all November 2009 auger samples and ranged from 265 to 7,510 milligrams per kilogram (mg/Kg). Benzene (0.069 mg/Kg) was detected in only one sample (HA-3 at 6 fbgs). BTEX concentrations ranged from non-detection to 40.77 mg/Kg.

Chloride concentrations were present in all hand auger boring locations and ranged from 293 to 25,000 mg/Kg (Table 1).

TPH concentrations were detected only in the upper 2 feet of the May 2010 backhoe samples and ranged from 8.7 to 534 mg/Kg (Table 2). Since the volatile organic compounds were below remedial action levels in the November 2009 sampling event, these hydrocarbon constituents

were excluded from the analyses. Chloride concentration attenuated with depth but showed a slight rise at the 12 to 14 fbgs sampling depths.

Tetra Tech returned to the Site on August 11, 2010 to clear each location for down-hole hazards before soil drilling ensued. Boring began August 12 and was completed on August 13, 2010. Laboratory analyses of the 50 soil cutting samples are presented in Table 3 and in the Appendix.

Total petroleum hydrocarbons exceeded the NMOCD remedial action level at only two boring locations (SB-1 0 – 0.5 ft and SB-6 0 -0.05 ft) and concentrations ranged from non-detection to 3,023 mg/Kg. Neither benzene nor BTEX exceed the remedial action level in any of the boring locations.

Chloride concentrations decreased below 250 mg/Kg with depth (maximum depth 20 fbgs) in all borings except for soil boring SB-4. At SB-4, 24 fbgs, chloride concentration was 548 mg/Kg.

Conclusions

Exposure pathway analysis indicated a ranking score of "10." Therefore, the site-specific remediation levels are 1,000 mg/Kg for TPH, 50 mg/Kg for BTEX and 10 mg/Kg for benzene. Laboratory analyses of soils collected during this investigation indicate TPH above the remedial action level was only found in the shallow soil. Benzene and/or BTEX were found in 8 of the 50 sampling points and both constituents were below their remedial action levels. The occurrence of petroleum hydrocarbons at depth may be due to the method of sample capture rather than its actual presence. Down-hole material was blown to the surface, possibly dislodging sidewall material as it travels to the surface, where the cuttings were scrapped off the ground with a hand shovel and place into a sample container.

Laboratory analyses indicate the produced water (chloride) penetrated and migrated downward in the sandy soil and stayed generally within a swale located between the facility pad and sand dunes (Figure 2). With the exception of one location (SB-4) chloride decreased below 250 mg/Kg with depth.

Recommendations

Tetra Tech recommends the following actions be taken at the Site:

At a minimum, the area will be excavated to a depth of approximately 4 fbgs. The plan includes using a roustabout crew to complete two full length and four perpendicular hand-dug trenches in an attempt to identify any unknown pipelines crossing the Site. To reduce hazards to potential unforced releases, Tetra Tech requests any active pipeline to be de-pressurized before excavating within 4 feet of a line.

Every precaution to minimize stress to known pipelines crossing the Site will be used. Soil bridges will be used to cross remaining pipelines in the work zone, but owing to the fragile condition of the existing pipelines, it is hereby acknowledged upon acceptance and signature of

this proposal, ConocoPhillips will be responsible for repairing or replacing any pipelines rendered inoperable during remediation at the Site. These repair or replacement events will be considered normal activities that occur during line rehabilitation.

A trackhoe will be used to excavate most of the affected soil. A roustabout crew will be used to hand dig affected soil near the 2A Header. All exposed lines will be supported with cribbing blocks. A front-end loader will haul the material to a nearby pad (MCA 2A Header) to load dump trucks. Individual soil samples will be collected in a "W" pattern, and composited for each sidewall and floor in the excavations, and field analyzed using chloride titration to determine that remediation levels established by NMOCD have been achieved.

Confirmation soil samples will be collected and submitted to an analytical laboratory for analyses of chloride (Method 300), TPH (Method 8015), and BTEX (Method 8021) to confirm a clean sidewall excavation. The NMOCD will be notified 48 hours in advance of collection of confirmation samples to witness sample collection.

Approximately 1.5 feet of clay material will be used to partially backfill the excavation. The clay will be compacted utilizing the on-site equipment. The remainder of the excavation will be backfilled with sand. Natural wind erosion will re-sculpture the affected area and restore the habitat of the sand dune lizard, *Sceloporus arenicolus.* The BLM approved seed mix will be applied to the rough graded surface.

Tetra Tech will supervise and direct all subcontractor activities, and prepare a report describing and documenting activities at the Site, including a site map. This report on activities, laboratory results and recommendations will be submitted for BLM and NMOCD review and ultimate approval for closure.

Tetra Tech will commence work on this project immediately following BLM and NMOCD's approval of this work plan and receipt of ConocoPhillips notification to proceed.

Please contact me (432-686-8081), if you have any questions or require additional information.

Sincerely,

Tetra Tech

Charles Durrett

Digitally signed by Charles Durrett
DN: cn=Charles Durrett, o=Tetra Tech, Inc, ou, email=charles durrett@tetratech com, c=US
Date: 2010 08 18 08.32 57 -05'00'

Charles Durrett
Senior Project Manager

Cc: Mr. John Gates, ConocoPhillips

Table 1
ConocoPhillips
MCA 2A Header
Hand Auger Analytical Soil Analyses
November 4, 2009

	Location	Sample Depth (ft)	Chloride (mg/Kg)	Petroleum Hydrocarbons (mg/Kg)			Volatile Organic Compounds (mg/Kg)				
				DRO	GRO	Total	Benzene	Ethyl-benzene	Toluene	Xylenes Total	Total BTEX
Hand Auger (HA) Sampling Locations	HA-1	2.5	5,170	5,400	460	5,860	ND	11	3.1	18.6	32.70
		5.5	2,190	1,300	130	1,430	ND	0.4	0.021	2.9	3.321
	HA-2	3.0	4,290	6,600	910	7,510	ND	12	0.77	28.0	40.77
		6	1,410	160	1	161	ND	ND	ND	ND	ND
	HA-3	4.0	2,220	ND	ND	2,220	ND	ND	ND	ND	ND
		6.0	25,000	4,500	350	4,850	0.069	6.4	3.8	13.1	23.369
	HA-4	6	4,520	ND	ND	4,520	ND	ND	ND	0.002	0.002
		4	293	ND	ND	293	ND	ND	ND	ND	ND
	HA-5	3	1,990	ND	ND	1,990	ND	ND	ND	ND	ND
		5.0	878	1,000	ND	1,000	ND	ND	ND	ND	ND
	HA-6	3	1,120	740.0	0.2	740	ND	ND	ND	ND	ND
		6.5	2,570	250	15.0	265	ND	0.0014	0.003	0.079	0.0838

TPH_{GRO} =Gasoline range petroleum hydrocarbons
TPH_{DRO} =Diesel range petroleum hydrocarbons
ft = Feet
mg/Kg = Milligrams per kilogram
ND = Analyte not detected at or above laboratory detection limits

Table 2
ConocoPhillips
MCA 2A Header
Backhoe Analytical Soil Analyses
May 21, 2010

Sample Number	Sample Depth (ft)	Chloride (mg/Kg)	Petroleum Hydrocarbons		
			GRO (mg/Kg)	DRO mg/Kg	Total mg/Kg
1	0-0.5	2660	14	520	534
2	2	2460	ND	8.7	8.7
3	4	966	ND	ND	ND
4	6	241	ND	ND	ND
5	8	233	ND	ND	ND
6	10	58.2	ND	ND	ND
7	12	270	ND	ND	ND
8	14	321	ND	ND	ND

TPH_{GRO} =Gasoline range petroleum hydrocarbons
TPH_{DRO} =Diesel range petroleum hydrocarbons
ft = Feet
mg/Kg = Milligrams per kilogram
ND = Analyte not detected at or above laboratory detection limits

Table 3
ConocoPhillips
MCA 2A Header
Air Rotary Boring Analytical Soil Analyses
August 12-13, 2010

Location		Sample Depth (ft)	Chloride (mg/Kg)	Petroleum Hydrocarbons (mg/Kg)			Volatile Organic Compounds (mg/Kg)				
				DRO	GRO	Total	Benzene	Ethyl-benzene	Toluene	Xylenes Total	Total BTEX
Soil Boring (SB) Sampling Locations	SB-1	0-0.5	75	ND	105	105	ND	ND	ND	ND	ND
		4.0	**1,060**	893	2,130	**3,023**	ND	0.3497	ND	1.806	2.126
		8.0	46.6	74.2	330	404.2	ND	0.0606	0.0146	0.6858	0.7610
		12.0	5.57	ND	29.9	29.9	ND	0.0019	ND	0.0013	0.0032
		16.0	37.7	ND	39.2	39.2	0.0018	ND	ND	ND	0.0018
		20.0	23.1	ND	21 2	21.2	ND	ND	ND	ND	ND
		24.0	5.68	ND	33	33	ND	ND	ND	ND	ND
	SB-2	0-0.5	6.24	ND	ND	ND	ND	ND	ND	ND	ND
		4.0	**1,420**	ND	ND	ND	ND	ND	ND	ND	ND
		8.0	**361**	ND	ND	ND	ND	ND	ND	ND	ND
		12.0	**274**	ND	ND	ND	ND	ND	ND	ND	ND
		16.0	**304**	15 5	ND	15.5	ND	ND	ND	ND	ND
		20.0	88.9	ND	21.4	21.4	ND	ND	ND	ND	ND
		24.0	112	26.7	27.1	53.8	ND	ND	ND	ND	ND
	SB-3	0-0.5	21 6	ND	ND	ND	ND	ND	ND	ND	ND
		4.0	40.8	ND	ND	ND	ND	ND	ND	ND	ND
		8 0	227	ND	30.3	30.3	ND	ND	ND	ND	ND
		12.0	22	ND	ND	ND	ND	ND	ND	ND	ND
		16.0	23	ND	ND	ND	ND	ND	ND	ND	ND
		20.0	19	ND	26.7	26.7	ND	ND	ND	ND	ND
		24 0	36	ND	48.4	48 4	ND	ND	ND	ND	ND
	SB-4	0-0.5	152	ND	ND	ND	ND	ND	ND	ND	ND
		4.0	77.9	ND	ND	ND	ND	ND	ND	ND	ND
		8.0	245	ND	107	107	ND	ND	ND	ND	ND
		12.0	**334**	ND	65.5	65.5	ND	ND	ND	ND	ND
		16.0	**405**	ND	23.7	23 7	ND	ND	ND	ND	ND
		20.0	**318**	ND	19.6	19.6	ND	ND	ND	ND	ND
		24 0	**548**	ND	19.2	19 2	ND	ND	ND	ND	ND
	SB-5	0-0.5	131	ND	ND	ND	ND	ND	ND	ND	ND
		4.0	**386**	46.2	80.3	126.5	ND	ND	ND	ND	ND
		8.0	**363**	75.4	599	674.4	0.8884	ND	1.296	0.5816	2.766
		12.0	53 5	ND	26	26	ND	ND	0.0	ND	0.0014
		16.0	98.5	ND	ND	ND	ND	ND	ND	0.0028	0.0028
		20.0	119	ND	ND	ND	ND	ND	ND	ND	ND
		24.0	192	ND	ND	ND	ND	ND	ND	ND	ND
	SB-6	0-0.5	**530**	183	818	**1,001**	ND	ND	ND	0.0084	0.0084
		4.0	240	38.3	42.4	80.7	ND	ND	ND	ND	ND
		8 0	**939**	ND	112	112	ND	ND	ND	ND	ND
		12.0	138	ND	49.1	49.1	ND	ND	ND	ND	ND
		16.0	107.	ND	ND	ND	ND	ND	ND	ND	ND
		20.0	136	ND	ND	ND	ND	ND	ND	ND	ND
		24.0	231	ND	95.3	95.3	ND	ND	ND	ND	ND
	SB-7	0-0.5	20 5	ND	19 5	19.5	ND	ND	ND	ND	ND
		4.0	**580**	ND	ND	ND	ND	ND	ND	ND	ND
		8 0	**588**	20 6	ND	20.6	ND	ND	ND	ND	ND
		12.0	173	ND	27.2	27.2	ND	ND	ND	ND	ND
		16.0	234	ND	ND	ND	ND	ND	ND	ND	ND
		20.0	158	ND	ND	ND	ND	ND	ND	ND	ND
		24.0	186	ND	ND	ND	ND	ND	ND	ND	ND
		28.0	195	ND	ND	ND	ND	ND	ND	ND	ND

TPH_{GRO} = Gasoline range petroleum hydrocarbons
TPH_{DRO} = Diesel range petroleum hydrocarbons
ft = Feet
mg/Kg = Milligrams per kilogram
ND = Analyte not detected at or above laboratory detection limits

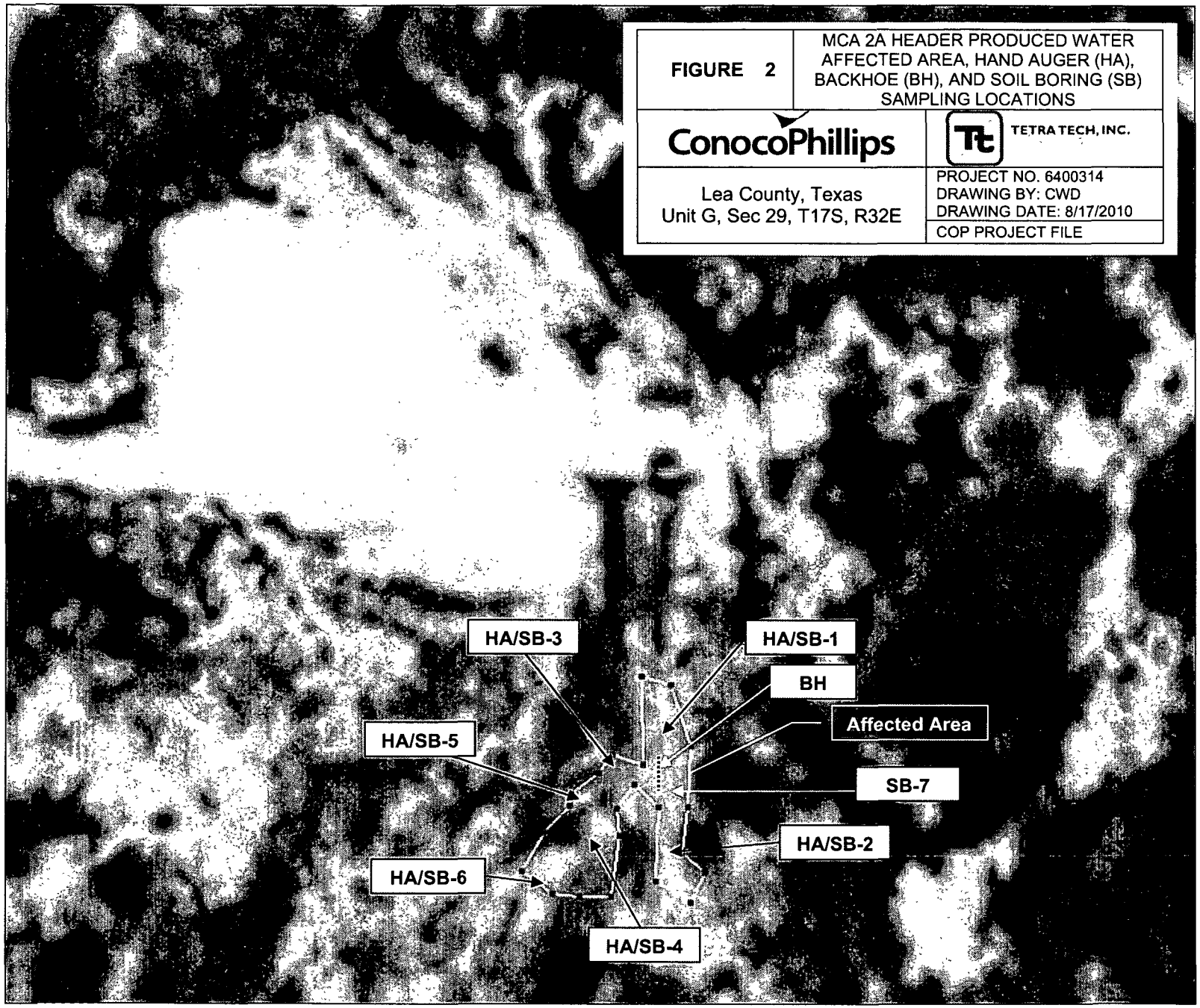
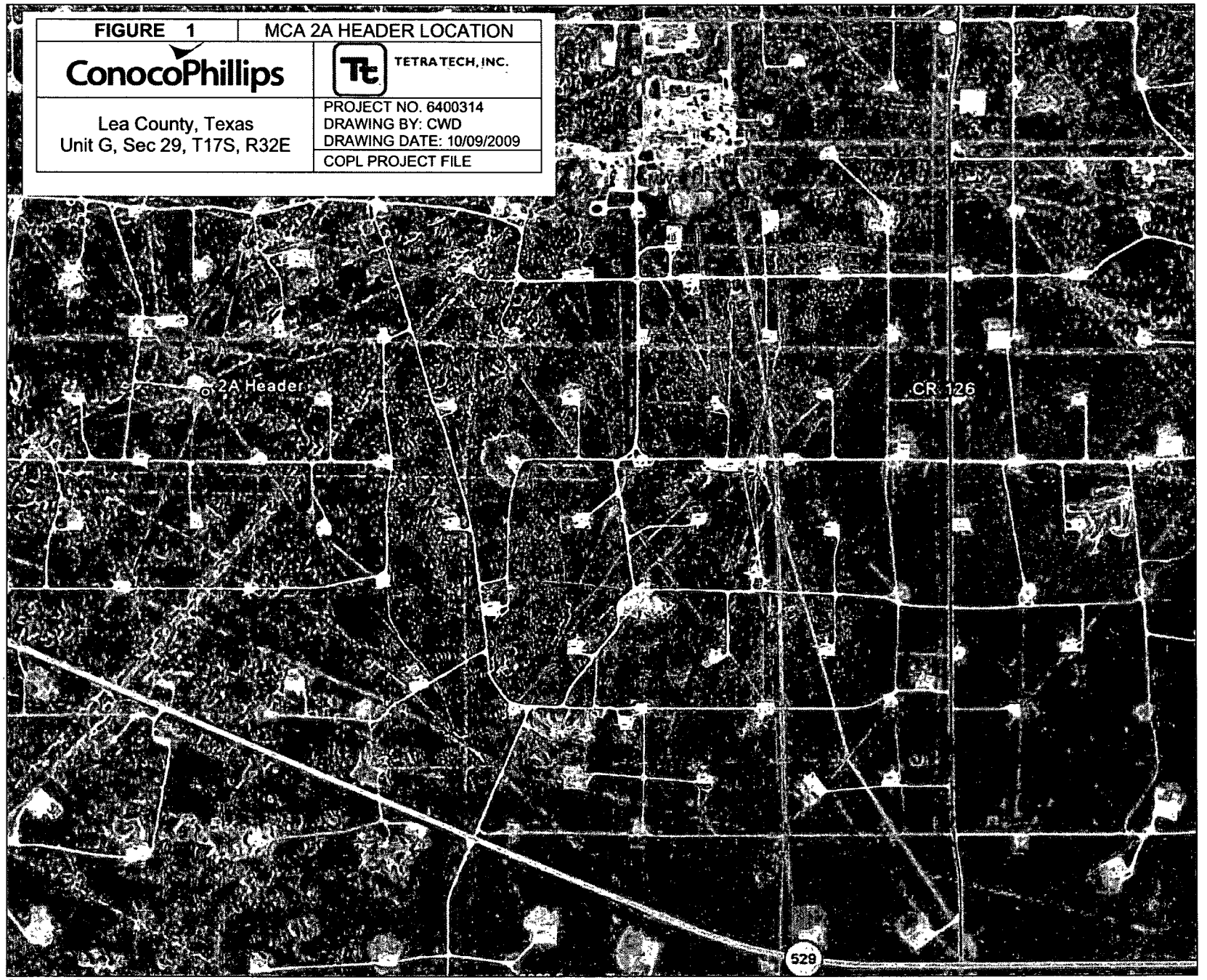


FIGURE 2	MCA 2A HEADER PRODUCED WATER AFFECTED AREA, HAND AUGER (HA), BACKHOE (BH), AND SOIL BORING (SB) SAMPLING LOCATIONS
ConocoPhillips	TETRA TECH, INC.
Lea County, Texas Unit G, Sec 29, T17S, R32E	PROJECT NO. 6400314 DRAWING BY: CWD DRAWING DATE: 8/17/2010 COP PROJECT FILE

FIGURE 1	MCA 2A HEADER LOCATION
ConocoPhillips	TETRA TECH, INC.
Lea County, Texas Unit G, Sec 29, T17S, R32E	PROJECT NO. 6400314 DRAWING BY: CWD DRAWING DATE: 10/09/2009
	COPL PROJECT FILE



Source: Google Earth. 2009.

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

RECEIVED
SEP 23 2009
HOBBSOCD

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company **ConocoPhillips Company**	Contact **John W. Gates**
Address **3300 North A St. Bldg 6, Midland, TX 79705-5406**	Telephone No. **505.391.3158**
Facility Name **MCA 2A Header**	Facility Type **Oil and Gas**

Surface Owner **Federal**	Mineral Owner **Federal**	Lease No **LC-060199A**

LOCATION OF RELEASE

NEARBY WELL MCA UNIT 308 API # 30-025-24076-00-00

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	**29**	**17S**	**32E**					**Lea**

Latitude 32.48.340 **Longitude 103 47.301**

NATURE OF RELEASE

Type of Release **Produced Water**	Volume of Release **878.4**bbl (**0**oil, **878.4**water)	Volume Recovered (**0**oil, **845**water)
Source of Release **2" Fiberglass Trunkline**	Date and Hour of Occurrence **9/19/09 Unknown**	Date and Hour of Discovery **9/19/09 0717**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Pat Hutchins**	
By Whom? **Tommy Brooks**	Date and Hour **9/19/09 1615**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

WATER @ 170'

Describe Cause of Problem and Remedial Action Taken.*

Leak originated from a hole in a 2" fiberglass trunkline due to fatigue. Trunkline was isolated and the 2A header

Describe Area Affected and Cleanup Action Taken.*

300' X 60' X 2" area of sandy pasture land with no livestock present. Spill site will be delineated & remediated in accordance with an agreement with NMOCD and BLM guidelines.

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: John W. Gates	OIL CONSERVATION DIVISION
Printed Name: **John W. Gates**	Approved by ENV ENGINEER ~~District Supervisor:~~ Geoffrey Leking
Title: **HSER Lead**	Approval Date: 09/24/09 Expiration Date: 11/24/09
E-mail Address: **John.W.Gates@conocophillips.com**	Conditions of Approval: DELINEATE TO CLEAN +1. SUBMIT FINAL BY 11/24/09. Attached ☐
Date: **9/21/09** Phone: **505.391.3158**	IRP-09-10-2300

- Attach Additional Sheets If Necessary

fGRL0928731707

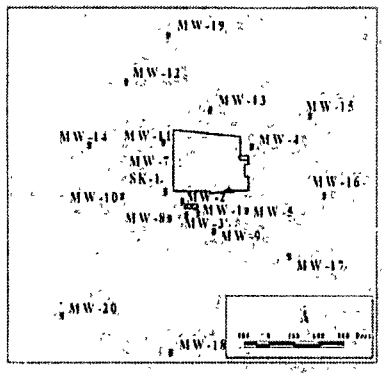
BORING LOG

PROJECT NAME: Maxim #2690032
LOCATION: Maljamar Gas Plant, Lea County

MONITORING WELL NO. MW-20
FIELD LOGGED BY: F. Lichnovsky
ELEVATION: GROUND SURFACE (msl): 3975.42 (ft)
GROUNDWATER ELEVATION (msl): 3899.92 (ft)
DRILL TYPE: Truck Mounted Air Rotary

BORE HOLE DIAMETER: 5 (in)
DRILLED BY: Scarborough Drilling
DATE/TIME: HOLE STARTED: 9/18/02
DATE/TIME: COMPLETED: 9/19/02
REMARKS: bgs=Below Ground Surface
ND=Not Detected, NS=No Sample
msl=mean sea level
FOG-First occurrence of groundwater
SWL-Static Water Level

LOCATION MAP



WELL COMPLETION INFORMATION

Measuring Point Description (msl): Top of Casing
Measuring Point Elevation (msl): 3976.92
Static Water Level (feet below Top of Casing): 77
Well Development: Water Extraction Until Visibly Free of Sediment
Well Cap: Locking Cap

Type of Casing: PVC
Casing Diameter: 2 in.
Slot Size: 0.010 in

ELEVATION (msl) - ft	SAMPLE INTERVAL/ID #	COMPLETION DIAGRAM	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
3975.0	1	GROUTED ANNULUS	SAND, red	SP					0.6	0
3970.0	2		Shale, red						2.2	5
3965.0	3		Caliche, white						4.2	10
3960.0	4		SAND, light red	SP					2.5	15
3955.0	5								2.1	20
3950.0	6								1.9	25
3945.0	7		Shale, red						2.2	30
3940.0	8								2.4	35
3935.0										40

Boring Terminated at 120' bgs

Bulk Sampling

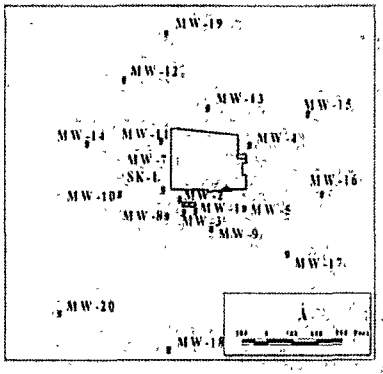
2690032	MAXIM TECHNOLOGIES INC	EXPLORATORY BORING LOG	MW-20

PROJECT NAME: Maxim #2690032
LOCATION: Maljamar Gas Plant, Lea County

MONITORING WELL NO. MW-20
FIELD LOGGED BY: F. Lichnovsky
ELEVATION: GROUND SURFACE (msl): 3975.42 (ft)
GROUNDWATER ELEVATION (msl): 3899.92 (ft)
DRILL TYPE: Truck Mounted Air Rotary

BORE HOLE DIAMETER: 5 (in)
DRILLED BY: Scarborough Drilling
DATE/TIME: HOLE STARTED: 9/18/02
DATE/TIME: COMPLETED: 9/19/02
REMARKS: bgs=Below Ground Surface
ND=Not Detected, NS=No Sample
msl=mean sea level
FOG-First occurrence of groundwater
SWL-Static Water Level

LOCATION MAP



WELL COMPLETION INFORMATION

Measuring Point Description (msl): Top of Casing
Measuring Point Elevation (msl): 3976.92
Static Water Level (feet below Top of Casing): 77
Well Development: Water Extraction Until Visibly Free of Sediment
Well Cap: Locking Cap

Type of Casing: PVC
Casing Diameter: 2 in.
Slot Size: 0.010 in

ELEVATION (msl) - ft	SAMPLE INTERVAL/ID #	COMPLETION DIAGRAM	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
3930.0	9		Shale, gray						2.0	45
3925.0	10								2.8	50
3920.0	11								2.4	55
3915.0	12		Shale, gray, with light yellow sand						2.1	60
3910.0	13		Shale, light yellow						3.1	65
3905.0	14		Shale, light yellowish-green, sand, yellow						2.6	70
3900.0	15	BENTONITE SEAL	Shale, gray to grayish-green						3.2	75
3895.0	16	9/17/02 SWL	Shale, grayish-green						1.5	80

Boring Terminated at 120' bgs

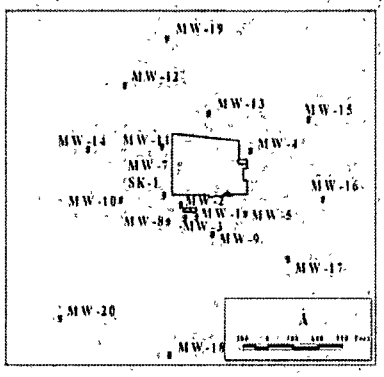
Bulk Sampling

2690032	MAXIM TECHNOLOGIES INC	EXPLORATORY BORING LOG	MW-20

PROJECT NAME: Maxim #2690032
LOCATION: Maljamar Gas Plant, Lea County

MONITORING WELL NO. MW-20
FIELD LOGGED BY: F. Lichnovsky
ELEVATION: GROUND SURFACE (msl): 3975.42 (ft)
GROUNDWATER ELEVATION (msl): 3899.92 (ft)
DRILL TYPE: Truck Mounted Air Rotary
BORE HOLE DIAMETER: 5 (in)
DRILLED BY: Scarborough Drilling
DATE/TIME: HOLE STARTED: 9/18/02
DATE/TIME: COMPLETED: 9/19/02
REMARKS: bgs=Below Ground Surface
ND=Not Detected, NS=No Sample
msl=mean sea level
FOG-First occurrence of groundwater
SWL-Static Water Level

LOCATION MAP



WELL COMPLETION INFORMATION

Measuring Point Description (msl): Top of Casing
Measuring Point Elevation (msl): 3976.92
Static Water Level (feet below Top of Casing): 77
Well Development: Water Extraction Until Visibly Free of Sediment
Well Cap: Locking Cap

Type of Casing: PVC
Casing Diameter: 2 in.
Slot Size: 0.010 in

ELEVATION (msl) - ft	SAMPLE INTERVAL/ID #	COMPLETION DIAGRAM	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	BLOW COUNT	ANALYTICAL	TIME	% RECOVERY	PID RESULT (ppm)	DEPTH (bgs) - ft
3890.0	17	SAND PACK	Shale, gray, some thin layers of red shale						1.5	85
3885.0	18		Shale, red						1.4	90
3880.0	19								2.7	95
3875.0	20								1.7	100
3870.0	21		Shale, purplish-red						1.9	105
3865.0	22								1.7	110
3860.0	23								1.3	115
	24								0.9	120

Boring Terminated at 120' bgs

Bulk Sampling

2690032	MAXIM TECHNOLOGIES INC	EXPLORATORY BORING LOG	MW-20

LABORATORY REPORTS

Xenco Laboratory Report Dated August 16, 2010
Xenco Laboratory Report Dated August 17, 2010

Analytical Report 385501

for

Tetra Tech- Midland

Project Manager: Charles Durrett

Conoco Phillips

114-6400314C0

16-AUG-10

Celebrating 20 Years of commitment to excellence in Environmental Testing Services

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL00449):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

16-AUG-10

Project Manager: **Charles Durrett**
Tetra Tech- Midland
1910 N. Big Spring
Midland, TX 79705

Reference: XENCO Report No: **385501**
Conoco Phillips
Project Address: MCA 2A Header

Charles Durrett:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 385501. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 385501 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 385501

Tetra Tech- Midland, Midland, TX

Conoco Phillips

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-1 0-6"	S	Aug-11-10 09:34	0 - 6 In	385501-001
SB-1 4'	S	Aug-11-10 09:41	4 ft	385501-002
SB-2 0-6"	S	Aug-11-10 08:54	0 - 6 In	385501-003
SB-2 4'	S	Aug-11-10 09:00	4 ft	385501-004
SB-3 0-6"	S	Aug-11-10 11:13	0 - 6 In	385501-005
SB-3 4'	S	Aug-11-10 11:23	4 ft	385501-006
SB-4 0-6"	S	Aug-11-10 10:36	0 - 6 In	385501-007
SB-4 4'	S	Aug-11-10 10:43	4 ft	385501-008
SB-5 0-6"	S	Aug-11-10 10:51	0 - 6 In	385501-009
SB-5 4'	S	Aug-11-10 10:57	4 ft	385501-010
SB-6 0-6"	S	Aug-11-10 10:20	0 - 6 In	385501-011
SB-6 4'	S	Aug-11-10 10:25	4 ft	385501-012
SB-7 0-6"	S	Aug-11-10 10:08	0 - 6 In	385501-013
SB-7 4'	S	Aug-11-10 10:11	4 ft	385501-014
SB-2 8'	S	Aug-12-10 08:00	8 ft	385501-015
SB-2 12'	S	Aug-12-10 08:35	12 ft	385501-016
SB-2 16'	S	Aug-12-10 09:15	16 ft	385501-017
SB-2 20'	S	Aug-12-10 09:50	20 ft	385501-018
SB-2 24'	S	Aug-12-10 10:20	24 ft	385501-019
SB-7 8'	S	Aug-12-10 11:30	8 ft	385501-020
SB-7 12'	S	Aug-12-10 11:45	12 ft	385501-021
SB-7 16'	S	Aug-12-10 12:01	16 ft	385501-022
SB-7 20'	S	Aug-12-10 12:19	20 ft	385501-023
SB-7 24'	S	Aug-12-10 12:36	24 ft	385501-024
SB-7 28'	S	Aug-12-10 12:50	28 ft	385501-025
SB-3 8'	S	Aug-12-10 13:20	8 ft	385501-026
SB-3 12'	S	Aug-12-10 13:42	12 ft	385501-027
SB-3 16'	S	Aug-12-10 14:01	16 ft	385501-028
SB-3 20'	S	Aug-12-10 14:19	20 ft	385501-029
SB-3 24'	S	Aug-12-10 14:45	24 ft	385501-030
SB-4 8'	S	Aug-12-10 15:20	8 ft	385501-031
SB-4 12'	S	Aug-12-10 15:41	12 ft	385501-032
SB-4 16'	S	Aug-12-10 16:06	16 ft	385501-033
SB-4 20'	S	Aug-12-10 16:24	20 ft	385501-034
SB-4 24'	S	Aug-12-10 16:46	24 ft	385501-035
SB-6 8'	S	Aug-12-10 17:30	8 ft	385501-036
SB-6 12'	S	Aug-12-10 17:53	12 ft	385501-037
SB-6 16'	S	Aug-12-10 18:20	16 ft	385501-038
SB-6 20'	S	Aug-12-10 18:47	20 ft	385501-039
SB-6 24'	S	Aug-12-10 19:20	24 ft	385501-040

* TRRP Tier I Comm/Indus Soils PCL's

CASE NARRATIVE

Client Name: Tetra Tech- Midland
Project Name: Conoco Phillips

Project ID:	*114-6400314C0*	*Report Date:*	*16-AUG-10*
Work Order Number:	*385501*	*Date Received:*	*08/13/2010*

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-818836 Percent Moisture
None

Batch: LBA-818837 Percent Moisture
None

Batch: LBA-818839 Percent Moisture
None

Batch: LBA-818873 Anions by E300
None

Batch: LBA-818878 TPH By SW8015 Mod
None

Batch: LBA-818880 TPH By SW8015 Mod
SW8015MOD_NM

Batch 818880, C28-C35 Oil Range Hydrocarbons RPD was outside QC limits.
Samples affected are: 385501-023, -028, -040, -021, -022, -035, -024, -027, -032, -038, -026, -039, -025, -029, -030, -034, -037, -033, -031, -036

Batch: LBA-818899 BTEX by EPA 8021B
SW8021BM

Batch 818899, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 385501-005, -006, -003, -012, -011, -017, -001, -013, -014, -016, -007, -015, -019, -004, -010, -008, -009, -020.
The Laboratory Control Sample for Toluene, m,p-Xylenes , Ethylbenzene, o-Xylene is within laboratory Control Limits

CASE NARRATIVE

Client Name: Tetra Tech- Midland
Project Name: Conoco Phillips

Project ID: 114-6400314C0
Work Order Number: 385501

Report Date: 16-AUG-10
Date Received: 08/13/2010

Batch: LBA-818906 BTEX by EPA 8021B
SW8021BM

Batch 818906, Benzene, Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.
Samples affected are: 385501-023, -028, -040, -022, -035, -021, -024, -027, -032, -038, -026, -039, -025, -029, -030, -034, -037, -033, -031, -036.
The Laboratory Control Sample for Toluene, m,p-Xylenes , Benzene, Ethylbenzene, o-Xylene is within laboratory Control Limits

Batch: LBA-819025 Anions by E300
None

Batch: LBA-819042 BTEX by EPA 8021B
None

Certificate of Analysis Summary 385501

Tetra Tech- Midland, Midland, TX

Project Name: Conoco Phillips

Draft

Project Id: 114-6400314C0
Contact: Charles Durrett
Project Location: MCA 2A Header

Date Received in Lab: Fri Aug-13-10 09:10 am
Report Date: 16-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385501-001		385501-002		385501-003		385501-004		385501-005		385501-006	
	Field Id:	SB-1 0-6"		SB-1 4'		SB-2 0-6"		SB-2 4'		SB-3 0-6"		SB-3 4'	
	Depth:	0-6 In		4- ft		0-6 In		4- ft		0-6 In		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-11-10 09:34		Aug-11-10 09:41		Aug-11-10 08:54		Aug-11-10 09:00		Aug-11-10 11:13		Aug-11-10 11:23	
Anions by E300	*Extracted:*												
	Analyzed:	Aug-14-10 12:20		Aug-14-10 12:20		Aug-14-10 12:20		Aug-14-10 12:20		Aug-14-10 12:20		Aug-14-10 12:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		75.0	4.34	1060	19.6	6.24	4.32	1420	23.9	21.6	4.67	40.8	5.38
BTEX by EPA 8021B	*Extracted:*	Aug-13-10 13:30		Aug-16-10 08:00		Aug-13-10 13:30		Aug-13-10 13:30		Aug-13-10 13:30		Aug-13-10 13:30	
	Analyzed:	Aug-14-10 01:38		Aug-16-10 13:55		Aug-14-10 03:12		Aug-14-10 04:46		Aug-14-10 03:35		Aug-14-10 03:59	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	ND	0.2914	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
Toluene		ND	0.0020	ND	0.5828	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020
Ethylbenzene		ND	0.0010	0.3497	0.2914	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
m,p-Xylenes		ND	0.0020	1.168	0.5828	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020
o-Xylene		ND	0.0010	0.6381	0.2914	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
Total Xylenes		ND	0 0010	1.806	0.2914	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
Total BTEX		ND	0.0010	2.156	0.2914	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
TPH By SW8015 Mod	*Extracted:*	Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45	
	Analyzed:	Aug-13-10 14:59		Aug-13-10 15:20		Aug-13-10 15:40		Aug-13-10 16:01		Aug-13-10 16:21		Aug-13-10 16:42	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		ND	15.0	893	75.2	ND	15.0	ND	15.1	ND	15.0	ND	14.9
Diesel Range Hydrocarbons		105	15.0	2130	75.2	ND	15.0	ND	15.1	ND	15.0	ND	14.9

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 385501

Tetra Tech- Midland, Midland, TX

Project Name: Conoco Phillips

Draft

Project Id: 114-6400314C0
Contact: Charles Durrett
Project Location: MCA 2A Header

Date Received in Lab: Fri Aug-13-10 09:10 am
Report Date: 16-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385501-001		385501-002		385501-003		385501-004		385501-005		385501-006	
	Field Id:	SB-1 0-6"		SB-1 4'		SB-2 0-6"		SB-2 4'		SB-3 0-6"		SB-3 4'	
	Depth:	0-6 In		4- ft		0-6 In		4- ft		0-6 In		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-11-10 09:34		Aug-11-10 09:41		Aug-11-10 08:54		Aug-11-10 09:00		Aug-11-10 11:13		Aug-11-10 11:23	
Percent Moisture	***Extracted:***												
	Analyzed:	Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		3.24	1 00	14.2	1.00	2.73	1.00	12.0	1.00	10.0	1.00	21.9	1.00

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 385501

Tetra Tech- Midland, Midland, TX

Project Name: Conoco Phillips

Draft

Project Id: 114-6400314C0
Contact: Charles Durrett
Project Location: MCA 2A Header

Date Received in Lab: Fri Aug-13-10 09:10 am
Report Date: 16-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385501-007		385501-008		385501-009		385501-010		385501-011		385501-012	
	Field Id:	SB-4 0-6"		SB-4 4'		SB-5 0-6"		SB-5 4'		SB-6 0-6"		SB-6 4'	
	Depth:	0-6 In		4- ft		0-6 In		4- ft		0-6 In		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-11-10 10:36		Aug-11-10 10:43		Aug-11-10 10:51		Aug-11-10 10:57		Aug-11-10 10:20		Aug-11-10 10:25	
Anions by E300	***Extracted:***												
	Analyzed:	Aug-14-10 12:20		Aug-14-10 12:20		Aug-14-10 12:20		Aug-14-10 12:20		Aug-14-10 12:20		Aug-14-10 12:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		152	4.40	77.9	18.7	131	8.62	386	9.89	530	8.96	240	10.9
BTEX by EPA 8021B	***Extracted:***	Aug-13-10 13:30		Aug-13-10 13:30		Aug-13-10 13:30		Aug-13-10 13:30		Aug-13-10 13:30		Aug-13-10 13:30	
	Analyzed:	Aug-14-10 04:22		Aug-14-10 05:09		Aug-14-10 05:32		Aug-14-10 06:19		Aug-14-10 07:29		Aug-14-10 05:56	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
Toluene		ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020
Ethylbenzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010
m,p-Xylenes		ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	0.0072	0.0020	ND	0.0020
o-Xylene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0.0012	0.0010	ND	0.0010
Total Xylenes		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0.0084	0.0010	ND	0.0010
Total BTEX		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	0 0084	0.0010	ND	0.0010
TPH By SW8015 Mod	***Extracted:***	Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45	
	Analyzed:	Aug-13-10 17:02		Aug-13-10 17:22		Aug-13-10 17:42		Aug-13-10 18:02		Aug-13-10 18:42		Aug-13-10 19:02	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		ND	15.1	ND	14.9	ND	15.1	46.2	15.0	183	75.0	38.3	15.0
Diesel Range Hydrocarbons		ND	15.1	ND	14.9	ND	15.1	80.3	15.0	818	75.0	42.4	15.0

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 385501

Tetra Tech- Midland, Midland, TX

Project Name: Conoco Phillips

Draft

Project Id: 114-6400314C0
Contact: Charles Durrett
Project Location: MCA 2A Header

Date Received in Lab: Fri Aug-13-10 09:10 am
Report Date: 16-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385501-007		385501-008		385501-009		385501-010		385501-011		385501-012	
	Field Id:	SB-4 0-6"		SB-4 4'		SB-5 0-6"		SB-5 4'		SB-6 0-6"		SB-6 4'	
	Depth:	0-6 In		4- ft		0-6 In		4- ft		0-6 In		4- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-11-10 10:36		Aug-11-10 10:43		Aug-11-10 10.51		Aug-11-10 10·57		Aug-11-10 10:20		Aug-11-10 10:25	
Percent Moisture	***Extracted:***												
	Analyzed:	Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		4 52	1.00	10.4	1.00	2.52	1.00	15.1	1.00	6.23	1.00	22.8	1.00

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 385501

Tetra Tech- Midland, Midland, TX

Project Name: Conoco Phillips

Draft

Project Id: 114-6400314C0
Contact: Charles Durrett
Project Location: MCA 2A Header

Date Received in Lab: Fri Aug-13-10 09:10 am
Report Date: 16-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385501-013		385501-014		385501-015		385501-016		385501-017		385501-018	
	Field Id:	SB-7 0-6"		SB-7 4'		SB-2 8'		SB-2 12'		SB-2 16'		SB-2 20'	
	Depth:	0-6 In		4- ft		8- ft		12- ft		16- ft		20- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-11-10 10:08		Aug-11-10 10:11		Aug-12-10 08:00		Aug-12-10 08:35		Aug-12-10 09:15		Aug-12-10 09:50	
Anions by E300	***Extracted:***												
	Analyzed:	Aug-14-10 12:20		Aug-14-10 12:20		Aug-14-10 12:20		Aug-14-10 12:20		Aug-14-10 12:20		Aug-14-10 12:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		20.5	5.19	580	9.29	361	10.6	274	8.99	304	8.88	88.9	10.2
BTEX by EPA 8021B	***Extracted:***	Aug-13-10 13:30		Aug-13-10 13:30		Aug-13-10 13:30		Aug-13-10 13:30		Aug-13-10 13:30		Aug-16-10 08:00	
	Analyzed:	Aug-14-10 07:52		Aug-14-10 08:16		Aug-14-10 08:40		Aug-14-10 09:03		Aug-14-10 09:27		Aug-16-10 12:22	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0012
Toluene		ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0024
Ethylbenzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0012
m,p-Xylenes		ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0020	ND	0.0024
o-Xylene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0012
Total Xylenes		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0012
Total BTEX		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0012
TPH By SW8015 Mod	***Extracted:***	Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45	
	Analyzed:	Aug-13-10 19:22		Aug-13-10 19.42		Aug-13-10 20:02		Aug-13-10 20:21		Aug-13-10 20:41		Aug-14-10 09:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		ND	15.0	ND	15.0	ND	15.0	ND	15.0	15.5	14.9	ND	14.9
Diesel Range Hydrocarbons		19.5	15.0	ND	15.0	ND	15.0	ND	15.0	ND	14.9	21.4	14.9

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 385501

Tetra Tech- Midland, Midland, TX

Project Name: Conoco Phillips

Draft

Project Id: 114-6400314C0
Contact: Charles Durrett
Project Location: MCA 2A Header

Date Received in Lab: Fri Aug-13-10 09:10 am
Report Date: 16-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385501-013		385501-014		385501-015		385501-016		385501-017		385501-018	
	Field Id:	SB-7 0-6"		SB-7 4'		SB-2 8'		SB-2 12'		SB-2 16'		SB-2 20'	
	Depth:	0-6 In		4- ft		8- ft		12- ft		16- ft		20- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-11-10 10:08		Aug-11-10 10:11		Aug-12-10 08:00		Aug-12-10 08:35		Aug-12-10 09:15		Aug-12-10 09:50	
Percent Moisture	***Extracted:***												
	Analyzed:	Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		19.1	1.00	9.62	1.00	21.0	1.00	6.58	1.00	5.37	1.00	17.3	1.00

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 385501

Tetra Tech- Midland, Midland, TX

Project Name: Conoco Phillips

Draft

Project Id: 114-6400314C0
Contact: Charles Durrett
Project Location: MCA 2A Header

Date Received in Lab: Fri Aug-13-10 09:10 am
Report Date: 16-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385501-019		385501-020		385501-021		385501-022		385501-023		385501-024	
	Field Id:	SB-2 24'		SB-7 8'		SB-7 12'		SB-7 16'		SB-7 20'		SB-7 24'	
	Depth:	24- ft		8- ft		12- ft		16- ft		20- ft		24- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-12-10 10:20		Aug-12-10 11:30		Aug-12-10 11:45		Aug-12-10 12:01		Aug-12-10 12:19		Aug-12-10 12:36	
Anions by E300	*Extracted:*												
	Analyzed:	Aug-14-10 12.20		Aug-14-10 12:20		Aug-16-10 08:05		Aug-16-10 08:05		Aug-16-10 08:05		Aug-16-10 08:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		112	8.99	588	18.4	173	8.62	234	8.81	158	8.82	186	8.86
BTEX by EPA 8021B	*Extracted:*	Aug-13-10 13:30		Aug-13-10 13:30		Aug-13-10 13:45		Aug-13-10 13:45		Aug-13-10 13:45		Aug-13-10 13:45	
	Analyzed:	Aug-14-10 10:14		Aug-14-10 10:37		Aug-15-10 21:23		Aug-14-10 14:09		Aug-14-10 14:32		Aug-14-10 16:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0011	ND	0.0011	ND	0.0011
Toluene		ND	0.0020	ND	0.0020	ND	0.0021	ND	0.0021	ND	0.0021	ND	0.0021
Ethylbenzene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0011	ND	0.0011	ND	0.0011
m,p-Xylenes		ND	0.0020	ND	0 0020	ND	0.0021	ND	0.0021	ND	0.0021	ND	0.0021
o-Xylene		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0011	ND	0.0011	ND	0.0011
Total Xylenes		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0011	ND	0.0011	ND	0.0011
Total BTEX		ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0011	ND	0.0011	ND	0.0011
TPH By SW8015 Mod	*Extracted:*	Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45	
	Analyzed:	Aug-14-10 09:29		Aug-14-10 09:50		Aug-13-10 16:19		Aug-13-10 16:50		Aug-13-10 17:21		Aug-13-10 17:52	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		26.7	15.0	20.6	15.0	ND	15.4	ND	15.8	ND	15.8	ND	15.8
Diesel Range Hydrocarbons		27.1	15.0	ND	15.0	27.2	15.4	ND	15.8	ND	15.8	ND	15.8

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 385501

Tetra Tech- Midland, Midland, TX

Project Name: Conoco Phillips

Draft

Project Id: 114-6400314C0
Contact: Charles Durrett
Project Location: MCA 2A Header

Date Received in Lab: Fri Aug-13-10 09:10 am
Report Date: 16-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385501-019		385501-020		385501-021		385501-022		385501-023		385501-024	
	Field Id:	SB-2 24'		SB-7 8'		SB-7 12'		SB-7 16'		SB-7 20'		SB-7 24'	
	Depth:	24- ft		8- ft		12- ft		16- ft		20- ft		24- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-12-10 10:20		Aug-12-10 11:30		Aug-12-10 11:45		Aug-12-10 12:01		Aug-12-10 12:19		Aug-12-10 12:36	
Percent Moisture	***Extracted:***												
	Analyzed:	Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		6.53	1.00	8.61	1.00	2.53	1.00	4.69	1.00	4.74	1.00	5.24	1.00

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 385501

Tetra Tech- Midland, Midland, TX

Project Name: Conoco Phillips

Draft

Project Id: 114-6400314C0
Contact: Charles Durrett
Project Location: MCA 2A Header

Date Received in Lab: Fri Aug-13-10 09:10 am
Report Date: 16-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385501-025		385501-026		385501-027		385501-028		385501-029		385501-030	
	Field Id:	SB-7 28'		SB-3 8'		SB-3 12'		SB-3 16'		SB-3 20'		SB-3 24'	
	Depth:	28- ft		8- ft		12- ft		16- ft		20- ft		24- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-12-10 12.50		Aug-12-10 13:20		Aug-12-10 13:42		Aug-12-10 14:01		Aug-12-10 14:19		Aug-12-10 14:45	
Anions by E300	***Extracted:***												
	Analyzed:	Aug-16-10 08:05		Aug-16-10 08:05		Aug-16-10 08:05		Aug-16-10 08:05		Aug-16-10 08:05		Aug-16-10 08:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		195	8.88	227	9.30	22.4	9.68	23.2	8.94	18.8	8.92	35.6	8.90
BTEX by EPA 8021B	***Extracted:***	Aug-13-10 13:45		Aug-13-10 13:45		Aug-13-10 13:45		Aug-13-10 13:45		Aug-13-10 13:45		Aug-13-10 13:45	
	Analyzed:	Aug-14-10 16:29		Aug-15-10 14:46		Aug-15-10 15:10		Aug-15-10 15:33		Aug-15-10 15:57		Aug-15-10 16:20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0010
Toluene		ND	0.0021	ND	0.0022	ND	0 0023	ND	0.0021	ND	0.0021	ND	0 0021
Ethylbenzene		ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0010
m,p-Xylenes		ND	0.0021	ND	0.0022	ND	0 0023	ND	0.0021	ND	0.0021	ND	0.0021
o-Xylene		ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0010
Total Xylenes		ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0010
Total BTEX		ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0010
TPH By SW8015 Mod	***Extracted:***	Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10.45		Aug-13-10 10:45	
	Analyzed:	Aug-13-10 18:23		Aug-13-10 18:53		Aug-13-10 19:23		Aug-13-10 19:53		Aug-13-10 20:23		Aug-13-10 20:53	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		ND	15.9	ND	16.5	ND	17.4	ND	15.9	ND	16.0	ND	15.9
Diesel Range Hydrocarbons		ND	15.9	30.3	16.5	ND	17.4	ND	15.9	26.7	16.0	48.4	15.9

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 385501

Tetra Tech- Midland, Midland, TX

Project Name: Conoco Phillips

Draft

Project Id: 114-6400314C0
Contact: Charles Durrett
Project Location: MCA 2A Header

Date Received in Lab: Fri Aug-13-10 09:10 am
Report Date: 16-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385501-025		385501-026		385501-027		385501-028		385501-029		385501-030	
	Field Id:	SB-7 28'		SB-3 8'		SB-3 12'		SB-3 16'		SB-3 20'		SB-3 24'	
	Depth:	28- ft		8- ft		12- ft		16- ft		20- ft		24- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-12-10 12:50		Aug-12-10 13:20		Aug-12-10 13:42		Aug-12-10 14:01		Aug-12-10 14:19		Aug-12-10 14:45	
Percent Moisture	***Extracted:***												
	Analyzed:	Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		5.41	1.00	9.72	1.00	13.2	1.00	6.07	1.00	5.79	1.00	5.65	1.00

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 385501

Tetra Tech- Midland, Midland, TX

Project Name: Conoco Phillips

Project Id: 114-6400314C0
Contact: Charles Durrett
Project Location: MCA 2A Header

Draft

Date Received in Lab: Fri Aug-13-10 09:10 am
Report Date: 16-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385501-031		385501-032		385501-033		385501-034		385501-035		385501-036	
	Field Id:	SB-4 8'		SB-4 12'		SB-4 16'		SB-4 20'		SB-4 24'		SB-6 8'	
	Depth:	8- ft		12- ft		16- ft		20- ft		24- ft		8- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-12-10 15:20		Aug-12-10 15:41		Aug-12-10 16:06		Aug-12-10 16.24		Aug-12-10 16:46		Aug-12-10 17:30	
Anions by E300	***Extracted:***												
	Analyzed:	Aug-16-10 08:05		Aug-16-10 08:05		Aug-16-10 08:05		Aug-16-10 08:05		Aug-16-10 08:05		Aug-16-10 08:05	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		245	24.1	334	18.6	405	9.01	318	9.15	548	8.96	939	23.8
BTEX by EPA 8021B	***Extracted:***	Aug-13-10 13:45		Aug-13-10 13:45		Aug-13-10 13:45		Aug-13-10 13:45		Aug-13-10 13:45		Aug-13-10 13:45	
	Analyzed:	Aug-15-10 16:43		Aug-15-10 17:53		Aug-15-10 18:16		Aug-15-10 18:40		Aug-15-10 19:03		Aug-15-10 19:27	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
Toluene		ND	0.0023	ND	0.0022	ND	0.0022	ND	0.0022	ND	0.0021	ND	0.0022
Ethylbenzene		ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0 0011
m,p-Xylenes		ND	0.0023	ND	0.0022	ND	0.0022	ND	0.0022	ND	0.0021	ND	0.0022
o-Xylene		ND	0.0012	ND	0.0011	ND	0 0011	ND	0.0011	ND	0.0011	ND	0.0011
Total Xylenes		ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
Total BTEX		ND	0.0012	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011
TPH By SW8015 Mod	***Extracted:***	Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45	
	Analyzed:	Aug-13-10 21:53		Aug-13-10 22:22		Aug-13-10 22:52		Aug-13-10 23:22		Aug-13-10 23:51		Aug-14-10 00.20	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		ND	17.3	ND	16.6	ND	16.1	ND	16.3	ND	15.9	ND	17.0
Diesel Range Hydrocarbons		107	17.3	65.5	16.6	23.7	16.1	19.6	16.3	19.2	15.9	112	17.0

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 385501

Tetra Tech- Midland, Midland, TX

Project Name: Conoco Phillips

Project Id: 114-6400314C0
Contact: Charles Durrett
Project Location: MCA 2A Header

Draft

Date Received in Lab: Fri Aug-13-10 09:10 am
Report Date: 16-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385501-031		385501-032		385501-033		385501-034		385501-035		385501-036	
	Field Id:	SB-4 8'		SB-4 12'		SB-4 16'		SB-4 20'		SB-4 24'		SB-6 8'	
	Depth:	8- ft		12- ft		16- ft		20- ft		24- ft		8- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-12-10 15:20		Aug-12-10 15:41		Aug-12-10 16:06		Aug-12-10 16:24		Aug-12-10 16:46		Aug-12-10 17:30	
Percent Moisture	***Extracted:***												
	Analyzed:	Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		12.7	1.00	9.74	1.00	6.79	1.00	8.21	1.00	6.20	1.00	11.7	1.00

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 385501

Tetra Tech- Midland, Midland, TX

Project Name: Conoco Phillips

Draft

Project Id: 114-6400314C0
Contact: Charles Durrett
Project Location: MCA 2A Header

Date Received in Lab: Fri Aug-13-10 09:10 am
Report Date: 16-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385501-037		385501-038		385501-039		385501-040					
	Field Id:	SB-6 12'		SB-6 16'		SB-6 20'		SB-6 24'					
	Depth:	12- ft		16- ft		20- ft		24- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Aug-12-10 17:53		Aug-12-10 18:20		Aug-12-10 18:47		Aug-12-10 19:20					
Anions by E300	***Extracted:***												
	Analyzed:	Aug-16-10 08:05		Aug-16-10 08:05		Aug-16-10 08:05		Aug-16-10 08:05					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		138	9.08	107	8.86	136	8.89	231	9.08				
BTEX by EPA 8021B	***Extracted:***	Aug-13-10 13:45		Aug-13-10 13:45		Aug-13-10 13:45		Aug-13-10 13:45					
	Analyzed:	Aug-15-10 19.50		Aug-15-10 20:13		Aug-15-10 20:36		Aug-15-10 21:00					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		ND	0.0011	ND	0.0010	ND	0.0011	ND	0.0011				
Toluene		ND	0.0021	ND	0.0021	ND	0.0021	ND	0.0021				
Ethylbenzene		ND	0.0011	ND	0.0010	ND	0.0011	ND	0.0011				
m,p-Xylenes		ND	0.0021	ND	0.0021	ND	0.0021	ND	0.0021				
o-Xylene		ND	0.0011	ND	0.0010	ND	0.0011	ND	0.0011				
Total Xylenes		ND	0.0011	ND	0.0010	ND	0.0011	ND	0.0011				
Total BTEX		ND	0.0011	ND	0 0010	ND	0.0011	ND	0.0011				
TPH By SW8015 Mod	***Extracted:***	Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45		Aug-13-10 10:45					
	Analyzed:	Aug-14-10 00:49		Aug-14-10 01:19		Aug-14-10 01:50		Aug-14-10 02:20					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons		ND	16.3	ND	15.8	ND	15.9	ND	16.1				
Diesel Range Hydrocarbons		49.1	16.3	ND	15.8	ND	15.9	95.3	16.1				

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 385501

Tetra Tech- Midland, Midland, TX

Project Name: Conoco Phillips

Draft

Project Id: 114-6400314C0
Contact: Charles Durrett
Project Location: MCA 2A Header

Date Received in Lab: Fri Aug-13-10 09:10 am
Report Date: 16-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385501-037		385501-038		385501-039		385501-040					
	Field Id:	SB-6 12'		SB-6 16'		SB-6 20'		SB-6 24'					
	Depth:	12- ft		16- ft		20- ft		24- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Aug-12-10 17:53		Aug-12-10 18:20		Aug-12-10 18:47		Aug-12-10 19:20					
Percent Moisture	***Extracted:***												
	Analyzed:	Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18		Aug-13-10 15:18					
	Units/RL:	%	RL	%	RL	%	RL	%	RL				
Percent Moisture		7.52	1.00	5.19	1.00	5.55	1.00	7.51	1.00				

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

PQL Practical Quantitation Limit

* Outside XENCO's scope of NELAC Accreditation.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501, **Project ID:** 114-6400314C0

Lab Batch #: 818899 **Sample:** 570643-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/13/10 23:42

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0295	0.0300	98	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

Lab Batch #: 818899 **Sample:** 570643-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/14/10 00:05

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 818899 **Sample:** 570643-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/14/10 01:15

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0248	0.0300	83	80-120	
4-Bromofluorobenzene	0.0297	0.0300	99	80-120	

Lab Batch #: 818899 **Sample:** 385501-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 01:38

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0259	0.0300	86	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 818899 **Sample:** 385501-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 02:02

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0296	0.0300	99	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits, data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501, **Project ID:** 114-6400314C0

Lab Batch #: 818899 **Sample:** 385501-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 02:25

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0293	0.0300	98	80-120	
4-Bromofluorobenzene	0.0293	0.0300	98	80-120	

Lab Batch #: 818899 **Sample:** 385501-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 03:12

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0247	0.0300	82	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 818899 **Sample:** 385501-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 03:35

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0311	0.0300	104	80-120	

Lab Batch #: 818899 **Sample:** 385501-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 03:59

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0243	0.0300	81	80-120	
4-Bromofluorobenzene	0.0292	0.0300	97	80-120	

Lab Batch #: 818899 **Sample:** 385501-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 04:22

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0251	0.0300	84	80-120	
4-Bromofluorobenzene	0.0312	0.0300	104	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501,

Project ID: 114-6400314C0

Lab Batch #: 818899 **Sample:** 385501-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 04:46

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0247	0.0300	82	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 818899 **Sample:** 385501-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 05:09

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0258	0.0300	86	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

Lab Batch #: 818899 **Sample:** 385501-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 05:32

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0242	0.0300	81	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 818899 **Sample:** 385501-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 05:56

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0254	0.0300	85	80-120	
4-Bromofluorobenzene	0.0303	0.0300	101	80-120	

Lab Batch #: 818899 **Sample:** 385501-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 06:19

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0257	0.0300	86	80-120	
4-Bromofluorobenzene	0.0335	0.0300	112	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501,

Project ID: 114-6400314C0

Lab Batch #: 818899 **Sample:** 385501-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 07:29

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0285	0.0300	95	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 818899 **Sample:** 385501-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 07:52

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0243	0.0300	81	80-120	
4-Bromofluorobenzene	0.0287	0.0300	96	80-120	

Lab Batch #: 818899 **Sample:** 385501-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 08:16

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0257	0.0300	86	80-120	
4-Bromofluorobenzene	0.0324	0.0300	108	80-120	

Lab Batch #: 818899 **Sample:** 385501-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 08:40

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0240	0.0300	80	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

Lab Batch #: 818899 **Sample:** 385501-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 09:03

BTEX by EPA 8021B	SURROGATE RECOVERY STUDY				
Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0255	0.0300	85	80-120	
4-Bromofluorobenzene	0.0315	0.0300	105	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501,

Project ID: 114-6400314C0

Lab Batch #: 818899 **Sample:** 385501-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 09:27

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0259	0.0300	86	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

Lab Batch #: 818899 **Sample:** 385501-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 10:14

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 818899 **Sample:** 385501-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 10:37

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0331	0.0300	110	80-120	

Lab Batch #: 818906 **Sample:** 570648-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/14/10 12:10

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0286	0.0300	95	80-120	
4-Bromofluorobenzene	0.0296	0.0300	99	80-120	

Lab Batch #: 818906 **Sample:** 570648-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/14/10 12:33

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0291	0.0300	97	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501, **Project ID:** 114-6400314C0

Lab Batch #: 818906 **Sample:** 570648-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/14/10 13:44

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0252	0.0300	84	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 818906 **Sample:** 385501-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 14:09

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0252	0.0300	84	80-120	
4-Bromofluorobenzene	0.0320	0.0300	107	80-120	

Lab Batch #: 818906 **Sample:** 385501-023 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 14:32

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0323	0.0300	108	80-120	

Lab Batch #: 818906 **Sample:** 385501-023 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 14:55

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0278	0.0300	93	80-120	
4-Bromofluorobenzene	0.0308	0.0300	103	80-120	

Lab Batch #: 818906 **Sample:** 385501-023 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 15:19

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0288	0.0300	96	80-120	
4-Bromofluorobenzene	0.0336	0.0300	112	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501,

Project ID: 114-6400314C0

Lab Batch #: 818906 **Sample:** 385501-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 16:05

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0252	0.0300	84	80-120	
4-Bromofluorobenzene	0.0312	0.0300	104	80-120	

Lab Batch #: 818906 **Sample:** 385501-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 16:29

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0250	0.0300	83	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

Lab Batch #: 818906 **Sample:** 385501-026 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 14:46

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0260	0.0300	87	80-120	
4-Bromofluorobenzene	0.0342	0.0300	114	80-120	

Lab Batch #: 818906 **Sample:** 385501-027 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 15:10

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0271	0.0300	90	80-120	
4-Bromofluorobenzene	0.0343	0.0300	114	80-120	

Lab Batch #: 818906 **Sample:** 385501-028 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 15:33

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0254	0.0300	85	80-120	
4-Bromofluorobenzene	0.0309	0.0300	103	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501, **Project ID:** 114-6400314C0

Lab Batch #: 818906 **Sample:** 385501-029 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 15:57

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0250	0.0300	83	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 818906 **Sample:** 385501-030 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 16:20

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0254	0.0300	85	80-120	
4-Bromofluorobenzene	0.0314	0.0300	105	80-120	

Lab Batch #: 818906 **Sample:** 385501-031 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 16:43

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0257	0.0300	86	80-120	
4-Bromofluorobenzene	0.0303	0.0300	101	80-120	

Lab Batch #: 818906 **Sample:** 385501-032 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 17:53

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0247	0.0300	82	80-120	
4-Bromofluorobenzene	0.0322	0.0300	107	80-120	

Lab Batch #: 818906 **Sample:** 385501-033 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 18:16

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501, **Project ID:** 114-6400314C0

Lab Batch #: 818906 **Sample:** 385501-034 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 18:40

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0256	0.0300	85	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 818906 **Sample:** 385501-035 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 19:03

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	80-120	
4-Bromofluorobenzene	0.0323	0.0300	108	80-120	

Lab Batch #: 818906 **Sample:** 385501-036 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 19:27

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0259	0.0300	86	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 818906 **Sample:** 385501-037 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 19:50

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0261	0.0300	87	80-120	
4-Bromofluorobenzene	0.0343	0.0300	114	80-120	

Lab Batch #: 818906 **Sample:** 385501-038 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 20:13

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0247	0.0300	82	80-120	
4-Bromofluorobenzene	0.0310	0.0300	103	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501, **Project ID:** 114-6400314C0

Lab Batch #: 818906 **Sample:** 385501-039 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 20:36

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0247	0.0300	82	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 818906 **Sample:** 385501-040 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 21:00

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0249	0.0300	83	80-120	
4-Bromofluorobenzene	0.0298	0.0300	99	80-120	

Lab Batch #: 818906 **Sample:** 385501-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 21:23

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0246	0.0300	82	80-120	
4-Bromofluorobenzene	0.0321	0.0300	107	80-120	

Lab Batch #: 819042 **Sample:** 570718-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/16/10 09:29

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0292	0.0300	97	80-120	
4-Bromofluorobenzene	0.0312	0.0300	104	80-120	

Lab Batch #: 819042 **Sample:** 570718-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/16/10 11:59

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0246	0.0300	82	80-120	
4-Bromofluorobenzene	0.0294	0.0300	98	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501,

Project ID: 114-6400314C0

Lab Batch #: 819042 **Sample:** 385501-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/16/10 12:22

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0251	0.0300	84	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

Lab Batch #: 819042 **Sample:** 385501-018 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/16/10 12:45

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0283	0.0300	94	80-120	

Lab Batch #: 819042 **Sample:** 385501-018 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/16/10 13:08

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0279	0.0300	93	80-120	
4-Bromofluorobenzene	0.0291	0.0300	97	80-120	

Lab Batch #: 819042 **Sample:** 385501-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/16/10 13:55

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0248	0.0300	83	80-120	
4-Bromofluorobenzene	0.0318	0.0300	106	80-120	

Lab Batch #: 818878 **Sample:** 570630-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/13/10 13:58

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.8	100	84	70-135	
o-Terphenyl	42.6	50.2	85	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501, **Project ID:** 114-6400314C0

Lab Batch #: 818878 **Sample:** 570630-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/13/10 14:18

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	85.4	99.9	85	70-135	
o-Terphenyl	38.4	50.0	77	70-135	

Lab Batch #: 818878 **Sample:** 570630-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/13/10 14:39

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73 0	99.9	73	70-135	
o-Terphenyl	37.5	50.0	75	70-135	

Lab Batch #: 818878 **Sample:** 385501-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 14:59

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.6	100	71	70-135	
o-Terphenyl	35.1	50.2	70	70-135	

Lab Batch #: 818878 **Sample:** 385501-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 15:20

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	89.4	100	89	70-135	
o-Terphenyl	57.7	50.2	115	70-135	

Lab Batch #: 818878 **Sample:** 385501-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 15:40

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.7	100	71	70-135	
o-Terphenyl	38.5	50.2	77	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501,

Project ID: 114-6400314C0

Lab Batch #: 818878 **Sample:** 385501-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 16:01

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.5	101	74	70-135	
o-Terphenyl	37.9	50.3	75	70-135	

Lab Batch #: 818878 **Sample:** 385501-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 16:21

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.8	100	71	70-135	
o-Terphenyl	36.5	50.2	73	70-135	

Lab Batch #: 818878 **Sample:** 385501-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 16:42

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.0	99.5	70	70-135	
o-Terphenyl	34.9	49.8	70	70-135	

Lab Batch #: 818878 **Sample:** 385501-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 17:02

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.4	100	72	70-135	
o-Terphenyl	35.4	50.2	71	70-135	

Lab Batch #: 818878 **Sample:** 385501-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 17:22

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.5	99.5	71	70-135	
o-Terphenyl	34.9	49.8	70	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501, **Project ID:** 114-6400314C0

Lab Batch #: 818878 **Sample:** 385501-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 17:42

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.7	101	70	70-135	
o-Terphenyl	35.6	50.3	71	70-135	

Lab Batch #: 818878 **Sample:** 385501-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 18:02

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.7	100	71	70-135	
o-Terphenyl	36.2	50.1	72	70-135	

Lab Batch #: 818878 **Sample:** 385501-011 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 18:42

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.0	100	71	70-135	
o-Terphenyl	36.3	50.0	73	70-135	

Lab Batch #: 818878 **Sample:** 385501-012 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 19:02

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	80.5	100	81	70-135	
o-Terphenyl	40.9	50.0	82	70-135	

Lab Batch #: 818878 **Sample:** 385501-013 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 19:22

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	72.8	99.9	73	70-135	
o-Terphenyl	37.3	50.0	75	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501, **Project ID:** 114-6400314C0

Lab Batch #: 818878 **Sample:** 385501-014 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 19:42

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.2	100	73	70-135	
o-Terphenyl	36.9	50.1	74	70-135	

Lab Batch #: 818878 **Sample:** 385501-015 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 20:02

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	73.6	99.9	74	70-135	
o-Terphenyl	36.9	50.0	74	70-135	

Lab Batch #: 818878 **Sample:** 385501-016 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 20:21

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71 3	100	71	70-135	
o-Terphenyl	35.3	50.0	71	70-135	

Lab Batch #: 818878 **Sample:** 385501-017 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 20:41

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	74.9	99.6	75	70-135	
o-Terphenyl	37.1	49.8	74	70-135	

Lab Batch #: 818878 **Sample:** 385501-018 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 09:10

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.6	99.6	72	70-135	
o-Terphenyl	35.6	49.8	71	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits, data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501, **Project ID:** 114-6400314C0

Lab Batch #: 818878 **Sample:** 385501-019 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 09:29

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.5	100	72	70-135	
o-Terphenyl	35.8	50.0	72	70-135	

Lab Batch #: 818878 **Sample:** 385501-020 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 09:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	70.4	99.7	71	70-135	
o-Terphenyl	36.3	49.9	73	70-135	

Lab Batch #: 818878 **Sample:** 385501-003 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 10:10

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.8	100	72	70-135	
o-Terphenyl	39.1	50.1	78	70-135	

Lab Batch #: 818878 **Sample:** 385501-003 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 10:29

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	71.1	99.5	71	70-135	
o-Terphenyl	38.5	49.8	77	70-135	

Lab Batch #: 818880 **Sample:** 570632-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/13/10 14:44

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	100	105	70-135	
o-Terphenyl	47.4	50.2	94	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501, **Project ID:** 114-6400314C0

Lab Batch #: 818880 **Sample:** 570632-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/13/10 15:16

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.9	108	70-135	
o-Terphenyl	49.5	50.0	99	70-135	

Lab Batch #: 818880 **Sample:** 570632-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/13/10 15:47

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99.9	107	70-135	
o-Terphenyl	54.3	50.0	109	70-135	

Lab Batch #: 818880 **Sample:** 385501-021 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 16:19

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	86.8	99.9	87	70-135	
o-Terphenyl	42.7	50.0	85	70-135	

Lab Batch #: 818880 **Sample:** 385501-022 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 16:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	97.0	101	96	70-135	
o-Terphenyl	48.4	50.3	96	70-135	

Lab Batch #: 818880 **Sample:** 385501-023 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 17:21

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	83.5	100	84	70-135	
o-Terphenyl	41.7	50.1	83	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501, **Project ID:** 114-6400314C0

Lab Batch #: 818880 **Sample:** 385501-024 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 17:52

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	96.2	99.8	96	70-135	
o-Terphenyl	48.7	49.9	98	70-135	

Lab Batch #: 818880 **Sample:** 385501-025 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 18:23

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.9	101	99	70-135	
o-Terphenyl	50.3	50.3	100	70-135	

Lab Batch #: 818880 **Sample:** 385501-026 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 18:53

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	92.9	99.5	93	70-135	
o-Terphenyl	47.3	49.8	95	70-135	

Lab Batch #: 818880 **Sample:** 385501-027 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 19:23

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	104	100	104	70-135	
o-Terphenyl	53.1	50.2	106	70-135	

Lab Batch #: 818880 **Sample:** 385501-028 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 19:53

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99.8	107	70-135	
o-Terphenyl	54.5	49.9	109	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501, **Project ID:** 114-6400314C0

Lab Batch #: 818880 **Sample:** 385501-029 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 20:23

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	101	116	70-135	
o-Terphenyl	59.7	50.3	119	70-135	

Lab Batch #: 818880 **Sample:** 385501-030 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 20:53

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	121	100	121	70-135	
o-Terphenyl	62.4	50.1	125	70-135	

Lab Batch #: 818880 **Sample:** 385501-031 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 21:53

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	101	109	70-135	
o-Terphenyl	56.7	50.3	113	70-135	

Lab Batch #: 818880 **Sample:** 385501-032 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 22:22

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	56.6	50.1	113	70-135	

Lab Batch #: 818880 **Sample:** 385501-033 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 22:52

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	94.1	100	94	70-135	
o-Terphenyl	47.7	50.2	95	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501,

Project ID: 114-6400314C0

Lab Batch #: 818880 **Sample:** 385501-034 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 23:22

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	101	99.5	102	70-135	
o-Terphenyl	51.3	49.8	103	70-135	

Lab Batch #: 818880 **Sample:** 385501-035 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/13/10 23:51

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	99.5	110	70-135	
o-Terphenyl	55.4	49.8	111	70-135	

Lab Batch #: 818880 **Sample:** 385501-036 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 00:20

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	57.1	50.1	114	70-135	

Lab Batch #: 818880 **Sample:** 385501-037 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 00:49

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	101	110	70-135	
o-Terphenyl	56.8	50.3	113	70-135	

Lab Batch #: 818880 **Sample:** 385501-038 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 01:19

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	109	100	109	70-135	
o-Terphenyl	54.9	50.1	110	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

XENCO Laboratories

Form 2 - Surrogate Recoveries

Project Name: Conoco Phillips

Work Orders : 385501, **Project ID:** 114-6400314C0

Lab Batch #: 818880 **Sample:** 385501-039 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 01:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	98.5	100	99	70-135	
o-Terphenyl	49.4	50.0	99	70-135	

Lab Batch #: 818880 **Sample:** 385501-040 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 02:20

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	117	99.5	118	70-135	
o-Terphenyl	59.6	49.8	120	70-135	

Lab Batch #: 818880 **Sample:** 385501-021 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 02:49

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	100	112	70-135	
o-Terphenyl	47.1	50.1	94	70-135	

Lab Batch #: 818880 **Sample:** 385501-021 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/14/10 03:18

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	114	100	114	70-135	
o-Terphenyl	47.7	50.2	95	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: Conoco Phillips

Work Order #: 385501 **Project ID:** 114-6400314C0

Lab Batch #: 819042 **Sample:** 570718-1-BKS **Matrix:** Solid

Date Analyzed: 08/16/2010 **Date Prepared:** 08/16/2010 **Analyst:** ASA

Reporting Units: mg/kg **Batch #:** 1

BTEX by EPA 8021B Analytes	Blank Result [A]	BLANK /BLANK SPIKE RECOVERY STUDY Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Benzene	ND	0.1000	0.1182	118	70-130	
Toluene	ND	0.1000	0.1104	110	70-130	
Ethylbenzene	ND	0.1000	0.1160	116	71-129	
m,p-Xylenes	ND	0.2000	0.2351	118	70-135	
o-Xylene	ND	0.1000	0.1163	116	71-133	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: Conoco Phillips

Work Order #: 385501 **Project ID:** 114-6400314C0

Analyst: ASA **Date Prepared:** 08/13/2010 **Date Analyzed:** 08/13/2010

Lab Batch ID: 818899 **Sample:** 570643-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	**Blank Sample Result [A]**	**Spike Added [B]**	**Blank Spike Result [C]**	**Blank Spike %R [D]**	**Spike Added [E]**	**Blank Spike Duplicate Result [F]**	**Blk. Spk Dup. %R [G]**	**RPD %**	**Control Limits %R**	**Control Limits %RPD**	**Flag**
Benzene	ND	0.1000	0.1051	105	0.1	0.0911	91	14	70-130	35	
Toluene	ND	0.1000	0.0986	99	0.1	0.0853	85	14	70-130	35	
Ethylbenzene	ND	0.1000	0.1038	104	0.1	0.0894	89	15	71-129	35	
m,p-Xylenes	ND	0.2000	0.2094	105	0.2	0.1803	90	15	70-135	35	
o-Xylene	ND	0.1000	0.1045	105	0.1	0.0904	90	14	71-133	35	

Analyst: ASA **Date Prepared:** 08/13/2010 **Date Analyzed:** 08/14/2010

Lab Batch ID: 818906 **Sample:** 570648-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BTEX by EPA 8021B	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
Analytes	**Blank Sample Result [A]**	**Spike Added [B]**	**Blank Spike Result [C]**	**Blank Spike %R [D]**	**Spike Added [E]**	**Blank Spike Duplicate Result [F]**	**Blk. Spk Dup. %R [G]**	**RPD %**	**Control Limits %R**	**Control Limits %RPD**	**Flag**
Benzene	ND	0.1000	0.1040	104	0.1	0.1060	106	2	70-130	35	
Toluene	ND	0.1000	0.0966	97	0.1	0.0991	99	3	70-130	35	
Ethylbenzene	ND	0.1000	0.1013	101	0.1	0.1047	105	3	71-129	35	
m,p-Xylenes	ND	0.2000	0.2030	102	0.2	0.2106	105	4	70-135	35	
o-Xylene	ND	0.1000	0.1016	102	0.1	0.1051	105	3	71-133	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Conoco Phillips

Work Order #: 385501 **Project ID:** 114-6400314C0

Analyst: LATCOR **Date Prepared:** 08/14/2010 **Date Analyzed:** 08/14/2010

Lab Batch ID: 818873 **Sample:** 818873-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	ND	100	98.4	98	100	98.7	99	0	75-125	20	

Analyst: LATCOR **Date Prepared:** 08/16/2010 **Date Analyzed:** 08/16/2010

Lab Batch ID: 819025 **Sample:** 819025-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	ND	10.0	9.69	97	10	8.94	89	8	75-125	20	

Analyst: BEV **Date Prepared:** 08/13/2010 **Date Analyzed:** 08/13/2010

Lab Batch ID: 818878 **Sample:** 570630-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	ND	1000	955	96	999	1000	100	5	70-135	35	
Diesel Range Hydrocarbons	ND	1000	818	82	999	858	86	5	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

BS / BSD Recoveries

Project Name: Conoco Phillips

Work Order #: 385501 **Project ID:** 114-6400314C0

Analyst: BEV **Date Prepared:** 08/13/2010 **Date Analyzed:** 08/13/2010

Lab Batch ID: 818880 **Sample:** 570632-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	ND	1000	923	92	999	978	98	6	70-135	35	
Diesel Range Hydrocarbons	ND	1000	914	91	999	831	83	10	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries

Project Name: Conoco Phillips

Work Order #: 385501

Lab Batch #: 818873 **Project ID:** 114-6400314C0

Date Analyzed: 08/14/2010 **Date Prepared:** 08/14/2010 **Analyst:** LATCOR

QC- Sample ID: 385501-001 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	75.0	103	172	94	75-125	

Lab Batch #: 819025

Date Analyzed: 08/16/2010 **Date Prepared:** 08/16/2010 **Analyst:** LATCOR

QC- Sample ID: 385501-021 S **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	173	205	333	78	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: Conoco Phillips

Work Order # : 385501 **Project ID:** 114-6400314C0

Lab Batch ID: 818899 **QC- Sample ID:** 385501-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/14/2010 **Date Prepared:** 08/13/2010 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1002	0.0790	79	0.1000	0.0716	72	10	70-130	35	
Toluene	ND	0.1002	0.0640	64	0.1000	0.0616	62	4	70-130	35	X
Ethylbenzene	ND	0.1002	0.0544	54	0.1000	0.0575	58	6	71-129	35	X
m,p-Xylenes	ND	0.2004	0.0929	46	0.2000	0.1022	51	10	70-135	35	X
o-Xylene	ND	0.1002	0.0475	47	0.1000	0.0505	51	6	71-133	35	X

Lab Batch ID: 818906 **QC- Sample ID:** 385501-023 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/14/2010 **Date Prepared:** 08/13/2010 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1052	0.0661	63	0.1048	0.0638	61	4	70-130	35	X
Toluene	ND	0.1052	0.0637	61	0.1048	0.0614	59	4	70-130	35	X
Ethylbenzene	ND	0.1052	0.0677	64	0.1048	0.0666	64	2	71-129	35	X
m,p-Xylenes	ND	0.2104	0.1377	65	0.2095	0.1361	65	1	70-135	35	X
o-Xylene	ND	0.1052	0.0659	63	0.1048	0.0649	62	2	71-133	35	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Form 3 - MS / MSD Recoveries

Project Name: Conoco Phillips

Work Order # : 385501 **Project ID:** 114-6400314C0

Lab Batch ID: 819042 **QC- Sample ID:** 385501-018 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/16/2010 **Date Prepared:** 08/16/2010 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1204	0.1065	88	0.1209	0.1068	88	0	70-130	35	
Toluene	ND	0.1204	0.1017	84	0.1209	0.1001	83	2	70-130	35	
Ethylbenzene	ND	0.1204	0.1083	90	0.1209	0.1048	87	3	71-129	35	
m,p-Xylenes	ND	0.2409	0.2206	92	0.2418	0.2138	88	3	70-135	35	
o-Xylene	ND	0.1204	0.1083	90	0.1209	0.1059	88	2	71-133	35	

Lab Batch ID: 818878 **QC- Sample ID:** 385501-003 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/14/2010 **Date Prepared:** 08/13/2010 **Analyst:** BEV

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	ND	1000	979	98	995	963	97	2	70-135	35	
Diesel Range Hydrocarbons	ND	1000	785	79	995	781	78	1	70-135	35	

Lab Batch ID: 818880 **QC- Sample ID:** 385501-021 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/14/2010 **Date Prepared:** 08/13/2010 **Analyst:** BEV

Reporting Units: mg/kg

TPH By SW8015 Mod Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	ND	1030	922	90	1030	952	92	3	70-135	35	
Diesel Range Hydrocarbons	27.2	1030	746	70	1030	787	74	5	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Conoco Phillips

Work Order #: 385501

Lab Batch #: 818873 **Project ID:** 114-6400314C0

Date Analyzed: 08/14/2010 **Date Prepared:** 08/14/2010 **Analyst:** LATCOR

QC- Sample ID: 385501-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by E300 Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	75.0	72.7	3	20	

Lab Batch #: 819025

Date Analyzed: 08/16/2010 **Date Prepared:** 08/16/2010 **Analyst:** LATCOR

QC- Sample ID: 385501-021 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by E300 Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	173	168	3	20	

Lab Batch #: 818836

Date Analyzed: 08/13/2010 **Date Prepared:** 08/13/2010 **Analyst:** JLG

QC- Sample ID: 385501-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	3.24	3.96	20	20	

Lab Batch #: 818837

Date Analyzed: 08/13/2010 **Date Prepared:** 08/13/2010 **Analyst:** JLG

QC- Sample ID: 385501-016 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	6.58	6.48	2	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Sample Duplicate Recovery

Project Name: Conoco Phillips

Work Order #: 385501

Lab Batch #: 818839 **Project ID:** 114-6400314C0

Date Analyzed: 08/13/2010 **Date Prepared:** 08/13/2010 **Analyst:** JLG

QC- Sample ID: 385501-036 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	11.7	11.9	2	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 4

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

RUSH

385581

CLIENT NAME: ConocoPhillips BU
SITE MANAGER: Charles Durrett
PROJECT NO.: 114-G400314 C0
PROJECT NAME: MCA ZA Header

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH (8015 MOD.) TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
	8/11/10	0934	S		X	SB-1 0-6"	2	N			X		X	X											X				
	8/11/10	0944	S		X	SB-1 4'	2	N			X		X	X											X				
	8/11/10	0854	S		X	SB-2 0-6"	2	N			X		X	X											X				
	8/9/10	0906	S		X	SB-2 4'	2	N			X		X	X											X				
	8/11/10	1113	S		X	SB-3 0-6"	2	N			X		X	X											X				
	8/11/10	1123	S		X	SB-3 4'	2	N			X		X	X											X				
	8/11/10	1036	S		X	SB-4 0-6"	2	N			X		X	X											X				
	8/11/10	1043	S		X	SB-4 4'	2	N			X		X	X											X				
	8/11/10	1052	S		X	SB-5 0-6"	2	N			X		X	X											X				
	8/11/10	1057	S		X	SB-5 4'	2	N			X		X	X											X				

RELINQUISHED BY: (Signature)	Date: 8/13/10 Time: 9:15	RECEIVED BY: (Signature)	Date: Time:
SAMPLED BY: (Print & Initial)	Date: 8/13/10 Time: 9:15		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #:	OTHER:	
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON: Charles Durrett	Results by: 8/17/10		
RECEIVING LABORATORY: ADDRESS: CITY: STATE: ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: 8/13/10 TIME: 9:10		RUSH Charges Authorized: (Yes) No
SAMPLE CONDITION WHEN RECEIVED: 5.6°C	REMARKS: TPH 8015 NM (DRO, GRO)		

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Analysis Request of Chain of Custody Record

PAGE: 2 OF: 4

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

385501

RUSH

CLIENT NAME: Conoco Phillips

SITE MANAGER: Charles Durrett

PROJECT NO.: 114-6400314CO

PROJECT NAME: MCA 2A Heater

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 8081/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
	8/11/10	1020	S		X	SB-6 0-6'	2	N			X		X	X											X				
	8/11/10	1025	S		X	SB-6 4''	2	N			X		X	X											X				
	8/11/10	1008	S		X	SB-7 0-6'	2	N			X		X	X											X				
	8/11/10	1011	S		X	SB-7 4'	2	N			X		X	X											X				
	8/12/10	0800	S		X	SB-2 8'	2	N			X		X	X											X				
	8/12/10	0835	S		X	SB-2 12'	2	N			X		X	X											X				
	8/12/10	0915	S		X	SB-2 ~~20~~ 16'	2	N			X		X	X											X				
	8/12/10	0950	S		X	SB-2 20'	2	N			X		X	X											X				
	8/12/10	1020	S		X	SB-2 24'	1	N			X		X	X											X				
	8/12/10	1130 1140	S		X	SB-7 8'	2	N			X		X	X											X				

RELINQUISHED BY: (Signature)	Date: 8/13/10 Time: 9:10	RECEIVED BY: (Signature)	Date: Time:
SAMPLED BY: (Print & Initial) CD	Date: 8/13/10 Time: 8:30		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON: Chuck Durrett	Results by: 8/17/10		
RECEIVING LABORATORY: ADDRESS: CITY: STATE: ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: 8/13/10 TIME: 9:10		RUSH Charges Authorized: Yes (2) No
SAMPLE CONDITION WHEN RECEIVED: 5.6 °C	REMARKS: TPH 8015 DRO - GRO		

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Analysis Request of Chain of Custody Record

PAGE: 3 OF: 4

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

385501

RUSH

CLIENT NAME: ConocoPhillips Co
SITE MANAGER: Charles Durrett
PROJECT NO.: 114-640031400
PROJECT NAME: MCA 2A Hobbs

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD	TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
	8/12/10	1145	S		X	SB-7 12'	1	N			X		X	X												X				
	8/12/10	1201	S		X	SB-7 16'	1	N			X		X	X												X				
	8/12/10	1219	S		X	SB-7 20'	1	N			X		X	X												X				
	8/12/10	1236	S		X	SB-7 24'	1	N			X		X	X												X				
	8/12/10	1250	S		X	SB-7 28'	1	N			X		X	X												X				
	8/12/10	1320	S		X	SB-3 6'	1	N			X		X	X												X				
	8/12/10	1342	S		X	SB-3 12'	1	N			X		X	X												X				
	8/12/10	1401	S		X	SB-3 16'	1	N			X		X	X												X				
	8/12/10	1419	S		X	SB-3 20'	1	N			X		X	X												X				
	8/12/10	1445	S		X	SB-3 24'	1	N			X		X	X												X				

RELINQUISHED BY: (Signature) Date: 8/13/10 Time: 9:10
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Initial) Jeff Kindley JK Date: 8/13/10 Time: 8:32

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
TETRA TECH CONTACT PERSON: Charles Durrett
Results by: 8/12/10

RECEIVING LABORATORY:
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: 8/13/10 TIME: 9:10
RUSH Charges Authorized: (Yes) No

SAMPLE CONDITION WHEN RECEIVED: 5.6°C
REMARKS: TPH 8015 DRO · GRO

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Analysis Request of Chain of Custody Record

PAGE: 4 OF: 4

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

RUSH

385501

CLIENT NAME: ConocoPhillips
SITE MANAGER: Charles Durrett
PROJECT NO.: 114-6400314
PROJECT NAME: MCA 2A Header

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	BTEX 8021B	TPH TX1005 (Ext. to C35) 8015 MOD	Chloride
	8/12/10	1520	S		X	SB-4	8'	1	N			X		X	X	X
	8/12/10	1541	S		X	SB-4	12'	1	N			X		X	X	X
	8/12/10	1606	S		X	SB-4	16'	1	N			X		X	X	X
	8/12/10	1624	S		X	SB-4	20'	1	N			X		X	X	X
	8/12/10	1646	S		X	SB-4	24'	1	N			X		X	X	X
	8/12/10	1730	S		X	SB-6	8'	1	N			X		X	X	X
	8/12/10	1753	S		X	SB-6	12'	1	N			X		X	X	X
	8/12/10	1820	S		X	SB-6	16'	1	N			X		X	X	X
	8/12/10	1847	S		X	SB-6	20'	1	N			X		X	X	X
	8/12/10	1920	S		X	SB-6	24'	1	N			X		X	X	X

Other analysis columns (unmarked): PAH 8270; RCRA Metals Ag As Ba Cd Cr Pb Hg Se; TCLP Metals Ag As Ba Cd Vr Pd Hg Se; TCLP Volatiles; TCLP Semi Volatiles; RCI; GC.MS Vol. 8240/8260/624; GC.MS Semi. Vol. 8270/625; PCB's 8080/608; Pest. 808/608; Gamma Spec.; Alpha Beta (Air); PLM (Asbestos); Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature) [signature] Date: 8/13/10 Time: 9:10
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Initial) Date: 8/13/10 Time: 9:20

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
TETRA TECH CONTACT PERSON: Charles Durrett
Results by: 8/17/10
RUSH Charges Authorized: Yes (circled) No

RECEIVING LABORATORY:
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature) [signature]
DATE: 8/13/10 TIME: 9:10

SAMPLE CONDITION WHEN RECEIVED: 5.6 °C
REMARKS: TPH 8015 DRO GRO

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Date 6/13/1-

Sig.

Date 4/3/13

Sig.

XENCO Laboratories	XENCO Laboratories Atlanta, Boca Raton, Corpus Christi, Dallas Houston, Miami, Odessa, Philadelphia Phoenix, San Antonio, Tampa	Document Title: Sample Receipt Checklist Document No.: SYS-SRC Revision/Date: No. 01, 5/27/2010 Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: TetraTech

Date/Time: 8/13/10

Lab ID # : 385501

Initials: BB

Sample Receipt Checklist

1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	(Yes)	No	N/A	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	(Yes)	No	N/A	
17. VOC sample have zero head space?	(Yes)	No	N/A	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	5.6 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact:_____ Contacted by:_____ Date/Time:_____

Regarding: _____

_____

Corrective Action Taken: _____

_____

_____

_____

Check all that apply: ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.

☐ Initial and Backup Temperature confirm out of temperature conditions

☐ Client understands and would like to proceed with analysis

Analytical Report 385678

for

Tetra Tech- Midland

Project Manager: Charles Durrett

MCA Header

114-6400314CO

17-AUG-10

Celebrating 20 Years of commitment to excellence in Environmental Testing Services

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-10-6-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)
Rhode Island (LAO00312), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Utah (AALI1), West Virginia (362), Kentucky (85)
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)
Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370)
Xenco-Boca Raton (EPA Lab Code: FL00449):
Florida(E86240),South Carolina(96031001), Louisiana(04154), Georgia(917)
North Carolina(444), Texas(T104704468-TX), Illinois(002295), Florida(E86349)

17-AUG-10

Project Manager: **Charles Durrett**
Tetra Tech- Midland
1910 N. Big Spring
Midland, TX 79705

Reference: XENCO Report No: **385678**
MCA Header
Project Address:

Charles Durrett:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 385678. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 385678 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 385678

Tetra Tech- Midland, Midland, TX

MCA Header

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SB-1 8'	S	Aug-13-10 09:25	8 ft	385678-001
SB-1 12'	S	Aug-13-10 09:30	12 ft	385678-002
SB-1 16'	S	Aug-13-10 09:40	16 ft	385678-003
SB-1 20'	S	Aug-13-10 09:50	20 ft	385678-004
SB-1 24'	S	Aug-13-10 10:00	24 ft	385678-005
SB-5 8'	S	Aug-13-10 11:05	8 ft	385678-006
SB-5 12'	S	Aug-13-10 11:12	12 ft	385678-007
SB-5 16'	S	Aug-13-10 11:20	16 ft	385678-008
SB-5 20'	S	Aug-13-10 11:28	20 ft	385678-009
SB-5 24'	S	Aug-13-10 11:40	24 ft	385678-010

CASE NARRATIVE

Client Name: Tetra Tech- Midland
Project Name: MCA Header

Project ID:	*114-6400314CO*	*Report Date:*	*17-AUG-10*
Work Order Number:	*385678*	*Date Received:*	*08/13/2010*

Sample receipt non conformances and Comments:

None

Sample receipt Non Conformances and Comments per Sample:

None

Analytical Non Conformances and Comments:

Batch: LBA-818841 Percent Moisture
None

Batch: LBA-818891 TPH By SW8015 Mod
None

Batch: LBA-819149 BTEX by EPA 8021B
None

Batch: LBA-819152 Anions by E300
None

Batch: LBA-819228 BTEX by EPA 8021B
SW8021BM

Batch 819228, 1,4-Difluorobenzene recovered below QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 385678-001.
4-Bromofluorobenzene recovered above QC limits . Matrix interferences is suspected; data confirmed by re-analysis
Samples affected are: 385678-001.

Certificate of Analysis Summary 385678

Tetra Tech- Midland, Midland, TX

Project Name: MCA Header

Project Id: 114-6400314CO
Contact: Charles Durrett
Project Location:

Date Received in Lab: Fri Aug-13-10 04:00 pm
Report Date: 17-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385678-001		385678-002		385678-003		385678-004		385678-005		385678-006	
	Field Id:	SB-1 8'		SB-1 12'		SB-1 16'		SB-1 20'		SB-1 24'		SB-5 8'	
	Depth:	8- ft		12- ft		16- ft		20- ft		24- ft		8- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-13-10 09:25		Aug-13-10 09:30		Aug-13-10 09:40		Aug-13-10 09:50		Aug-13-10 10:00		Aug-13-10 11:05	
Anions by E300	***Extracted:***												
	Analyzed:	Aug-17-10 08:29		Aug-17-10 08:29		Aug-17-10 08:29		Aug-17-10 08:29		Aug-17-10 08:29		Aug-17-10 08:29	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		46.6	5.19	5.57	4.67	37 7	2.81	23.1	2.89	5.68	4.68	363	5.02
BTEX by EPA 8021B	***Extracted:***	Aug-17-10 10:00		Aug-14-10 09:00		Aug-14-10 09:00		Aug-14-10 09:00		Aug-14-10 09:00		Aug-14-10 09:00	
	Analyzed:	Aug-17-10 13:45		Aug-17-10 09:58		Aug-17-10 09:36		Aug-16-10 10:36		Aug-17-10 09.14		Aug-17-10 12:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		ND	0.0059	ND	0.0011	0.0018	0.0013	ND	0.0013	ND	0 0011	0.8884	0.2290
Toluene		0.0146	0.0118	ND	0.0021	ND	0.0026	ND	0.0026	ND	0.0021	1.296	0.4579
Ethylbenzene		0.0606	0.0059	0.0019	0.0011	ND	0.0013	ND	0.0013	ND	0.0011	ND	0.2290
m,p-Xylenes		0.3781	0.0118	ND	0.0021	ND	0.0026	ND	0.0026	ND	0 0021	0.5816	0.4579
o-Xylene		0.3077	0.0059	0.0013	0.0011	ND	0.0013	ND	0.0013	ND	0.0011	ND	0.2290
Total Xylenes		0.6858	0.0059	0.0013	0.0011	ND	0.0013	ND	0.0013	ND	0.0011	0 5816	0.2290
Total BTEX		0.7610	0.0059	0.0032	0.0011	0.0018	0.0013	ND	0.0013	ND	0.0011	2.766	0.2290
TPH By SW8015 Mod	***Extracted:***	Aug-13-10 16:45		Aug-13-10 16:45		Aug-13-10 16:45		Aug-13-10 16:45		Aug-13-10 16:45		Aug-13-10 16:45	
	Analyzed:	Aug-15-10 18:19		Aug-15-10 18:50		Aug-15-10 19:53		Aug-15-10 20:24		Aug-15-10 20:54		Aug-15-10 21:24	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons		74.2	17.7	ND	16.0	ND	19.1	ND	19.6	ND	15.9	75.4	17.0
Diesel Range Hydrocarbons		330	17.7	29.9	16.0	39 2	19.1	21.2	19.6	33.0	15.9	599	17.0

Brent Barron, II
Odessa Laboratory Manager

Certificate of Analysis Summary 385678

Tetra Tech- Midland, Midland, TX

Project Name: MCA Header

Project Id: 114-6400314CO
Contact: Charles Durrett
Project Location:

Date Received in Lab: Fri Aug-13-10 04:00 pm
Report Date: 17-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385678-001		385678-002		385678-003		385678-004		385678-005		385678-006	
	Field Id:	SB-1 8'		SB-1 12'		SB-1 16'		SB-1 20'		SB-1 24'		SB-5 8'	
	Depth:	8- ft		12- ft		16- ft		20- ft		24- ft		8- ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Aug-13-10 09:25		Aug-13-10 09:30		Aug-13-10 09:40		Aug-13-10 09:50		Aug-13-10 10:00		Aug-13-10 11:05	
Percent Moisture	***Extracted:***												
	Analyzed:	Aug-14-10 09:37		Aug-14-10 09:37		Aug-14-10 09:37		Aug-14-10 09:37		Aug-14-10 09:37		Aug-14-10 09:37	
	Units/RL:	%	RL	%	RL	%	RL	%	RL	%	RL	%	RL
Percent Moisture		15.2	1.00	5.88	1.00	21.6	1.00	23.8	1.00	5.93	1.00	12.3	1.00

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Certificate of Analysis Summary 385678

Tetra Tech- Midland, Midland, TX

Project Name: MCA Header

Project Id: 114-6400314CO
Contact: Charles Durrett
Project Location:

Date Received in Lab: Fri Aug-13-10 04:00 pm
Report Date: 17-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385678-007		385678-008		385678-009		385678-010					
	Field Id:	SB-5 12'		SB-5 16'		SB-5 20'		SB-5 24'					
	Depth:	12- ft		16- ft		20- ft		24- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Aug-13-10 11:12		Aug-13-10 11:20		Aug-13-10 11:28		Aug-13-10 11:40					
Anions by E300	*Extracted:*												
	Analyzed:	Aug-17-10 08:29		Aug-17-10 08:29		Aug-17-10 08:29		Aug-17-10 08:29					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		53.5	4.87	98.5	4.79	119	4.67	192	4.71				
BTEX by EPA 8021B	*Extracted:*	Aug-14-10 09:00		Aug-14-10 09:00		Aug-14-10 09:00		Aug-14-10 09:00					
	Analyzed:	Aug-16-10 10:59		Aug-16-10 11:21		Aug-17-10 07.22		Aug-17-10 07:45					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		ND	0.0011	ND	0.0011	ND	0.0011	ND	0.0011				
Toluene		ND	0.0022	ND	0.0022	ND	0.0021	ND	0.0022				
Ethylbenzene		0.0014	0.0011	ND	0.0011	ND	0.0011	ND	0.0011				
m,p-Xylenes		ND	0.0022	ND	0.0022	ND	0.0021	ND	0.0022				
o-Xylene		ND	0.0011	0.0028	0 0011	ND	0.0011	ND	0.0011				
Total Xylenes		ND	0.0011	0.0028	0.0011	ND	0.0011	ND	0.0011				
Total BTEX		0.0014	0.0011	0.0028	0.0011	ND	0.0011	ND	0.0011				
TPH By SW8015 Mod	*Extracted:*	Aug-13-10 16:45		Aug-13-10 16:45		Aug-13-10 16:45		Aug-13-10 16:45					
	Analyzed:	Aug-15-10 21:54		Aug-15-10 22:23		Aug-15-10 22:52		Aug-15-10 23.21					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons		ND	16.7	ND	16.3	ND	15.9	ND	16.1				
Diesel Range Hydrocarbons		26.0	16.7	ND	16.3	ND	15.9	ND	16.1				

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Certificate of Analysis Summary 385678

Tetra Tech- Midland, Midland, TX

Project Name: MCA Header

Project Id: 114-6400314CO
Contact: Charles Durrett
Project Location:

Date Received in Lab: Fri Aug-13-10 04:00 pm
Report Date: 17-AUG-10
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	385678-007		385678-008		385678-009		385678-010					
	Field Id:	SB-5 12'		SB-5 16'		SB-5 20'		SB-5 24'					
	Depth:	12- ft		16- ft		20- ft		24- ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Aug-13-10 11:12		Aug-13-10 11:20		Aug-13-10 11:28		Aug-13-10 11:40					
Percent Moisture	***Extracted:***												
	Analyzed:	Aug-14-10 09:37		Aug-14-10 09:37		Aug-14-10 09:37		Aug-14-10 09:37					
	Units/RL:	%	RL	%	RL	%	RL	%	RL				
Percent Moisture		9.59	1.00	8.22	1.00	5.79	1.00	6.54	1.00				

Brent Barron, II
Odessa Laboratory Manager

Final 1.000

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit

PQL Practical Quantitation Limit

* Outside XENCO's scope of NELAC Accreditation.

Form 2 - Surrogate Recoveries

Project Name: MCA Header

Work Orders : 385678,

Project ID: 114-6400314CO

Lab Batch #: 819149 **Sample:** 570783-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/16/10 08:45

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0300	0.0300	100	80-120	
4-Bromofluorobenzene	0.0300	0.0300	100	80-120	

Lab Batch #: 819149 **Sample:** 570783-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/16/10 09:07

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0311	0.0300	104	80-120	
4-Bromofluorobenzene	0.0323	0.0300	108	80-120	

Lab Batch #: 819149 **Sample:** 570783-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/16/10 10:14

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0328	0.0300	109	80-120	

Lab Batch #: 819149 **Sample:** 385678-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/16/10 10:36

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0266	0.0300	89	80-120	
4-Bromofluorobenzene	0.0319	0.0300	106	80-120	

Lab Batch #: 819149 **Sample:** 385678-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/16/10 10:59

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0276	0.0300	92	80-120	
4-Bromofluorobenzene	0.0345	0.0300	115	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: MCA Header

Work Orders : 385678, **Project ID:** 114-6400314CO

Lab Batch #: 819149 **Sample:** 385678-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/16/10 11:21

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0268	0.0300	89	80-120	
4-Bromofluorobenzene	0.0305	0.0300	102	80-120	

Lab Batch #: 819149 **Sample:** 385678-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/10 07:22

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0329	0.0300	110	80-120	

Lab Batch #: 819149 **Sample:** 385678-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/10 07:45

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0280	0.0300	93	80-120	
4-Bromofluorobenzene	0.0306	0.0300	102	80-120	

Lab Batch #: 819149 **Sample:** 385678-010 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/10 08:07

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0304	0.0300	101	80-120	
4-Bromofluorobenzene	0.0313	0.0300	104	80-120	

Lab Batch #: 819149 **Sample:** 385678-010 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/10 08:29

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0302	0.0300	101	80-120	
4-Bromofluorobenzene	0.0340	0.0300	113	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: MCA Header

Work Orders : 385678, **Project ID:** 114-6400314CO

Lab Batch #: 819149 **Sample:** 385678-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/10 09:14

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0277	0.0300	92	80-120	
4-Bromofluorobenzene	0.0290	0.0300	97	80-120	

Lab Batch #: 819149 **Sample:** 385678-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/10 09:36

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0325	0.0300	108	80-120	

Lab Batch #: 819149 **Sample:** 385678-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/10 09:58

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0305	0.0300	102	80-120	
4-Bromofluorobenzene	0.0359	0.0300	120	80-120	

Lab Batch #: 819149 **Sample:** 385678-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/10 12:12

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0264	0.0300	88	80-120	
4-Bromofluorobenzene	0.0249	0.0300	83	80-120	

Lab Batch #: 819228 **Sample:** 570816-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/17/10 08:22

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0273	0.0300	91	80-120	
4-Bromofluorobenzene	0.0302	0.0300	101	80-120	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: MCA Header

Work Orders : 385678,

Project ID: 114-6400314CO

Lab Batch #: 819228 **Sample:** 570816-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/17/10 09:33

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0251	0.0300	84	80-120	
4-Bromofluorobenzene	0.0295	0.0300	98	80-120	

Lab Batch #: 819228 **Sample:** 385631-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/10 11:24

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0281	0.0300	94	80-120	
4-Bromofluorobenzene	0.0340	0.0300	113	80-120	

Lab Batch #: 819228 **Sample:** 385631-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/10 11:48

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0 0283	0.0300	94	80-120	
4-Bromofluorobenzene	0.0332	0.0300	111	80-120	

Lab Batch #: 819228 **Sample:** 385678-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/17/10 13:45

BTEX by EPA 8021B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0237	0.0300	79	80-120	**
4-Bromofluorobenzene	0.0845	0.0300	282	80-120	**

Lab Batch #: 818891 **Sample:** 570638-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/14/10 12:10

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	99.8	110	70-135	
o-Terphenyl	50.0	49.9	100	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: MCA Header

Work Orders : 385678, **Project ID:** 114-6400314CO

Lab Batch #: 818891 **Sample:** 570638-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/14/10 12:41

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	101	104	70-135	
o-Terphenyl	48.1	50.3	96	70-135	

Lab Batch #: 818891 **Sample:** 570638-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 08/14/10 13:12

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	103	99.9	103	70-135	
o-Terphenyl	52.7	50.0	105	70-135	

Lab Batch #: 818891 **Sample:** 385678-001 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 18:19

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	107	99.9	107	70-135	
o-Terphenyl	53.5	50.0	107	70-135	

Lab Batch #: 818891 **Sample:** 385678-002 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 18:50

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	82.4	101	82	70-135	
o-Terphenyl	40.2	50.3	80	70-135	

Lab Batch #: 818891 **Sample:** 385678-003 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 19:53

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.7	108	70-135	
o-Terphenyl	54.6	49.9	109	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: MCA Header

Work Orders : 385678,

Project ID: 114-6400314CO

Lab Batch #: 818891 **Sample:** 385678-004 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 20:24

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	105	99.8	105	70-135	
o-Terphenyl	54.1	49.9	108	70-135	

Lab Batch #: 818891 **Sample:** 385678-005 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 20:54

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	99.6	112	70-135	
o-Terphenyl	55.6	49.8	112	70-135	

Lab Batch #: 818891 **Sample:** 385678-006 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 21:24

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	122	99.6	122	70-135	
o-Terphenyl	62.1	49.8	125	70-135	

Lab Batch #: 818891 **Sample:** 385678-007 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 21:54

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	112	101	111	70-135	
o-Terphenyl	57.0	50.3	113	70-135	

Lab Batch #: 818891 **Sample:** 385678-008 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 22:23

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	124	99.5	125	70-135	
o-Terphenyl	62.0	49.8	124	70-135	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: MCA Header

Work Orders : 385678, **Project ID:** 114-6400314CO

Lab Batch #: 818891 **Sample:** 385678-009 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 22:52

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	120	100	120	70-135	
o-Terphenyl	60.2	50.1	120	70-135	

Lab Batch #: 818891 **Sample:** 385678-010 / SMP **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 23:21

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	125	101	124	70-135	
o-Terphenyl	63.7	50.3	127	70-135	

Lab Batch #: 818891 **Sample:** 385503-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/15/10 23:51

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.5	109	70-135	
o-Terphenyl	49.2	49.8	99	70-135	

Lab Batch #: 818891 **Sample:** 385503-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 08/16/10 00:20

TPH By SW8015 Mod Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	108	99.7	108	70-135	
o-Terphenyl	49.5	49.9	99	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Blank Spike Recovery

Project Name: MCA Header

Work Order #: 385678 **Project ID:** 114-6400314CO

Lab Batch #: 819228 **Sample:** 570816-1-BKS **Matrix:** Solid

Date Analyzed: 08/17/2010 **Date Prepared:** 08/17/2010 **Analyst:** ASA

Reporting Units: mg/kg **Batch #:** 1

BTEX by EPA 8021B Analytes	Blank Result [A]	BLANK /BLANK SPIKE RECOVERY STUDY Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Benzene	ND	0.1000	0.1046	105	70-130	
Toluene	ND	0.1000	0.0988	99	70-130	
Ethylbenzene	ND	0.1000	0.1042	104	71-129	
m,p-Xylenes	ND	0.2000	0.2133	107	70-135	
o-Xylene	ND	0.1000	0.1040	104	71-133	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: MCA Header

Work Order #: 385678 **Project ID:** 114-6400314CO

Analyst: ASA **Date Prepared:** 08/14/2010 **Date Analyzed:** 08/16/2010

Lab Batch ID: 819149 **Sample:** 570783-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1000	0.0969	97	0.1	0.1011	101	4	70-130	35	
Toluene	ND	0.1000	0.0964	96	0.1	0.1016	102	5	70-130	35	
Ethylbenzene	ND	0 1000	0.1061	106	0.1	0.1124	112	6	71-129	35	
m,p-Xylenes	ND	0.2000	0.2086	104	0.2	0.2214	111	6	70-135	35	
o-Xylene	ND	0.1000	0.1044	104	0.1	0.1100	110	5	71-133	35	

Analyst: LATCOR **Date Prepared:** 08/17/2010 **Date Analyzed:** 08/17/2010

Lab Batch ID: 819152 **Sample:** 819152-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Anions by E300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	ND	10.0	8.73	87	10	8.75	88	0	75-125	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Final 1.000

BS / BSD Recoveries

Project Name: MCA Header

Work Order #: 385678 **Project ID:** 114-6400314CO

Analyst: BEV **Date Prepared:** 08/13/2010 **Date Analyzed:** 08/14/2010

Lab Batch ID: 818891 **Sample:** 570638-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons	ND	998	937	94	1010	904	90	4	70-135	35	
Diesel Range Hydrocarbons	ND	998	804	81	1010	763	76	5	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS Recoveries

Project Name: MCA Header

Work Order #: 385678
Lab Batch #: 819152
Project ID: 114-6400314CO
Date Analyzed: 08/17/2010
Date Prepared: 08/17/2010
Analyst: LATCOR
QC- Sample ID: 385617-001 S
Batch #: 1
Matrix: Soil
Reporting Units: mg/kg

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	1250	532	1750	94	75-125	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

BRL - Below Reporting Limit

Form 3 - MS / MSD Recoveries

Project Name: MCA Header

Work Order # : 385678 **Project ID:** 114-6400314CO

Lab Batch ID: 819149 **QC- Sample ID:** 385678-010 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/17/2010 **Date Prepared:** 08/14/2010 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1059	0.0957	90	0.1068	0.1024	96	7	70-130	35	
Toluene	ND	0.1059	0.0928	88	0.1068	0.0998	93	7	70-130	35	
Ethylbenzene	ND	0.1059	0.0979	92	0.1068	0.1059	99	8	71-129	35	
m,p-Xylenes	ND	0.2119	0.1920	91	0.2136	0.2081	97	8	70-135	35	
o-Xylene	ND	0.1059	0 0951	90	0.1068	0.1049	98	10	71-133	35	

Lab Batch ID: 819228 **QC- Sample ID:** 385631-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/17/2010 **Date Prepared:** 08/17/2010 **Analyst:** ASA

Reporting Units: mg/kg

BTEX by EPA 8021B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1095	0.0845	77	0.1095	0.0927	85	9	70-130	35	
Toluene	ND	0.1095	0.0807	74	0.1095	0.0877	80	8	70-130	35	
Ethylbenzene	ND	0.1095	0.0854	78	0.1095	0.0921	84	8	71-129	35	
m,p-Xylenes	ND	0.2190	0 1761	80	0.2190	0.1883	86	7	70-135	35	
o-Xylene	ND	0.1095	0.0839	77	0.1095	0.0903	82	7	71-133	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Final 1.000

Form 3 - MS / MSD Recoveries

Project Name: MCA Header

Work Order # : 385678 **Project ID:** 114-6400314CO

Lab Batch ID: 818891 **QC- Sample ID:** 385503-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 08/15/2010 **Date Prepared:** 08/13/2010 **Analyst:** BEV

Reporting Units: mg/kg

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
TPH By SW8015 Mod **Analytes**	**Parent Sample Result [A]**	**Spike Added [B]**	**Spiked Sample Result [C]**	**Spiked Sample %R [D]**	**Spike Added [E]**	**Duplicate Spiked Sample Result [F]**	**Spiked Dup. %R [G]**	**RPD %**	**Control Limits %R**	**Control Limits %RPD**	**Flag**
Gasoline Range Hydrocarbons	ND	1090	1030	94	1090	1020	94	1	70-135	35	
Diesel Range Hydrocarbons	ND	1090	852	78	1090	860	79	1	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: MCA Header

Work Order #: 385678

Lab Batch #: 819152 **Project ID:** 114-6400314CO

Date Analyzed: 08/17/2010 **Date Prepared:** 08/17/2010 **Analyst:** LATCOR

QC- Sample ID: 385617-001 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: mg/kg

Anions by E300 Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	1250	1170	7	20	

Lab Batch #: 818841

Date Analyzed: 08/14/2010 **Date Prepared:** 08/14/2010 **Analyst:** JLG

QC- Sample ID: 385631-013 D **Batch #:** 1 **Matrix:** Soil

Reporting Units: %

Percent Moisture Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Percent Moisture	15.2	16.0	5	20	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.
BRL - Below Reporting Limit

385678

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 1

TETRA TECH
1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

RUSH

CLIENT NAME: ConocoPhillips / Tetra Tech
SITE MANAGER: Charles Durrett
PROJECT NO.: 114-64-00314CO
PROJECT NAME: MCA 2A Header

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 Mod. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
-001	8/13/10	925	S		X	SB-1 8'	1	N			X		X	X											X				
-002	8/13/10	0930	S		X	SB-1 12'	1	N			X		X	X											X				
-003	8/13/10	940	S		X	SB-1 16'	1	N			X		X	X											X				
-004	8/13/10	0950	S		X	SB-1 20'	1	N			X		X	X											X				
-005	8/13/10	1000	S		X	SB-1 24'	1	N			X		X	X											X				
-006	8/17/10	1105	S		X	SB-5 8'	1	N			X		X	X											X				
-007	8/13/10	1112	S		X	SB-5 12'	1	N			X		X	X											X				
-008	8/13/10	1120	S		X	SB-5 16'	1	N			X		X	X											X				
-009	8/13/10	1128	S		X	SB-5 20'	1	N			X		X	X											X				
-010	8/13/10	1140	S		X	SB-5 24'	1	N			X		X	X											X				

RELINQUISHED BY: (Signature) Date: 08/13/10 Time: 1600
RECEIVED BY: (Signature) Date: Time:
SAMPLED BY: (Print & Initial) Jesse Kindley (JK) Date: 08/13/10 Time: 1600

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS
AIRBILL #:
OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
TETRA TECH CONTACT PERSON: Charles Durrett
Results by: 8/17/10
RUSH Charges Authorized: Yes No

RECEIVING LABORATORY:
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: 8/13/10 TIME: 1600

SAMPLE CONDITION WHEN RECEIVED: 1.1 C
REMARKS: TPH 8015 TPH GRO DRO

Please fill out all copies - Laboratory retains Yellow copy - Return Orginal copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Date 8/13/10

Sig.

XENCO Laboratories	Document Title: Sample Receipt Checklist
Atlanta, Boca Raton, Corpus Christi, Dallas	Document No.: SYS-SRC
Houston, Miami, Odessa, Philadelphia	Revision/Date: No. 01, 5/27/2010
Phoenix, San Antonio, Tampa	Effective Date: 6/1/2010 Page 1 of 1

Prelogin / Nonconformance Report - Sample Log-In

Client: TetraTech

Date/Time: 8/13/10

Lab ID #: 385678

Initials: BB

Sample Receipt Checklist

1. Samples on ice?	Blue	(Water)	No	
2. Shipping container in good condition?	(Yes)	No	None	
3. Custody seals intact on shipping container (cooler) and bottles?	(Yes)	No	N/A	
4. Chain of Custody present?	(Yes)	No		
5. Sample instructions complete on chain of custody?	(Yes)	No		
6. Any missing / extra samples?	Yes	(No)		
7. Chain of custody signed when relinquished / received?	(Yes)	No		
8. Chain of custody agrees with sample label(s)?	(Yes)	No		
9. Container labels legible and intact?	(Yes)	No		
10. Sample matrix / properties agree with chain of custody?	(Yes)	No		
11. Samples in proper container / bottle?	(Yes)	No		
12. Samples properly preserved?	(Yes)	No	N/A	
13. Sample container intact?	(Yes)	No		
14. Sufficient sample amount for indicated test(s)?	(Yes)	No		
15. All samples received within sufficient hold time?	(Yes)	No		
16. Subcontract of sample(s)?	Yes	(No)	N/A	
17. VOC sample have zero head space?	(Yes)	No	N/A	

18. Cooler 1 No.		Cooler 2 No.		Cooler 3 No.		Cooler 4 No.		Cooler 5 No.	
lbs	11 °C	lbs	°C	lbs	°C	lbs	°C	lbs	°C

Nonconformance Documentation

Contact:_____ Contacted by:_____ Date/Time:_____

Regarding: _____

Corrective Action Taken: _____

Check all that apply:
- ☐ Cooling process has begun shortly after sampling event and out of temperature condition acceptable by NELAC 5.5.8.3.1.a.1.
- ☐ Initial and Backup Temperature confirm out of temperature conditions
- ☐ Client understands and would like to proceed with analysis