

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

RECEIVED

JUL 30 2010

HOBBSOCD

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	Oxy USA Incorporated	Contact	Dusty Wilson
Address	4008 Grimes PMB 269, Hobbs, NM 88240	Telephone No.	575-441-7189
Facility Name	#11 Myers Langlie Mattix Unit (MLMU)	Facility Type	Oil and Gas
Surface Owner	Myers	Mineral Owner	Unitized
		Lease No.	30-025-09424

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	25	23S	36E	660'	North	1980	East	Lea

Latitude 32° 16' 50.88" N Longitude 103° 13' 01.45" W

NATURE OF RELEASE

Type of Release	Hydrocarbon and Produced Water	Volume of Release	unknown	Volume Recovered	none
Source of Release	Facility tank valves, lines and wellhead locations. Also projected discharges over time due to unknown causes which distributed hydrocarbon and produced water liquids around facility.	Date and Hour of Occurrence	unknown	Date and Hour of Discovery	3/8/08
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?	Larry Johnson, OCD District I		
By Whom?	Date and Hour				
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	N/A		
If a Watercourse was Impacted, Describe Fully.*	N/A				
Describe Cause of Problem and Remedial Action Taken.* Historical release areas were discovered subsequent to wellsite abandonment activities. Hydrocarbon and produced water-impacted soils located in the area of wellsite facilities were identified for removal to disposal. A corrective action plan was submitted to NMOCD District 1 office and Remediation Plan number 10-1-2395 was assigned. Five soil borings were advanced to depths of 30 feet at the site and 15 samples were collected and analyzed to verify contaminate levels for NMOCD and to delineate targets for excavation purposes. No soil boring sample concentrations exceeded RRALs for the site. 200 cubic yards of impacted materials were removed for disposal at Parabo facility in Eunice, New Mexico. Four confirmation samples collected exhibited concentrations below RRALs. Disturbed areas were backfilled with clean soil provided by landowner and ground surface was planted using native seed mixture (#2)					
Describe Area Affected and Cleanup Action Taken.* SEE ATTACHED: FINAL REPORT REMEDIATION PLAN 10-1-2395					
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:					
Printed Name:	DUSTY WILSON				
Title:	HES SPECIALIST				
E-mail Address:	dusty_wilson@oxy.com				
Date:	7/26/10				
Phone:	575-441-7189				
		OIL CONSERVATION DIVISION			
		Approved by District Supervisor		ENVIRONMENTAL ENGINEER	
		Approval Date:		11.5.10	
		Expiration Date:		—	
		Conditions of Approval:		Attached <input type="checkbox"/>	
				IRP # 2395	

* Attach Additional Sheets If Necessary

NLWT 1030950140
PLWT 1030950457

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OPERATOR

☒ Initial Report ☐ Final Report

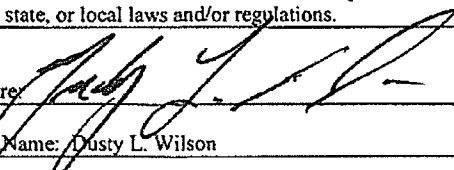
Name of Company	Oxy USA Incorporated	Contact	Dusty Wilson
Address	4008 Grimes PMB 269, Hobbs, NM 88240	Telephone No.	575-441-7189
Facility Name	#11 Myers Langlie Mattix Unit (MLMU)	Facility Type	Oil and Gas
Surface Owner	Myers	Mineral Owner	Unitized
		Lease No.	30-025-09424

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Latitude 32° 16' 50.88" N Longitude 103° 13' 01.45" W

NATURE OF RELEASE

Type of Release	Hydrocarbon and Produced Water	Volume of Release	unknown	Volume Recovered	none
Source of Release	Facility tank valves, lines and wellhead locations. Also projected discharges over time due to unknown causes which distributed hydrocarbon and produced water liquids around facility.	Date and Hour of Occurrence	unknown	Date and Hour of Discovery	3/8/08
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?	Date and Hour				
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A			
If a Watercourse was Impacted, Describe Fully.* N/A					
Describe Cause of Problem and Remedial Action Taken.* Historical release areas were discovered subsequent to well site abandonment activities. Hydrocarbon and produced water-impacted soils located in the area of well site facilities were identified for removal to disposal. Samples will be collected and analyzed to verify contaminate levels for NMOCD and delineated targets for excavation purposes. A Corrective Action Plan (CAP) will be prepared for this well site.					
Describe Area Affected and Cleanup Action Taken.* Affected areas will be investigated and remediated in accordance to CAP submitted to OCD District I office dated December 29, 2009 A FINAL REPORT, detailing assessment and remedial actions undertaken at the site, will subsequently be prepared and submitted to OCD District I office for review and acceptance.					
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: Dusty L. Wilson		Approved by District Supervisor:			
Title: HES Specialist		Approval Date:		Expiration Date:	
E-mail Address: dusty_wilson@oxy.com		Conditions of Approval:			Attached <input type="checkbox"/>
Date: 12/22/2009		Phone: (575) 441-7189			

* Attach Additional Sheets If Necessary



**FINAL REPORT
REMEDIATION PLAN 10-1-2395**

**OXY USA/#11 MLMU (API#30-025-09424)
SECTION 25 (B), T-23-S; R-36-E
LEA COUNTY, NEW MEXICO**

**Prepared For:
Mr. Clint Babcock
Glenn Springs Holdings, Inc.**

**RECEIVED
JUL 30 2010
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**Prepared by:
Conestoga-Rovers
& Associates**

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**JULY 2010
REF. NO. 058373 (2)**

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1.0 INTRODUCTION

Conestoga-Rovers and Associates (CRA) herewith submits this **Final Report** under Remediation Plan # 10-1-2395, on behalf of Oxy USA, Inc. (Oxy) and Glenn Springs Holdings, Inc. (GSH) to the New Mexico Oil Conservation Division (OCD) regarding the abandonment of the above referenced well-site location. The Initial Report of the C-141 Release Notification and Corrective Action Form submitted to the OCD District 1 office is attached for reference (APPENDIX A).

The subject well-site is located within the Myers Langlie Mattix Unit (MLMU) situated between Jal and Eunice, New Mexico. The legal description of the Site is the NW/4 of the NE/4, Section 25, T-23-S, R-36-E with GPS coordinates 32° 16' 50.88" N and 103° 13' 01.45" W (FIGURE 1). CRA understands the surface property is owned by the Myers Family. Depth to groundwater in the vicinity of the subject property is reported by the United States Geological Survey (USGS) to be greater than 100 feet below ground surface (bgs).

The OCD has regulatory jurisdiction over oil and gas production operations including pipeline spill/closure in the State of New Mexico. This project was conducted under the regulatory jurisdiction of the OCD, which requires that soil impacted by a crude oil spill be remediated in such a manner that the potential for future affects to groundwater or the environment are minimized. The OCD hydrocarbon remediation levels are determined by ranking criteria on a site-by-site basis, which is outlined in the OCD *Guidelines for Remediation of Spills, Leaks, and Releases*, dated August 13, 1993. The ranking criteria are based on three site characteristics: depth to groundwater, wellhead protection and distance to surface water and values for the site are presented below.

CHARACTERISTIC	SELECTION	SCORE
Depth to Groundwater	> 100 feet	0
Wellhead Protection Area	>1,000 feet	0
Distance to Surface Water	>1,000 feet	0

Total Ranking Score = 0

Based on these Site characteristics and associated OCD ranking criteria, the following hydrocarbon recommended remediation action levels (RRALs) apply at the #11 MLMU site: benzene- 10 ppm, Total BTEX- 50 ppm and TPH- 5,000 ppm.

2.0 SOIL INVESTIGATION AND REMEDIATION SUMMARY

On February 10, 2010 CRA installed five soil borings at selected locations as shown on FIGURE 2 at the release site to evaluate the horizontal and vertical extent of hydrocarbon and chloride-impacted soils. Soil samples were analyzed from the 4-5', 14-15' and 29-30' intervals in the borings. The subsurface soil boring log data is presented in APPENDIX B. The samples selected for chemical analysis were transferred to laboratory supplied sample containers, labeled and placed on ice in a cooler. Appropriate chain-of-custody protocols were followed in the shipping of the samples to the laboratory. The samples were analyzed for total petroleum hydrocarbons (TPH) including gasoline-range organics (GRO), diesel-range organics (DRO), and oil-range organics (ORO) by EPA Method 8015 modified. In addition, analysis of benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8021B and chloride analysis by EPA Method 300 were performed. The soil boring sample analytical results are presented in TABLE 1. None of the soil sample concentrations exceeded the RRALs for this location and chloride concentrations did not exceed 60 mg/kg in the 15 samples analyzed. Based on the soil boring results, impacts were limited to surface areas and did not extend significantly into the subsurface at the sampled locations.

Remediation activities were performed at the site between March 17 and 26, 2010. A total of 200 cubic yards of impacted materials were hauled to the OCD-permitted Parabo (Sundance Services, Inc.) facility in Eunice, New Mexico. Non-hazardous waste manifests documenting this activity are presented in APPENDIX C. Four confirmation sample locations collected subsequent to soil removal operations are shown in FIGURE 3. The analytical results are presented in TABLE 1. None of the soil sample concentrations exceeded the RRALs for this location and chloride concentrations did not exceed 198 mg/kg in the samples analyzed. Laboratory reports for all samples are included in APPENDIX D. The shallow remedial excavations were backfilled with 200 cubic yards of clean soils provided from the MLMU topsoil pit by the property owner, Mr. Kelly Myers. The topsoil was then plowed and a native soils mixture (#2) was planted in an effort to restore vegetative cover on the ground surface. "Before and after" photographs of the site remediation activities are enclosed as APPENDIX E.

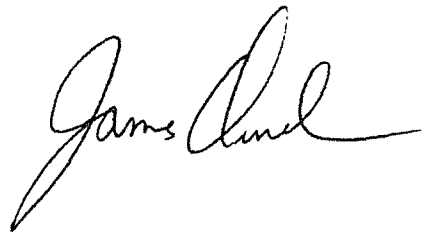
3.0 SITE CLOSURE REQUEST

Based on information provided in this report and the final C-141 report form, CRA respectfully requests, on behalf of Oxy and GSH, a NMOCD determination of 'no further action is required' regarding this Final Report for Remediation Plan 10-1-2395. Please note that this report is an attachment to the final C-141 form version. No additional work is planned for this site at this time.

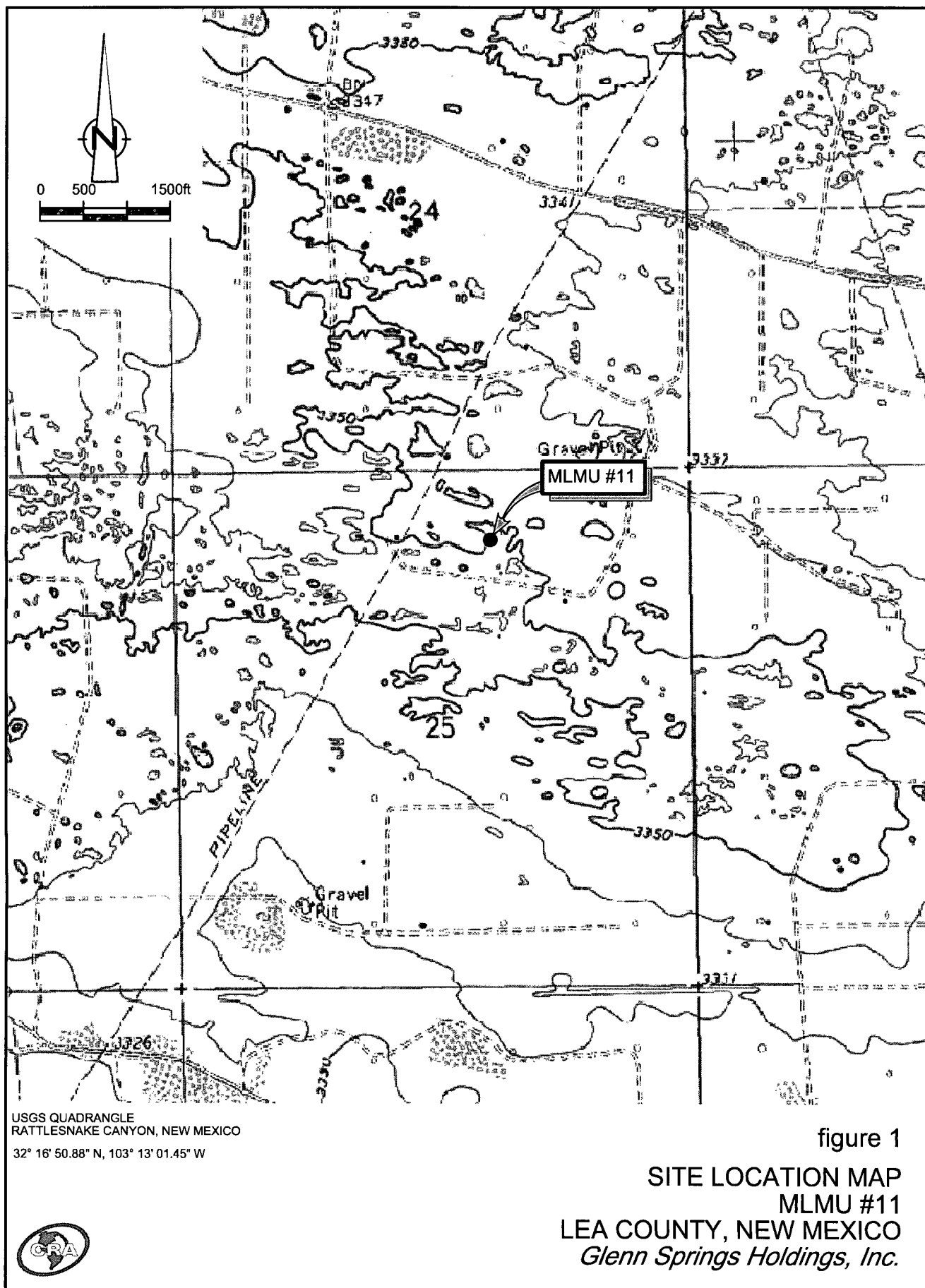
All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES



Thomas C. Larson
Midland Operations Manager



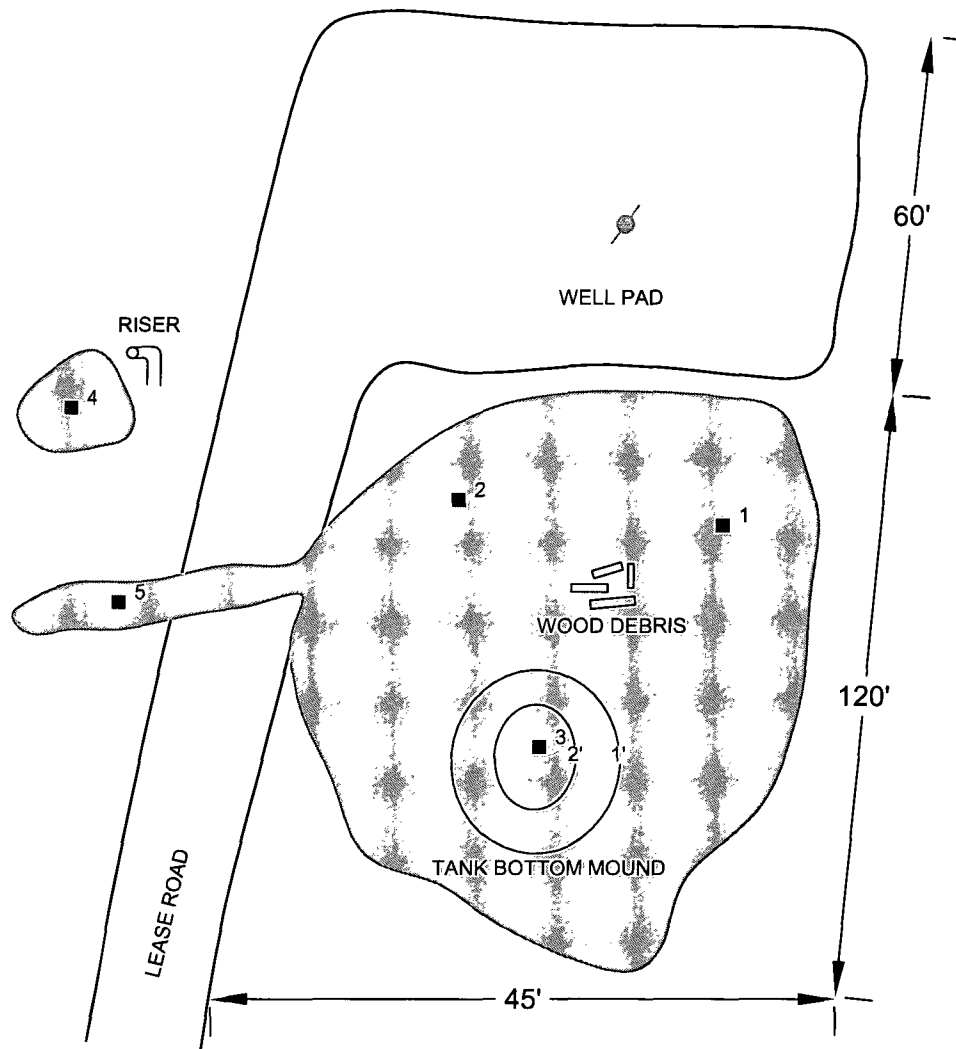
James Ornelas
Senior Project Manager





NOT TO SCALE

32° 16' 50.88" N, 103° 13' 01.45" W



LEGEND




-  STAINED SOIL AREA
-  SOIL BORING LOCATION
-  DRY HOLE MARKER

figure 2

SOIL BORING LOCATION MAP
MLMU #11
LEA COUNTY, NEW MEXICO
Glenn Springs Holdings, Inc.



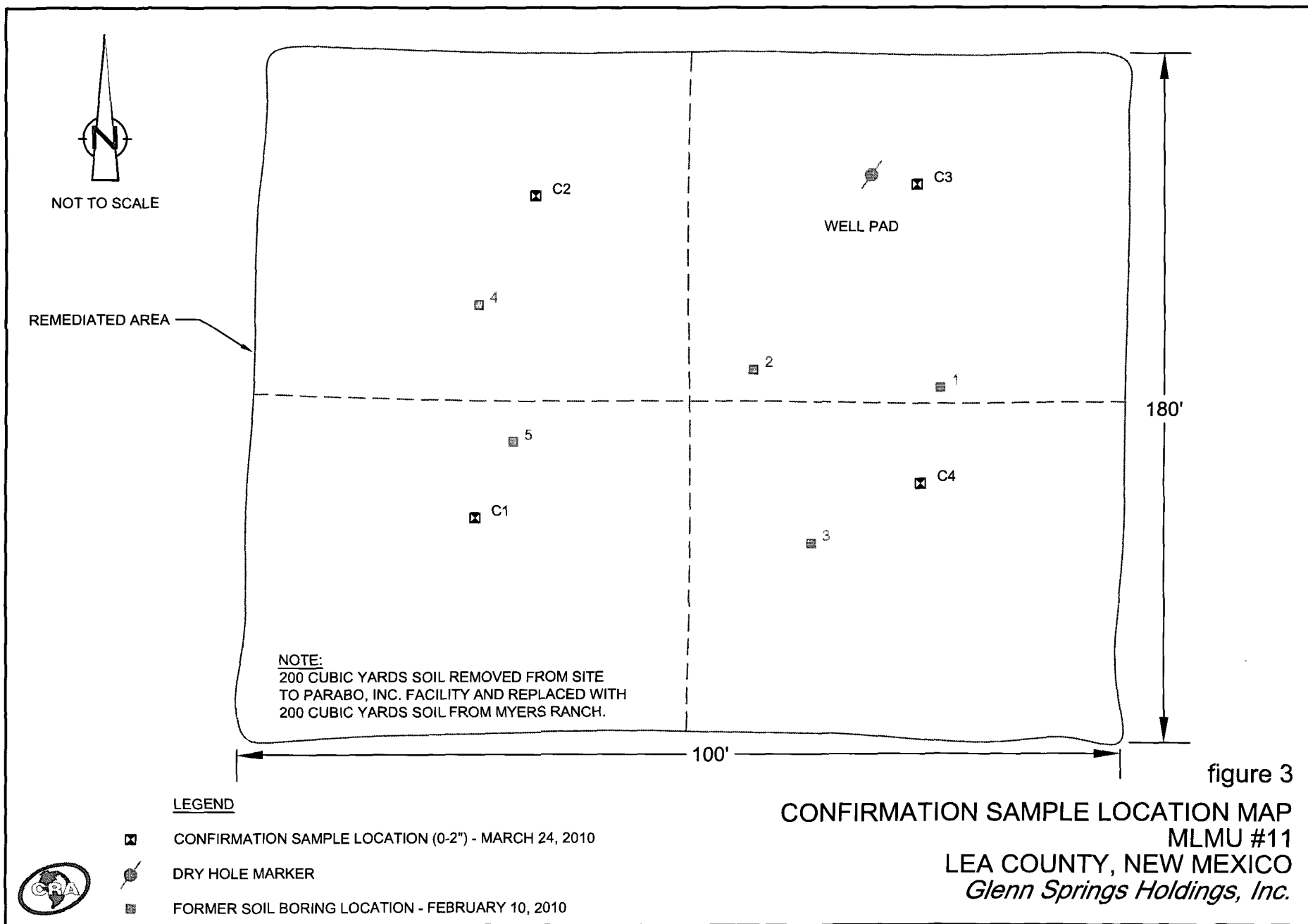


TABLE I- SOIL ANALYTICAL SUMMARY
 OXY USA MLMU #11 SECTION 25(B); T-23-S; R-36-E
 LEA COUNTY, NEW MEXICO

1 of 1

Sample ID	Sample Date	Depth (feet or inches bgs)	Benzene	Toluene	Ethyl-Benzene	Xylenes	BTEX	TPH				Chloride
								GRO(C6-C10)	DRO(C10-C28)	ORO(C28-C35)	Total (GRO/DRO/ORO)	
			(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(ug/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
*NMOCD Remediation Action Level (Ranking Score: 0)			10mg/Kg	---	---	---	50mg/Kg	---	---	---	5000 mg/Kg	---
SOIL BORING RESULTS												
SB-1 0-5'	2/10/10	0-5'	0.95 J	1.9 J	5.0 U	1.7 J	BDL	5.7 U	8.9 U	BDL	BDL	3
SB-1 10-15'	2/10/10	10 - 15'	0.60 J	1.8 J	5.2 U	2.7 J	BDL	5.6 U	7.47 J	BDL	BDL	18
SB 1 25-30'	2/10/10	25-30'	0.62 J	1.3 J	5.2 U	10 U	BDL	5.3 U	4.11 J	BDL	BDL	60
SB - 2 0-5'	2/10/10	0-5'	8.4	33.2	3.0 J	35.6	77.2	5.6 U	108	469	577	2.5 U
SB-2 10-15'	2/10/10	10 - 15'	2.7 J	11.7	1.7 J	20.5	32.2	5.6 U	108	75	183	2.7 U
SB- 2 25-30	2/10/10	25-30'	0.72 J	3.0 J	5.2 U	4.6 J	BDL	5.3 U	13	15	28	2.6 U
SB-3 0-5'	2/10/10	0-5'	0.51 J	1.3 J	5.2 U	1.9 J	BDL	5.3 U	8.6 U	BDL	BDL	2.6 U
SB-3 10-15'	2/10/10	10 - 15'	0.86 J	2.2 J	5.3 U	2.6 J	BDL	5.6 U	4.64 J	BDL	BDL	2.7 U
SB-3 25-30'	2/10/10	25-30'	0.58 J	2.2 J	4.7 U	3.1 J	BDL	5.3 U	4.64 J	12	12	2.7 U
SB-4 0-5'	2/10/10	0-5'	10.8	45.2	4.4 J	46.6	102.6	4.8 U	417	502	919	2.5 U
SB-4 5-10'	2/10/10	10 - 15'	4.7 J	19.5	2.3 J	23.6	43.1	5.1 U	116	164	280	2.6 U
SB-4 25-30'	2/10/10	25-30'	0.61 J	2.5 J	5.0 U	3.6 J	BDL	5.4 U	14	18	32	7
SB-5 0-5'	2/10/10	0-5'	0.79 J	3.1 J	5.0 U	5.3 J	BDL	5.3 U	19	29	48	2.6 U
SB-5 10-15'	2/10/10	10 - 15'	1.5 J	6.9	0.85 J	11.4	18.3	5.3 U	19	18	37	3
SB-5 25-30'	2/10/10	25-30'	0.56 J	2.2 J	5.0 U	3.5 J	BDL	5.2 U	22	BDL	22	2.6 U
CONFIRMATION SAMPLING RESULTS												
C1, 0-2"	3/24/10	0-2"	5.0 U	5.0 U	5.0 U	10 U	BDL	4.8 U	1,120	1,790	2,910	2.6 U
C2, 0-2"	3/24/10	0-2"	4.7 U	4.7 U	4.7 U	9.3 U	BDL	4.7 U	11	9	20	3
C3, 0-2"	3/24/10	0-2"	4.9 U	4.9 U	4.9 U	9.9 U	BDL	0.525 J	2,260	2,100	4,360	198.0
C4, 0-2"	3/24/10	0-2"	4.6 U	4.6 U	0.76 J	2.3 J	BDL	1.29 J	2,140	1,790	3,930	7.3

NOTES:

- Values reported in mg/Kg are the same as ppm and ug/Kg is the same as ppb.
- BDL: below laboratory detection limits. 'J' reported as estimated value. 'U' analyzed but not detected.
- *NMOCD Remediation Action Levels, were not exceeded.**
- BTEX analyses by EPA Method SW 8021B.
- TPH analyses by EPA Method SW 8015B.
- Chloride analyses by Method E325.2.
- GRO/DRO/ORO = Gasoline/Diesel/Oil Range Organics

SOIL BORING LOG

Project: Oxy USA/MLMU #11 (API #30-025-09424)
(Unit Letter B) of Section 25, Township 23South, Range 36East
Lea County, New Mexico No. SB-1

Client: Oxy USA, Inc.

File No.: 58373
Date: 2/10/2010
Drilling Co.: White Drilling Co.
Supervisor: Dallas Rader
Type Rig: Air Rotary
Logged by: R.Baca

LABORATORY TEST DATA					FIELD DATA				BORING DATA
Results Reported in mg/kg					Photo- ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval
Benzene	Toluene	Ethyl- benzene	Xylenes	Total TPH (C6-C35)					
					0.0	X	5		Air Rotary (4 3/4" O.D.)
									Start Time: 1305 Finish Time: 1318
									Sand: Dark Reddish Brown; FG-MG; Subrounded; Soft; Loose; Well Sorted; Moist
					0.0	X	10		Caliche: White; FG-MG; Subrounded; Soft; Loose; Moderately Sorted; Dry; Some FG pinkish white sand
					0.0	X	15		Sandstone/Caliche: Caliche-White; FG; Subrounded; Hard; Loose; Well Sorted; dry. 30-40% Grey Sandstone-VFG; Subrounded; Hard; dense; Well sorted; dry.
					0.0	X	20		Sand: Pinkish White; VFG-FG; Subrounded; Soft; Loose; Well Sorted; Dry; 10-15% White Caliche
					0.0	X	25		Silty Sand: Light Reddish Brown; VFG-FG; Subrounded; Soft; Loose; Well Sorted; Dry; 0-5% Black nodules; 5-10% Caliche
					0.0	X	30		
							35		
							40		



Split Spoon Sampler

Cuttings

No Recovery

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure



Water First Noted



Level after 24 hr



Analyzed Sample

SOIL BORING LOG

Project: Oxy USA/MLMU #11 (API #30-025-09424)
(Unit Letter B) of Section 25, Township 23South, Range 36East
Lea County, New Mexico No. SB-2

File No.: 58373
Date: 2/10/2010
Drilling Co.: White Drilling Co.
Supervisor: Dallas Rader
Type Rig: Air Rotary
Logged by: R.Baca

Client: Oxy USA, Inc.

LABORATORY TEST DATA					FIELD DATA				BORING DATA
Results Reported in mg/kg					Photo- ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval
Benzene	Toluene	Ethyl- benzene	Xylenes	Total TPH (C6-C35)					
					0.0	X	5		Air Rotary (4 3/4" O.D.)
					0.0	X	10		Sand: Dark Reddish Brown; FG-MG; Subrounded; Soft; Loose; Well Sorted; Moist; Slight odor
					0.0	X	15		Caliche: White; FG-MG, Subrounded; Soft; Loose; Moderately Sorted; Dry; Some VFG reddish brown clay, slight plasticity
					0.0	X	20		Sandstone/Caliche: Caliche-White; FG; Subrounded; Hard; Loose; Well Sorted; dry. 30-40% Grey Sandstone-VFG; Subrounded; Hard; dense; Well sorted; dry.
					0.0	X	25		Sand: Pinkish White; VFG-FG; Subrounded; Soft; Loose; Well Sorted; Dry; 10-15% White Caliche
					0.0	X	30		Silty Sand: Light Reddish Brown; VFG-FG; Subrounded; Soft; Loose; Well Sorted; Dry; 0-5% Black nodules; 5-10% Caliche
							35		
							40		



Split Spoon Sampler
Cuttings
No Recovery

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure



Water First Noted



Level after 24 hr



Analyzed Sample

SOIL BORING LOG

Project: Oxy USA/MLMU #11 (API #30-025-09424)
(Unit Letter B) of Section 25, Township 23South, Range 36East
Lea County, New Mexico No. SB-3

File No.: 58373
Date: 2/10/2010
Drilling Co.: White Drilling Co.
Supervisor: Dallas Rader
Type Rig: Air Rotary
Logged by: R.Baca

Client: Oxy USA, Inc.

LABORATORY TEST DATA					FIELD DATA				BORING DATA	
Results Reported in mg/kg					Photo-Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	Air Rotary (4 3/4" O.D.)
Benzene	Toluene	Ethyl-benzene	Xylenes	Total TPH (C6-C35)						
					1.6	X	5			Start Time: 1353 Finish Time: 1415
					0.8	X	10			
					0.0	X	15			Sand: Dark Reddish Brown; FG-MG; Subrounded; Soft; Loose; Well Sorted; Moist; Slight odor Caliche: White; FG-MG, Subrounded; Soft; Loose; Moderately Sorted; Dry; Some FG pinkish white sand Sand: Reddish Brown; FG-MG; Subrounded; Soft; Loose; Well Sorted; slight moisture; 0-5% Reddish Brown clay-low plasticity
					0.0	X	20			Sandstone/Caliche: Caliche-White; FG; Subrounded; Hard; Loose; Well Sorted; dry. 30-40% Grey Sandstone-VFG; Subrounded; Hard; dense; Well sorted; dry. Sand: Reddish Brown; VFG-MG; Subrounded; Soft; Loose; Well Sorted; slight moisture; 0-10% Caliche-White; soft; loose; well sorted; dry
					0.0	X	25			Sand: Reddish Brown; FG-MG; Subrounded; Soft; Loose; Well Sorted; Dry; 0-5% Reddish Brown clay-low plasticity
					0.0	X	30			Silty Sand: Light Reddish Brown; VFG-FG; Subrounded; Soft; Loose; Well Sorted; Dry
							35			
							40			



Split Spoon Sampler

Cuttings

No Recovery

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure



Water First Noted



Level after 24 hr



Analyzed Sample

SOIL BORING LOG

Project: Oxy USA/MLMU #11 (API #30-025-09424)
(Unit Letter B) of Section 25, Township 23South, Range 36East
Lea County, New Mexico No. SB-4

Client: Oxy USA, Inc.

File No.: 58373
Date: 2/10/2010
Drilling Co.: White Drilling Co.
Supervisor: Dallas Rader
Type Rig: Air Rotary
Logged by: R.Baca

LABORATORY TEST DATA					FIELD DATA			BORING DATA	
Results Reported in mg/kg					Photo- Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval
Benzene	Toluene	Ethyl- benzene	Xylenes	Total TPH (C8-C35)					
									Air Rotary (4 3/4" O.D.)
									Start Time: 1420 Finish Time: 1442
					1.6	X	5		Sand: Dark Reddish Brown; FG-MG; Subrounded; Soft; Loose; Well Sorted; Moist; Slight odor
					0.8	X	10		Caliche: White; FG-MG, Subrounded; Soft; Loose; Well Sorted; Dry
									Sandstone/Caliche: Caliche-White; FG; Subrounded; Hard; Loose; Well Sorted; dry. 30-40% Grey Sandstone-VFG; Subrounded; Hard; dense; Well sorted; dry.
					0.0	X	15		Sand: Pinkish White; VFG-FG; Subrounded; Soft; Loose; Well Sorted; Dry; 0-10% Caliche-White; soft; loose; well sorted; dry
					0.0	X	20		Silty Sand: Light Reddish Brown; VFG-FG; Subrounded; Soft; Loose; Well Sorted; Dry
					1.6	X	25		
					1.6	X	30		
							35		
							40		



Split Spoon Sampler
Cuttings
No Recovery

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure



Water First Noted
Level after 24 hr
Analyzed Sample

SOIL BORING LOG

Project: Oxy USA/MLMU #11 (API #30-025-09424)
(Unit Letter B) of Section 25, Township 23South, Range 36East
Lea County, New Mexico No. SB-5

Client: Oxy USA, Inc.

File No.: 58373
Date: 2/10/2010
Drilling Co.: White Drilling Co.
Supervisor: Dallas Rader
Type Rig: Air Rotary
Logged by: R.Baca

LABORATORY TEST DATA					FIELD DATA				BORING DATA	
Results Reported in mg/kg					Photo- ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	Air Rotary (4 3/4" O.D.)
Benzene	Toluene	Ethyl- benzene	Xylenes	Total TPH (C6-C35)						
					0.0	X	5			Start Time: 1445 Finish Time: 1510
					0.0	X	10			Sand: Dark Reddish Brown; FG-MG; Subrounded; Soft; Loose; Well Sorted; Moist
					0.0	X	15			Caliche: White; FG-MG, Subrounded; Soft; Loose; Moderately Sorted; Dry; Some VFG reddish brown clay, slight plasticity
					0.0	X	20			Sandstone/Caliche: Caliche-White; FG; Subrounded; Hard; Loose; Well Sorted; dry. 30-40% Grey Sandstone-VFG; Subrounded; Hard; dense; Well sorted; dry.
					0.0	X	25			Sand: Pinkish White; VFG-FG; Subrounded; Soft; Loose; Well Sorted; Dry; 10-15% White Caliche
					0.0	X	30			Silty Sand: Light Reddish Brown; VFG-FG; Subrounded; Soft; Loose; Well Sorted; Dry; 0-5% Black nodules; 5-10% Caliche
							35			
							40			



Split Spoon Sampler
Cuttings
No Recovery

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure



Water First Noted



Level after 24 hr



Analyzed Sample

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 01

GENERATOR

GENERATOR NAME OXY USA INC.

ADDRESS P.O. Box 4294
Houston TX 77210

PHONE NO. _____

QUANTITY 10 yds

JASON DAVIS for OXY
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

GENERATING LOCATION Myers Langlie Mattix unit # 11

ADDRESS LEA Co.

STATE GENERATOR ID NUMBER MA

MATERIAL oil field exempt
impacted soil

[Signature]
SIGNATURE (on behalf of Generator) SHIPMENT DATE

TRANSPORTER

TRUCK NO. 566

TRANSPORTER NAME DS Truck Svcs.

ADDRESS 103 W. Berry
Hobbs NM

PHONE NO. (575) 631-9868

DRIVER NAME (PRINT) Carlos Martinez

VEHICLE LICENSE NO./STATE WD 88605

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

[Signature] 3-17-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature] 3-17-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME Sundance SERVICES INC. / PARADO PHONE NO. 575-394-2511

ADDRESS P.O. Box 1737 Eunice New Mexico 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

[Signature]
NAME OF AUTHORIZED AGENT SIGNATURE

NON-HAZARDOUS WASTE
TRANSPORT MANIFEST

NO. 02

GENERATOR

GENERATOR NAME Oxy USA inc.

GENERATING LOCATION Myers Langbe Mutter unit 11

ADDRESS PO Box 4294
Houston Tx 77210

ADDRESS Lee Co.

PHONE NO. _____

STATE GENERATOR ID NUMBER NA

QUANTITY 10 yds

MATERIAL oil field Exempt

impacted soil

JASON DAVIS for OXY
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

[Signature]
SIGNATURE (on behalf of Generator)

SHIPMENT DATE

TRANSPORTER

TRUCK NO. 980

PHONE NO. 631-0121

TRANSPORTER NAME SWORDS

DRIVER NAME (PRINT) Jim Swords

ADDRESS 1311 E. LLANO
Hobbs NM

VEHICLE LICENSE NO./STATE WD98264 NM

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature]
DRIVER SIGNATURE

3-17-10

SHIPMENT DATE

[Signature]
DRIVER SIGNATURE

3-17-10

DELIVERY DATE

DESTINATION

SITE NAME Sundance Services inc / garcho

PHONE NO. 575 394 2511

ADDRESS PO Box 1737 Eunice New Mexico 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

[Signature]
NAME OF AUTHORIZED AGENT

SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 03

GENERATOR

GENERATOR NAME OXY USA INC.

ADDRESS Po Box 4294
Houston TX 77210

PHONE NO. _____

QUANTITY 10 yds

JASON DAVIS For Oxy
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

GENERATING LOCATION MYERS LANGLEY POTHY UNIT #11

ADDRESS LEA Co.

STATE GENERATOR ID NUMBER NA

MATERIAL oil field exempt
impacted soil

Jason Davis
SIGNATURE (on behalf of Generator)

SHIPMENT DATE

TRANSPORTER

TRUCK NO. 566

TRANSPORTER NAME DS Truck Svc

ADDRESS 103 W. Berry
Hobbs NM

PHONE NO. (575) 631-9868

DRIVER NAME (PRINT) Carlos Martinez

VEHICLE LICENSE NO./STATE WD 88605

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

C. Martinez 3-17-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

C. Martinez 3-17-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME SUNSHINE SERVICES INC. / PARADO PHONE NO. 575-394-2511

ADDRESS PO Box 1737 EUNICE NEW MEXICO

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

C. Romero 3-17-10
NAME OF AUTHORIZED AGENT SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 04

GENERATOR

GENERATOR NAME OXY USA INC.

ADDRESS P.O. Box 4294
Houston TX 77210

PHONE NO. _____

QUANTITY 10 yds

JASON DAVIS FOR OXY
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

GENERATING LOCATION OVERS LINDIE MONTIX UNIT #11

ADDRESS LEA Co.

STATE GENERATOR ID NUMBER NA

MATERIAL oil field exempt
impacted soil

[Signature]
SIGNATURE (on behalf of Generator)

SHIPMENT DATE

TRANSPORTER

TRUCK NO. 980

TRANSPORTER NAME SWORDS

ADDRESS 1311 E. LLANO
Hobbs, Nm

PHONE NO. 631-0121

DRIVER NAME (PRINT) Jim

VEHICLE LICENSE NO./STATE WD98264 NM

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

[Signature]
DRIVER SIGNATURE

3-17-10
SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature]
DRIVER SIGNATURE

3-17-10
DELIVERY DATE

DESTINATION

SITE NAME SUNDANCE SERVICES INC. / PARABO PHONE NO. 575-394-2511

ADDRESS P.O. Box 1737 EUNICE NEW MEXICO

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

NAME OF AUTHORIZED AGENT

C. Romero 3-17-10
SIGNATURE

NON-HAZARDOUS WASTE
TRANSPORT MANIFEST

NO. 05

GENERATOR

GENERATOR NAME OXY USA INC.

GENERATING LOCATION MYERS CANOPY MATHEX UNIT #11

ADDRESS PO BOX 4294

ADDRESS LEA CO.

Houston TX 77210

PHONE NO. _____

STATE GENERATOR ID NUMBER NA

QUANTITY 10 YARDS

MATERIAL oil field exempt

impacted soil

Jason Davis for OXY

PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

Jason Davis

SIGNATURE (on behalf of Generator)

SHIPMENT DATE

TRANSPORTER

TRUCK NO. 980

PHONE NO. 631 0121

TRANSPORTER NAME SUBORPS

DRIVER NAME (PRINT) Jim

ADDRESS 1311 E. LLANO

VEHICLE LICENSE NO./STATE WD 98264

Hobbs

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS PICKED UP AT THE GENERATOR SITE LISTED ABOVE.

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL WAS DELIVERED WITHOUT INCIDENT TO THE DESTINATION LISTED BELOW.

Jim
DRIVER SIGNATURE

3-18-10
SHIPMENT DATE

Jim
DRIVER SIGNATURE

3-18-10
DELIVERY DATE

DESTINATION

SITE NAME SIMULANCE SERVICES INC. / PARABO

PHONE NO. 575-394-2511

ADDRESS P.O. BOX 1737 ERMINE NEW MEXICO 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

Ada Sta Cruz
NAME OF AUTHORIZED AGENT

SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 06

GENERATOR

GENERATOR NAME oxy USA INC.

ADDRESS P.O. Box 4294
Houston TX 77210

PHONE NO. _____

QUANTITY 10 yds

JASON DAVIS FOR OXY
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

GENERATING LOCATION Myers Langie MATTIX # 11

ADDRESS LEA CO.

STATE GENERATOR ID NUMBER NA

MATERIAL oil field exempt
impacted soil

[Signature]
SIGNATURE (on behalf of Generator) SHIPMENT DATE

TRANSPORTER

TRUCK NO. 566

TRANSPORTER NAME DDJ Truck Svcs

ADDRESS 103 W. Berry
Hobbs NM

PHONE NO. (575) 631-9868

DRIVER NAME (PRINT) Carlos Martinez

VEHICLE LICENSE NO./STATE WD 88605

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

[Signature] 3-18-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature] 3-18-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME Sundance SERVICES INC. / PARADO PHONE NO. 575-394-2511

ADDRESS P.O. Box 1737 Eunice NEW MEXICO 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

[Signature]
NAME OF AUTHORIZED AGENT SIGNATURE

NON-HAZARDOUS WASTE
TRANSPORT MANIFEST

NO. 07

GENERATOR

GENERATOR NAME OXY USA INC.

GENERATING LOCATION MY28 Long/ie Mattix #11

ADDRESS P.O. Box 4294
Houston TX 77210

ADDRESS LEA Co.

PHONE NO. _____

STATE GENERATOR ID NUMBER NA

QUANTITY 10 yds

MATERIAL Oil Field Exempt

Jason Davis for OXY
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

[Signature]
SIGNATURE (on behalf of Generator)

SHIPMENT DATE

TRANSPORTER

TRUCK NO. 980

PHONE NO. 631-0121

TRANSPORTER NAME SWORDS

DRIVER NAME (PRINT) Jim

ADDRESS 1311 E. LLANO II
Hobbs NM

VEHICLE LICENSE NO./STATE WD 98264

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

[Signature] 3-18-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature] 3-18-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME Sundance SERVICES INC. / PARABO PHONE NO. 575-394-2511

ADDRESS P.O. Box 1737 Eunice New Mexico 88221

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

[Signature]
NAME OF AUTHORIZED AGENT

SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 08

GENERATOR

GENERATOR NAME OXY USA INC.

ADDRESS P.O. Box 4294

Houston Tx 77210

PHONE NO. _____

QUANTITY 10 yds

Jason Davis for OXY
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

GENERATING LOCATION PIERS Long/E Matrix #112

ADDRESS LEA Co.

STATE GENERATOR ID NUMBER NA

MATERIAL Oil Field EXENT

impacted soil

[Signature]
SIGNATURE (on behalf of Generator)

SHIPMENT DATE

TRANSPORTER

TRUCK NO. 566

TRANSPORTER NAME NT Truck Services

ADDRESS 103 W. Berry

Hobbs, NM

PHONE NO. (575) 631-9868

DRIVER NAME (PRINT) Carlos Martinez

VEHICLE LICENSE NO./STATE WD 88605

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

[Signature] 3-18-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature] 3-18-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME Sundance SERVICES INC. / PARADO

PHONE NO. 575-394-2511

ADDRESS P.O. Box 1737 Eunice NEW MEXICO 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

[Signature]
NAME OF AUTHORIZED AGENT

SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 09

GENERATOR

GENERATOR NAME Oxy USA INC
ADDRESS P.O. Box 4294
Houston TX 77210

PHONE NO. _____
QUANTITY 10 y ROLs

JASON DAVIS FOR Oxy
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

GENERATING LOCATION MYERS LOGGIE PATTIX #11
ADDRESS LEA County

STATE GENERATOR ID NUMBER NA
MATERIAL Oil Field EXEMPT
impacted soil

[Signature]
SIGNATURE (on behalf of Generator) SHIPMENT DATE

TRANSPORTER

TRUCK NO. 980
TRANSPORTER NAME SWORPS
ADDRESS 1311 E. LLANO
Hobbs NM

PHONE NO. 631-0121
DRIVER NAME (PRINT) Jim
VEHICLE LICENSE NO./STATE WD98264
STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

[Signature] 3-18-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature] 3-18-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME Sundance SERVICES INC. / PARADO PHONE NO. 575-394-2511
ADDRESS P.O. Box 1737 Eunice NEW MEXICO 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

[Signature]
NAME OF AUTHORIZED AGENT SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 010

GENERATOR

GENERATOR NAME Oxy USA INC.

ADDRESS P.O. Box 4294
Houston TX 77210

PHONE NO. _____

QUANTITY 10 yds

JASON DAVIS FOR Oxy
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

GENERATING LOCATION MYERS LANDFILL #11

ADDRESS LEA Co.

STATE GENERATOR ID NUMBER NA

MATERIAL Oil field exempt

impacted soil

[Signature]
SIGNATURE (on behalf of Generator)

SHIPMENT DATE

TRANSPORTER

TRUCK NO. 566

TRANSPORTER NAME DJ Truck Services

ADDRESS 103 W. Berry
Hobbs, NM

PHONE NO. (575) 631-9868

DRIVER NAME (PRINT) Carlos Martinez

VEHICLE LICENSE NO./STATE WN 88605

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

[Signature] 3-18-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature] 3-18-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME Sundance Services / PARADO PHONE NO. 575-394-2511

ADDRESS P.O. Box 1737 ELNICE NEW MEXICO 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

[Signature]
NAME OF AUTHORIZED AGENT

SIGNATURE

NON-HAZARDOUS WASTE
TRANSPORT MANIFEST

NO. 11

GENERATOR

GENERATOR NAME Oxy USA INC.

ADDRESS P.O. Box 4294
Houston TX 77210

PHONE NO. _____

QUANTITY 10 yds

Jason DAVIS for oxy
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

GENERATING LOCATION Myers Langbe Poth #11

ADDRESS LEA Co.

STATE GENERATOR ID NUMBER NA

MATERIAL Oil Field exempt
impacted soil

[Signature]
SIGNATURE (on behalf of Generator) SHIPMENT DATE

TRANSPORTER

TRUCK NO. 980

TRANSPORTER NAME SWORDS

ADDRESS 1311 E. LLANO
Hobbs

PHONE NO. 631-8121

DRIVER NAME (PRINT) Jim

VEHICLE LICENSE NO./STATE WD 98264

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

[Signature] 3-18-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature] 3-18-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME Sundance Services Inc. / Pecos PHONE NO. 575-394-2511

ADDRESS P.O. Box 1737 Escondido New Mexico 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

[Signature]
NAME OF AUTHORIZED AGENT SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 12

GENERATOR

GENERATOR NAME Oxy USA INC.
ADDRESS PO Box 4294
Houston TX 77210

PHONE NO. _____
QUANTITY 10 yds

Jason Davis for Oxy
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

GENERATING LOCATION MVERS Landfill MATIX #11
ADDRESS LEA Co.

STATE GENERATOR ID NUMBER NA
MATERIAL oil field exempt
impacted soil

[Signature]
SIGNATURE (on behalf of Generator) SHIPMENT DATE

TRANSPORTER

TRUCK NO. 566
TRANSPORTER NAME DJ Truck Services
ADDRESS 103 W. Berry
Hobbs NM

PHONE NO. (575) 631-9868
DRIVER NAME (PRINT) Carlos Martinez
VEHICLE LICENSE NO./STATE WD88605
STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

[Signature] 3-18-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature] 3-18-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME Simulance Services INC. / Parabo PHONE NO. 675-394-2511
ADDRESS P.O. Box 1737 EDWILE NEW MEXICO 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

[Signature]
NAME OF AUTHORIZED AGENT SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 013

GENERATOR

GENERATOR NAME OXY USA INC.

ADDRESS P.O. Box 9294

Houston Tx 77210

PHONE NO. _____

QUANTITY 10 yds

Jason Davis For OXY
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

GENERATING LOCATION Myers Langle Path #11

ADDRESS LEA Co.

STATE GENERATOR ID NUMBER NA

MATERIAL oil field exempt

impacted soil

Jason Davis
SIGNATURE (on behalf of Generator)

SHIPMENT DATE

TRANSPORTER

TRUCK NO. 980

TRANSPORTER NAME Swords

ADDRESS 1311 E. LLANO

Hobbs NM

PHONE NO. 631-0121

DRIVER NAME (PRINT) Jim

VEHICLE LICENSE NO./STATE WD 98264

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

Jim Swords
DRIVER SIGNATURE

3-18-10
SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

Jim Swords
DRIVER SIGNATURE

3-18-10
DELIVERY DATE

DESTINATION

SITE NAME SUBSTANCE SERVICES INC. / PARADO PHONE NO. 575-394-2511

ADDRESS P.O. Box 1737 EDWICK NEW MEXICO 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

Ada Sta Cruz
NAME OF AUTHORIZED AGENT

SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 014

GENERATOR

GENERATOR NAME Oxy USA Inc.

ADDRESS P.O. Box 4294

Houston TX 77210

PHONE NO. _____

QUANTITY 10 yds

Jason Davis for Oxy
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

GENERATING LOCATION MERS Campsite #11

ADDRESS LEA Co.

STATE GENERATOR ID NUMBER NA

MATERIAL oil field exempt

impacted soil

[Signature]
SIGNATURE (on behalf of Generator)

SHIPMENT DATE

TRANSPORTER

TRUCK NO. 566

TRANSPORTER NAME NS Truck Services

ADDRESS 103 W. Barry

Hubbs, NM

PHONE NO. (575) 631-9868

DRIVER NAME (PRINT) Carlos Martinez

VEHICLE LICENSE NO./STATE WD 88605

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

[Signature] 3-18-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature] 3-18-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME Juniper Services Inc. / PARADO PHONE NO. 575-394-2511

ADDRESS P.O. Box 1737 GUNITE NEW MEXICO 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

Ada Sta Cruz
NAME OF AUTHORIZED AGENT SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 15

GENERATOR

GENERATOR NAME Oxy USA Inc.

GENERATING LOCATION Myersburg, Md. #11

ADDRESS PO Box 4294

ADDRESS Lee Co.

Houston Tx 77210

PHONE NO. _____

STATE GENERATOR ID NUMBER N/A

QUANTITY 10 yds

MATERIAL Oil Field Exempt

Impacted Soil

Rick Carrizos For Oxy
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

R. Carzala 3-18-10
SIGNATURE (On behalf of Generator) SHIPMENT DATE

TRANSPORTER

TRUCK NO. 980

PHONE NO. 631-0121

TRANSPORTER NAME SLORDS

DRIVER NAME (PRINT) Jim

ADDRESS 1311 E. LLANO
Hobbs NM

VEHICLE LICENSE NO./STATE WD 98624 NM

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

Jim Lard 3-18-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

Jim Lard 3-18-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME Sundance Services inc / PABBO

PHONE NO. 575-394-2511

ADDRESS PO Box 1737 Sunrise New Mexico 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

NAME OF AUTHORIZED AGENT

C. Romero 3.18.10
SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 16

GENERATOR

GENERATOR NAME Oxy USA Inc.

GENERATING LOCATION Myers Langley Mall #11

ADDRESS PO Box 4294

ADDRESS Lea Co.

Houston Tx 77210

PHONE NO. _____

STATE GENERATOR ID NUMBER WA

QUANTITY 10 yds

MATERIAL Oil Field Exempt

compacted Soil

Rick Carrizola
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

R Carrizola 3-18-10
SIGNATURE (on behalf of Generator) SHIPMENT DATE

TRANSPORTER

TRUCK NO. 566

PHONE NO. (575) 631-9888

TRANSPORTER NAME DJ Truck Services

DRIVER NAME (PRINT) Carlos Martinez

ADDRESS 103 W. Berry

VEHICLE LICENSE NO./STATE WD88605

Hobbs NM

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

C Martinez 3-18-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

C Martinez 3-18-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME Sundance Services Inc/PRR460 PHONE NO. 575-394-2511

ADDRESS P.O. Box 1737 Sante Fe New Mexico 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

NAME OF AUTHORIZED AGENT

C-Romero 3-18-10
SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 017

GENERATOR

GENERATOR NAME On Usa INC.

ADDRESS P.O. Box 4294
Houston TX 77210

PHONE NO. _____

QUANTITY 10 yds

Jason Davis For On
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

GENERATING LOCATION Myers Langlie Mattix #11

ADDRESS LEA CO.

STATE GENERATOR ID NUMBER _____

MATERIAL Oil Field exempt
impacted soil

[Signature]
SIGNATURE (on behalf of Generator)

SHIPMENT DATE

TRANSPORTER

TRUCK NO. 566

TRANSPORTER NAME DS Truck Services

ADDRESS 103 W. Berry
Hobbs NM

PHONE NO. (575) 638-9868

DRIVER NAME (PRINT) Carlos Martinez

VEHICLE LICENSE NO./STATE WD 88605

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

[Signature] 3-19-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature] 3-19-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME Sundance Services Inc. / Paraje PHONE NO. 575-394-2511

ADDRESS P.O. Box 1737 Elmer New Mexico 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

Ida Sta Cruz
NAME OF AUTHORIZED AGENT SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 018

GENERATOR

GENERATOR NAME OXY USA INC.

GENERATING LOCATION MYERS LAKE MATLX #11

ADDRESS P.O. Box 4294

ADDRESS LEA Co.

Houston TX 77210

PHONE NO. _____

STATE GENERATOR ID NUMBER _____

QUANTITY 10 yds

MATERIAL Oil Field exempt

impacted soil

Jason Davis for Oxy
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

[Signature]
SIGNATURE (on behalf of Generator) SHIPMENT DATE

TRANSPORTER

TRUCK NO. 980

PHONE NO. 631-0121

TRANSPORTER NAME SWORDS

DRIVER NAME (PRINT) Jim

ADDRESS 1311 E. LLANO

VEHICLE LICENSE NO./STATE WD 98264 NM

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

[Signature] 3-19-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature] 3-19-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME SUBSTANCE SERVICES INC / PARAZO

PHONE NO. 575-394-8711

ADDRESS PO Box 1737 Eunice New Mexico 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

[Signature]
NAME OF AUTHORIZED AGENT

SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 019

GENERATOR

GENERATOR NAME OXY USA INC.

ADDRESS P.O. Box 4294
Houston Tx 77210

PHONE NO. _____

QUANTITY 10 yds

Jason Davis for Oxy
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

GENERATING LOCATION Myers Long/E PLATTA #11

ADDRESS Lea Co.

STATE GENERATOR ID NUMBER NA

MATERIAL oil field exempt

impacted soil

[Signature]
SIGNATURE (on behalf of Generator)

SHIPMENT DATE

TRANSPORTER

TRUCK NO. 980

TRANSPORTER NAME SURDS

ADDRESS 1311 E. LLANO
Hobbs Nm 88248

PHONE NO. 631-0121

DRIVER NAME (PRINT) Jim

VEHICLE LICENSE NO./STATE N'D 98264 NM

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

[Signature]
DRIVER SIGNATURE

3-19-10
SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature]
DRIVER SIGNATURE

3-19-10
DELIVERY DATE

DESTINATION

SITE NAME Surveillance Services Inc. / Parabo PHONE NO. 575-394-2571

ADDRESS P.O. Box 1737 Eunice New Mexico 88231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

[Signature]
NAME OF AUTHORIZED AGENT

SIGNATURE

**NON-HAZARDOUS WASTE
TRANSPORT MANIFEST**

NO. 020

GENERATOR

GENERATOR NAME Oxy USA INC

ADDRESS P.O. BOX 4294

Houston TX 77210

PHONE NO. _____

QUANTITY 10 yds

Jason Davis for oxy
PLEASE PRINT OR TYPE GENERATOR AUTHORIZED AGENT NAME

GENERATING LOCATION OVERS LAND/10 MATIN #11

ADDRESS LEA Co.

STATE GENERATOR ID NUMBER NA

MATERIAL Oil Field Exempt

impacted soil

[Signature]
SIGNATURE (on behalf of Generator)

SHIPMENT DATE

TRANSPORTER

TRUCK NO. 566

TRANSPORTER NAME DS Truck Services

ADDRESS 103 W. Berry

Hobbs NM

PHONE NO. (575) 631-9868

DRIVER NAME (PRINT) Carlos Martinez

VEHICLE LICENSE NO./STATE WD 88605

STATE TRANSPORTER ID NO. _____

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL
WAS PICKED UP AT THE GENERATOR SITE LISTED
ABOVE.

[Signature] 3-19-10
DRIVER SIGNATURE SHIPMENT DATE

I HEREBY CERTIFY THAT THE ABOVE NAMED
MATERIAL WAS DELIVERED WITHOUT INCIDENT TO
THE DESTINATION LISTED BELOW.

[Signature] 3-19-10
DRIVER SIGNATURE DELIVERY DATE

DESTINATION

SITE NAME Sundance Services LLC / Parabola

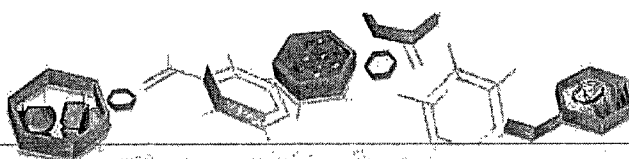
PHONE NO. 575-394-2511

ADDRESS P.O. Box 1737 EDWILE NEW MEXICO 98231

I HEREBY CERTIFY THAT THE ABOVE NAMED MATERIAL HAS BEEN ACCEPTED AND TO THE BEST OF MY
KNOWLEDGE THE FOREGOING IS TRUE AND ACCURATE.

[Signature]
NAME OF AUTHORIZED AGENT

SIGNATURE



IT'S ALL IN THE CHEMISTRY

03/01/10

Technical Report for

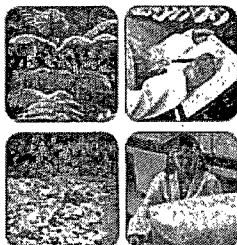
Conestoga-Rovers & Associates

GSHI - Oxy USA #11 MLMU

SSOW #600AO11-402-DO2-1100

Accutest Job Number: T47470

Sampling Date: 02/10/10



Report to:

Conestoga Rovers & Associates
6320 Rothway Suite 100
Houston, TX 77040
plynch@craworld.com

ATTN: Pat Lynch

Total number of pages in report: 94



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Marianne Walker 713-271-4700

Certifications: TX (T104704220-06-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)
OK (9103) UT(7132714700)

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Test results relate only to samples analyzed.

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Sample Summary

Conestoga-Rovers & Associates

Job No: T47470

GSHI - Oxy USA #11 MLMU

Project No: SSOW #600AO11-402-DO2-1100

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
T47470-1	02/10/10	13:06 RB	02/12/10	SO	Soil	SB-1 0-5'
T47470-2	02/10/10	13:11 RB	02/12/10	SO	Soil	SB-1 10-15'
T47470-3	02/10/10	13:16 RB	02/12/10	SO	Soil	SB-1 25-30'
T47470-4	02/10/10	13:31 RB	02/12/10	SO	Soil	SB-2 0-5'
T47470-5	02/10/10	13:34 RB	02/12/10	SO	Soil	SB-2 10-15'
T47470-6	02/10/10	13:40 RB	02/12/10	SO	Soil	SB-2 25-30'
T47470-7	02/10/10	13:56 RB	02/12/10	SO	Soil	SB-3 0-5'
T47470-8	02/10/10	14:00 RB	02/12/10	SO	Soil	SB-3 10-15'
T47470-9	02/10/10	14:06 RB	02/12/10	SO	Soil	SB-3 25-30'
T47470-10	02/10/10	14:25 RB	02/12/10	SO	Soil	SB-4 0-5'
T47470-11	02/10/10	14:27 RB	02/12/10	SO	Soil	SB-4 5-10'
T47470-12	02/10/10	14:36 RB	02/12/10	SO	Soil	SB-4 25-30'
T47470-13	02/10/10	14:56 RB	02/12/10	SO	Soil	SB-5 0-5'

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



Sample Summary (continued)

Conestoga-Rovers & Associates

Job No: T47470

GSHI - Oxy USA #11 MLMU

Project No: SSOW #600AO11-402-DO2-1100

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
T47470-14	02/10/10	15:00 RB	02/12/10	SO Soil	SB-5 10-15'
T47470-15	02/10/10	15:09 RB	02/12/10	SO Soil	SB-5 25-30'

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Conestoga-Rovers & Associates

Job No T47470

Site: GSHI - Oxy USA #11 MLMU

Report Date 2/26/2010 6:10:03 PM

15 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 02/10/2010 and were received at Accutest on 02/12/2010 properly preserved, at 3 Deg. C and intact. These Samples received an Accutest job number of T47470. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GC By Method SW846 8015

Matrix	SO	Batch ID:	GEE2637
--------	----	-----------	---------

- All samples were analyzed within the recommended method holding time.
- Sample(s) T47470-2MS, T47470-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Matrix	SO	Batch ID:	GEE2638
--------	----	-----------	---------

- All samples were analyzed within the recommended method holding time.
- Sample(s) T47470-15MS, T47470-15MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Volatiles by GC By Method SW846 8021B

Matrix	SO	Batch ID:	GKK1651
--------	----	-----------	---------

- All samples were analyzed within the recommended method holding time.
- Sample(s) T47470-2MS, T47470-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

Extractables by GC By Method SW846 8015 M

Matrix SO

Batch ID: OP14071

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T47470-2MS, T47470-2MSD were used as the QC samples indicated.
- RPD(s) for MSD for TPH (>C28-C35) are outside control limits for sample OP14071-MSD. Probable cause due to sample homogeneity.
- Sample(s) OP14071-MSD, T47470-11, T47470-10, T47470-4 have surrogates outside control limits. Probable cause due to matrix interference.
- T47470-4 for o-Terphenyl: Outside control limits due to dilution.
- T47470-10 for o-Terphenyl: Outside control limits due to dilution.

Matrix SO

Batch ID: OP14111

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) OP14071-MSD, T47470-11, T47470-10, T47470-4 have surrogates outside control limits. Probable cause due to matrix interference.

Wet Chemistry By Method SM 2540 G

Matrix SO

Batch ID: GN20797

- Sample(s) T47402-4DUP were used as the QC samples for Solids, Percent.

Matrix SO

Batch ID: GN20801

- Sample(s) T47470-11DUP were used as the QC samples for Solids, Percent.

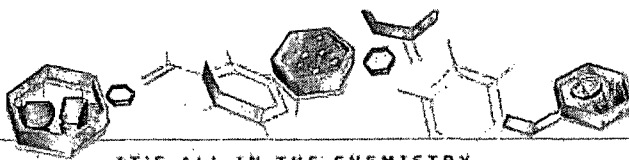
Wet Chemistry By Method SW846 9056

Matrix SO

Batch ID: GP8079

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T47470-1DUP, T47470-1MS were used as the QC samples for Chloride.
- T47470-3 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX
- T47470-2 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX
- T47470-5 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX
- T47470-4 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX
- T47470-1 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX
- T47470-15 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX
- T47470-14 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX
- T47470-12 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX
- T47470-10 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX
- T47470-11 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX
- T47470-6 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX
- T47470-7 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX
- T47470-8 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX
- T47470-9 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX
- T47470-13 for Chloride: Analysis Performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used



IT'S ALL IN THE CHEMISTRY



Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

3.1

Client Sample ID: SB-1 0-5'

Lab Sample ID: T47470-1

Matrix: SO - Soil

Method: SW846 8015

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 93.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052084.D	1	02/18/10	FI	n/a	n/a	GEE2637
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.00 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.7	0.34	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		46-127%
98-08-8	aaa-Trifluorotoluene	101%		44-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

3.1

Client Sample ID: SB-1 0-5'

Lab Sample ID: T47470-1

Matrix: SO - Soil

Method: SW846 8021B

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 93.3

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034657.D	1	02/18/10	FI	n/a	n/a	GKK1651
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.34 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.95	5.0	0.49	ug/kg	J
108-88-3	Toluene	1.9	5.0	0.65	ug/kg	J
100-41-4	Ethylbenzene	ND	5.0	0.67	ug/kg	J
1330-20-7	Xylenes (total)	1.7	10	1.7	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	91%		21-163%
98-08-8	aaa-Trifluorotoluene	125%		39-170%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



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ACCUTEST
T47470 Laboratories

Report of Analysis

Page 1 of 1

3.1

Client Sample ID: SB-1 0-5'

Lab Sample ID: T47470-1

Matrix: SO - Soil

Method: SW846 8015 M SW846 3550B

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 93.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195064.D	1	02/18/10	FO	02/15/10	OP14071	GIB955
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	8.9	2.9	mg/kg	
	TPH (> C28-C35)	ND	8.9	2.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	74%		33-115%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

3.1

Client Sample ID: SB-1 0-5'

Lab Sample ID: T47470-1

Matrix: SO - Soil

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 93.3

Project: GSHI - Oxy USA #11 MLMU

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	3.4	2.6	mg/kg	1	02/25/10 10:55	TW	SW846 9056
Solids, Percent	93.3		%	1	02/15/10	MR	SM 2540 G

RL = Reporting Limit

Report of Analysis

Page 1 of 1

3.2

3

Client Sample ID:	SB-1 10-15'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-2	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	93.9
Method:	SW846 8015		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052085.D	1	02/18/10	FI	n/a	n/a	GEE2637
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.06 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.6	0.34	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		46-127%
98-08-8	aaa-Trifluorotoluene	101%		44-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-1 10-15'

Lab Sample ID: T47470-2

Matrix: SO - Soil

Method: SW846 8021B

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 93.9

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034658.D	1	02/18/10	FI	n/a	n/a	GKK1651
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.12 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.60	5.2	0.51	ug/kg	J
108-88-3	Toluene	1.8	5.2	0.68	ug/kg	J
100-41-4	Ethylbenzene	ND	5.2	0.69	ug/kg	J
1330-20-7	Xylenes (total)	2.7	10	1.8	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	87%		21-163%
98-08-8	aaa-Trifluorotoluene	122%		39-170%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

3.2

Client Sample ID: SB-1 10-15'

Lab Sample ID: T47470-2

Date Sampled: 02/10/10

Matrix: SO - Soil

Date Received: 02/12/10

Method: SW846 8015 M SW846 3550B

Percent Solids: 93.9

Project: GSHI - Oxy USA #11 MLMU

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195065.D	1	02/18/10	FO	02/15/10	OP14071	GIF955
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	7.47	8.7	2.9	mg/kg	J
	TPH (> C28-C35)	7.43	8.7	2.3	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	65%		33-115%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

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3.2



Client Sample ID: SB-1 10-15'

Lab Sample ID: T47470-2

Matrix: SO - Soil

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 93.9

Project: GSHI - Oxy USA #11 MLMU

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	17.5	2.6	mg/kg	1	02/25/10 11:51	TW	SW846 9056
Solids, Percent	93.9		%	1	02/15/10	MR	SM 2540 G

RL = Reporting Limit

Report of Analysis

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3.3

Client Sample ID:	SB-1 25-30'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-3	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	93.3
Method:	SW846 8015		
Project:	GSHI - Oxy USA #11 MLMU		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052086.D	1	02/18/10	FI	n/a	n/a	GEE2637
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.43 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.3	0.32	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		46-127%
98-08-8	aaa-Trifluorotoluene	101%		44-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

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Client Sample ID:	SB-1 25-30'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-3	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	93.3
Method:	SW846 8021B		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034659.D	1	02/18/10	FI	n/a	n/a	GKK1651
Run #2							

	Initial Weight	Final Volume
Run #1	5.18 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.62	5.2	0.50	ug/kg	J
108-88-3	Toluene	1.3	5.2	0.67	ug/kg	J
100-41-4	Ethylbenzene	ND	5.2	0.69	ug/kg	
1330-20-7	Xylenes (total)	ND	10	1.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	90%		21-163%
98-08-8	aaa-Trifluorotoluene	122%		39-170%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	SB-1 25-30'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-3	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	93.3
Method:	SW846 8015 M SW846 3550B		
Project:	GSHI - Oxy USA #11 MLMU		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195066.D	1	02/18/10	FO	02/15/10	OP14071	GIB955
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	4.11	8.9	2.9	mg/kg	J
	TPH (> C28-C35)	5.29	8.9	2.4	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	75%		33-115%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.3

Client Sample ID: SB-1 25-30'

Lab Sample ID: T47470-3

Matrix: SO - Soil

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 93.3

Project: GSHI - Oxy USA #11 MLMU

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	60.1	2.7	mg/kg	1	02/25/10 12:10	TW	SW846 9056
Solids, Percent	93.3		%	1	02/15/10	MR	SM 2540 G

RL = Reporting Limit

Report of Analysis

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Client Sample ID: SB-2 0-5'

Lab Sample ID: T47470-4

Date Sampled: 02/10/10

Matrix: SO - Soil

Date Received: 02/12/10

Method: SW846 8015

Percent Solids: 96.7

Project: GSHI - Oxy USA #11 MLMU

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052087.D	1	02/19/10	FI	n/a	n/a	GEE2637
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.25 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.1	0.31	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		46-127%
98-08-8	aaa-Trifluorotoluene	102%		44-120%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

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3.4



Client Sample ID:	SB-2 0-5'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-4	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	96.7
Method:	SW846 8021B		
Project:	GSHI - Oxy USA #11 MLMU		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034660.D	1	02/18/10	FI	n/a	n/a	GKK1651
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.90 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	8.4	4.4	0.43	ug/kg	
108-88-3	Toluene	33.2	4.4	0.57	ug/kg	
100-41-4	Ethylbenzene	3.0	4.4	0.58	ug/kg	J
1330-20-7	Xylenes (total)	35.6	8.8	1.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	64%		21-163%
98-08-8	aaa-Trifluorotoluene	112%		39-170%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.4

Client Sample ID:	SB-2 0-5'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-4	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	96.7
Method:	SW846 8015 M SW846 3550B		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195086.D	10	02/19/10	FO	02/15/10	OP14071	GIB955
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	582	86	28	mg/kg	
	TPH (> C28-C35)	469	86	23	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% ^a		33-115%

(a) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.4

Client Sample ID: SB-2 0-5'

Lab Sample ID: T47470-4

Matrix: SO - Soil

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 96.7

Project: GSHI - Oxy USA #11 MLMU

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	< 2.5	2.5	mg/kg	1	02/25/10 12:33	TW	SW846 9056
Solids, Percent	96.7		%	1	02/15/10	MR	SM 2540 G

RL = Reporting Limit

Report of Analysis

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3.5



Client Sample ID:	SB-2 10-15'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-5	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	92.8
Method:	SW846 8015		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052088.D	1	02/19/10	FI	n/a	n/a	GEE2637
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.15 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.6	0.34	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		46-127%
98-08-8	aaa-Trifluorotoluene	101%		44-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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3.5

Client Sample ID:	SB-2 10-15'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-5	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	92.8
Method:	SW846 8021B		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034661.D	1	02/18/10	FI	n/a	n/a	GKK1651
Run #2							

	Initial Weight	Final Volume
Run #1	5.52 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2.7	4.9	0.47	ug/kg	J
108-88-3	Toluene	12.7	4.9	0.63	ug/kg	
100-41-4	Ethylbenzene	1.7	4.9	0.65	ug/kg	J
1330-20-7	Xylenes (total)	20.5	9.8	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		21-163%
98-08-8	aaa-Trifluorotoluene	126%		39-170%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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3.5



Client Sample ID: SB-2 10-15'

Lab Sample ID: T47470-5

Matrix: SO - Soil

Method: SW846 8015 M SW846 3550B

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 92.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195067.D	1	02/18/10	FO	02/15/10	OP14071	GIF955
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	108	8.8	2.9	mg/kg	
	TPH (> C28-C35)	74.6	8.8	2.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	72%		33-115%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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3.5

3

Client Sample ID: SB-2 10-15'

Lab Sample ID: T47470-5

Matrix: SO - Soil

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 92.8

Project: GSHI - Oxy USA #11 MLMU

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	< 2.7	2.7	mg/kg	1	02/25/10 12:52	TW	SW846 9056
Solids, Percent	92.8		%	1	02/15/10	MR	SM 2540 G

RL = Reporting Limit

Report of Analysis

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3.6

Client Sample ID:	SB-2 25-30'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-6	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	94.7
Method:	SW846 8015		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052089.D	1	02/19/10	FI	n/a	n/a	GEE2637
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.30 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.3	0.32	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		46-127%
98-08-8	aaa-Trifluorotoluene	102%		44-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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3.6

Client Sample ID:	SB-2 25-30'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-6	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	94.7
Method:	SW846 8021B		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034662.D	1	02/18/10	FI	n/a	n/a	GKK1651
Run #2							

	Initial Weight	Final Volume
Run #1	5.11 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.72	5.2	0.50	ug/kg	J
108-88-3	Toluene	3.0	5.2	0.67	ug/kg	J
100-41-4	Ethylbenzene	ND	5.2	0.69	ug/kg	
1330-20-7	Xylenes (total)	4.6	10	1.8	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	89%		21-163%
98-08-8	aaa-Trifluorotoluene	121%		39-170%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Client Sample ID: SB-2 25-30'

Lab Sample ID: T47470-6

Matrix: SO - Soil

Method: SW846 8015 M SW846 3550B

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 94.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195068.D	1	02/18/10	FO	02/15/10	OP14071	GIB955
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	12.9	8.8	2.9	mg/kg	
	TPH (> C28-C35)	15.1	8.8	2.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	67%		33-115%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.6

Client Sample ID: SB-2 25-30'

Lab Sample ID: T47470-6

Matrix: SO - Soil

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 94.7

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	< 2.6	2.6	mg/kg	1	02/25/10 13:10	TW	SW846 9056
Solids, Percent	94.7		%	1	02/15/10	MR	SM 2540 G

RL = Reporting Limit

Report of Analysis

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3.7



Client Sample ID:	SB-3 0-5'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-7	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	95.3
Method:	SW846 8015		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052094.D	1	02/19/10	FI	n/a	n/a	GEE2637
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.19 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.3	0.32	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		46-127%
98-08-8	aaa-Trifluorotoluene	102%		44-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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3.7

Client Sample ID:	SB-3 0-5'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-7	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	95.3
Method:	SW846 8021B		
Project:	GSHI - Oxy USA #11 MLMU		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034667.D	1	02/19/10	FI	n/a	n/a	GKK1651
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.06 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.51	5.2	0.50	ug/kg	J
108-88-3	Toluene	1.3	5.2	0.67	ug/kg	J
100-41-4	Ethylbenzene	ND	5.2	0.69	ug/kg	
1330-20-7	Xylenes (total)	1.9	10	1.8	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	84%		21-163%
98-08-8	aaa-Trifluorotoluene	122%		39-170%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.7

3

Client Sample ID:	SB-3 0-5'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-7	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	95.3
Method:	SW846 8015 M SW846 3550B		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195094.D	1	02/19/10	FO	02/15/10	OP14071	GIB955
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	8.6	2.8	mg/kg	
	TPH (> C28-C35)	ND	8.6	2.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	70%		33-115%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.7

Client Sample ID: SB-3 0-5'

Lab Sample ID: T47470-7

Matrix: SO - Soil

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 95.3

Project: GSHI - Oxy USA #11 MLMU

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	< 2.6	2.6	mg/kg	1	02/23/10 20:32	TW	SW846 9056
Solids, Percent	95.3		%	1	02/15/10	MR	SM 2540 G

RL = Reporting Limit

Report of Analysis

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3.8

Client Sample ID:	SB-3 10-15'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-8	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	92.7
Method:	SW846 8015		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052095.D	1	02/19/10	FI	n/a	n/a	GEE2637
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.14 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.6	0.34	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		46-127%
98-08-8	aaa-Trifluorotoluene	101%		44-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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3.8

Client Sample ID: SB-3 10-15'

Lab Sample ID: T47470-8

Matrix: SO - Soil

Method: SW846 8021B

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 92.7

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034668.D	1	02/19/10	FI	n/a	n/a	GKK1651
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.08 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.86	5.3	0.52	ug/kg	J
108-88-3	Toluene	2.2	5.3	0.69	ug/kg	J
100-41-4	Ethylbenzene	ND	5.3	0.71	ug/kg	J
1330-20-7	Xylenes (total)	2.6	11	1.8	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	86%		21-163%
98-08-8	aaa-Trifluorotoluene	122%		39-170%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.8

Client Sample ID:	SB-3 10-15'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-8	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	92.7
Method:	SW846 8015 M SW846 3550B		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195070.D	1	02/18/10	FO	02/15/10	OP14071	GIB955
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	4.64	9.0	2.9	mg/kg	J
	TPH (> C28-C35)	5.95	9.0	2.4	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	74%		33-115%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.8

Client Sample ID:	SB-3 10-15'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-8	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	92.7
Project:	GSHI - Oxy USA #11 MLMU		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	< 2.7	2.7	mg/kg	1	02/23/10 20:51	TW	SW846 9056
Solids, Percent	92.7		%	1	02/15/10	MR	SM 2540 G

RL = Reporting Limit

Report of Analysis

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3.9

Client Sample ID: SB-3 25-30'

Lab Sample ID: T47470-9

Matrix: SO - Soil

Method: SW846 8015

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 94.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052096.D	1	02/19/10	FI	n/a	n/a	GEE2637
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.20 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.3	0.32	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		46-127%
98-08-8	aaa-Trifluorotoluene	102%		44-120%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID: SB-3 25-30'
 Lab Sample ID: T47470-9
 Matrix: SO - Soil
 Method: SW846 8021B
 Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10
 Date Received: 02/12/10
 Percent Solids: 94.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034669.D	1	02/19/10	FI	n/a	n/a	GKK1651
Run #2							

	Initial Weight	Final Volume
Run #1	5.65 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.58	4.7	0.45	ug/kg	J
108-88-3	Toluene	2.2	4.7	0.61	ug/kg	J
100-41-4	Ethylbenzene	ND	4.7	0.62	ug/kg	
1330-20-7	Xylenes (total)	3.1	9.3	1.6	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	86%		21-163%
98-08-8	aaa-Trifluorotoluene	121%		39-170%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.9



Client Sample ID: SB-3 25-30'

Lab Sample ID: T47470-9

Date Sampled: 02/10/10

Matrix: SO - Soil

Date Received: 02/12/10

Method: SW846 8015 M SW846 3550B

Percent Solids: 94.8

Project: GSHI - Oxy USA #11 MLMU

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195071.D	1	02/18/10	FO	02/15/10	OP14071	GIF955
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	9.56	8.6	2.8	mg/kg	
	TPH (> C28-C35)	12.0	8.6	2.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	58%		33-115%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

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3.9

Client Sample ID: SB-3 25-30'

Lab Sample ID: T47470-9

Matrix: SO - Soil

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 94.8

Project: GSHI - Oxy USA #11 MLMU

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	3.7	2.6	mg/kg	1	02/23/10 21:09	TW	SW846 9056
Solids, Percent	94.8		%	1	02/15/10	MR	SM 2540 G

RL = Reporting Limit

Report of Analysis

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3.10

3

Client Sample ID: SB-4 0-5'
 Lab Sample ID: T47470-10
 Matrix: SO - Soil
 Method: SW846 8015
 Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10
 Date Received: 02/12/10
 Percent Solids: 96.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052097.D	1	02/19/10	FI	n/a	n/a	GEE2637
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.71 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	4.8	0.29	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		46-127%
98-08-8	aaa-Trifluorotoluene	102%		44-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.10



Client Sample ID: SB-4 0-5'

Lab Sample ID: T47470-10

Matrix: SO - Soil

Method: SW846 8021B

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 96.0

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034670.D	1	02/19/10	FI	n/a	n/a	GKK1651
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.12 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	10.8	5.1	0.49	ug/kg	
108-88-3	Toluene	45.2	5.1	0.66	ug/kg	
100-41-4	Ethylbenzene	4.4	5.1	0.68	ug/kg	J
1330-20-7	Xylenes (total)	46.6	10	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	64%		21-163%
98-08-8	aaa-Trifluorotoluene	119%		39-170%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.10

3

Client Sample ID:	SB-4 0-5'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-10	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	96.0
Method:	SW846 8015 M SW846 3550B		
Project:	GSHI - Oxy USA #11 MLMU		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195087.D	10	02/19/10	FO	02/15/10	OP14071	GIF955
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	417	87	28	mg/kg	
	TPH (> C28-C35)	502	87	23	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0% ^a		33-115%

(a) Outside control limits due to dilution.

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.10



Client Sample ID: SB-4 0-5'

Lab Sample ID: T47470-10

Matrix: SO - Soil

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 96.0

Project: GSHI - Oxy USA #11 MLMU

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	< 2.5	2.5	mg/kg	1	02/23/10 21:28	TW	SW846 9056
Solids, Percent	96		%	1	02/15/10	MR	SM 2540 G

RL = Reporting Limit

Report of Analysis

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3.11



Client Sample ID: SB-4 5-10'
Lab Sample ID: T47470-11
Matrix: SO - Soil
Method: SW846 8015
Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10
Date Received: 02/12/10
Percent Solids: 95.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052098.D	1	02/19/10	FI	n/a	n/a	GEE2637
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.35 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.1	0.31	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		46-127%
98-08-8	aaa-Trifluorotoluene	102%		44-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.11

Client Sample ID:	SB-4 5-10'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-11	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	95.7
Method:	SW846 8021B		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034671.D	1	02/19/10	FI	n/a	n/a	GKK1651
Run #2							

	Initial Weight	Final Volume
Run #1	5.21 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	4.7	5.0	0.49	ug/kg	J
108-88-3	Toluene	19.5	5.0	0.65	ug/kg	
100-41-4	Ethylbenzene	2.3	5.0	0.67	ug/kg	J
1330-20-7	Xylenes (total)	23.6	10	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	84%		21-163%
98-08-8	aaa-Trifluorotoluene	127%		39-170%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SB-4 5-10'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-11	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	95.7
Method:	SW846 8015 M SW846 3550B		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195096.D	5	02/19/10	FO	02/15/10	OP14071	GIF955
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	116	43	14	mg/kg	
	TPH (> C28-C35)	164	43	11	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	0%		33-115%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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3.11

3

Client Sample ID: SB-4 5-10'

Lab Sample ID: T47470-11

Matrix: SO - Soil

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 95.7

Project: GSHI - Oxy USA #11 MLMU

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	< 2.6	2.6	mg/kg	1	02/23/10 21:47	TW	SW846 9056
Solids, Percent	95.7		%	1	02/15/10	CF	SM 2540 G

RL = Reporting Limit

Report of Analysis

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3.12

3

Client Sample ID:	SB-4 25-30'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-12	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	95.8
Method:	SW846 8015		
Project:	GSHI - Oxy USA #11 MLMU		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052099.D	1	02/19/10	FI	n/a	n/a	GEE2637
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.03 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.4	0.32	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		46-127%
98-08-8	aaa-Trifluorotoluene	100%		44-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.12

Client Sample ID: SB-4 25-30'

Lab Sample ID: T47470-12

Matrix: SO - Soil

Method: SW846 8021B

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 95.8

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034672.D	1	02/19/10	FI	n/a	n/a	GKK1651
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.26 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.61	5.0	0.48	ug/kg	J
108-88-3	Toluene	2.5	5.0	0.64	ug/kg	J
100-41-4	Ethylbenzene	ND	5.0	0.66	ug/kg	
1330-20-7	Xylenes (total)	3.6	9.9	1.7	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	92%		21-163%
98-08-8	aaa-Trifluorotoluene	122%		39-170%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.12

3

Client Sample ID:	SB-4 25-30'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-12	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	95.8
Method:	SW846 8015 M SW846 3550B		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195073.D	1	02/18/10	FO	02/15/10	OP14071	GIF955
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	14.0	8.5	2.8	mg/kg	
	TPH (> C28-C35)	18.3	8.5	2.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	93%		33-115%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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3.12



Client Sample ID: SB-4 25-30'

Lab Sample ID: T47470-12

Matrix: SO - Soil

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 95.8

Project: GSHI - Oxy USA #11 MLMU

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	6.9	2.5	mg/kg	1	02/23/10 22:05	TW	SW846 9056
Solids, Percent	95.8		%	1	02/15/10	CF	SM 2540 G

RL = Reporting Limit

Report of Analysis

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3.13

3

Client Sample ID: SB-5 0-5'
Lab Sample ID: T47470-13
Matrix: SO - Soil
Method: SW846 8015
Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10
Date Received: 02/12/10
Percent Solids: 95.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052100.D	1	02/19/10	FI	n/a	n/a	GEE2637
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.13 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.3	0.32	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		46-127%
98-08-8	aaa-Trifluorotoluene	102%		44-120%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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3.13



Client Sample ID:	SB-5 0-5'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-13	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	95.5
Method:	SW846 8021B		
Project:	GSHI - Oxy USA #11 MLMU		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034673.D	1	02/19/10	FI	n/a	n/a	GKK1651
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.23 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.79	5.0	0.49	ug/kg	J
108-88-3	Toluene	3.1	5.0	0.65	ug/kg	J
100-41-4	Ethylbenzene	ND	5.0	0.67	ug/kg	
1330-20-7	Xylenes (total)	5.3	10	1.7	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		21-163%
98-08-8	aaa-Trifluorotoluene	120%		39-170%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

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3.13

3

Client Sample ID:	SB-5 0-5'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-13	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	95.5
Method:	SW846 8015 M SW846 3550B		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195074.D	1	02/18/10	FO	02/15/10	OP14071	GIB955
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	19.3	8.7	2.9	mg/kg	
	TPH (> C28-C35)	29.1	8.7	2.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	52%		33-115%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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3.13

Client Sample ID: SB-5 0-5'

Lab Sample ID: T47470-13

Matrix: SO - Soil

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 95.5

Project: GSHI - Oxy USA #11 MLMU

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	< 2.6	2.6	mg/kg	1	02/23/10 22:24	TW	SW846 9056
Solids, Percent	95.5		%	1	02/15/10	CF	SM 2540 G

RL = Reporting Limit

Report of Analysis

Page 1 of 1

3.14



Client Sample ID:	SB-5 10-15'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-14	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	94.6
Method:	SW846 8015		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052101.D	1	02/19/10	FI	n/a	n/a	GEE2637
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.23 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.3	0.32	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		46-127%
98-08-8	aaa-Trifluorotoluene	100%		44-120%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

3.14

Client Sample ID:	SB-5 10-15'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-14	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	94.6
Method:	SW846 8021B		
Project:	GSHI - Oxy USA #11 MLMU		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034674.D	1	02/19/10	FI	n/a	n/a	GKK1651
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.24 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.5	5.0	0.49	ug/kg	J
108-88-3	Toluene	6.9	5.0	0.66	ug/kg	
100-41-4	Ethylbenzene	0.85	5.0	0.67	ug/kg	J
1330-20-7	Xylenes (total)	11.4	10	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	85%		21-163%
98-08-8	aaa-Trifluorotoluene	121%		39-170%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

3.14



Client Sample ID: SB-5 10-15'

Lab Sample ID: T47470-14

Matrix: SO - Soil

Method: SW846 8015 M SW846 3550B

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 94.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195075.D	1	02/18/10	FO	02/15/10	OP14071	GIF955
Run #2							

	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	19.2	8.6	2.8	mg/kg	
	TPH (> C28-C35)	18.1	8.6	2.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	52%		33-115%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID: SB-5 10-15'

Lab Sample ID: T47470-14

Matrix: SO - Soil

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 94.6

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	< 2.6	2.6	mg/kg	1	02/23/10 22:43	TW	SW846 9056
Solids, Percent	94.6		%	1	02/15/10	CF	SM 2540 G

RL = Reporting Limit

Report of Analysis

Page 1 of 1

3.15



Client Sample ID: SB-5 25-30'

Lab Sample ID: T47470-15

Matrix: SQ - Soil

Method: SW846 8015

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 95.5

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE052110.D	1	02/19/10	FI	n/a	n/a	GEE2638
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.23 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.2	0.31	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		46-127%
98-08-8	aaa-Trifluorotoluene	102%		44-120%

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

Page 1 of 1

3.15

Client Sample ID: SB-5 25-30'

Lab Sample ID: T47470-15

Matrix: SO - Soil

Method: SW846 8021B

Project: GSHI - Oxy USA #11 MLMU

Date Sampled: 02/10/10

Date Received: 02/12/10

Percent Solids: 95.5

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK034675.D	1	02/19/10	FI	n/a	n/a	GKK1651
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.24 g	5.0 ml
Run #2		

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.56	5.0	0.49	ug/kg	J
108-88-3	Toluene	2.2	5.0	0.65	ug/kg	J
100-41-4	Ethylbenzene	ND	5.0	0.67	ug/kg	
1330-20-7	Xylenes (total)	3.5	10	1.7	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	84%		21-163%
98-08-8	aaa-Trifluorotoluene	120%		39-170%

ND = Not detected MDL - Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

3.15

3

Client Sample ID:	SB-5 25-30'	Date Sampled:	02/10/10
Lab Sample ID:	T47470-15	Date Received:	02/12/10
Matrix:	SO - Soil	Percent Solids:	95.5
Method:	SW846 8015 M SW846 3550B		
Project:	GSHI - Oxy USA #11 MLMU		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	IF195125.D	1	02/22/10	EM	02/19/10	OP14111	GIF957
Run #2							

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	22.2	8.7	2.8	mg/kg	
	TPH (> C28-C35)	5.85	8.7	2.3	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	62%		33-115%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

3.15

3

Client Sample ID: SB-5 25-30'

Lab Sample ID: T47470-15

Matrix: SO - Soil

Date Sampled: 02/10/10

Date Received: 02/12/10

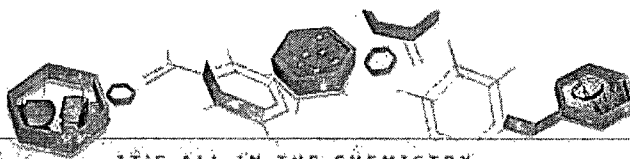
Percent Solids: 95.5

Project: GSHI - Oxy USA #11 MLMU

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	< 2.6	2.6	mg/kg	1	02/23/10 23:01	TW	SW846 9056
Solids, Percent	95.5		%	1	02/15/10	CF	SM 2540 G

RL = Reporting Limit



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

10165 Harwin Dr, Ste 150 Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.aaculitest.com

FED-EX Tracking #		Jordan Order Control #	
Account Due #		Account Job # 747470	
Requested Analyses			Matrix Codes
V8021 BTX	GRO by 8015	DRD/ORO by 8015	DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquids AIR - Air SOL - Other Solids WP - Wipe FB - Field Blank
	Chloride by 9056		
X	X	X	
		X	
X	X	X	
		X	
X	X	X	
		X	
X	X	X	
X	X	X	
X	X	X	
X	X	X	
X	X	X	
X	X	X	
Comments / Special Instructions			
Date/Time: 07/15/12 Received By: [Signature] Date/Time: 7/12/12 Received By: 4			
Instruct Preserved where applicable <input type="checkbox"/>			
On Ice Cooler Temp. 30			

4.1

10165 Harwin Dr, Ste 150 Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-1770
www.acutest.com

FED-EX Tracking #	Bole Order Control #
Accutest Quota #	Accutest Job # T47470

[illegible]

4.1

T47470: Chain of Custody
Page 2 of 5

SAMPLE INSPECTION FORM

Accutest Job Number: T47470 Client: Conestoga River & Associates Date/Time Received: 2/12/10 0915
 # of Coolers Received: 1 Thermometer #: 12-1 Temperature Adjustment Factor: +0.4
 Cooler Temps: #1: 3.0 #2: #3: #4: #5: #6: #7: #8:
 Method of Delivery: FEDEX UPS Accutest Courier Greyhound Delivery Other
 Airbill Numbers:

COOLER INFORMATION

- ☐ Custody seal missing or not intact
- ☐ Temperature criteria not met
- ☐ Wet ice received in cooler

CHAIN OF CUSTODY

- ☐ Chain of Custody not received
- ☐ Sample D/T unclear or missing
- ☐ Analyses unclear or missing
- ☐ COC not properly executed

SAMPLE INFORMATION

- ☐ Sample containers received broken
- ☐ VOC vials have headspace
- ☐ Sample labels missing or illegible
- ☐ ID on COC does not match label(s)
- ☐ D/T on COC does not match label(s)
- ☐ Sample/Bottles rec'd but no analysis on COC
- ☐ Sample listed on COC, but not received
- ☐ Bottles missing for requested analysis
- ☐ Insufficient volume for analysis
- ☐ Sample received improperly preserved

TRIP BLANK INFORMATION

- ☐ Trip Blank on COC but not received
- ☐ Trip Blank received but not on COC
- ☐ Trip Blank not intact
- ☐ Received Water Trip Blank
- ☐ Received Soil TB

Number of Encores?
 Number of 5035 kits?
 Number of lab-filtered metals?

Summary of Discrepancies:

1. Time did not match for sample "58-3 R-5 @ 2-10-10 1356" on COC.
 1st bottle time starts 1256 not 1356.

TECHNICIAN SIGNATURE/DATE: [Signature] 2/12/10

INFORMATION AND SAMPLE LABELING VERIFIED BY: EE 2-12-10

CORRECTIVE ACTIONS

Client Representative Notified: Tom Larson Date: 2/15/10

By Accutest Representative: Marianne Walker Via: Phone Email

Client Instructions: Per Desiree, use sample time on COC

\\mwalker\form\samplemanagement

T47470: Chain of Custody

Page 3 of 5

SAMPLE RECEIPT LOG

JOB #: T47470 DATE/TIME RECEIVED: 2/12/10 0915
 CLIENT: CRA INITIALS: PF

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
1	1	SB-1 0-5'	7/10/10	1706	5	402	1	VR	0 2 3 4 5 6 7 8 <2 >12
						2	2-76	0 2 3 4 5 6 7 8 <2 >12	
	2	SB-1 10-15'		1311		1	VR	0 2 3 4 5 6 7 8 <2 >12	
						2	2-76	0 2 3 4 5 6 7 8 <2 >12	
	3	SB-1 25-30'		1316		1	VR	0 2 3 4 5 6 7 8 <2 >12	
						2	2-76	0 2 3 4 5 6 7 8 <2 >12	
	4	SB-2 0-5'		1331		1	VR	0 2 3 4 5 6 7 8 <2 >12	
						2	2-76	0 2 3 4 5 6 7 8 <2 >12	
	5	SB-2 10-15'		1374		1	VR	0 2 3 4 5 6 7 8 <2 >12	
						2	2-76	0 2 3 4 5 6 7 8 <2 >12	
	6	SB-2 25-30'		1370		1	VR	0 2 3 4 5 6 7 8 <2 >12	
						2	2-76	0 2 3 4 5 6 7 8 <2 >12	
	7	SB-3 0-5'		1256		1	VR	0 2 3 4 5 6 7 8 <2 >12	
						2	2-76	0 2 3 4 5 6 7 8 <2 >12	
	8	SB-3 10-15'		1400		1	VR	0 2 3 4 5 6 7 8 <2 >12	
						2	2-76	0 2 3 4 5 6 7 8 <2 >12	
	9	SB-3 25-30'		1406		1	VR	0 2 3 4 5 6 7 8 <2 >12	
						2	2-76	0 2 3 4 5 6 7 8 <2 >12	
	10	SB-4 0-5'		1425		1	VR	0 2 3 4 5 6 7 8 <2 >12	
						2	2-76	0 2 3 4 5 6 7 8 <2 >12	
	11	SB-4 5-10'		1437		1	VR	0 2 3 4 5 6 7 8 <2 >12	
						2	2-76	0 2 3 4 5 6 7 8 <2 >12	

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other
 LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer
 Rev 8/13/01 ewp

T47470: Chain of Custody
 Page 4 of 5

4.1
 4

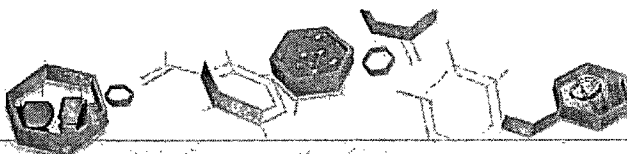
SAMPLE RECEIPT LOG

JOB #: T47470 DATE/TIME RECEIVED: 2/12/10 0915
CLIENT: CRA INITIALS: PF

[illegible]

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NaOH 6: DI 7: MeOH 8: Other
 LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer
 Rev 8/13/01 ewp

T47470: Chain of Custody
Page 5 of 5



GC Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: T47470
Account: CRATXHO Conestoga-Rovers & Associates
Project: GSHI - Oxy USA #11 MLMU

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEE2637-MB	EE052083.D 1		02/18/10	FI	n/a	n/a	GEE2637

The QC reported here applies to the following samples:

Method: SW846 8015

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.0	0.30	mg/kg	

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	105% 46-127%
98-08-8	aaa-Trifluorotoluene	103% 44-120%

Method Blank Summary

Page 1 of 1

Job Number: T47470
Account: CRATXHO Conestoga-Rovers & Associates
Project: GSHI - Oxy USA #11 MLMU

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEE2638-MB	EE052109.D	1	02/19/10	FI	n/a	n/a	GEE2638

The QC reported here applies to the following samples:

Method: SW846 8015

T47470-15

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.0	0.30	mg/kg	

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	98%
98-08-8	aaa-Trifluorotoluene	102%

Method Blank Summary

Page 1 of 1

Job Number: T47470
Account: CRATXHO Conestoga-Rovers & Associates
Project: GSHI - Oxy USA #11 MLMU

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1651-MB	KK034656.D 1		02/18/10	FI	n/a	n/a	GKK1651

The QC reported here applies to the following samples:

Method: SW846 8021B

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14, T47470-15

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	5.0	0.49	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	0.67	ug/kg	
108-88-3	Toluene	ND	5.0	0.65	ug/kg	
1330-20-7	Xylenes (total)	ND	10	1.7	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
460-00-4	4-Bromofluorobenzene	86%	21-163%
98-08-8	aaa-Trifluorotoluene	115%	39-170%

Blank Spike Summary

Page 1 of 1

Job Number: T47470

Account: CRATXHO Conestoga-Rovers & Associates

Project: GSHI - Oxy USA #11 MLMU

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEE2637-BS	EE052079.D	1	02/18/10	FI	n/a	n/a	GEE2637

The QC reported here applies to the following samples:

Method: SW846 8015

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.369	92	78-115

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	98%	46-127%
98-08-8	aaa-Trifluorotoluene	107%	44-120%

Blank Spike Summary

Page 1 of 1

Job Number: T47470

Account: CRATXHO Conestoga-Rovers & Associates

Project: GSHI - Oxy USA #11 MLMU

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEE2638-BS	EE052106.D	1	02/19/10	FI	n/a	n/a	GEE2638

The QC reported here applies to the following samples:

Method: SW846 8015

T47470-15

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	0.4	0.358	90	78-115

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	99%	46-127%
98-08-8	aaa-Trifluorotoluene	99%	44-120%

Blank Spike Summary

Page 1 of 1

Job Number: T47470

Account: CRATXHO Conestoga-Rovers & Associates

Project: GSHI - Oxy USA #11 MLMU

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK1651-BS	KK034653.D	1	02/18/10	FI	n/a	n/a	GKK1651

The QC reported here applies to the following samples:

Method: SW846 8021B

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14, T47470-15

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
71-43-2	Benzene	20	20.3	102	73-132
100-41-4	Ethylbenzene	20	19.2	96	70-133
108-88-3	Toluene	20	19.9	100	74-133
1330-20-7	Xylenes (total)	60	58.8	98	73-134

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	86%	21-163%
98-08-8	aaa-Trifluorotoluene	120%	39-170%

5.2.3

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Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T47470
Account: CRATXHO Conestoga-Rovers & Associates
Project: GSHI - Oxy USA #11 MLMU

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T47470-2MS	EE052090.D	1	02/19/10	FI	n/a	n/a	GEE2637
T47470-2MSD	EE052091.D	1	02/19/10	FI	n/a	n/a	GEE2637
T47470-2	EE052085.D	1	02/18/10	FI	n/a	n/a	GEE2637

The QC reported here applies to the following samples:

Method: SW846 8015

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14

CAS No.	Compound	T47470-2 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		22.3	20.8	93	20.1	90	3	78-115/14

CAS No.	Surrogate Recoveries	MS	MSD	T47470-2	Limits
460-00-4	4-Bromofluorobenzene	99%	98%	99%	46-127%
98-08-8	aaa-Trifluorotoluene	98%	106%	101%	44-120%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T47470
Account: CRATXHO Conestoga-Rovers & Associates
Project: GSHI - Oxy USA #11 MLMU

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T47470-15MS	EE052116.D	1	02/19/10	FI	n/a	n/a	GEE2638
T47470-15MSD	EE052117.D	1	02/19/10	FI	n/a	n/a	GEE2638
T47470-15	EE052110.D	1	02/19/10	FI	n/a	n/a	GEE2638

The QC reported here applies to the following samples:

Method: SW846 8015

T47470-15

CAS No.	Compound	T47470-15 mg/kg	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND	21	20.4	97	19.6	93	4	78-115/14

CAS No.	Surrogate Recoveries	MS	MSD	T47470-15	Limits
460-00-4	4-Bromofluorobenzene	105%	99%	98%	46-127%
98-08-8	aaa-Trifluorotoluene	100%	109%	102%	44-120%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T47470
Account: CRATXHO Conestoga-Rovers & Associates
Project: GSHI - Oxy USA #11 MLMU

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T47470-2MS	KK034663.D 1		02/18/10	FI	n/a	n/a	GKK1651
T47470-2MSD	KK034664.D 1		02/18/10	FI	n/a	n/a	GKK1651
T47470-2	KK034658.D 1		02/18/10	FI	n/a	n/a	GKK1651

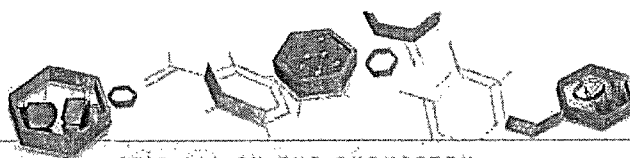
The QC reported here applies to the following samples:

Method: SW846 8021B

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14, T47470-15

CAS No.	Compound	T47470-2 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	0.60	J	21.1	18.7	86	18.0	83	4	41-129/33
100-41-4	Ethylbenzene	ND		21.1	18.3	87	17.3	82	6	15-139/36
108-88-3	Toluene	1.8	J	21.1	19.1	82	18.3	78	4	26-141/38
1330-20-7	Xylenes (total)	2.7	J	63.4	56.1	84	53.3	80	5	22-132/33

CAS No.	Surrogate Recoveries	MS	MSD	T47470-2	Limits
460-00-4	4-Bromofluorobenzene	89%	88%	87%	21-163%
98-08-8	aaa-Trifluorotoluene	121%	118%	122%	39-170%



IT'S ALL IN THE CHEMISTRY

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



Method Blank Summary

Page 1 of 1

Job Number: T47470
Account: CRATXHO Conestoga-Rovers & Associates
Project: GSHI - Oxy USA #11 MLMU

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14071-MB	IF195060.D	1	02/18/10	FO	02/15/10	OP14071	GIB955

The QC reported here applies to the following samples:

Method: SW846 8015 M

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	8.3	2.7	mg/kg	
	TPH (> C28-C35)	ND	8.3	2.2	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	63% 33-115%

Method Blank Summary

Page 1 of 1

Job Number: T47470

Account: CRATXHO Conestoga-Rovers & Associates

Project: GSHI - Oxy USA #11 MLMU

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14111-MB	IF195128.D	1	02/22/10	EM	02/19/10	OP14111	GIB957

The QC reported here applies to the following samples:

Method: SW846 8015 M

T47470-15

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	8.3	2.7	mg/kg	
	TPH (> C28-C35)	ND	8.3	2.2	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	70% 33-115%

6.1.2

6

Blank Spike Summary

Page 1 of 1

Job Number: T47470

Account: CRATXHO Conestoga-Rovers & Associates

Project: GSHI - Oxy USA #11 MLMU

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14071-BS	IF195061.D	1	02/18/10	FO	02/15/10	OP14071	GIF955

The QC reported here applies to the following samples:

Method: SW846 8015 M

T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH (C10-C28)	33	14.8	45	45-107

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	59%	33-115%

6.2.1

6

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: T47470

Account: CRATXHO Conestoga-Rovers & Associates

Project: GSHI - Oxy USA #11 MLMU

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14111-BS	IF195123.D	1	02/22/10	EM	02/19/10	OP14111	GIF957
OP14111-BSD	IF195124.D	1	02/22/10	EM	02/19/10	OP14111	GIB957

The QC reported here applies to the following samples:

Method: SW846 8015 M

T47470-15

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	BSD mg/kg	BSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	33.3	30.3	91	29.8	89	2	45-107/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
84-15-1	o-Terphenyl	69%	88%	33-115%

6.3.1



Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T47470
Account: CRATXHO Conestoga-Rovers & Associates
Project: GSHI - Oxy USA #11 MLMU

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP14071-MS	IF195062.D	1	02/18/10	FO	02/15/10	OP14071	GIB955
OP14071-MSD	IF195063.D	1	02/18/10	FO	02/15/10	OP14071	GIF955
T47470-2	IF195065.D	1	02/18/10	FO	02/15/10	OP14071	GIF955

The QC reported here applies to the following samples:

Method: SW846 8015 M

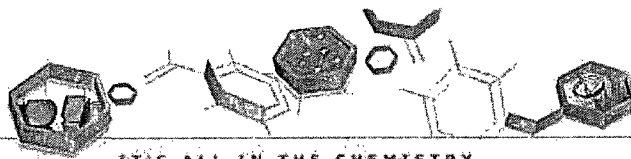
T47470-1, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14

CAS No.	Compound	T47470-2 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	7.47	J	35.3	26.8	55	34.2	76	24	45-107/34
	TPH (> C28-C35)	7.43	J				9.67	6*	35*	45-107/34

CAS No.	Surrogate Recoveries	MS	MSD	T47470-2	Limits
84-15-1	o-Terphenyl		0%*	65%	33-115%

6.4.1

6



IT'S ALL IN THE CHEMISTRY

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

7

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T47470
Account: CRATXHO - Conestoga-Rovers & Associates
Project: GSHI - Oxy USA #11 MLMU

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP8079/GN20997			mg/kg	50	51.6	103.2	90-110%
Chloride	GP8079/GN21020	2.5	0.0	mg/kg				

Associated Samples:

Batch GP8079: T47470-1, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14, T47470-15, T47470-2, T47470-3, T47470-4,
T47470-5, T47470-6, T47470-7, T47470-8, T47470-9

(*) Outside of QC limits

7.1
7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T47470
Account: CRATXHO - Conestoga-Rovers & Associates
Project: GSHI - Oxy USA #11 MLMU

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP8079/GN21020	T47470-1	mg/kg	3.4	3.3	3.0	0-20%
Solids, Percent	GN20797	T47402-4	%	79.6	79.6	0.0	0-5%
Solids, Percent	GN20801	T47470-11	%	95.7	95.7	0.0	0-5%

Associated Samples:

Batch GN20797: T47470-1, T47470-10, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9

Batch GN20801: T47470-11, T47470-12, T47470-13, T47470-14, T47470-15

Batch GP8079: T47470-1, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14, T47470-15, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9

(*) Outside of QC limits

7.2
7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T47470
Account: CRATXHO - Conestoga-Rovers & Associates
Project: GSHI - Oxy USA #11 MLMU

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP8079/GN21020	T47470-1	mg/kg	3.4	52.6	56.0	100.1	80-120%

Associated Samples:

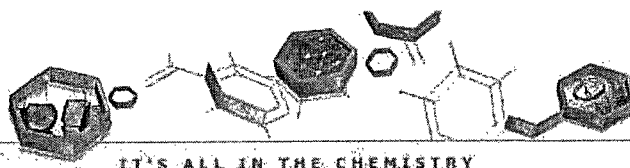
Batch GP8079: T47470-1, T47470-10, T47470-11, T47470-12, T47470-13, T47470-14, T47470-15, T47470-2, T47470-3, T47470-4, T47470-5, T47470-6, T47470-7, T47470-8, T47470-9

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

7.3

7



02/01/10

Technical Report for

Conestoga-Rovers & Associates

GSHI - Oxy Midcon Buffalo Federal #4

Accutest Job Number: T45815

Sampling Date: 01/13/10



Report to:

Conestoga Rovers & Associates
6320 Rothway Suite 100
Houston, TX 77040
plynch@craworld.com

ATTN: Pat Lynch

Total number of pages in report: 33



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Paul K Canevaro

Paul Canevaro
Laboratory Director

Client Service contact: Marianne Walker 713-271-4700

Certifications: TX (T104704220-06-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)
OK (9103) UT(7132714700)

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Test results relate only to samples analyzed.

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Sample Summary

Conestoga-Rovers & Associates

Job No: T45815

GSHI - Oxy Midcon Buffalo Federal #4

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
T45815-1	01/13/10	10:30 TL	01/16/10	SO	Soil	BF4A(0-6")011310
T45815-2	01/13/10	10:30 TL	01/16/10	SO	Soil	BF4A(2')011310
T45815-3	01/13/10	10:35 TL	01/16/10	SO	Soil	BF4B(0-6")011310
T45815-4	01/13/10	10:35 TL	01/16/10	SO	Soil	BF4B(2')011310
T45815-5	01/13/10	10:40 TL	01/16/10	SO	Soil	BF4C(0-6")011310
T45815-6	01/13/10	10:40 TL	01/16/10	SO	Soil	BF4C(2')011310
T45815-7	01/13/10	10:45 TL	01/16/10	SO	Soil	BF4D(0-6")011310
T45815-8	01/13/10	10:45 TL	01/16/10	SO	Soil	BF4D(2')011310
T45815-9	01/13/10	10:50 TL	01/16/10	SO	Soil	BF4E(0-6")011310
T45815-10	01/13/10	10:50 TL	01/16/10	SO	Soil	BF4E(2')011310
T45815-11	01/13/10	10:55 TL	01/16/10	SO	Soil	BF4F(0-6")011310
T45815-12	01/13/10	10:55 TL	01/16/10	SO	Soil	BF4F(2')011310
T45815-13	01/13/10	11:00 TL	01/16/10	SO	Soil	BF4G(0-6")011310

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



Sample Summary

(continued)

Conestoga-Rovers & Associates

Job No: T45815

GSHI - Oxy Midcon Buffalo Federal #4

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
T45815-14	01/13/10	11:00 TL	01/16/10	SO Soil	BF4G(2')011310
T45815-15	01/13/10	11:05 TL	01/16/10	SO Soil	BF4H(0-6")011310
T45815-16	01/13/10	11:10 TL	01/16/10	SO Soil	BF4I(0-6")011310
T45815-17	01/13/10	11:15 TL	01/16/10	SO Soil	BF4BG(200'W)011310

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

SAMPLE DELIVERY GROUP CASE NARRATIVE**Client:** Conestoga-Rovers & Associates**Job No** T45815**Site:** GSHI - Oxy Midcon Buffalo Federal #4**Report Date** 2/1/2010 11:11:26 AM

17 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were collected on 01/13/2010 and were received at Accutest on 01/16/2010 properly preserved, at 4 Deg. C and intact. These Samples received an Accutest job number of T45815. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Wet Chemistry By Method SM 2540 G

Matrix	SO	Batch ID:	GN20240
---------------	----	------------------	---------

- Sample(s) T45815-1DUP were used as the QC samples for Solids, Percent.

Wet Chemistry By Method SW846 9056

Matrix	SO	Batch ID:	GP7858
---------------	----	------------------	--------

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T45815-10DUP, T45815-10MS were used as the QC samples for Chloride.

Matrix	SO	Batch ID:	GP7859
---------------	----	------------------	--------

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T45815-17DUP, T45815-17MS were used as the QC samples for Chloride.

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used



Sample Results

Report of Analysis

Report of Analysis

Page 1 of 1

3.1

Client Sample ID: BF4A(0-6")011310

Lab Sample ID: T45815-1

Matrix: SO - Soil

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 94.7

Project: GSHI - Oxy Midcon Buffalo Federal #4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	< 2.6	2.6	mg/kg	1	01/25/10 21:18	TW	SW846 9056
Solids, Percent	94.7		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BF4A(2')011310

Lab Sample ID: T45815-2

Matrix: SO - Soil

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 96.8

Project: GSHI - Oxy Midcon Buffalo Federal #4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	< 2.6	2.6	mg/kg	1	01/25/10 21:37	TW	SW846 9056
Solids, Percent	96.8		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

RL = Reporting Limit



T45815

Laboratories

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Report of Analysis

Page 1 of 1

Client Sample ID: BF4B(0-6")011310

Lab Sample ID: T45815-3

Matrix: SO - Soil

Project: GSHI - Oxy Midcon Buffalo Federal #4

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 94.7

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	< 2.6	2.6	mg/kg	1	01/25/10 21:56	TW	SW846 9056
Solids, Percent	94.7		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX

RL = Reporting Limit

Report of Analysis

Page 1 of 1

3.4

Client Sample ID: BF4B(2')011310

Lab Sample ID: T45815-4

Matrix: SO - Soil

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 94.7

Project: GSHI - Oxy Midcon Buffalo Federal #4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	< 2.6	2.6	mg/kg	1	01/25/10 22:14	TW	SW846 9056
Solids, Percent	94.7		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX

RL = Reporting Limit

Report of Analysis

Page 1 of 1

3.5

Client Sample ID: BF4C(0-6")011310

Lab Sample ID: T45815-5

Matrix: SO - Soil

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 94.3

Project: GSHI - Oxy Midcon Buffalo Federal #4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	< 2.6	2.6	mg/kg	1	01/25/10 22:33	TW	SW846 9056
Solids, Percent	94.3		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BF4C(2')011310

Lab Sample ID: T45815-6

Matrix: SO - Soil

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 93.6

Project: GSHI - Oxy Midcon Buffalo Federal #4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	< 2.6	2.6	mg/kg	1	01/25/10 22:52	TW	SW846 9056
Solids, Percent	93.6		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

RL = Reporting Limit

Report of Analysis

Page 1 of 1

3.7

Client Sample ID: BF4D(0-6")011310

Lab Sample ID: T45815-7

Matrix: SO - Soil

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 96.1

Project: GSHI - Oxy Midcon Buffalo Federal #4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	< 2.6	2.6	mg/kg	1	01/26/10 01:21	TW	SW846 9056
Solids, Percent	96.1		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

RL = Reporting Limit

Report of Analysis

Page 1 of 1

3.8

Client Sample ID: BF4D(2')011310

Lab Sample ID: T45815-8

Matrix: SO - Soil

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 95.0

Project: GSHI - Oxy Midcon Buffalo Federal #4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	<2.6	2.6	mg/kg	1	01/26/10 01:02	TW	SW846 9056
Solids, Percent	95		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

RL = Reporting Limit

Report of Analysis

Page 1 of 1

3.9

Client Sample ID: BF4E(0-6")011310

Lab Sample ID: T45815-9

Matrix: SO - Soil

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 96.6

Project: GSHI - Oxy Midcon Buffalo Federal #4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	< 2.6	2.6	mg/kg	1	01/26/10 00:44	TW	SW846 9056
Solids, Percent	96.6		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

RL = Reporting Limit

Report of Analysis

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3.10

3

Client Sample ID: BF4E(2')011310

Lab Sample ID: T45815-10

Matrix: SO - Soil

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 95.8

Project: GSHI - Oxy Midcon Buffalo Federal #4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	< 2.6	2.6	mg/kg	1	01/25/10 23:48	TW	SW846 9056
Solids, Percent	95.8		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

RL = Reporting Limit

Report of Analysis

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3.11

3

Client Sample ID: BF4F(0-6")011310

Lab Sample ID: T45815-11

Matrix: SO - Soil

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 96.9

Project: GSHI - Oxy Midcon Buffalo Federal #4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	<2.5	2.5	mg/kg	1	01/26/10 01:40	TW	SW846 9056
Solids, Percent	96.9		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

RL = Reporting Limit

Report of Analysis

Page 1 of 1

3.12



Client Sample ID: BF4F(2')011310

Lab Sample ID: T45815-12

Matrix: SO - Soil

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 94.6

Project: GSHI - Oxy Midcon Buffalo Federal #4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	< 2.6	2.6	mg/kg	1	01/26/10 01:58	TW	SW846 9056
Solids, Percent	94.6		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

RL = Reporting Limit

Report of Analysis

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3.13



Client Sample ID: BF4G(0-6")011310

Lab Sample ID: T45815-13

Matrix: SO - Soil

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 94.5

Project: GSHI - Oxy Midcon Buffalo Federal #4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	< 2.6	2.6	mg/kg	1	01/26/10 02:17	TW	SW846 9056
Solids, Percent	94.5		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

RL = Reporting Limit

Report of Analysis

Client Sample ID: BF4G(2')011310	Date Sampled: 01/13/10
Lab Sample ID: T45815-14	Date Received: 01/16/10
Matrix: SO - Soil	Percent Solids: 95.9
Project: GSHI - Oxy Midcon Buffalo Federal #4	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	3.9	2.6	mg/kg	1	01/26/10 02:36	TW	SW846 9056
Solids, Percent	95.9		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX

RL = Reporting Limit

Report of Analysis

Page 1 of 1

Client Sample ID: BF4H(0-6")011310

Lab Sample ID: T45815-15

Matrix: SO - Soil

Project: GSHI - Oxy Midcon Buffalo Federal #4

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 92.7

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	< 2.6	2.6	mg/kg	1	01/26/10 04:46	TW	SW846 9056
Solids, Percent	92.7		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

RL = Reporting Limit

Report of Analysis

Client Sample ID: BF4I(0-6")011310	Date Sampled: 01/13/10
Lab Sample ID: T45815-16	Date Received: 01/16/10
Matrix: SO - Soil	Percent Solids: 94.4
Project: GSHI - Oxy Midcon Buffalo Federal #4	

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	< 2.6	2.6	mg/kg	1	01/26/10 04:28	TW	SW846 9056
Solids, Percent	94.4		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

RL = Reporting Limit

Report of Analysis

Page 1 of 1

3.17



Client Sample ID: BF4BG(200'W)011310

Lab Sample ID: T45815-17

Matrix: SO - Soil

Date Sampled: 01/13/10

Date Received: 01/16/10

Percent Solids: 94.3

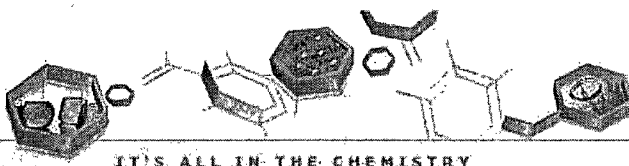
Project: GSHI - Oxy Midcon Buffalo Federal #4

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride ^a	4.6	2.6	mg/kg	1	01/26/10 03:32	TW	SW846 9056
Solids, Percent	94.3		%	1	01/19/10	AA	SM 2540 G

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T1047O4237-09-TX

RL = Reporting Limit



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



CHAIN OF CUSTODY

PAGE 1 OF 2

10165 Harwin Dr, Ste 150 Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.accutest.comFED EX Tracking #
Accutest Quote #
Matrix Order Control #
Accutest Job # T45 B15

Client / Reporting Information		Project Information		Requested Analyses												Matrix Codes																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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Field ID / Point of Collection		Date		Time		Sampled By		Matrix		# of bottles		HCl		NO₃-N		Zn		As		Pb		Cr		Fe		Mn		Co		Ni		Mo		Cd		Se		Ag		Cu		Al		S		B		I		Ca		Mg		K		Na		Cl		F		Br		J		Li		Rb		Sr		Zr		Hf		Ta		Nb		Sn		Bi		Pt		Au		Th		U		Pa		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am		Cm		Bk		Cf		Es		Fm		Md		No		Lr		Y		Sc		Ti		V		Cr		Mn		Fe		Co		Ni		Cu		Zn		Ga		Ge		As		Se		Br		Kr		Xe		Rn		Ac		Th		Pa		U		Np		Pu		Am			

10165 Harwin Dr, Ste 150 Houston, TX 77036
TEL: 713-271-4700 FAX: 713-271-4770
www.aacutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # T45815

Client / Reporting Information				Project Information				Requested Analyses												Matrix Codes	
Company Name Conestoga Rovers & Associates				Project Name: GSHI - OXY Midcon Buffalo Federal #4																	DW - Drinking Water GW - Ground Water WW - Wastewater SW - Surface Water SO - Soil SL - Sludge SED - Sediment LIQ - Other Liquids AIR - Air SOL - Other Solids WP - Wipes FB-Field Blank
Street Address				Billing Information (If different from Report to)																	
6320 Rothway, Suite 100				City State Zip																	
Houston TX 77040				Lea County NM																	
Pat Lynch				Project # 158460																	
Phone #				Client Purchase Order #																	
713-734-3090				2055 Niagara Falls Blvd, Suite 3																	
Sampler(s) Name(s)				Attention:																	
Tom Larsen 4326860086				Jen Devonshire																	
Turnaround Time (Business days)				Data Deliverable Information				Comments / Special Instructions													
<input checked="" type="checkbox"/> Standard <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 4 Day RUSH <input type="checkbox"/> 3 Day RUSH <input type="checkbox"/> 2 Day RUSH <input type="checkbox"/> 1 Day EMERGENCY Emergency & Rush T/A data available VIA Laptop				Approved By (Accutest PM): / Date: <input type="checkbox"/> Commercial "A" (Level 1) <input checked="" type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT (Level 3+4) <input type="checkbox"/> REDT1 (Level 3+4) <input type="checkbox"/> Commercial "C" Commercial "A" = Results Only Commercial "B" = Results + QC Summary Commercial "C" = Results + QC & Surrogate Summary				<input type="checkbox"/> TRRP <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____													
Sample Custody must be documented below each time samples change possession, including courier delivery.																					
Relinquished by Sampler: 1 [Signature] Date Time: 01/15/10 10:15 Received By: 1 [Signature]				Relinquished by Sampler: 3 Date Time: Received By: 3				Relinquished by: [Signature] Date Time: 01/15/10 10:45 Received By: 2				Relinquished by: 4 [Signature] Date Time: 01/16/10 10:00 Received By: 4									
Emergency & Rush T/A data available VIA Laptop				Custody Seal # <input type="checkbox"/> Intact <input type="checkbox"/> Not intact				Preserved where applicable <input type="checkbox"/> On Ice <input type="checkbox"/> Cooler Temp.				On Ice 440									

4.1

T45815: Chain of Custody

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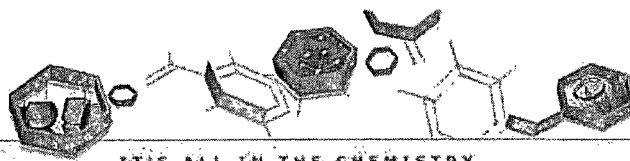
SAMPLE RECEIPT LOG

JOB #: T45815 DATE/TIME RECEIVED: 1/16/10 1000
 CLIENT: CRA INITIALS: FF

COOLER#	SAMPLE ID	FIELD ID	DATE	MATRIX	VOL	BOTTLE #	LOCATION	PRESERV	PH
1	1	BF4 A (0-6") 01100	01-13-10 1030	5	402	1	2-57	2 3 4 5 6 7 8	<2 >12
	2	" (2') "	" "	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	3	BF4 B (0-6") "	" 1035	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	4	" (2') "	" "	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	5	BF4 C (0-6") "	" 1040	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	6	" (2') "	" "	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	7	BF4 D (0-6") "	" 1045	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	8	" (2') "	" "	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	9	BF4 E (0-6") "	" 1050	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	10	" (2') "	" "	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	11	BF4 F (0-6") "	" 1055	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	12	" (2') "	" "	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	13	BF4 G (0-6") "	" 1100	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	14	" (2') "	" "	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	15	BF4 H (0-6") "	" 1105	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	16	BF4 I (0-6") "	" 1110	"	"	1	"	2 3 4 5 6 7 8	<2 >12
	17	BF4 BG (20') W "	" 1115	"	"	1	"	2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12
								1 2 3 4 5 6 7 8	<2 >12

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: DI 7: MeOH 8: Other
 LOCATION: 1: Walk-In #1 (Waters) 2: Walk-In #2 (Soils) VR: Volatile Fridge M: Metals SUB: Subcontract EF: Encore Freezer
 Rev 8/13/01 ewp

T45815: Chain of Custody
 Page 4 of 4



General Chemistry



QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T45815
Account: CRATXHO - Conestoga-Rovers & Associates
Project: GSHI - Oxy Midcon Buffalo Federal #4

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP7858/GN20506	2.5	0.0 (a)	mg/kg	50	50.7	101.4 (a)	90-110%

Associated Samples:

Batch GP7858: T45815-1, T45815-10, T45815-11, T45815-12, T45815-13, T45815-14, T45815-15, T45815-16, T45815-17, T45815-2, T45815-3, T45815-4, T45815-5, T45815-6, T45815-7, T45815-8, T45815-9

(*) Outside of QC limits

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX

5.1
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BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T45815
Account: CRATXHO - Conestoga-Rovers & Associates
Project: GSHI - Oxy Midcon Buffalo Federal #4

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Chloride	GP7858/GN20506	mg/kg	50	50.6 (a)	0.2 (a)	

Associated Samples:

Batch GP7858: T45815-1, T45815-10, T45815-11, T45815-12, T45815-13, T45815-14, T45815-15, T45815-16, T45815-17, T45815-2, T45815-3, T45815-4, T45815-5, T45815-6, T45815-7, T45815-8, T45815-9

(*) Outside of QC limits

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX

5.2

5

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T45815
Account: CRATXHO - Conestoga-Rovers & Associates
Project: GSHI - Oxy Midcon Buffalo Federal #4

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Chloride	GP7858/GN20506	T45815-10	mg/kg	0.0	0.0 (a)	0.0 (a)	0-20%
Chloride	GP7858/GN20506	T45815-17	mg/kg	4.6	3.8 (a)	19.0 (a)	0-20%
Solids, Percent	GN20240	T45815-1	%	94.7	94.7	0.0	0-5%

Associated Samples:

Batch GN20240: T45815-1, T45815-10, T45815-11, T45815-12, T45815-13, T45815-14, T45815-15, T45815-16, T45815-17, T45815-2, T45815-3, T45815-4, T45815-5, T45815-6, T45815-7, T45815-8, T45815-9

Batch GP7858: T45815-1, T45815-10, T45815-11, T45815-12, T45815-13, T45815-14, T45815-15, T45815-16, T45815-17, T45815-2, T45815-3, T45815-4, T45815-5, T45815-6, T45815-7, T45815-8, T45815-9

(*) Outside of QC limits

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: T45815
Account: CRATXHO - Conestoga-Rovers & Associates
Project: GSHI - Oxy Midcon Buffalo Federal #4

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP7858/GN20506	T45815-10	mg/kg	0.0	25.6	26.3 (a)	102.6 (a)	80-120%
Chloride	GP7858/GN20506	T45815-17	mg/kg	4.6	26	29.4 (a)	95.2 (a)	80-120%

Associated Samples:

Batch GP7858: T45815-1, T45815-10, T45815-11, T45815-12, T45815-13, T45815-14, T45815-15, T45815-16, T45815-17, T45815-2, T45815-3, T45815-4, T45815-5, T45815-6, T45815-7, T45815-8, T45815-9

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(a) Analysis performed by Southwest Environmental Laboratories, Inc. Certification #T104704237-09-TX