TETRA TECH, INC.

1610 N. Big Spring St.
Midland, Texas 79705
(432) 686-8081

August 11, 2008

Ms. Sherry Bonham
NM Oil Conservation Division
1301 W. Grand Ave.
Artesia, NM 882310

Mr. Paul Evans
US Bureau of Land Management
620 E. Greene St.
Carlsbad, NM 88220

RE: Loco Hills Truck Loading Station Findings Report
Eddy County, New Mexico
Sec. 29, T17S, R30E
Tetra Tech Project No.8640024
2RP-154

Dear Ms. Bonham and Mr. Evans:

On behalf of ConocoPhillips Pipe Line Company (CPPL), Tetra Tech, Inc. (Tetra Tech) is pleased to submit this findings report describing remediation activities at CPPL's Loco Hills Truck Loading Station (Site; Figure 1). This work was performed in support of CPPL's efforts to delineate and remediate a recent 95 barrel crude oil release at the Site (C141 attached). The Site is located approximately 1 mile southwest of Loco Hills in Eddy County, New Mexico (32° 48.49098N, 103° 59.598W). The Bureau of Land Management is the land administrator.

The Site is located immediately north of the western portion of the Delaware Basin. The area is underlain by Guadalupian age formations, which contains a thick sequence of sandstones, shales, siltstone, and evaporites[1]. In the immediate vicinity of the Site, topography is nearly level to moderately undulating. The Kermit-Berino soil complex at the Site is loamy fine sand overlying fractured indurated caliche. [2]

Exposure Pathway Analysis

Depth to water in the vicinity of the Site is estimated at over 100 feet below ground surface (fbgs). This interpretation is based potentiometric surface contours (330 fbgs) described by Hiss[1] for aquifer systems in northern Eddy County. The New Mexico Office of State Engineer's database and the United States Geological Survey's database[3,4] did not yield any depth to groundwater information in this area. The U.S. Geological Survey, 1955 topographic map, 1:24,000 scale, entitled "Red Lake SE New Mexico" identifies a windmill approximately 4.6 miles

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

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

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

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

northwest of the Site. No information is available on the depth of water at this location. The nearest surface water body is a playa, located approximately 800 feet west of the Site.

Following the ranking criteria presented in "*Guidelines for Remediation of Leaks, Spills, and Releases*" promulgated on August 13, 1993 by the New Mexico Oil Conservation Division (OCD), this Site has the following score:

Criteria		Ranking Score
Depth to groundwater	>100 feet	0
Distance from water source	>1000 feet	0
Distance from domestic water source	>200 feet	0
Distance from surface water body	<1,000 feet	10
Total Ranking Score		10

The remediation action level for a ranking score of <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).

Scope of Work

Approximately 2,400 cubic yards of oily soil was excavated in the affected area (Figure 2) and placed on 20-mil plastic. Soil samples were collected from the base of the excavation and three side walls (north, west and south). The east side extended into the pump area and this area was excavated by hand. The samples were placed into glass sample jars, sealed with Teflon-lined lids, and placed on ice for transportation to an analytical laboratory where they were analyzed for diesel and gasoline range TPH (TPH_{DRO} and TPH_{GRO}, Method 8015B), and BTEX (Method 8021) and BTEX toxic characteristic leaching procedure analysis (TCLP, Method 1311/ 8260B).

For disposal purposes, aliquot samples were collected from two oily soil piles and composited into 6 samples. These samples were placed into glass sample jars, sealed with Teflon-lined lids, and placed on ice for transportation to an analytical laboratory where they were analyzed for TPH_{DRO} and TPH_{GRO} (Method 8015B), and BTEX TCLP analysis (Method 1311/ 8260B). Since concentrations of TPH and BTEX were higher in the smaller oily soil pile the sample from this pile was also analyzed for hazardous characteristics corrosivity (Method SW9045D), reactivity (Methods SW 7.3.3.2 and 7.3.4.2), and metals (mercury, and arsenic barium, cadmium, chromium, lead, selenium and silver; Methods SW 7471A and 6020A, respectively), TCLP analysis for the metals was also performed (Method 1311/ SW 7470A and /SW 6010B). All samples from both oily piles were combined and analyzed for ignitability (Method ASTM D92-01).

Findings

Excavations advanced during the investigation at the Site encountered reddish sandy dune soil. Summaries of subsurface soil conditions are presented in Table 1. A complete analytical report is presented in the Appendix.

Confirmation sample laboratory analyses indicate the remaining soils in the excavation are below OCD remediation standards (Table 1).

Table 1
ConocoPhillips Pipe Line Company
Loco Hills Truck Loading Station
Excavation Confirmation Analyses
5/29/2008

Location	Moisture (%)	Chloride (mg/Kg)	Total Petroleum Hydrocarbons			Toxic Leaching Procedure Volatile Organics (8021B/1311)				
			GRO (mg/Kg)	DRO (mg/Kg)	Total (mg/Kg)	Benzene (mg/Kg)	Ethyl-benzene (mg/Kg)	Toluene (mg/Kg)	Xylenes Total (mg/Kg)	Total BTEX (mg/Kg)
SW-N	2 43	ND	ND	ND	ND	ND	ND	ND	ND	ND
SW-S	3.75	ND	ND	ND	ND	ND	0.042	0.029	0.090	0.161
SW-W	4 63	11 2	ND	6 10	6.10	ND	ND	ND	ND	ND
Bottom (D-15)	10 2	30.9	ND	ND	ND	ND	ND	ND	ND	ND

ft = Feet
mg/Kg = Milligrams per kilogram
ND = Not detected at or above laboratory detection level
GRO = Gasoline range petroleum hydrocarbons
DRO = Diesel range petroleum hydrocarbons

The environmental conditions of two oily soil stockpiles are presented in Tables 2 and 3. TPH concentrations ranged from 1,301.9 to 4,297 milligrams per kilogram (mg/Kg). Benzene concentrations were not detected in any of the samples collected. Total BTEX ranged from non-detect to 0.16 milligrams per liter (mg/L).

Table 2
ConocoPhillips Pipe Line Company
Loco Hills Truck Loading Station
Excavated Soils Analyses
7/01/2008

Location	Total Petroleum Hydrocarbons			Toxic Characteristic Leaching Procedure				
	GRO (mg/Kg)	DRO (mg/Kg)	Total (mg/Kg)	Benzene (mg/L)	Ethyl-benzene (mg/L)	Toluene (mg/L)	Xylenes Total (mg/L)	Total BTEX (mg/L)
E-SIDE	2.2	1,500	1,502.2	ND	ND	ND	ND	ND
TOP	190.0	3,000	3,190.0	ND	0.04	0.03	0.09	0.16
N-SIDE	8.4	3,600	3,608.4	ND	ND	ND	0.01	0.01
S-SIDE	1.9	1,300	1,301.9	ND	ND	ND	ND	ND
W-SIDE	26 0	4,100	4,126.0	ND	0.01	0.04	0.03	0.08
SMALL PILE	97.0	4,200	4,297.0	ND	0.04	0.04	0 07	0.15

ft = Feet
mg/Kg = Milligrams per kilogram
mg/L = Milligrams per liter
Toxic Characteristic Leaching Procedure, 40 CFR §261.24.
GRO = Gasoline range petroleum hydrocarbons
DRO = Diesel range petroleum hydrocarbons
ND = Not detected at or above laboratory detection leve

Table 3
ConocoPhillips Pipe Line Company
Loco Hills Truck Loading Station
Excavated Soils Hazardous Characterization Analyses
7/01/2008

Constituent	Units	Result	Limits
Total Petroleum Hydrocarbons			
GRO	mg/Kg	97	
DRO	mg/Kg	4,200	
Total	mg/Kg	4,297	1,000
Toxic Characteristic Leaching Procedure (TCLP)			
Benzene	mg/L	ND	0.5
Ethylbenzene	mg/L	0.04	
Toluene	mg/L	0.039	
Xylenes Total	mg/L	0.065	
Total BTEX	mg/L	0.144	
TCLP RCRA 8 Metals			
Arsenic	mg/L	ND	5.0
Barium	mg/L	1.2	100.0
Cadmium	mg/L	ND	1.0
Chromium	mg/L	ND	5.0
Lead	mg/L	ND	5.0
Mercury	mg/L	ND	0.2
Selenium	mg/L	ND	1.0
Silver	mg/L	ND	5.0
Reactivity			
Cyanate	mg/Kg	ND	Reacts with Water
Sulfate	mg/Kg	ND	Reacts with Water
Ignitability	° F	>212	<140
Corrosivity	pH units	7.5	< 2 or > 12.5

TCLP = Toxic Characteristic Leaching Procedure, 40 CFR §261.24.
RCRA = Resource Conservation and Recovery Act
mg/Kg = Milligrams per kilogram
mg/L = Milligrams per liter
° F = Degrees Fahrenheit
ND = Not detected at or above laboratory detection level

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. Based on laboratory analyses presented in Table 1, the soil remaining in the excavation is below the OCD action level for TPH and benzene. Hazardous characteristic analyses (Table 3) indicated all constituents examined were below action levels. Laboratory analyses indicate these soils can be safety hauled to and disposed of at a State approved disposal location.

Recommendations

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

- Both piles of excavated soil will be combined and hauled to a State approved disposal location for disposal.
- Backfill will be returned to the excavation and adjacent soil will be used to cover the backfill.
- BLM seed mix # 2 will be applied and soil will be back dragged over the seed.
- Tetra Tech will supervise and direct all subcontractor activities and following the remediation activities, prepare a report describing and documenting what was done for closure activities at the Site, including a site map. This report on activities and results will be submitted for OCD's review and ultimate closure of this voluntary remediation.

If you concur with these recommendations, ConocoPhillips has authorized Tetra Tech to complete this work immediately following receipt of your notification to proceed. Please contact me (432-686-8081) or Mr. Thomas Lacki (ConocoPhillips, 432-368-1315), if you have any questions or require additional information.

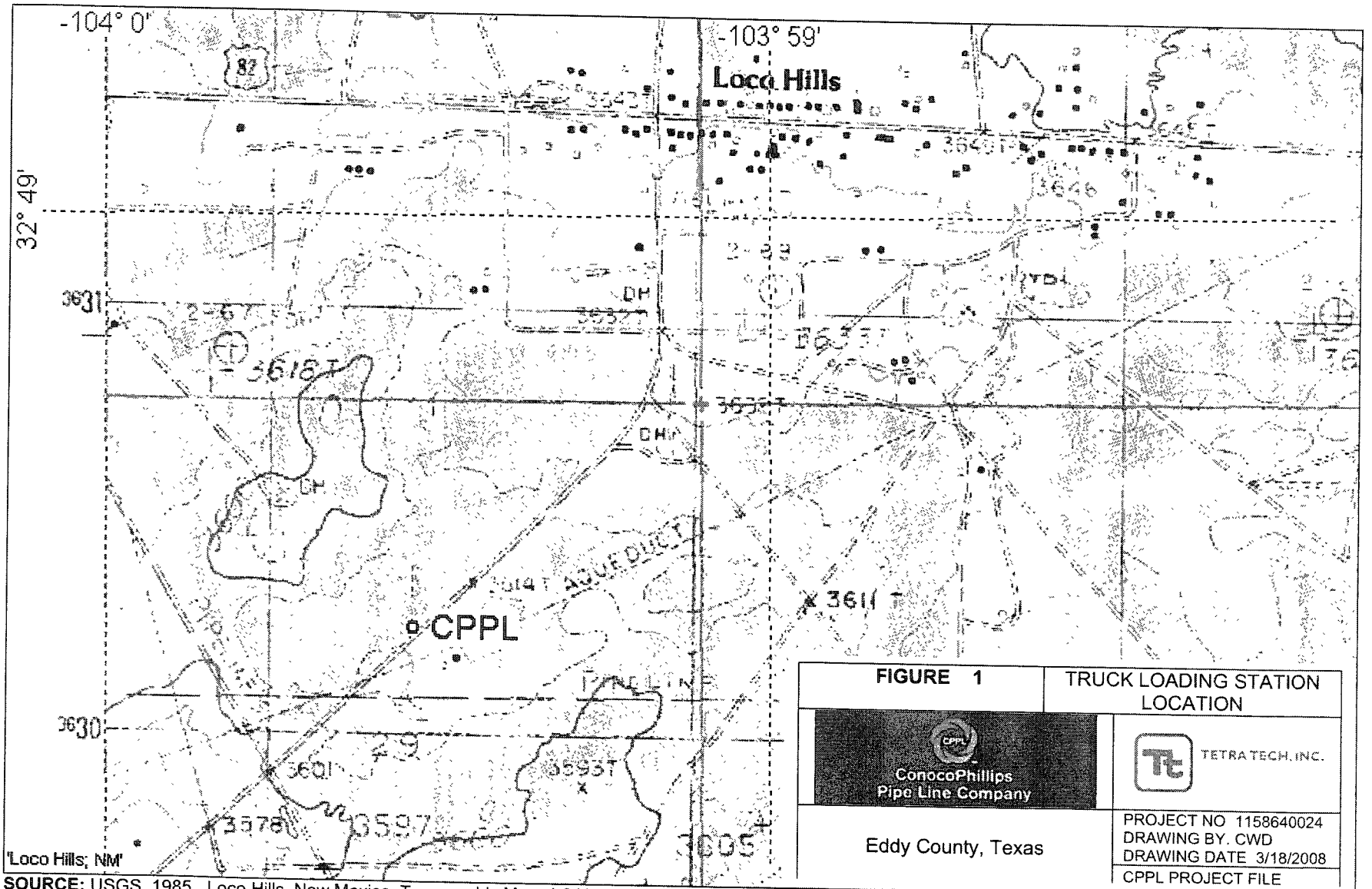
Sincerely,

Tetra Tech, Inc.

Digitally signed by Charles Durrett
DN: CN = Charles Durrett, C = US, O = Tetra Tech
Date 2008 08.11 11 00 24 -05'00'

Charles Durrett
Project Manager

Attachments:
Figure
Form C-141 Release Notification and Corrective Action
Appendix: Laboratory Analytical Reports



SOURCE: USGS, 1985. Loco Hills, New Mexico. Topographic Map. 1:24000 scale.

FIGURE 1	TRUCK LOADING STATION LOCATION
ConocoPhillips Pipe Line Company	TETRA TECH, INC.
Eddy County, Texas	PROJECT NO 1158640024 DRAWING BY. CWD DRAWING DATE 3/18/2008
	CPPL PROJECT FILE

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

State of New Mexico
Energy Minerals and Natural Resources

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

MAR 17 2008
OCD-ARTESIA

Form C-141
Revised October 10, 2003

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

JEB 0809433180
i SEB0809433030
nSEB0809354487

Release Notification and Corrective Action

258995

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company - ConocoPhillips pipe Line Company	Contact – Kirby Shipp
Address – 4001 East 42nd Street – Odessa, Tx. 79762	Telephone No. – 575/391-8262
Facility Name – Loco Hills Truck Unload Facility	Facility Type – Sour Crude Oil injection site

Surface Owner – U.S. Department of the Interior, Bureau of Land Management	Mineral Owner	Lease No. NM 101867

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	29	17S	30E	130 feet	Northwest	160 feet	West	Eddy

Latitude N32 48.491 **Longitude** W103 59.598

NATURE OF RELEASE

Type of Release – Crude oil	Volume of Release – 97 bbls.	Volume Recovered - 0
Source of Release – Pump site – suction pulsation dampner	Date and Hour of Occurrence – 02/27/08 – 04:50 to 05:17 PM	Date and Hour of Discovery – 02/27/08 - 05:17 PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Ponca City control center; NMOCD Santa Fe Office; NMOCD District 2,	
By Whom? Kirby Shipp contacted the control center and Thomas Lacki contacted the NMOCD.	Date and Hour: NMOCD was contacted on 2/27/08 at approximately 8:35 p.m. and 8:40 p.m. respectively. (I was out of cell phone reach until 8 10 p.m)	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*

NA

Describe Cause of Problem and Remedial Action Taken.*

A bolt sheared off of a clamp holding an end cap on a suction pulsation dampner for a PD pump resulting in a fantail spray of crude oil. The pump is used to pull crude from the storage tank and LACT unit out to the line which feeds Buckeye Station The release lasted approximately 1.25 hours.

Describe Area Affected and Cleanup Action Taken * The impact area is approximately 20 feet wide by 125 feet long and extends from the pipe line right of way out on to land owned by the Bureau of Land Management. Vacuum trucks were dispatched to the location; however, due to the dry sandy soil little to no oil was reclaimed. ConocoPhillips is currently working with TetraTech to develop a sampling plan to delineate the extent of the release . Once the extent of the contamination is known, a remediation plan will be developed to address the issues. Both the sampling and remediation plans will be submitted to your office for approval prior to implementation

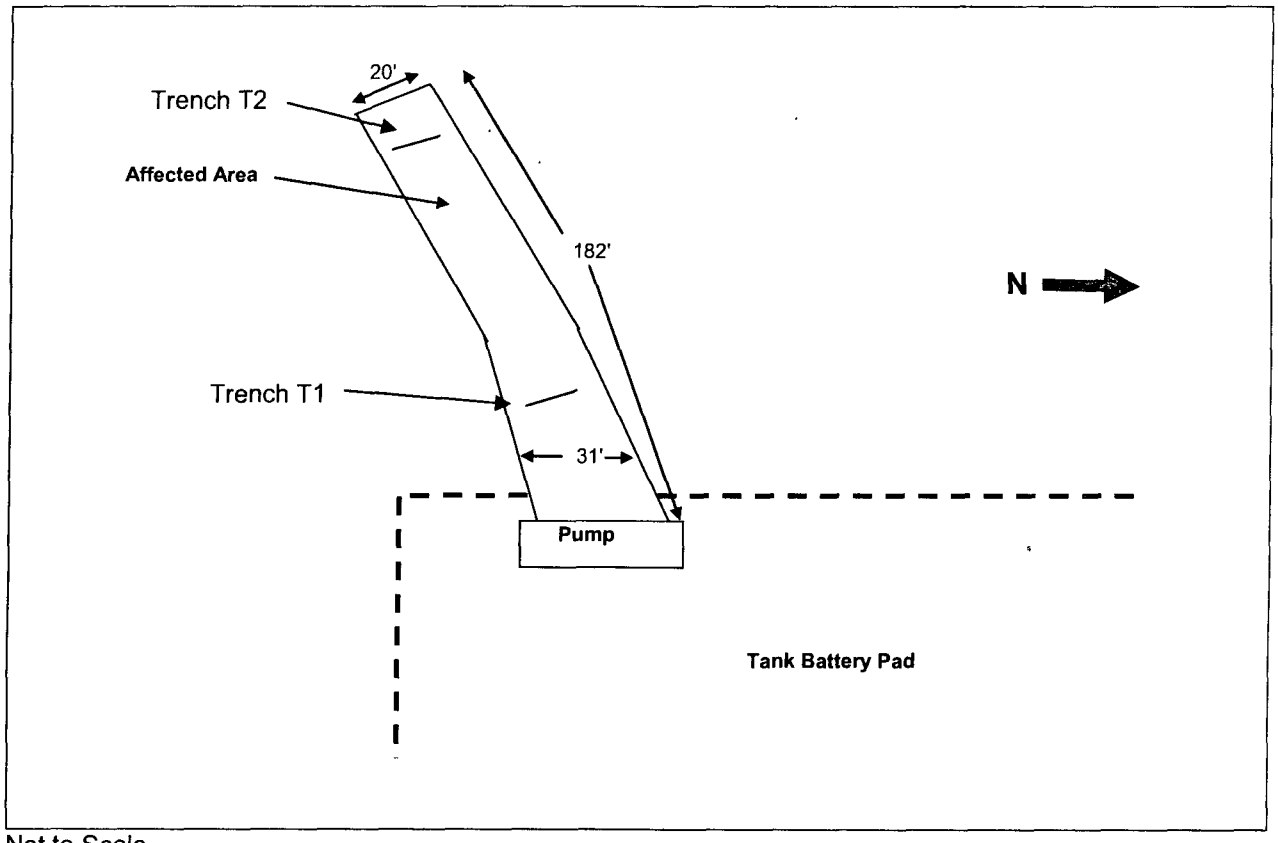
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger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

Signature:	OIL CONSERVATION DIVISION
Printed Name: Thomas Lacki	Approved by District Supervisor: TGumbySB
Title: Environmental Coordinator	Approval Date: 4-2-08 Expiration Date
E-mail Address: thomas.lacki@conocophillips com	Conditions of Approval: REMEDIATION WORK PLAN DUE 5-2-08 Attached ☑
Date: 3/12/08 Phone: (432) 368-1315	

* Attach Additional Sheets If Necessary

pSEB0809433924

2RP-154



Not to Scale

FIGURE 2	CRUDE OIL RELEASE LOCATION
ConocoPhillips Pipe Line Company	TETRA TECH, INC.
Loco Hills Truck Loading Battery Eddy County, New Mexico	PROJECT NO. 1158640024 DRAWING BY. CWD DRAWING DATE: 5/01/2008 CPPL PROJECT FILE

APPENDIX
Laboratory Analyses

Report 08070257
- $TPH_{DRO\text{-}GRO}$
- TCLP Volatile Organics
- Corrosivity
- Total Metals
- Reactivity

Report 08071643
- TCLP Metals

Report 08080253
- Ignitability

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips

Certificate of Analysis Number:

08070257

Report To:		Project Name:	CPPL Loco Hills
Tetra Tech		Site:	Loco Hills, NM
Charlie Durrett		Site Address:	
1703 W Industrial Avenue			
Midland		PO Number:	WO#4509610900
TX		State:	New Mexico
79701-		State Cert. No.:	
ph: (432) 686-8081	fax:	Date Reported:	7/21/2008

This Report Contains A Total Of 26 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

7/21/2008

Date

Test results meet all requirements of NELAC, unless specified in the narrative.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Case Narrative for:

Conoco Phillips

Certificate of Analysis Number:

08070257

Report To:		Project Name:	CPPL Loco Hills
Tetra Tech		Site:	Loco Hills, NM
Charlie Durrett		Site Address:	
1703 W Industrial Avenue			
Midland		PO Number:	WO#4509610900
TX		State:	New Mexico
79701-		State Cert. No.:	
ph: (432) 686-8081	fax:	Date Reported:	7/21/2008

Per the Conoco Phillips TSM Revision 0, a copy of the internal chain of custody is to be included in final data package. However, due to LIMS limitations, this cannot be provided at this time

Results for soils are reported on a dry-weight basis.

The samples submitted for Purgeable Aromatics by SW846 Method 8021B analyses were received in a vessel that is not stipulated in Method 5035A; the samples were not preserved and/or analyzed within 48 hours of sample collection.

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB) The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s)

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs

Bethany Agarwal

7/21/2008

Bethany A. Agarwal
Senior Project Manager

Date

Test results meet all requirements of NELAC, unless specified in the narrative.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips

Certificate of Analysis Number:

08070257

Report To: Tetra Tech
Charlie Durrett
1703 W Industrial Avenue

Midland
TX
79701-
ph: (432) 686-8081 fax: (432) 686-8085

Fax To:

Project Name: CPPL Loco Hills
Site: Loco Hills, NM
Site Address:

PO Number: WO#4509610900
State: New Mexico
State Cert. No.:
Date Reported: 7/21/2008

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
E SIDE	08070257-01	Soil	7/1/2008 10.30 00 AM	7/3/2008 9:30 00 AM	278382	☐
TOP	08070257-02	Soil	7/1/2008 10:35:00 AM	7/3/2008 9.30:00 AM	278382	☐
N SIDE	08070257-03	Soil	7/1/2008 10:40:00 AM	7/3/2008 9:30:00 AM	278382	☐
S SIDE	08070257-04	Soil	7/1/2008 10:45:00 AM	7/3/2008 9:30:00 AM	278382	☐
W-SIDE	08070257-05	Soil	7/1/2008 10:50:00 AM	7/3/2008 9.30 00 AM	278382	☐
SMALL PILE	08070257-06	Soil	7/1/2008 10:55:00 AM	7/3/2008 9:30:00 AM	278382	☐

Bethany A. Agarwal
Senior Project Manager

7/21/2008
Date

Richard R. Reed
Laboratory Director

Ted Yen
Quality Assurance Officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: E-SIDE **Collected:** 07/01/2008 10:30 **SPL Sample ID:** 08070257-01

Site: Loco Hills, NM

Analyses/Method	Result	QUAL		Rep.Limit		Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS					**MCL**	**SW8015B**	**Units: mg/kg-dry**		
Diesel Range Organics (C10-C28)	1500			100		20	07/08/08 11:26	NW	4553589
Surr: n-Pentacosane	D	*	%	20-154		20	07/08/08 11.26	NW	4553589

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	07/05/2008 15 20	QMT	1.00

GASOLINE RANGE ORGANICS					**MCL**	**SW8015B**	**Units: mg/kg-dry**		
Gasoline Range Organics	2.2			0 52		1	07/05/08 21.16	NMa	4550431
Surr: 1,4-Difluorobenzene	104		%	63-142		1	07/05/08 21:16	NMa	4550431
Surr: 4-Bromofluorobenzene	142		%	50-159		1	07/05/08 21 16	NMa	4550431

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	07/04/2008 16 48	XML	5 00

PERCENT MOISTURE					**MCL**	**D2216**	**Units: wt%**		
Percent Moisture	3.28			0		1	07/03/08 18:27	ESK	4545380

TCLP VOLATILE ORGANICS					**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND			5	500	1	07/06/08 10:01	LT	4548860
Ethylbenzene	ND			5		1	07/06/08 10.01	LT	4548860
Toluene	ND			5		1	07/06/08 10.01	LT	4548860
m,p-Xylene	ND			5		1	07/06/08 10 01	LT	4548860
o-Xylene	ND			5		1	07/06/08 10:01	LT	4548860
Xylenes,Total	ND			5		1	07/06/08 10.01	LT	4548860
Surr: 1,2-Dichloroethane-d4	92.0		%	62-130		1	07/06/08 10 01	LT	4548860
Surr: 4-Bromofluorobenzene	104		%	70-130		1	07/06/08 10:01	LT	4548860
Surr: Toluene-d8	100		%	74-122		1	07/06/08 10:01	LT	4548860

Leach Method	Leachate Date	Leach Initials
SW1311	07/04/2008	GF

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: TOP **Collected:** 07/01/2008 10.35 **SPL Sample ID:** 08070257-02

Site: Loco Hills, NM

Analyses/Method	Result	QUAL		Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS					**MCL**	**SW8015B**	**Units: mg/kg-dry**	
Diesel Range Organics (C10-C28)	3000			200	40	07/08/08 13:10	NW	4553593
Surr n-Pentacosane	D	*	%	20-154	40	07/08/08 13.10	NW	4553593

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	07/05/2008 15 20	QMT	1 00

GASOLINE RANGE ORGANICS					**MCL**	**SW8015B**	**Units: mg/kg-dry**	
Gasoline Range Organics	190			10	100	07/05/08 23.41	NMa	4552004
Surr 1,4-Difluorobenzene	104		%	63-142	100	07/05/08 23.41	NMa	4552004
Surr: 4-Bromofluorobenzene	145		%	50-159	100	07/05/08 23 41	NMa	4552004

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	07/04/2008 17:06	XML	1.00

PERCENT MOISTURE					**MCL**	**D2216**	**Units: wt%**	
Percent Moisture	0.693			0	1	07/03/08 18.27	ESK	4545379

TCLP VOLATILE ORGANICS					**MCL**	**SW8260B**	**Units: ug/L**	
Benzene	ND			5	500 1	07/06/08 9:35	LT	4548859
Ethylbenzene	41			5	1	07/06/08 9.35	LT	4548859
Toluene	30			5	1	07/06/08 9:35	LT	4548859
m,p-Xylene	58			5	1	07/06/08 9:35	LT	4548859
o-Xylene	35			5	1	07/06/08 9:35	LT	4548859
Xylenes,Total	93			5	1	07/06/08 9:35	LT	4548859
Surr: 1,2-Dichloroethane-d4	100		%	62-130	1	07/06/08 9:35	LT	4548859
Surr: 4-Bromofluorobenzene	106		%	70-130	1	07/06/08 9:35	LT	4548859
Surr: Toluene-d8	98.0		%	74-122	1	07/06/08 9.35	LT	4548859

Leach Method	Leachate Date	Leach Initials
SW1311	07/04/2008	GF

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: N-SIDE **Collected:** 07/01/2008 10:40 **SPL Sample ID:** 08070257-03

Site: Loco Hills, NM

Analyses/Method	Result	QUAL		Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS					**MCL**	**SW8015B**	**Units: mg/kg-dry**	
Diesel Range Organics (C10-C28)	3600			500	100	07/08/08 13:36	NW	4553594
Surr: n-Pentacosane	D	*	%	20-154	100	07/08/08 13.36	NW	4553594

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	07/05/2008 15.20	QMT	1 00

GASOLINE RANGE ORGANICS					**MCL**	**SW8015B**	**Units: mg/kg-dry**	
Gasoline Range Organics	8.4			0.5	1	07/05/08 20 47	NMa	4552002
Surr: 1,4-Difluorobenzene	120		%	63-142	1	07/05/08 20.47	NMa	4552002
Surr. 4-Bromofluorobenzene	160MI	*	%	50-159	1	07/05/08 20:47	NMa	4552002

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	07/04/2008 16:46	XML	5 00

PERCENT MOISTURE					**MCL**	**D2216**	**Units: wt%**	
Percent Moisture	0.603			0	1	07/03/08 18.27	ESK	4545378

TCLP VOLATILE ORGANICS					**MCL**	**SW8260B**	**Units: ug/L**	
Benzene	ND			5	500 1	07/06/08 9.09	LT	4548858
Ethylbenzene	ND			5	1	07/06/08 9:09	LT	4548858
Toluene	ND			5	1	07/06/08 9.09	LT	4548858
m,p-Xylene	6			5	1	07/06/08 9 09	LT	4548858
o-Xylene	ND			5	1	07/06/08 9 09	LT	4548858
Xylenes,Total	6			5	1	07/06/08 9:09	LT	4548858
Surr. 1,2-Dichloroethane-d4	96.0		%	62-130	1	07/06/08 9:09	LT	4548858
Surr: 4-Bromofluorobenzene	102		%	70-130	1	07/06/08 9:09	LT	4548858
Surr. Toluene-d8	98 0		%	74-122	1	07/06/08 9:09	LT	4548858

Leach Method	Leachate Date	Leach Initials
SW1311	07/04/2008	GF

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: S-SIDE **Collected:** 07/01/2008 10:45 **SPL Sample ID:** 08070257-04

Site: Loco Hills, NM

Analyses/Method	Result	QUAL		Rep.Limit		Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS					**MCL**	**SW8015B**	**Units: mg/kg-dry**		
Diesel Range Organics (C10-C28)	1300			110		20	07/08/08 12 44	NW	4553592
Surr. n-Pentacosane	D	*	%	20-154		20	07/08/08 12:44	NW	4553592

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	07/05/2008 15 20	QMT	1 00

GASOLINE RANGE ORGANICS					**MCL**	**SW8015B**	**Units: mg/kg-dry**		
Gasoline Range Organics	1 9			0.53		1	07/05/08 21.45	NMa	4550256
Surr 1,4-Difluorobenzene	101		%	63-142		1	07/05/08 21.45	NMa	4550256
Surr 4-Bromofluorobenzene	129		%	50-159		1	07/05/08 21:45	NMa	4550256

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	07/04/2008 16 42	XML	5.00

PERCENT MOISTURE					**MCL**	**D2216**	**Units: wt%**		
Percent Moisture	5.08			0		1	07/03/08 18:27	ESK	4545377
TCLP VOLATILE ORGANICS					**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND			5	500	1	07/06/08 8:43	LT	4548857
Ethylbenzene	ND			5		1	07/06/08 8.43	LT	4548857
Toluene	ND			5		1	07/06/08 8:43	LT	4548857
m,p-Xylene	ND			5		1	07/06/08 8 43	LT	4548857
o-Xylene	ND			5		1	07/06/08 8.43	LT	4548857
Xylenes,Total	ND			5		1	07/06/08 8.43	LT	4548857
Surr: 1,2-Dichloroethane-d4	96.0		%	62-130		1	07/06/08 8.43	LT	4548857
Surr: 4-Bromofluorobenzene	104		%	70-130		1	07/06/08 8:43	LT	4548857
Surr Toluene-d8	100		%	74-122		1	07/06/08 8 43	LT	4548857

Leach Method	Leachate Date	Leach Initials
SW1311	07/04/2008	GF

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: W-SIDE **Collected:** 07/01/2008 10:50 **SPL Sample ID:** 08070257-05

Site: Loco Hills, NM

Analyses/Method	Result	QUAL		Rep.Limit		Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS					**MCL**	**SW8015B**	**Units: mg/kg-dry**		
Diesel Range Organics (C10-C28)	4100			510		100	07/08/08 14.02	NW	4553595
Surr: n-Pentacosane	D	*	%	20-154		100	07/08/08 14 02	NW	4553595

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	07/05/2008 15:20	QMT	1.00

GASOLINE RANGE ORGANICS					**MCL**	**SW8015B**	**Units: mg/kg-dry**		
Gasoline Range Organics	26			0 51		1	07/05/08 22.14	NMa	4550257
Surr: 1,4-Difluorobenzene	106		%	63-142		1	07/05/08 22:14	NMa	4550257
Surr. 4-Bromofluorobenzene	173MI	*	%	50-159		1	07/05/08 22:14	NMa	4550257

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	07/04/2008 16:39	XML	5 00

PERCENT MOISTURE					**MCL**	**D2216**	**Units: wt%**		
Percent Moisture	2 03			0		1	07/03/08 18:27	ESK	4545376

TCLP VOLATILE ORGANICS					**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND			5	500	1	07/06/08 8:17	LT	4548856
Ethylbenzene	11			5		1	07/06/08 8:17	LT	4548856
Toluene	35			5		1	07/06/08 8:17	LT	4548856
m,p-Xylene	19			5		1	07/06/08 8 17	LT	4548856
o-Xylene	14			5		1	07/06/08 8:17	LT	4548856
Xylenes,Total	33			5		1	07/06/08 8:17	LT	4548856
Surr 1,2-Dichloroethane-d4	94 0		%	62-130		1	07/06/08 8:17	LT	4548856
Surr: 4-Bromofluorobenzene	98 0		%	70-130		1	07/06/08 8.17	LT	4548856
Surr: Toluene-d8	98.0		%	74-122		1	07/06/08 8.17	LT	4548856

Leach Method	Leachate Date	Leach Initials
SW1311	07/04/2008	GF

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: SMALL PILE **Collected:** 07/01/2008 10:55 **SPL Sample ID:** 08070257-06

Site: Loco Hills, NM

Analyses/Method	Result	QUAL		Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
CORROSIVITY					**MCL**	**SW9045D**	**Units: pH Units**	
Corrosivity	7 5			0 1	1	07/07/08 11.40	PAC	4550603
DIESEL RANGE ORGANICS					**MCL**	**SW8015B**	**Units: mg/kg-dry**	
Diesel Range Organics (C10-C28)	4200			510	100	07/08/08 14:28	NW	4553596
Surr: n-Pentacosane	D	*	%	20-154	100	07/08/08 14.28	NW	4553596

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	07/05/2008 15:20	QMT	1 00

GASOLINE RANGE ORGANICS					**MCL**	**SW8015B**	**Units: mg/kg-dry**	
Gasoline Range Organics	97			10	100	07/05/08 23:12	NMa	4552003
Surr: 1,4-Difluorobenzene	102		%	63-142	100	07/05/08 23:12	NMa	4552003
Surr 4-Bromofluorobenzene	147		%	50-159	100	07/05/08 23.12	NMa	4552003

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	07/04/2008 17:09	XML	1.00

IGNITABILITY MODIFIED OPEN CUP					**MCL**	**ASTM D92-01**	**Units: °F**	
Ignitability	135			20	1	07/07/08 14.00	GF	4550037
MERCURY, TOTAL					**MCL**	**SW7471A**	**Units: mg/kg-dry**	
Mercury	0.0586			0 0308	1	07/07/08 22 13	CMC	4551632

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7471A	07/07/2008 17:00	CMC	1.00

METALS BY METHOD 6020, TOTAL					**MCL**	**SW6020A**	**Units: mg/kg-dry**	
Arsenic	2.49			0.513	1	07/17/08 1:26	AL_H	4570767
Barium	82 6			0 513	1	07/18/08 15 18	AL_H	4575108
Cadmium	ND			0.513	1	07/17/08 1:26	AL_H	4570767
Chromium	5.47			0.513	1	07/17/08 1:26	AL_H	4570767
Lead	3 52			0.513	1	07/17/08 1 26	AL_H	4570767
Selenium	ND			0 513	1	07/17/08 18:43	AL_H	4573134
Silver	0.939			0.513	1	07/17/08 18:43	AL_H	4573134

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	07/07/2008 9:55	DDW	1 00

PERCENT MOISTURE					**MCL**	**D2216**	**Units: wt%**	
Percent Moisture	2 5			0	1	07/03/08 18.27	ESK	4545375
REACTIVE CYANIDE-SOLID					**MCL**	**SW7.3.3.2**	**Units: mg/kg-dry**	
Reactive Cyanide	ND			1.03	1	07/07/08 13:00	ESK	4549971

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: SMALL PILE **Collected:** 07/01/2008 10.55 **SPL Sample ID:** 08070257-06

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit		Dil. Factor	Date Analyzed	Analyst	Seq. #
REACTIVE SULFIDE - SOLID				**MCL**	**SW7.3.4.2**	**Units: mg/kg-dry**		
Reactive Sulfide	ND		10 3		1	07/07/08 15 30	ESK	4550464
TCLP VOLATILE ORGANICS				**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND		5	500	1	07/06/08 7.51	LT	4548855
Ethylbenzene	40		5		1	07/06/08 7 51	LT	4548855
Toluene	39		5		1	07/06/08 7:51	LT	4548855
m,p-Xylene	42		5		1	07/06/08 7.51	LT	4548855
o-Xylene	23		5		1	07/06/08 7 51	LT	4548855
Xylenes,Total	65		5		1	07/06/08 7:51	LT	4548855
Surr: 1,2-Dichloroethane-d4	96 0		% 62-130		1	07/06/08 7:51	LT	4548855
Surr 4-Bromofluorobenzene	104		% 70-130		1	07/06/08 7:51	LT	4548855
Surr: Toluene-d8	98 0		% 74-122		1	07/06/08 7:51	LT	4548855

Leach Method	Leachate Date	Leach Initials
SW1311	07/04/2008	GF

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

Quality Control Documentation

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: Diesel Range Organics
Method: SW8015B
WorkOrder: 08070257
Lab Batch ID: 81295

Method Blank

RunID: HP_V_080707A-4553587 Units. mg/kg
Analysis Date 07/08/2008 10 35 Analyst NW
Preparation Date. 07/05/2008 15 20 Prep By: QMT Method SW3550B

Analyte	Result	Rep Limit
Diesel Range Organics (C10-C28)	ND	5.0
Surr. n-Pentacosane	90.4	20-154

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08070257-01A	E-SIDE
08070257-02A	TOP
08070257-03A	N-SIDE
08070257-04A	S-SIDE
08070257-05A	W-SIDE
08070257-06A	SMALL PILE

Laboratory Control Sample (LCS)

RunID: HP_V_080707A-4553588 Units: mg/kg
Analysis Date. 07/08/2008 11 01 Analyst: NW
Preparation Date 07/05/2008 15:20 Prep By. QMT Method SW3550B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Diesel Range Organics (C10-C28)	66 6	63.2	94.9	57	150
Surr: n-Pentacosane	1 66	1 66	100	20	154

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked 08070257-01
RunID: HP_V_080707A-4553590 Units. mg/kg-dry
Analysis Date: 07/08/2008 11:52 Analyst. NW
Preparation Date: 07/05/2008 15:20 Prep By QMT Method SW3550B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Diesel Range Organics (C10-C28)	1520	68 9	3400	N/C	68.9	3700	N/C	N/C	50	21	175
Surr. n-Pentacosane	ND	1.72	D	D	1 72	D	D	D	30	20	154

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: Gasoline Range Organics
Method: SW8015B
WorkOrder: 08070257
Lab Batch ID: R244079

Method Blank

RunID HP_O_080705A-4550233 Units: mg/kg
Analysis Date 07/05/2008 9 43 Analyst: NMa
Preparation Date: 07/05/2008 9:43 Prep By: Method

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.10
Surr. 1,4-Difluorobenzene	102 1	63-142
Surr 4-Bromofluorobenzene	90.1	50-159

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08070257-01A	E-SIDE
08070257-02A	TOP
08070257-03A	N-SIDE
08070257-04A	S-SIDE
08070257-05A	W-SIDE
08070257-06A	SMALL PILE

Methanolic Preparation Blank

RunID. HP_O_080705A-4550234 Units mg/kg
Analysis Date: 07/05/2008 10:11 Analyst: NMa
Preparation Date. 07/05/2008 10.11 Prep By. Method SW5030B

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	2 5
Surr: 1,4-Difluorobenzene	101.6	63-142
Surr 4-Bromofluorobenzene	89 7	50-159

Laboratory Control Sample (LCS)

RunID: HP_O_080705A-4550232 Units mg/kg
Analysis Date. 07/05/2008 9:14 Analyst. NMa
Preparation Date: 07/05/2008 9:14 Prep By: Method SW5030B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1.00	1 06	106	70	130
Surr: 1,4-Difluorobenzene	0.100	0.106	106	63	142
Surr: 4-Bromofluorobenzene	0.100	0.095	95 0	50	159

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08070246-08
RunID: HP_O_080705A-4550428 Units: mg/kg-dry
Analysis Date 07/05/2008 13:05 Analyst: NMa
Preparation Date 07/02/2008 14:45 Prep By: Field Method SW5035A

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: Gasoline Range Organics **WorkOrder:** 08070257
Method: SW8015B **Lab Batch ID:** R244079

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	ND	0.841	0 772	91 7	0.83	0 793	95 5	2.74	50	26	147
Surr: 1,4-Difluorobenzene	ND	0.0841	0 0875	104	0.083	0 0864	104	1.25	30	63	142
Surr 4-Bromofluorobenzene	ND	0 0841	0 0789	93.8	0.083	0.0762	91.8	3.44	30	50	159

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: Metals by Method 6020, Total
Method: SW6020A
WorkOrder: 08070257
Lab Batch ID: 81323A-I

Method Blank

RunID. ICPMS2_080717A-4573131 Units: mg/kg
Analysis Date: 07/17/2008 18:30 Analyst AL_H
Preparation Date 07/07/2008 9:55 Prep By: DD Method SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08070257-06A	SMALL PILE

Analyte	Result	Rep Limit
Selenium	ND	0.5
Silver	ND	0 5

Laboratory Control Sample (LCS)

RunID. ICPMS2_080717A-4573132 Units: mg/kg
Analysis Date: 07/17/2008 18:36 Analyst: AL_H
Preparation Date: 07/07/2008 9.55 Prep By: DD Method SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Selenium	82 90	73 87	89.11	76	124
Silver	80.00	90.91	113.6	61	139

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked. 08070257-06
RunID: ICPMS2_080717A-4573135 Units: mg/kg-dry
Analysis Date: 07/17/2008 18.49 Analyst: AL_H
Preparation Date: 07/07/2008 9.55 Prep By: DD Method SW3050B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Selenium	ND	10.26	8 799	84.32	10.26	8 244	78.91	6.511	20	75	125
Silver	0 9389	10 26	12.23	110.0	10.26	11 88	106 6	2 894	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added Control limits do not apply
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: Metals by Method 6020, Total
Method: SW6020A
WorkOrder: 08070257
Lab Batch ID: 81323C-I

Method Blank

RunID. ICPMS2_080718A-4575106 Units mg/kg
Analysis Date 07/18/2008 15 05 Analyst AL_H
Preparation Date: 07/07/2008 9 55 Prep By. DD Method SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08070257-06A	SMALL PILE

Analyte	Result	Rep Limit
Barium	ND	0 5

Laboratory Control Sample (LCS)

RunID. ICPMS2_080718A-4575107 Units. mg/kg
Analysis Date: 07/18/2008 15:11 Analyst: AL_H
Preparation Date: 07/07/2008 9:55 Prep By. DD Method SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Barium	156.0	146.7	94.04	82	119

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked. 08070257-06
RunID ICPMS2_080718A-4575426 Units: mg/kg-dry
Analysis Date: 07/18/2008 16:59 Analyst: AL_H
Preparation Date 07/07/2008 9:55 Prep By. DD Method SW3050B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Barium	82 56	10 26	106.5	N/C	10.26	107 8	N/C	N/C	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added Control limits do not apply
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: Metals by Method 6020, Total
Method: SW6020A
WorkOrder: 08070257
Lab Batch ID: 81323-I

Method Blank

RunID: ICPMS2_080716A-4570765 Units: mg/kg
Analysis Date: 07/17/2008 1 12 Analyst: AL_H
Preparation Date: 07/07/2008 9.55 Prep By: DD Method SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08070257-06A	SMALL PILE

Analyte	Result	Rep Limit
Arsenic	ND	0.5
Cadmium	ND	0.5
Chromium	ND	0.5
Lead	ND	0 5

Laboratory Control Sample (LCS)

RunID: ICPMS2_080716A-4570766 Units: mg/kg
Analysis Date: 07/17/2008 1.19 Analyst: AL_H
Preparation Date: 07/07/2008 9:55 Prep By: DD Method SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Arsenic	80.90	65.74	81 26	79	121
Cadmium	233.0	248 1	106 5	81	119
Chromium	60 80	65.01	106 9	78	121
Lead	76.80	68 51	89.21	81	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08070257-06
RunID: ICPMS2_080716A-4570768 Units: mg/kg-dry
Analysis Date: 07/17/2008 1:32 Analyst: AL_H
Preparation Date: 07/07/2008 9:55 Prep By: DD Method SW3050B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Arsenic	2.490	10.26	11 46	87.42	10.26	11 26	85.52	1.716	20	75	125
Cadmium	ND	10.26	10.18	98.71	10.26	10.03	97.21	1.522	20	75	125
Chromium	5 471	10 26	16.31	105.7	10.26	16 19	104.6	0.6942	20	75	125
Lead	3.522	10.26	12.76	90 06	10.26	12 81	90 56	0 4011	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: Mercury, Total
Method: SW7471A
WorkOrder: 08070257
Lab Batch ID: 81365

Method Blank

RunID: HGLC_080707B-4551616 Units: mg/kg
Analysis Date: 07/07/2008 21:35 Analyst: CMC
Preparation Date: 07/07/2008 17:00 Prep By: CMC Method SW7471A

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08070257-06A	SMALL PILE

Analyte	Result	Rep Limit
Mercury	ND	0.03

Laboratory Control Sample (LCS)

RunID: HGLC_080707B-4551617 Units: mg/kg
Analysis Date: 07/07/2008 21:38 Analyst: CMC
Preparation Date: 07/07/2008 17:00 Prep By: CMC Method SW7471A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Mercury	3.600	3.519	97.74	68	132

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08061895-06
RunID: HGLC_080707B-4551619 Units: mg/kg-dry
Analysis Date: 07/07/2008 21:43 Analyst: CMC
Preparation Date: 07/07/2008 17.00 Prep By: CMC Method SW7471A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Mercury	ND	0.3589	0.3986	107.8	0.3589	0.4075	110.3	2.205	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: TCLP Volatile Organics
Method: SW8260B
WorkOrder: 08070257
Lab Batch ID: R243970

Method Blank

RunID: N_080706C-4548847 Units: ug/L
Analysis Date: 07/06/2008 6:07 Analyst: LT

Analyte	Result	Rep Limit
Benzene	ND	5.0
Ethylbenzene	ND	5.0
Toluene	ND	5.0
m,p-Xylene	ND	5.0
o-Xylene	ND	5.0
Xylenes,Total	ND	5.0
Surr: 1,2-Dichloroethane-d4	92.0	62-130
Surr: 4-Bromofluorobenzene	100.0	70-130
Surr: Toluene-d8	96.0	74-122

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08070257-01A	E-SIDE
08070257-02A	TOP
08070257-03A	N-SIDE
08070257-04A	S-SIDE
08070257-05A	W-SIDE
08070257-06A	SMALL PILE

Leachate Blank

RunID: N_080706C-4548840 Units: ug/L
Analysis Date: 07/06/2008 5:41 Analyst: LT

Leach Date: 07/04/2008 0:00 Leach By: GF Method SW1311

Analyte	Result	Rep Limit
Benzene	ND	5.0
Ethylbenzene	ND	5.0
Toluene	ND	5.0
m,p-Xylene	ND	5.0
o-Xylene	ND	5.0
Xylenes,Total	ND	5.0
Surr: 1,2-Dichloroethane-d4	88.0	62-130
Surr: 4-Bromofluorobenzene	100.0	70-130
Surr: Toluene-d8	98.0	74-122

Laboratory Control Sample (LCS)

RunID: N_080706C-4548837 Units: ug/L
Analysis Date: 07/06/2008 4:23 Analyst: LT

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	20.0	21.0	105	76	126
Ethylbenzene	20.0	20.0	100	67	122
Toluene	20.0	21.0	105	70	131
m,p-Xylene	40.0	42.0	105	72	150
o-Xylene	20.0	22.0	110	78	141

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: TCLP Volatile Organics
Method: SW8260B
WorkOrder: 08070257
Lab Batch ID: R243970

Laboratory Control Sample (LCS)

RunID N_080706C-4548837 Units: ug/L
Analysis Date: 07/06/2008 4 23 Analyst LT

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Xylenes,Total	60	64	110	72	150
Surr: 1,2-Dichloroethane-d4	50 0	45	90.0	62	130
Surr 4-Bromofluorobenzene	50.0	54	108	70	130
Surr Toluene-d8	50.0	50	100	74	122

Matrix Spike (MS)

Sample Spiked 08070030-01
RunID: N_080706C-4548854 Units: ug/L
Analysis Date: 07/06/2008 7:25 Analyst: LT

Analyte	Sample Result	Spike Added	MS Result	MS % Recovery	Low Limit	High Limit
Benzene	ND	200	190	95.0	76	127
Ethylbenzene	ND	200	180	90.0	35	175
Toluene	ND	200	190	95 0	70	131
m,p-Xylene	ND	400	390	97.5	35	175
o-Xylene	ND	200	190	95.0	35	175
Xylenes,Total	ND	600	580	97	35	175
Surr: 1,2-Dichloroethane-d4	ND	500	480	96.0	62	130
Surr: 4-Bromofluorobenzene	ND	500	520	104	70	130
Surr Toluene-d8	ND	500	490	98.0	74	122

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips
CPPL Loco Hills

Analysis: PERCENT MOISTURE
Method: D2216
WorkOrder: 08070257
Lab Batch ID: R243812A

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08070257-01A	E-SIDE
08070257-02A	TOP
08070257-03A	N-SIDE
08070257-04A	S-SIDE
08070257-05A	W-SIDE
08070257-06A	SMALL PILE

Sample Duplicate

Original Sample: 08070257-06
RunID: WET_080703W-4545375 Units: wt%
Analysis Date: 07/03/2008 18.27 Analyst: ESK

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Percent Moisture	2.5	2 492	0.156	20

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: Reactive Cyanide-Solid
Method: SW7.3.3.2
WorkOrder: 08070257
Lab Batch ID: R244047

Method Blank

RunID: WET_080707J-4549960 Units: mg/kg
Analysis Date: 07/07/2008 13 00 Analyst: ESK

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08070257-06A	SMALL PILE

Analyte	Result	Rep Limit
Reactive Cyanide	ND	1.0

Laboratory Control Sample (LCS)

RunID: WET_080707J-4549961 Units: mg/kg
Analysis Date: 07/07/2008 13.00 Analyst: ESK

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Reactive Cyanide	2.000	0.4310	21 55	5	50

Sample Duplicate

Original Sample: 08070249-01
RunID: WET_080707J-4549964 Units: mg/kg
Analysis Date: 07/07/2008 13 00 Analyst: ESK

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Reactive Cyanide	ND	ND	0	20

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: Ignitability Modified Open Cup
Method: ASTM D92-01
WorkOrder: 08070257
Lab Batch ID: R244066

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08070257-06A	SMALL PILE

Laboratory Control Sample (LCS)

RunID. WET_080707L-4550028 Units: °F
Analysis Date: 07/07/2008 14:00 Analyst: GF

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Ignitability	81.00	81.00	100.0	97 5	102 5

Sample Duplicate

Original Sample: 08070249-03
RunID. WET_080707L-4550034 Units. °F
Analysis Date: 07/07/2008 14 00 Analyst: GF

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Ignitability	212	212	0	20

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: Reactive Sulfide - Solid
Method: SW7.3.4.2
WorkOrder: 08070257
Lab Batch ID: R244087

Method Blank

RunID: WET_080707Q-4550451 Units: mg/kg
Analysis Date: 07/07/2008 15 30 Analyst: ESK

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08070257-06A	SMALL PILE

Analyte	Result	Rep Limit
Reactive Sulfide	ND	10

Laboratory Control Sample (LCS)

RunID: WET_080707Q-4550453 Units: mg/kg
Analysis Date: 07/07/2008 15 30 Analyst: ESK

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Reactive Sulfide	100.0	93 50	93.50	85	115

Sample Duplicate

Original Sample: 08061829-01
RunID: WET_080707Q-4550455 Units: mg/kg
Analysis Date: 07/07/2008 15 30 Analyst: ESK

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Reactive Sulfide	ND	ND	0	20

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: Corrosivity
Method: SW9045D

WorkOrder: 08070257
Lab Batch ID: R244098

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08070257-06A	SMALL PILE

Laboratory Control Sample (LCS)

RunID: WET_080707ZH-4550598 Units: pH Units
Analysis Date: 07/07/2008 11:40 Analyst: PAC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Corrosivity	7.000	7 030	100 4	98	102

Sample Duplicate

Original Sample: 08070284-01
RunID. WET_080707ZH-4550604 Units: pH Units
Analysis Date. 07/07/2008 11.40 Analyst: PAC

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Corrosivity	9.18	9.18	0	20

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules

Sample Receipt Checklist
And
Chain of Custody

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Sample Receipt Checklist

Workorder:	**08070257**	Received By:	**L_C**
Date and Time Received:	**7/3/2008 9:30:00 AM**	Carrier name	**Fedex-Standard Overnight**
Temperature:	**3.5°C**	Chilled by	**Water Ice**

1. **Shipping container/cooler in good condition?**	Yes ☑	No ☐	Not Present ☐	
2. **Custody seals intact on shippping container/cooler?**	Yes ☑	No ☐	Not Present ☐	
3. **Custody seals intact on sample bottles?**	Yes ☐	No ☐	Not Present ☑	
4. **Chain of custody present?**	Yes ☑	No ☐		
5. **Chain of custody signed when relinquished and received?**	Yes ☑	No ☐		
6. **Chain of custody agrees with sample labels?**	Yes ☑	No ☐		
7. **Samples in proper container/bottle?**	Yes ☑	No ☐		
8. **Sample containers intact?**	Yes ☑	No ☐		
9. **Sufficient sample volume for indicated test?**	Yes ☑	No ☐		
10. **All samples received within holding time?**	Yes ☑	No ☐		
11. **Container/Temp Blank temperature in compliance?**	Yes ☑	No ☐		
12. **Water - VOA vials have zero headspace?**	Yes ☐	No ☐	VOA Vials Not Present ☑	
13. **Water - Preservation checked upon receipt (except VOA*)?**	Yes ☐	No ☐	Not Applicable ☑	

***VOA Preservation Checked After Sample Analysis**

SPL Representative: _____ **Contact Date & Time:** _____

Client Name Contacted: _____

Non Conformance Issues: _____

Client Instructions: _____

SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No. 279382

0807025 7 page ____ of ____

Client Name: Tetra Tech / ConocoPhillip Pipe Line
Address: 1703 West Industrial
Phone/Fax: 432 - 686 - 8081
Client Contact: Charles Durrett Email: charles.durrett@tetratech
Project Name/No.: 115864 0024
Site Name: Loco Hills
Site Location: Loco Hills, New Mexico
Invoice To: Ph:

matrix: W=water S=soil O=oil SL=sludge X=other
bottle: P=plastic A=amber glass G=glass V=vial X=other
size: 1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other
pres.: 1=HCl 2=HNO3 3=H2SO4 X=other

SAMPLE ID	DATE	TIME	comp	grab	matrix	bottle	size	pres.	Number of Containers	Requested Analysis: TPH GRO-DRO	TCLP BTEX	RCRA 8 metals	ICP						
E-side	7-1-08	10:30		X					2	X	X								
Top		10:35		X					2	X	X								
N-side		10:40	X						2	X	X								
S-side		10:45	X						2	X	X								
W-side		10:50		X					2	X	X								
small ~~Hole~~ Pile	↓	10:55	X						2	X	X	X	X						

Client/Consultant Remarks: ConocoPhillips Pipe Line
P.O.# 4509610900

Laboratory remarks:

Intact? Y N
Ice? Y N
Temp: 3.5 °C

Requested TAT

Contract ☐ 72hr ☐
24hr ☐ Standard ☐
48hr ☐
Other ☒ ASAP

Special Reporting Requirements Results: Fax ☐ Email ☐ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☐

Special Detection Limits (specify):

PM review (initial): AR VA

	date	time	
1. Relinquished by Sampler:	7-02-08	9:00 am	2. Received by:
3. Relinquished by:	7/02/08	3:00 pm	4. Received by:
5. Relinquished by:	7/3/08	9:30	6. Received by Laboratory:

☐ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips

Certificate of Analysis Number:

08071643

Report To:		Project Name:	CPPL Loco Hills
Tetra Tech		Site:	Loco Hills, NM
Charlie Durrett		Site Address:	
1703 W Industrial Avenue			
Midland		PO Number:	WO#4509610900
TX		State:	New Mexico
79701-		State Cert. No.:	
ph: (432) 686-8081	fax:	Date Reported:	8/4/2008

This Report Contains A Total Of 9 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

8/4/2008

Date

Test results meet all requirements of NELAC, unless specified in the narrative.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Case Narrative for:

Conoco Phillips

Certificate of Analysis Number:

08071643

Report To:		Project Name:	CPPL Loco Hills
Tetra Tech		Site:	Loco Hills, NM
Charlie Durrett		Site Address:	
1703 W Industrial Avenue			
Midland		PO Number:	WO#4509610900
TX		State:	New Mexico
79701-		State Cert. No.:	
ph: (432) 686-8081	fax:	Date Reported:	8/4/2008

This report contains additional analysis for the samples originally received on July 3, 2008 and assigned to Certificate of Analysis Number 08070257 Per your request on July 28, 2008 via phone conversation, the sample"Small Pile" (SPL ID: 08071643-01) was analyzed for TCLP Metals

Per the Conoco Phillips TSM Revision 0, a copy of the internal chain of custody is to be included in final data package However, due to LIMS limitations, this cannot be provided at this time.

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s)

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report Please reference the above Certificate of Analysis Number

This report shall not be reproduced except in full, without the written approval of the laboratory The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs

Bethany Agarwal

Bethany A Agarwal
Senior Project Manager

Date

Test results meet all requirements of NELAC, unless specified in the narrative

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Conoco Phillips

Certificate of Analysis Number:

08071643

Report To:	Tetra Tech Charlie Durrett 1703 W Industrial Avenue Midland TX 79701- ph: (432) 686-8081 fax: (432) 686-8085	**Project Name:**	CPPL Loco Hills
		Site:	Loco Hills, NM
		Site Address:	
		PO Number:	WO#4509610900
		State:	New Mexico
		State Cert. No.:	
Fax To:		**Date Reported:**	8/4/2008

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
SMALL PILE	08071643-01	Soil	7/1/2008 10:55:00 AM	7/3/2008 9:30:00 AM	278382	☐

Bethany Agarwal 8/4/2008

Bethany A Agarwal
Senior Project Manager

Date

Richard R. Reed
Laboratory Director

Ted Yen
Quality Assurance Officer

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: SMALL PILE **Collected:** 07/01/2008 10:55 **SPL Sample ID:** 08071643-01

Site: Loco Hills, NM

Analyses/Method	Result	QUAL	Rep.Limit	MCL	Dil. Factor	Date Analyzed	Analyst	Seq. #
TCLP MERCURY				**MCL**	**SW7470A**	**Units: mg/L**		
Mercury	ND		0.0002	0.2	1	08/01/08 16 11	CMC	4605657

Prep Method	Prep Date	Prep Initials	Prep Factor	Leach Method	Leachate Date	Leach Initials
SW7470A	07/29/2008 12:50	CMC	1 00	SW1311	07/28/2008	GF

TCLP METALS BY METHOD 6010B				MCL	SW6010B	Units: mg/L	
Arsenic	ND		0 2	5	2	08/02/08 13:31	EG	4606663
Barium	1.24		1	100	2	08/02/08 13:31	EG	4606663
Cadmium	ND		0.01	1	2	08/02/08 13.31	EG	4606663
Chromium	ND		0 02	5	2	08/02/08 13:31	EG	4606663
Lead	ND		0.1	5	2	08/02/08 13.31	EG	4606663
Selenium	ND		0.2	1	2	08/02/08 13:31	EG	4606663
Silver	ND		0 02	5	2	08/02/08 13.31	EG	4606663

Prep Method	Prep Date	Prep Initials	Prep Factor	Leach Method	Leachate Date	Leach Initials
SW3010A	07/29/2008 13:20	DDW	1.00	SW1311	07/28/2008	GF

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
* - Surrogate Recovery Outside Advisable QC Limits
J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
>MCL - Result Over Maximum Contamination Limit(MCL)
D - Surrogate Recovery Unreportable due to Dilution
MI - Matrix Interference

Quality Control Documentation

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: TCLP Mercury
Method: SW7470A
WorkOrder: 08071643
Lab Batch ID: 82194a

Method Blank

RunID: HGLC_080801B-4605649 Units: mg/L
Analysis Date: 08/01/2008 15 53 Analyst: CMC
Preparation Date: 07/29/2008 12.50 Prep By: CMC Method SW7470A

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08071643-01A	SMALL PILE

Analyte	Result	Rep Limit
Mercury	ND	0.0002

Leachate Blank

RunID: HGLC_080801B-4605650 Units: mg/L
Analysis Date: 08/01/2008 15 55 Analyst: CMC
Preparation Date: 07/29/2008 12:50 Prep By: CMC Method SW7470A
Leach Date: 07/28/2008 0:00 Leach By: GF Method SW1311

Analyte	Result	Rep Limit
Mercury	ND	0 0002

Laboratory Control Sample (LCS)

RunID: HGLC_080801B-4605651 Units: mg/L
Analysis Date: 08/01/2008 15 57 Analyst: CMC
Preparation Date: 07/29/2008 12:50 Prep By: CMC Method SW7470A
Leach Date: 07/28/2008 0:00 Leach By: GF Method SW1311

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Mercury	0.002000	0.001896	94 79	80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08071579-03
RunID: HGLC_080801B-4605655 Units: mg/L
Analysis Date: 08/01/2008 16.07 Analyst: CMC
Preparation Date 07/29/2008 12.50 Prep By: CMC Method SW7470A
Leach Date: 07/28/2008 0 00 Leach By: GF Method SW1311

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Mercury	ND	0 002	0 002705	135.3 *	0 002	0.002706	135.3 *	0 03700	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

CPPL Loco Hills

Analysis: TCLP Metals by Method 6010B
Method: SW6010B
WorkOrder: 08071643
Lab Batch ID: 82197A

Method Blank

RunID TJA_080802A-4606652 Units: mg/L
Analysis Date: 08/02/2008 12 41 Analyst: EG
Preparation Date. 07/29/2008 13 20 Prep By: DD Method SW3010A

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
08071643-01A	SMALL PILE

Analyte	Result	Rep Limit
Arsenic	ND	0.1
Barium	ND	0.5
Cadmium	ND	0.005
Chromium	ND	0.01
Lead	ND	0.05
Selenium	ND	0.1
Silver	ND	0.01

Leachate Blank

RunID. TJA_080802A-4606653 Units: mg/L
Analysis Date 08/02/2008 12 46 Analyst: EG
Preparation Date: 07/29/2008 13:20 Prep By: DD Method SW3010A
Leach Date: 07/28/2008 0:00 Leach By: GF Method SW1311

Analyte	Result	Rep Limit
Arsenic	ND	0.2
Barium	ND	1
Cadmium	ND	0 01
Chromium	ND	0.02
Lead	ND	0.1
Selenium	ND	0 2
Silver	ND	0.02

Laboratory Control Sample (LCS)

RunID: TJA_080802A-4606654 Units. mg/L
Analysis Date. 08/02/2008 12 50 Analyst: EG
Preparation Date. 07/29/2008 13:20 Prep By. DD Method SW3010A
Leach Date: 07/28/2008 0:00 Leach By: GF Method SW1311

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Arsenic	2 000	1.998	99 89	80	120
Barium	2 000	1 954	97.69	80	120
Cadmium	2.000	1 925	96 25	80	120
Chromium	2 000	1.940	96.98	80	120
Lead	2.000	1.975	98.74	80	120
Selenium	2.000	2 045	102.3	80	120
Silver	2 000	1 933	96 66	80	120

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added Control limits do not apply
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips
CPPL Loco Hills

Analysis: TCLP Metals by Method 6010B
Method: SW6010B
WorkOrder: 08071643
Lab Batch ID: 82197A

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08071579-03
RunID: TJA_080802A-4606656 Units: mg/L
Analysis Date: 08/02/2008 12 59 Analyst: EG
Preparation Date: 07/29/2008 13:20 Prep By: DD Method: SW3010A
Leach Date: 07/28/2008 0 00 Leach By: GF Method: SW1311

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Arsenic	ND	2	1.876	93.79	2	2.174	108 7	14 73	20	75	125
Barium	1.014	2	2:813	89 95	2	3.338	116.2	17 09	20	75	125
Cadmium	ND	2	1.793	89.66	2	2 092	104 6	15.37	20	75	125
Chromium	ND	2	1 779	88.93	2	2.051	102.6	14 23	20	75	125
Lead	ND	2	1.872	89.25	2	2.125	101 9	12 64	20	75	125
Selenium	ND	2	1.815	90.77	2	2 276	113 8	22.49 *	20	75	125
Silver	ND	2	1 877	93 84	2	2 318	115.9	21.02 *	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply
TNTC - Too numerous to count
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

Sample Receipt Checklist

And

Chain of Custody

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Sample Receipt Checklist

Workorder:	**08071643**	Received By.	**L_C**
Date and Time Received:	**7/3/2008 9:30:00 AM**	Carrier name:	**Fedex-Standard Overnight**
Temperature:	**3.5°C**	Chilled by.	**Water Ice**

1. **Shipping container/cooler in good condition?**	Yes ☑	No ☐	Not Present ☐	
2. **Custody seals intact on shippping container/cooler?**	Yes ☐	No ☐	Not Present ☑	
3. **Custody seals intact on sample bottles?**	Yes ☐	No ☐	Not Present ☑	
4. **Chain of custody present?**	Yes ☑	No ☐		
5. **Chain of custody signed when relinquished and received?**	Yes ☑	No ☐		
6. **Chain of custody agrees with sample labels?**	Yes ☑	No ☐		
7. **Samples in proper container/bottle?**	Yes ☑	No ☐		
8. **Sample containers intact?**	Yes ☑	No ☐		
9. **Sufficient sample volume for indicated test?**	Yes ☑	No ☐		
10. **All samples received within holding time?**	Yes ☑	No ☐		
11. **Container/Temp Blank temperature in compliance?**	Yes ☑	No ☐		
12. **Water - VOA vials have zero headspace?**	Yes ☐	No ☐	VOA Vials Not Present ☑	
13. **Water - Preservation checked upon receipt (except VOA*)?**	Yes ☐	No ☐	Not Applicable ☑	

***VOA Preservation Checked After Sample Analysis**

SPL Representative: _____ **Contact Date & Time:** _____

Client Name Contacted: _____

Non Conformance Issues: _____

Client Instructions: _____

08071643

SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No. 278382

~~C80702577~~ page of

Client Name: Tetra Tech / ConocoPhillip Pipe Line
Address: 1703 West Industrial
Phone/Fax: 432 - 686 - 8081
Client Contact: Charles Durrett Email: charles.durrett@tetratech.com
Project Name/No.: 115864 0024
Site Name: Loco Hills
Site Location: Loco Hills, New Mexico
Invoice To: Ph:

SAMPLE ID	DATE	TIME	comp	grab	matrix (W=water S=soil O=oil SL=sludge X=other)	bottle (P=plastic A=amber glass G=glass V=vial X=other)	size (1=1 liter 4=4oz 40=vial 8=8oz 16=16oz X=other)	pres. (1=HCl 2=HNO3 3=H2SO4 X=other)	Number of Containers	Requested Analysis: TPH GRO - DRO	TCLP BTEX	RCRA 8 metals	ICP						
E-side	7-1-08	10:30		X					2	X	X								
Top		10:35		X					2	X	X								
N-side		10:40	X						2	X	X								
S-side		10:45	X						2	X	X								
W-side		10:50		X					2	X	X								
small ~~Pile~~ Pile		10:55	X						2	X	X	X	X						

Client/Consultant Remarks: ConocoPhillips Pipeline
P.O.# 4509610900

Laboratory remarks:

Intact? Y N
Ice? Y N
Temp: 3.5°C

Requested TAT

Contract ☐ 72hr ☐
24hr ☐ Standard ☐
48hr ☐
Other ☒ ASAP

Special Reporting Requirements Results: Fax ☐ Email ☐ PDF ☐
Standard QC ☐ Level 3 QC ☐ Level 4 QC ☐ TX TRRP ☐ LA RECAP ☐

Special Detection Limits (specify):

PM review (initial): AR

	date	time	
1. Relinquished by Sampler:	7-02-08	9:00 am	2. Received by:
3. Relinquished by:	7/02/08	3:00 pm	4. Received by:
5. Relinquished by:	7/3/08	9:30	6. Received by Laboratory:

☐ 8880 Interchange Drive
Houston, TX 77054 (713) 660-0901

☐ 500 Ambassador Caffery Parkway
Scott, LA 70583 (337) 237-4775

☐ 459 Hughes Drive
Traverse City, MI 49686 (231) 947-5777

Bonham, Sherry, EMNRD

From: Bonham, Sherry, EMNRD
Sent: Tuesday, August 12, 2008 9:04 AM
To: Durrett, Charles
Cc: thomas.lacki@conocophillips.com; kirby.m.shipp@conocophillips.com
Subject: RE: CPPL Loco Hills 2RP-154

Charlie,

Thanks for visiting with me regarding the above mentioned facility. Per our conversation, OCD is in receipt of the findings report describing remediation activities dated August 11, 2008. As presented, Tetra Tech's recommendations are approved.

Sherry Bonham
NMOCD District II

From: Durrett, Charles [mailto:Charles.Durrett@tetratech.com]
Sent: Monday, August 11, 2008 10:17 AM
To: Bonham, Sherry, EMNRD; paul_evans@nm.blm.gov
Cc: Thomas.Lacki@conocophillips.com; Kirby.M.Shipp@conocophillips.com
Subject: CPPL Loco Hills 2RP-154

Loco Hills Truck Loading Station Findings Report
Eddy County, New Mexico
Sec. 29, T17S, R30E
2RP-154

On behalf of ConocoPhillips Pipe Line Company, Tetra Tech is pleased to submit the attached findings report describing remediation activities at CPPL's Loco Hills Truck Loading Station. This work was performed in support of CPPL's efforts to delineate and remediate a recent 95 barrel crude oil release at the Site.

If you concur with the recommendations made in the findings report, ConocoPhillips has authorized Tetra Tech to complete this work immediately following receipt of your notification to proceed. Please contact me (432-686-8081) or Mr. Thomas Lacki (ConocoPhillips, 432-368-1315), if you have any questions or require additional information.

Respectfully,

Charles Durrett
Project Manager

Charles Durrett | Project Manager II
Main 432.686.8081 | Fax 432.686.8085
charles.durrett@tetratech.com

Tetra Tech | Complex World, Clear Solutions™
1703 W. Industrial Ave. | Midland, TX 79701 | www.tetratech.com

communication by anyone other than the intended recipient is strictly prohibited and may be unlawful. If you are not the intended recipient please notify the sender by replying to this message and then delete it from your system