

# Closure Report

FEB 27 2009

Prepared for

**Oxy USA**  
P O Box 1988  
Carlsbad, NM 88210

**Cypress 33 Federal #1**  
**API # 30-015-36321**  
**Eddy County, NM**

Prepared by

***Elke Environmental, Inc.***

P.O. Box 14167 Odessa, TX 79768  
Phone (432) 366-0043 Fax (432) 366-0884

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  
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

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 <i>W696</i>	Contact – Kelton Beard	
Address – P O Box 1988 Carlsbad, NM 88221	Telephone No. – 575-887-8337	
Facility Name – Cypress 33 Fed #1H	Facility Type – Drilling Pit	
Surface Owner – Federal	Mineral Owner – Federal	Lease No.

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	33	23S	29E					Eddy

Latitude 32° 15.333' N Longitude 103° 58.948' W

**NATURE OF RELEASE**

Type of Release – Drilling Fluids	Volume of Release – N/A	Volume Recovered – N/A
Source of Release – Drilling Pit	Date and Hour of Occurrence NA	Date and Hour of Discovery 1-8-09
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.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* Drilling pit leaked into underlying soil.

Describe Area Affected and Cleanup Action Taken.\* Pit bottoms were tested and delineated to the standards in the pit closure plan. Confirmation samples were sent to a third party lab. All chloride impacted soil above 1,000 ppm was excavated and hauled to CRI Disposal. The site was backfilled and seeded per the original pit closure plan.

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: <i>Kelton Beard</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Kelton Beard	Approved by District Supervisor:	
Title: HES Specialist	Approval Date:	Expiration Date:
E-mail Address: kelton_beard@oxy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Phone: <i>2-24-09</i> 575-887-8337		

\* Attach Additional Sheets If Necessary

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1625 N. French Dr., Hobbs, NM 88240  
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State of New Mexico  
Energy Minerals and Natural Resources  
Department  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-144  
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.  
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

**Pit, Closed-Loop System, Below-Grade Tank, or  
Proposed Alternative Method Permit or Closure Plan Application**

- Type of action:  Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method  
 Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method  
 Modification to an existing permit  
 Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

**Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request**

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1.  
Operator: OXY USA OGRID #: 192463  
Address: P O Box 1988 Carlsbad, NM 88221-1988  
Facility or well name: Cypress 33 Federal #1  
API Number: 30-015-36321 OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr P Section 33 Township 23S Range 29E County: Eddy  
Center of Proposed Design: Latitude 32° 15.355' N Longitude 103° 58.921' W NAD:  1927  1983  
Surface Owner:  Federal  State  Private  Tribal Trust or Indian Allotment

**Pit:** Subsection F or G of 19.15.17.11 NMAC  
Temporary:  Drilling  Workover  
 Permanent  Emergency  Cavitation  P&A  
 Lined  Unlined Liner type: Thickness 12 mil  LLDPE  HDPE  PVC  Other \_\_\_\_\_  
 String-Reinforced  
Liner Seams:  Welded  Factory  Other \_\_\_\_\_ Volume: 20000 bbl Dimensions: L 150' x W 150' x D 8'

3.  
 **Closed-loop System:** Subsection H of 19.15.17.11 NMAC  
Type of Operation:  P&A  Drilling a new well  Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)  
 Drying Pad  Above Ground Steel Tanks  Haul-off Bins  Other \_\_\_\_\_  
 Lined  Unlined Liner type: Thickness \_\_\_\_\_ mil  LLDPE  HDPE  PVC  Other \_\_\_\_\_  
Liner Seams:  Welded  Factory  Other \_\_\_\_\_

4.  
 **Below-grade tank:** Subsection I of 19.15.17.11 NMAC  
Volume: \_\_\_\_\_ bbl Type of fluid: \_\_\_\_\_  
Tank Construction material: \_\_\_\_\_  
 Secondary containment with leak detection  Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off  
 Visible sidewalls and liner  Visible sidewalls only  Other \_\_\_\_\_  
Liner type: Thickness \_\_\_\_\_ mil  HDPE  PVC  Other \_\_\_\_\_

5.  
 **Alternative Method:**  
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6.

**Fencing:** Subsection D of 19.15.17.11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)

- Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)
- Four foot height, four strands of barbed wire evenly spaced between one and four feet
- Alternate. Please specify \_\_\_\_\_

7.

**Netting:** Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)

- Screen  Netting  Other \_\_\_\_\_
- Monthly inspections (If netting or screening is not physically feasible)

8.

**Signs:** Subsection C of 19.15.17.11 NMAC

- 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- Signed in compliance with 19.15.3.103 NMAC

9.

**Administrative Approvals and Exceptions:**

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

**Please check a box if one or more of the following is requested, if not leave blank:**

- Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.
- Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10.

**Siting Criteria (regarding permitting):** 19.15.17.10 NMAC

**Instructions:** *The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or below-grade tanks associated with a closed-loop system.*

- |  |   |
|--|---|
| <p>Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.</p> <ul style="list-style-type: none"> <li>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</li> </ul>   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| <p>Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).</p> <ul style="list-style-type: none"> <li>- Topographic map; Visual inspection (certification) of the proposed site</li> </ul>   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| <p>Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (<i>Applies to temporary, emergency, or cavitation pits and below-grade tanks</i>)</p> <ul style="list-style-type: none"> <li>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| <p>Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (<i>Applies to permanent pits</i>)</p> <ul style="list-style-type: none"> <li>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</li> </ul>   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| <p>Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.</p> <ul style="list-style-type: none"> <li>- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</li> </ul> | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| <p>Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.</p> <ul style="list-style-type: none"> <li>- Written confirmation or verification from the municipality; Written approval obtained from the municipality</li> </ul>  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| <p>Within 500 feet of a wetland.</p> <ul style="list-style-type: none"> <li>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</li> </ul>  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| <p>Within the area overlying a subsurface mine.</p> <ul style="list-style-type: none"> <li>- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</li> </ul>  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| <p>Within an unstable area.</p> <ul style="list-style-type: none"> <li>- Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| <p>Within a 100-year floodplain.</p> <ul style="list-style-type: none"> <li>- FEMA map</li> </ul>  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |

11.

**Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC  
*Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.*

- Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
- Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_ or Permit Number: \_\_\_\_\_

12.

**Closed-loop Systems Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC  
*Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.*

- Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
- Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_
- Previously Approved Operating and Maintenance Plan API Number: \_\_\_\_\_ *(Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)*

13.

**Permanent Pits Permit Application Checklist:** Subsection B of 19.15.17.9 NMAC  
*Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.*

- Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- Climatological Factors Assessment
- Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- Quality Control/Quality Assurance Construction and Installation Plan
- Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan
- Emergency Response Plan
- Oil Field Waste Stream Characterization
- Monitoring and Inspection Plan
- Erosion Control Plan
- Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.

**Proposed Closure:** 19.15.17.13 NMAC  
*Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.*

- Type:  Drilling  Workover  Emergency  Cavitation  P&A  Permanent Pit  Below-grade Tank  Closed-loop System  
 Alternative
- Proposed Closure Method:  Waste Excavation and Removal  
 Waste Removal (Closed-loop systems only)  
 On-site Closure Method (Only for temporary pits and closed-loop systems)  
 In-place Burial  On-site Trench Burial  
 Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15.

**Waste Excavation and Removal Closure Plan Checklist:** (19.15.17.13 NMAC) *Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.*

- Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
- Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

16.

**Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:** (19.15.17.13.D NMAC)

**Instructions:** Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_  
Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?  
 Yes (If yes, please provide the information below)  No

Required for impacted areas which will not be used for future service and operations:

- Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17.

**Siting Criteria (regarding on-site closure methods only):** 19.15.17.10 NMAC

**Instructions:** Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

- |   |   |
|---|---|
| Ground water is less than 50 feet below the bottom of the buried waste.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Ground water is between 50 and 100 feet below the bottom of the buried waste<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Ground water is more than 100 feet below the bottom of the buried waste.<br>- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).<br>- Topographic map; Visual inspection (certification) of the proposed site  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.<br>- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image  | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.<br>- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.<br>- Written confirmation or verification from the municipality; Written approval obtained from the municipality   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within 500 feet of a wetland.<br>- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within the area overlying a subsurface mine.<br>- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within an unstable area.<br>- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| Within a 100-year floodplain.<br>- FEMA map   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |

18.

**On-Site Closure Plan Checklist:** (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC
- Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
- Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
- Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
- Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
- Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
- Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
- Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.

**Operator Application Certification:**

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): \_\_\_\_\_ Title: \_\_\_\_\_  
Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
e-mail address: \_\_\_\_\_ Telephone: \_\_\_\_\_

20.

**OCD Approval:**  Permit Application (including closure plan)  Closure Plan (only)  OCD Conditions (see attachment)

**OCD Representative Signature:** \_\_\_\_\_ **Approval Date:** \_\_\_\_\_  
**Title:** \_\_\_\_\_ **OCD Permit Number:** \_\_\_\_\_

21.

**Closure Report (required within 60 days of closure completion):** Subsection K of 19.15.17.13 NMAC  
*Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.*

Closure Completion Date: 2-17-2009

22.

**Closure Method:**

Waste Excavation and Removal  On-Site Closure Method  Alternative Closure Method  Waste Removal (Closed-loop systems only)  
 If different from approved plan, please explain.

23.

**Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:**  
*Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.*

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_  
Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?  
 Yes (If yes, please demonstrate compliance to the items below)  No

Required for impacted areas which will not be used for future service and operations:

- Site Reclamation (Photo Documentation)
- Soil Backfilling and Cover Installation
- Re-vegetation Application Rates and Seeding Technique

24.

**Closure Report Attachment Checklist:** *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- Proof of Closure Notice (surface owner and division)
- Proof of Deed Notice (required for on-site closure)
- Plot Plan (for on-site closures and temporary pits)
- Confirmation Sampling Analytical Results (if applicable)
- Waste Material Sampling Analytical Results (required for on-site closure)
- Disposal Facility Name and Permit Number
- Soil Backfilling and Cover Installation
- Re-vegetation Application Rates and Seeding Technique
- Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ NAD:  1927  1983

25.

**Operator Closure Certification:**

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Kelton Beard Title: HES Specialist  
Signature: \_\_\_\_\_ Date: 2-24-09  
e-mail address: kelton\_beaird@oxy.com Telephone: 575-887-8337

# *Elke Environmental, Inc.*

P.O. Box 14167 Odessa, TX 79768  
Phone (432) 366-0043 Fax (432) 366-0884

February 20, 2009

NMOCD  
Attn: Mike Bratcher  
1301 W. Grand Ave  
Artesia, NM 88210

Re: Closure Report for OXY USA – Cypress 33 Federal #1

Mr. Bratcher,

The drilling pit at the Oxy USA – Cypress 33 Fed #1 was completed using the waste excavation and removal process. All excess fluids were removed and disposed at a division-approved facility. The drilling mud and liner was excavated and hauled to Controlled Recovery Inc. (Permit # R9166). After all drilling mud and liner had been removed, the pit bottoms were sampled in five points and field screened for Chlorides, TPH and BTEX. The levels were above NMOCD Standards for the pit closure plan. The site was delineated to below the standard. Lab confirmation samples were analyzed for TPH 418.1, total BTEX, Benzene, Chlorides and the DRO and GRO combined fractions. A borehole was drilled at a nearby well per Mike Bratcher, where another pit closure was taking place. The borehole showed groundwater to be 96' deep. The ranking criteria was changed for the site. A C-141 was submitted to show proof of the new ranking criteria and a proposed closure plan for the impacted soil below the pit.

The plan to excavate and haul all chlorides above 1,000 ppm chloride was approved. All impacted soil above 1,000 ppm chloride was excavated and hauled to Controlled Recovery Inc. The pit was backfilled with clean native soil as per the pit closure backfill plan. The site was reseeded with BLM Seed Mixture #3. Attached are the plat map, field analytical, lab confirmations, approved plan for the impacted soil below the pit, disposal tickets, pictures of the project and a Final C-141 and Final C-144. If you have any questions about the enclosed report please contact me.

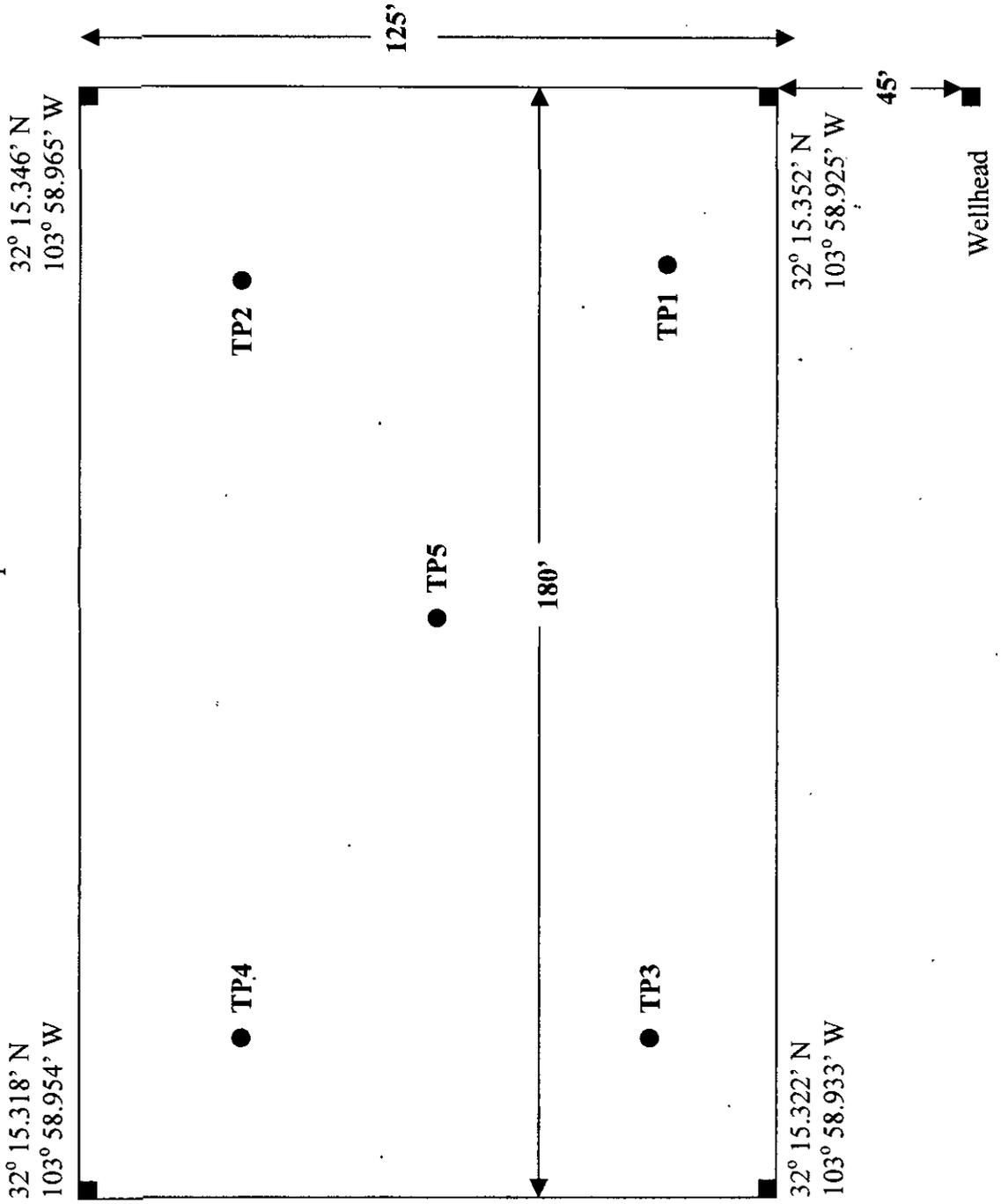
Thanks,

Logan Anderson



**OXY USA – Cypress 33 Federal #1H**  
UL 'p' Sec.33 T23S R29E Eddy County

Initial Plat Map



# Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

## Field Analytical Report Form

Client Oxy USA

Analyst Jason Jessup

Site Cypress 33 Federal #1H

Sample ID	Date	Depth	TPH / PPM	CI / PPM	PID / PPM	GPS
TP1	1-7-09	8'		365		32° 15.348' N 103° 58.941' W
TP2	1-7-09	8'		406		32° 15.345' N 103° 58.960' W
TP3	1-7-09	8'		2,900		32° 15.324' N 103° 58.939' W
TP3	1-7-09	10'		1,323		32° 15.324' N 103° 58.939' W
TP3	1-7-09	12'		1,474		32° 15.324' N 103° 58.939' W
TP3	1-8-09	14'		1,676		32° 15.324' N 103° 58.939' W
TP3	1-8-09	16'		3,748		32° 15.324' N 103° 58.939' W
TP3	1-8-09	18'		801		32° 15.324' N 103° 58.939' W
TP3	1-9-09	20'		1,913		32° 15.324' N 103° 58.939' W
TP3	1-9-09	22'		1,453		32° 15.324' N 103° 58.939' W
TP3	1-9-09	24'		1,035		32° 15.324' N 103° 58.939' W
TP3	1-9-09	26'		441		32° 15.324' N 103° 58.939' W
TP4	1-7-09	8'		4,558		32° 15.321' N 103° 58.952' W
TP4	1-7-09	10'		2,168		32° 15.321' N 103° 58.952' W
TP4	1-7-09	12'		878		32° 15.321' N 103° 58.952' W
TP4	1-9-09	14'		411		32° 15.321' N 103° 58.952' W
TP5	1-7-09	8'		13,646		32° 15.333' N 103° 58.948' W

Analyst Notes \_\_\_\_\_

# Elke Environmental, Inc.

P.O. Box 14167 Odessa, TX 79768

## Field Analytical Report Form

Client Oxy USA. Analyst Jason Jessup

Site Cypress 33 Federal #1H

Sample ID	Date	Depth	TPH / PPM	CI / PPM	PID / PPM	GPS
TP5	1-7-09	10'		16,135		32° 15.333' N 103° 58.948' W
TP5	1-7-09	12'		21,080		32° 15.333' N 103° 58.948' W
TP5	1-8-09	14'		937		32° 15.333' N 103° 58.948' W
TP5	1-9-09	16'		822		32° 15.333' N 103° 58.948' W
TP5	1-9-09	18'		1,699		32° 15.333' N 103° 58.948' W
TP5	1-9-09	20'		1,483		32° 15.333' N 103° 58.948' W
TP5	1-9-09	22'		2,415		32° 15.333' N 103° 58.948' W
TP5	1-9-09	24'		2,667		32° 15.333' N 103° 58.948' W
TP5	1-9-09	26'		483		32° 15.333' N 103° 58.948' W
Background	1-9-09	Surface		241		
Background	1-9-09	15'		293		
Background	1-9-09	20'		448		

Analyst Notes \_\_\_\_\_



# WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

[www.ose.state.nm.us](http://www.ose.state.nm.us)

1. GENERAL AND WELL LOCATION	POD NUMBER (WELL NUMBER) <b>GOODNIGHT 27 FEDERAL #2H SB-1</b>				ONE FILE NUMBER(S)					
	WELL OWNER NAME(S) <b>OXY USA</b>				PHONE (OPTIONAL)					
	WELL OWNER MAILING ADDRESS <b>PO BOX 1988</b>				CITY <b>CARLSBAD</b>	STATE <b>NM</b>	ZIP <b>88221</b>			
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE <b>32</b>	MINUTES <b>16</b>	SECONDS <b>41.00 N</b>	* ACCURACY REQUIRED - ONE TENTH OF A SECOND					
		LONGITUDE <b>103</b>	<b>58</b>	<b>39.00 W</b>	* DATUM REQUIRED WGS 84					
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS <b>UL "L", EDDY COUNTY, NEW MEXICO</b>										
2. OPTIONAL	(2.5 ACRE) <b>1/4</b>	(10 ACRE) <b>1/4</b>	(40 ACRE) <b>1/4</b>	(160 ACRE) <b>1/4</b>	SECTION <b>27</b>	TOWNSHIP <b>235</b>	<input type="checkbox"/> NORTH <input type="checkbox"/> NORTH <input type="checkbox"/> WEST	RANGE <b>29</b>	<input checked="" type="checkbox"/> EAST <input type="checkbox"/> WEST	
	SUBDIVISION NAME				LOT NUMBER	BLOCK NUMBER	UNIT/TRACT			
	HYDROGRAPHIC SURVEY				MAP NUMBER		TRACT NUMBER			
3. DRILLING INFORMATION	LICENSE NUMBER	NAME OF LICENSED DRILLER <b>EDWARD BRYAN</b>			NAME OF WELL DRILLING COMPANY <b>STRAUB CORPORATION</b>					
	DRILLING STARTED <b>1/8/09</b>	DRILLING ENDED <b>1/8/09</b>	DEPTH OF COMPLETED WELL (FT)		BORE HOLE DEPTH (FT) <b>98</b>	DEPTH WATER FIRST ENCOUNTERED (FT) <b>87</b>				
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT)				
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD <input type="checkbox"/> ADDITIVES - SPECIFY									
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY									
	DEPTH (FT)		BORE HOLE DIA. (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)		
	FROM	TO								
	<b>0</b>	<b>98</b>	<b>6"</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>		
4. WATER BEARING STRATA	DEPTH (FT)		THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)				YIELD (GPM)		
	FROM	TO								
	<b>87</b>	<b>90</b>	<b>3</b>	<b>RED SILTY SAND/SILTY CLAY/GRAY CLAY</b>						
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA						TOTAL ESTIMATED WELL YIELD (GPM)				

FOR OSE INTERNAL USE

WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION	PAGE 1 OF 2	

5. SEAL AND PUMP	TYPE OF PUMP: <input type="checkbox"/> SUBMERSIBLE <input type="checkbox"/> JET <input type="checkbox"/> NO PUMP - WELL NOT EQUIPPED <input type="checkbox"/> TURBINE <input type="checkbox"/> CYLINDER <input type="checkbox"/> OTHER - SPECIFY:						
	ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT) -		BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
		FROM	TO				

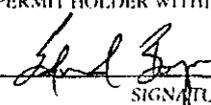
6. GEOLOGIC LOG OF WELL	DEPTH (FT)		THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?	
	FROM	TO			<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	0	4	4	TAN FINE SAND/CALICHE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	4	37	33	TAN FINE SAND/SANDSTONE/CALICHE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	37	39	2	TAN SILTY SAND WITH CLAY	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	39	43	4	RED SILTY CLAY	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	43	46	3	TAN FINE VERY FINE SAND/SANDSTONE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	46	58	12	TAN SILTY SAND/CALICHE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	58	64	6	RED SANDY CLAY	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	64	90	26	RED SILTY SAND/SILTY CLAY/GRAY CLAY	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	90	98	8	GRAY SANDY CLAY	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO

ATTACH ADDITIONAL PAGES AS NEEDED TO FULLY DESCRIBE THE GEOLOGIC LOG OF THE WELL

7. TEST & ADDITIONAL INFO	WELL TEST	METHOD: <input type="checkbox"/> BAILER <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> OTHER - SPECIFY:
	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.	
	ADDITIONAL STATEMENTS OR EXPLANATIONS: SOIL BORING ONLY. PLUGGED WITH PELLETIZED BENTONITE UPON COMPLETION OF SAMPLING.	

8. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING.	
	 _____ SIGNATURE OF DRILLER	1/12/09 _____ DATE

FOR USE INTERNAL USE

WELL RECORD &amp; LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER	
LOCATION			PAGE 2 OF 2

**RE: Oxy - Cypress 33 #1H**

Wednesday, January 21, 2009 2:30 PM

**From:** "Bratcher, Mike, EMNRD" <mike.bratcher@state.nm.us>**To:** "Logan Anderson" <la\_elkeenv@yahoo.com>**Cc:** "Kelton Beard" <Kelton\_Beard@oxy.com>

Re: Oxy Cypress 33 #1H 30-015-36321 P-33-23s-29e Eddy County, New Mexico

The proposal for remediation of impacted soils, discovered in the drilling pit bottom at the above referenced location, by removing impacted materials with chloride levels exceeding 1000 mg/kg is approved. As indicated, impacted material will be disposed of at a NMOCD approved disposal facility.

Conditions of Approval are as follows:

- Notify OCD District 2 office 48 hours prior to commencement of operations.
- Notify OCD District 2 office 48 hours prior to obtaining samples where analyses of samples obtained are to be submitted to OCD.
- Submittal of final closure documentation per 19.15.17 [NMAC].

Be advised that this approval does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, this approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

Pit closure is to be completed not later than February 21, 2009.

Sincerely,

Mike Bratcher  
NMOCD District 2  
1301 W. Grand Ave.  
Artesia, NM 88210  
575-748-1283 Ext.108

---

**From:** Logan Anderson [mailto:la\_elkeenv@yahoo.com]  
**Sent:** Wednesday, January 21, 2009 10:13 AM  
**To:** Bratcher, Mike, EMNRD  
**Cc:** Kelton Beard  
**Subject:** Oxy - Cypress 33 #1H

Mike,

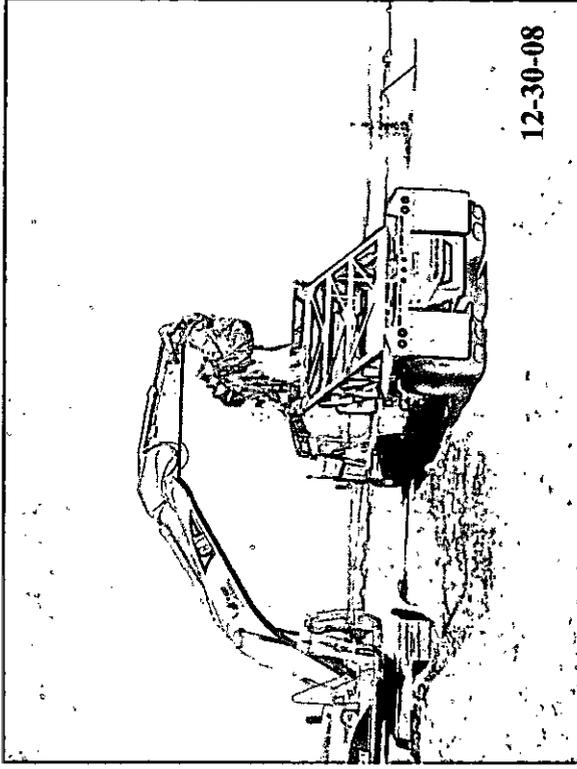
Attached is the remediation plan for the Cypress 33 #1H. The remediation is for the impacted soil underlying the drilling pit. Lab confirmations have been attached.

Thanks,  
Logan Anderson

Oxy USA - Cypress 33 Fed #1



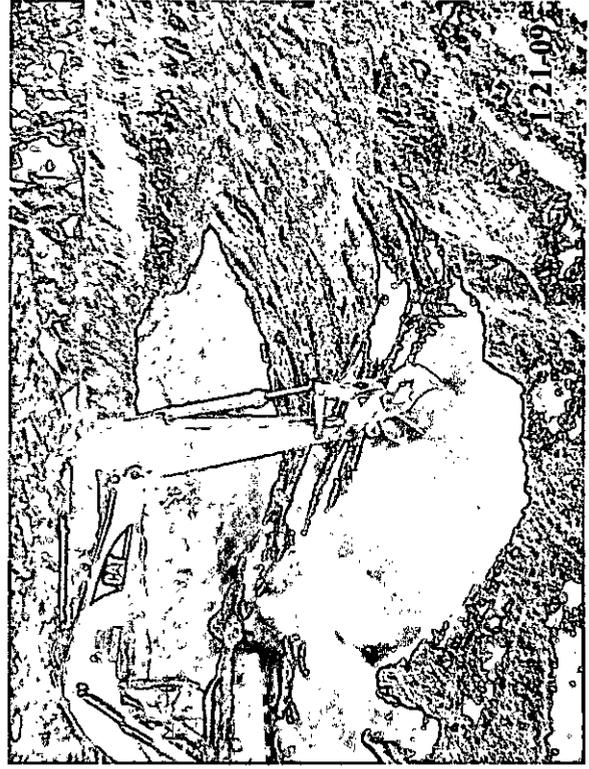
Pit before closure activities.



Loading mud and liner on truck for CRI Disposal.



Trackhoe delineating impacted soil underlying pit.



Excavation of impacted soil underlying the pit.

Oxy USA - Cypress 33 Fed #1



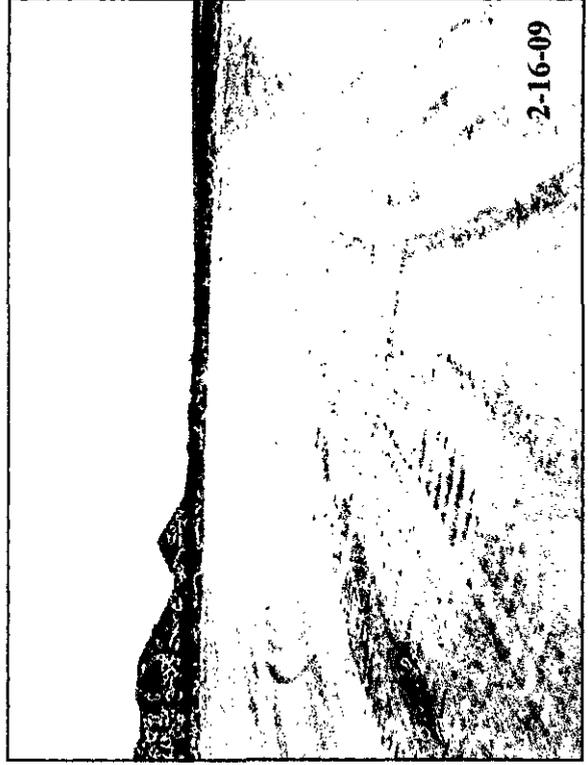
TP1, TP2 and TP5 after excavation of impacted soil.



TP3 and TP4 after excavation of impacted soil.



Drilling pit area after backfill of clean native soil and re-seeding site with BLM Seed Mixture #3.



# **Analytical Report 322199**

**for**

**Elke Environmental, Inc.**

**Project Manager: Logan Anderson**

**Oyx USA**

**20-JAN-09**



**12600 West I-20 East Odessa, Texas 79765**

**Texas certification numbers:**

**Houston, TX T104704215-08B-TX - Odessa/Midland, TX T104704400-08-TX**

**Florida certification numbers:**

**Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675  
Norcross(Atlanta), GA E87429**

**South Carolina certification numbers:**

**Norcross(Atlanta), GA 98015**

**North Carolina certification numbers:**

**Norcross(Atlanta), GA 483**

**Houston - Dallas - San Antonio - Tampa - Miami - Latin America  
Midland - Corpus Christi - Atlanta**



20-JAN-09

Project Manager: **Logan Anderson**  
**Elke Environmental, Inc.**  
4817 Andrews Hwy  
P.O. Box 14167 Odessa, tx 79768  
Odessa, TX 79762

Reference: XENCO Report No: **322199**  
**Oyx USA**  
Project Address: Cypress 33 Federal # 1

**Logan Anderson:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 322199. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 322199 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

---

**Brent Barron, II**

Odessa Laboratory Manager

*Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.*

*Certified and approved by numerous States and Agencies.*

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**Sample Cross Reference 322199**



**Elke Environmental, Inc., Odessa, TX**

Oyx USA

<b>Sample Id</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Sample Depth</b>	<b>Lab Sample Id</b>
TP # 1 @ 8'	S	Jan-09-09 10:40	8 ft	322199-001
TP # 2 @ 8'	S	Jan-09-09 11:00	8 ft	322199-002
TP # 3 @ 26'	S	Jan-09-09 11:15	26 ft	322199-003
TP # 4 @ 14'	S	Jan-09-09 11:20	14 ft	322199-004
TP # 5 @ 26'	S	Jan-09-09 11:50	26 ft	322199-005





# Certificate of Analysis Summary 322199

Elke Environmental, Inc., Odessa, TX



Project Name: Oyx USA  
 Date Received in Lab: Fri Jan-09-09 05:02 pm  
 Report Date: 20-JAN-09  
 Project Manager: Brent Barron, II

Project Id: 322199-001  
 Contact: Logan Anderson  
 Project Location: Cypress 33 Federal # 1

Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	Extracted:	Analyzed:	Units/RL:
322199-001	TP # 1 @ 8'	8 ft	SOIL	Jan-09-09 10:40	Jan-19-09 17:22	mg/kg	ND 10.3
322199-002	TP # 2 @ 8'	8 ft	SOIL	Jan-09-09 11:00	Jan-19-09 17:22	mg/kg	ND 11.1
322199-003	TP # 3 @ 26'	26 ft	SOIL	Jan-09-09 11:15	Jan-19-09 17:22	mg/kg	ND 11.0
322199-004	TP # 4 @ 14'	14 ft	SOIL	Jan-09-09 11:20	Jan-19-09 17:22	mg/kg	61.8 10.9
322199-005	TP # 5 @ 26'	26 ft	SOIL	Jan-09-09 11:50	Jan-20-09 13:25	mg/kg	11.5 10.4
<b>TPH by EPA 418.1</b>							
TPH, Total Petroleum Hydrocarbons							

*Analysis Requested*

**TPH by EPA 418.1**

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work under unless otherwise agreed to in writing.

Since 1990 Houston - Dallas - San Antonio - Austin - Tampa - Miami - Atlanta - Corpus Christi

  
 Brent Barron  
 Odessa Laboratory Director

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the MQL and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- \* Outside XENCO's scope of NELAC Accreditation.

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9701 Harry Hines Blvd, Dallas, TX 75220  
5332 Blackberry Drive, San Antonio TX 78238  
2505 North Falkenburg Rd, Tampa, FL 33619  
5757 NW 158th St, Miami Lakes, FL 33014  
12600 West I-20 East, Odessa, TX 79765  
842 Cantwell Lane, Corpus Christi, TX 78408

Phone	Fax
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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(813) 620-2000	(813) 620-2033
(305) 823-8500	(305) 823-8555
(432) 563-1800	(432) 563-1713
(361) 884-0371	(361) 884-9116

# Form 2 - Surrogate Recoveries

**Project Name: Oyx USA**

**Work Orders :** 322199,

**Project ID:**

**Lab Batch #:** 746243  
**Units:** mg/kg

**Sample:** 322199-001 / SMP

**Batch:** 1 **Matrix:** Soil

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0309	0.0300	103	80-120	
4-Bromofluorobenzene	0.0338	0.0300	113	80-120	

**Lab Batch #:** 746243  
**Units:** mg/kg

**Sample:** 322199-001 S / MS

**Batch:** 1 **Matrix:** Soil

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0267	0.0300	89	80-120	
4-Bromofluorobenzene	0.0304	0.0300	101	80-120	

**Lab Batch #:** 746243  
**Units:** mg/kg

**Sample:** 322199-001 SD / MSD

**Batch:** 1 **Matrix:** Soil

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0270	0.0300	90	80-120	
4-Bromofluorobenzene	0.0289	0.0300	96	80-120	

**Lab Batch #:** 746243  
**Units:** mg/kg

**Sample:** 322199-002 / SMP

**Batch:** 1 **Matrix:** Soil

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0307	0.0300	102	80-120	
4-Bromofluorobenzene	0.0350	0.0300	117	80-120	

**Lab Batch #:** 746243  
**Units:** mg/kg

**Sample:** 322199-003 / SMP

**Batch:** 1 **Matrix:** Soil

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0346	0.0300	115	80-120	

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



# Form 2 - Surrogate Recoveries

Project Name: Oyx USA

Work Orders : 322199,

Project ID:

Lab Batch #: 746243  
Units: mg/kg

Sample: 322199-004 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0349	0.0300	116	80-120	

Lab Batch #: 746243  
Units: mg/kg

Sample: 322199-005 / SMP

Batch: 1 Matrix: Soil

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0306	0.0300	102	80-120	
4-Bromofluorobenzene	0.0345	0.0300	115	80-120	

Lab Batch #: 746243  
Units: mg/kg

Sample: 522765-1-BKS / BKS

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0290	0.0300	97	80-120	
4-Bromofluorobenzene	0.0269	0.0300	90	80-120	

Lab Batch #: 746243  
Units: mg/kg

Sample: 522765-1-BLK / BLK

Batch: 1 Matrix: Solid

SURROGATE RECOVERY STUDY					
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,4-Difluorobenzene	0.0322	0.0300	107	80-120	
4-Bromofluorobenzene	0.0339	0.0300	113	80-120	

Lab Batch #: 746243  
Units: mg/kg

Sample: 522765-1-BSD / BSD

Batch: 1 Matrix: Solid

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

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



# Form 2 - Surrogate Recoveries

Project Name: Oyx USA

Work Orders : 322199,

Project ID:

Lab Batch #: 746298

Sample: 322199-001 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	102	100	102	70-135	
o-Terphenyl	50.5	50.0	101	70-135	

Lab Batch #: 746298

Sample: 322199-001 S / MS

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	119	100	119	70-135	
o-Terphenyl	56.5	50.0	113	70-135	

Lab Batch #: 746298

Sample: 322199-001 SD / MSD

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	122	100	122	70-135	
o-Terphenyl	58.6	50.0	117	70-135	

Lab Batch #: 746298

Sample: 322199-002 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	50.7	50.0	101	70-135	

Lab Batch #: 746298

Sample: 322199-003 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	100	100	100	70-135	
o-Terphenyl	50.4	50.0	101	70-135	

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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



# Form 2 - Surrogate Recoveries

Project Name: Oyx USA

Work Orders : 322199,

Project ID:

Lab Batch #: 746298

Sample: 322199-004 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	99.1	100	99	70-135	
o-Terphenyl	50.1	50.0	100	70-135	

Lab Batch #: 746298

Sample: 322199-005 / SMP

Batch: 1 Matrix: Soil

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	99.3	100	99	70-135	
o-Terphenyl	49.8	50.0	100	70-135	

Lab Batch #: 746298

Sample: 522806-1-BKS / BKS

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	120	100	120	70-135	
o-Terphenyl	62.2	50.0	124	70-135	

Lab Batch #: 746298

Sample: 522806-1-BLK / BLK

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	101	100	101	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

Lab Batch #: 746298

Sample: 522806-1-BSD / BSD

Batch: 1 Matrix: Solid

Units: mg/kg

SURROGATE RECOVERY STUDY					
TPH By SW8015 Mod	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
Analytes					
1-Chlorooctane	117	100	117	70-135	
o-Terphenyl	55.8	50.0	112	70-135	

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

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] = 100 \* A / B

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

**Blank Spike Recovery**

**Project Name: Oyx USA**

**Work Order #: 322199**

**Project ID:**

**Lab Batch #: 746220**

**Sample: 746220-1-BKS**

**Matrix: Solid**

**Date Analyzed: 01/12/2009**

**Date Prepared: 01/12/2009**

**Analyst: LATCOR**

**Reporting Units: mg/kg**

**Batch #: 1**

**BLANK /BLANK SPIKE RECOVERY STUDY**

Anions by EPA 300  Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	9.99	100	90-110	

Blank Spike Recovery [D] = 100\*[C]/[B]

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



# BS / BSD Recoveries



Project Name: Oyx USA

Work Order #: 322199

Analyst: ASA

Lab Batch ID: 746243

Sample: 522765-1-BKS

Batch #: 1

Project ID:

Date Analyzed: 01/12/2009

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
BTEX by EPA 8021B	ND	0.1000	0.1033	103	0.1	0.1081	108	5	70-130	35	
Benzene	ND	0.1000	0.0990	99	0.1	0.1036	104	5	70-130	35	
Toluene	ND	0.1000	0.0990	99	0.1	0.1066	107	7	71-129	35	
Ethylbenzene	ND	0.2000	0.1974	99	0.2	0.2101	105	6	70-135	35	
m,p-Xylenes	ND	0.1000	0.0948	95	0.1	0.1003	100	6	71-133	35	
o-Xylene	ND	0.1000	0.0948	95	0.1	0.1003	100	6	71-133	35	

Analyst: ASA

Lab Batch ID: 746881

Sample: 746881-1-BKS

Batch #: 1

Date Prepared: 01/19/2009

Date Analyzed: 01/19/2009

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Analytes	BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY										
	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH by EPA 418.1	ND	2500	2500	100	2500	2420	97	3	65-135	35	
TPH, Total Petroleum Hydrocarbons	ND	2500	2500	100	2500	2420	97	3	65-135	35	

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



# BS / BSD Recoveries



Project Name: Oyx USA

Work Order #: 322199

Analyst: ASA

Lab Batch ID: 746981

Sample: 746981-1-BKS

Units: mg/kg

Project ID:

Date Analyzed: 01/20/2009

Date Prepared: 01/20/2009

Batch #: 1

Matrix: Solid

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by EPA 418.1	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH, Total Petroleum Hydrocarbons	ND	2500	2480	99	2500	2510	100	1	65-135	35	

Analyst: BHW

Date Prepared: 01/12/2009

Date Analyzed: 01/12/2009

Lab Batch ID: 746298

Sample: 522806-1-BKS

Batch #: 1

Matrix: Solid

Units: mg/kg

## BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
C6-C12 Gasoline Range Hydrocarbons	ND	1000	971	97	1000	950	95	2	70-135	35	
C12-C28 Diesel Range Hydrocarbons	ND	1000	1020	102	1000	997	100	2	70-135	35	

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



# Form 3 - MS Recoveries



Project Name: Oyx USA

Work Order #: 322199

Lab Batch #: 746220

Project ID:

Date Analyzed: 01/12/2009

Date Prepared: 01/12/2009

Analyst: LATCOR

QC- Sample ID: 322199-001 S

Batch #: 1

Matrix: Soil

Reporting Units: mg/kg

## MATRIX / MATRIX SPIKE RECOVERY STUDY

Inorganic Anions by EPA 300	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Analytes						
Chloride	341	205	529	92	80-120	

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



# Form 3 - S / MSD Recoveries



Project Name: Oyx USA

Work Order #: 322199

Lab Batch ID: 746243

Date Analyzed: 01/12/2009

Reporting Units: mg/kg

Project ID:

QC-Sample ID: 322199-001 S Batch #: 1 Matrix: Soil

Date Prepared: 01/12/2009 Analyst: ASA

### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.1026	0.0862	84	0.1026	0.0814	79	6	70-130	35	
Toluene	ND	0.1026	0.0840	82	0.1026	0.0791	77	6	70-130	35	
Ethylbenzene	ND	0.1026	0.0873	85	0.1026	0.0835	81	5	71-129	35	
m,p-Xylenes	ND	0.2053	0.1773	86	0.2053	0.1662	81	6	70-135	35	
o-Xylene	ND	0.1026	0.0832	81	0.1026	0.0784	76	6	71-133	35	

Lab Batch ID: 746881

Date Analyzed: 01/19/2009

Reporting Units: mg/kg

QC-Sample ID: 321733-023 S

Date Prepared: 01/19/2009

Batch #: 1 Matrix: Soil

Analyst: ASA

### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH, Total Petroleum Hydrocarbons	ND	2680	2750	103	2680	2720	101	2	65-135	35	

Lab Batch ID: 746981

Date Analyzed: 01/20/2009

Reporting Units: mg/kg

QC-Sample ID: 322764-005 S

Date Prepared: 01/20/2009

Batch #: 1 Matrix: Soil

Analyst: ASA

### MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
TPH, Total Petroleum Hydrocarbons	ND	2680	2540	95	2680	2560	96	1	65-135	35	

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

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

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



# Form 3 - S / MSD Recoveries



Project Name: Oyx USA

Work Order #: 322199

Project ID:

Lab Batch ID: 746298

QC-Sample ID: 322199-001 S

Batch #: 1

Matrix: Soil

Date Analyzed: 01/13/2009

Date Prepared: 01/12/2009

Analyst: BHW

Reporting Units: mg/kg

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH By SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
	C6-C12 Gasoline Range Hydrocarbons	ND	1030	954	93	1030	974	95	2	70-135	35
C12-C28 Diesel Range Hydrocarbons	ND	1030	1020	99	1030	1040	101	2	70-135	35	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/B

Relative Percent Difference RPD = 200\*(C-F)/(C+F)

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not

Applicable: N = See Narrative, EQL = Estimated Quantitation Limit

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



# Sample Duplicate Recovery



Project Name: Oyx USA

Work Order #: 322199

Lab Batch #: 746220  
Date Analyzed: 01/12/2009  
QC- Sample ID: 322199-001 D  
Reporting Units: mg/kg

Date Prepared: 01/12/2009  
Batch #: 1

Project ID:  
Analyst: LATCOR  
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Anions by EPA 300	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Chloride	341	343	1	20	

Lab Batch #: 746179  
Date Analyzed: 01/12/2009  
QC- Sample ID: 322201-001 D  
Reporting Units: %

Date Prepared: 01/12/2009  
Batch #: 1

Analyst: WRU  
Matrix: Soil

SAMPLE / SAMPLE DUPLICATE RECOVERY					
Percent Moisture	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Analyte					
Percent Moisture	3.45	3.35	3	20	

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



**Environmental Lab of Texas**

Variance/ Corrective Action Report- Sample Log-In

Client:       EIKE LTD        
 Date/ Time:       1/20/17        
 Lab ID #:       3-2217-1        
 Initials:       CN      

**Sample Receipt Checklist**

	Yes	No	Client Initials
#1 Temperature of container/ cooler?	Yes	No	
#2 Shipping container in good condition?	Yes	No	
#3 Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present
#4 Custody Seals intact on sample bottles/ container?	Yes	No	Not Present
#5 Chain of Custody present?	Yes	No	
#6 Sample instructions complete of Chain of Custody?	Yes	No	
#7 Chain of Custody signed when relinquished/ received?	Yes	No	
#8 Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont/ Lrd
#9 Container label(s) legible and intact?	Yes	No	Not Applicable
#10 Sample matrix/ properties agree with Chain of Custody?	Yes	No	
#11 Containers supplied by ELOT?	Yes	No	
#12 Samples in proper container/ bottle?	Yes	No	See Below
#13 Samples properly preserved?	Yes	No	See Below
#14 Sample bottles intact?	Yes	No	
#15 Preservations documented on Chain of Custody?	Yes	No	
#16 Containers documented on Chain of Custody?	Yes	No	
#17 Sufficient sample amount for indicated test(s)?	Yes	No	See Below
#18 All samples received within sufficient hold time?	Yes	No	See Below
#19 Subcontract of sample(s)?	Yes	No	Not Applicable
#20 VOC samples have zero headspace?	Yes	No	Not Applicable

**Variance Documentation**

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding: \_\_\_\_\_

Corrective Action Taken: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

- Check all that Apply:
- See attached e-mail/ fax
  - Client understands and would like to proceed with analysis
  - Cooling process had begun shortly after sampling event