

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

RECEIVED

MAY 29 2009

HOBBSOCD

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: LouRay Oil Company OGRID #: 210510  
Address: P.O. Box 2081, Lovington, NM 88260  
Facility or well name: Government 'E' No.1 SWD Facility P1-01163  
API Number: 30-025-23708 OCD Permit Number: SWD-559 (Currently in Abeyance)  
U/L or Qtr/Qtr N Section 25 Township 19-S Range 34-E County: Lea  
Center of Proposed Design: Latitude 32.625884 Longitude -103.516343 NAD: ☐ 1927 ☒ 1983  
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.  
☒ **Pit:** Subsection F or G of 19.15.17.11 NMAC  
Temporary: ☐ Drilling ☒ Workover  
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A  
☒ Lined ☐ Unlined Liner type: Thickness 30 mil mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_  
☐ String-Reinforced  
Liner Seams: ☐ Welded ☒ Factory ☐ Other \_\_\_\_\_ Volume: 345 nom. bbl Dimensions: L 22' x W 11' 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.	<p><b>Fencing:</b> Subsection D of 19.15.17.11 NMAC (<i>Applies to permanent pits, temporary pits, and below-grade tanks</i>)</p> <p><input type="checkbox"/> Chain link, six feet in height, two strands of barbed wire at top (<i>Required if located within 1000 feet of a permanent residence, school, hospital, institution or church</i>)</p> <p><input checked="" type="checkbox"/> Four foot height, four strands of barbed wire evenly spaced between one and four feet</p> <p><input checked="" type="checkbox"/> Alternate. Please specify <b>Fencing is around facility .</b></p>																				
7.	<p><b>Netting:</b> Subsection E of 19.15.17.11 NMAC (<i>Applies to permanent pits and permanent open top tanks</i>)</p> <p><input type="checkbox"/> Screen <input type="checkbox"/> Netting <input type="checkbox"/> Other _____</p> <p><input type="checkbox"/> Monthly inspections (If netting or screening is not physically feasible)</p>																				
8.	<p><b>Signs:</b> Subsection C of 19.15.17.11 NMAC</p> <p><input type="checkbox"/> 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers</p> <p><input type="checkbox"/> Signed in compliance with 19.15.3.103 NMAC</p>																				
9.	<p><b>Administrative Approvals and Exceptions:</b></p> <p>Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.</p> <p><b>Please check a box if one or more of the following is requested, if not leave blank:</b></p> <p><input type="checkbox"/> Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.</p> <p><input type="checkbox"/> Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.</p>																				
10.	<p><b>Siting Criteria (regarding permitting):</b> 19.15.17.10 NMAC</p> <p><b>Instructions:</b> <i>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 above-grade tanks associated with a closed-loop system.</i></p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 85%; vertical-align: top;"> <p>Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.</p> <p style="margin-left: 20px;">- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</p> </td> <td style="width: 15%; text-align: right; vertical-align: top;"> <input type="checkbox"/> Yes <input type="checkbox"/> No </td> </tr> <tr> <td style="vertical-align: top;"> <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> <p style="margin-left: 20px;">- Topographic map; Visual inspection (certification) of the proposed site</p> </td> <td style="text-align: right; vertical-align: top;"> <input type="checkbox"/> Yes <input type="checkbox"/> No </td> </tr> <tr> <td style="vertical-align: top;"> <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> <p style="margin-left: 20px;">- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p> </td> <td style="text-align: right; vertical-align: top;"> <input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> NA </td> </tr> <tr> <td style="vertical-align: top;"> <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> <p style="margin-left: 20px;">- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p> </td> <td style="text-align: right; vertical-align: top;"> <input type="checkbox"/> Yes <input type="checkbox"/> No  <input type="checkbox"/> NA </td> </tr> <tr> <td style="vertical-align: top;"> <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> <p style="margin-left: 20px;">- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</p> </td> <td style="text-align: right; vertical-align: top;"> <input type="checkbox"/> Yes <input type="checkbox"/> No </td> </tr> <tr> <td style="vertical-align: top;"> <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> <p style="margin-left: 20px;">- Written confirmation or verification from the municipality; Written approval obtained from the municipality</p> </td> <td style="text-align: right; vertical-align: top;"> <input type="checkbox"/> Yes <input type="checkbox"/> No </td> </tr> <tr> <td style="vertical-align: top;"> <p>Within 500 feet of a wetland.</p> <p style="margin-left: 20px;">- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</p> </td> <td style="text-align: right; vertical-align: top;"> <input type="checkbox"/> Yes <input type="checkbox"/> No </td> </tr> <tr> <td style="vertical-align: top;"> <p>Within the area overlying a subsurface mine.</p> <p style="margin-left: 20px;">- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</p> </td> <td style="text-align: right; vertical-align: top;"> <input type="checkbox"/> Yes <input type="checkbox"/> No </td> </tr> <tr> <td style="vertical-align: top;"> <p>Within an unstable area.</p> <p style="margin-left: 20px;">- Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</p> </td> <td style="text-align: right; vertical-align: top;"> <input type="checkbox"/> Yes <input type="checkbox"/> No </td> </tr> <tr> <td style="vertical-align: top;"> <p>Within a 100-year floodplain.</p> <p style="margin-left: 20px;">- FEMA map</p> </td> <td style="text-align: right; vertical-align: top;"> <input type="checkbox"/> Yes <input type="checkbox"/> No </td> </tr> </table>	<p>Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.</p> <p style="margin-left: 20px;">- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</p>	<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> <p style="margin-left: 20px;">- Topographic map; Visual inspection (certification) of the proposed site</p>	<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> <p style="margin-left: 20px;">- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <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> <p style="margin-left: 20px;">- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <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> <p style="margin-left: 20px;">- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</p>	<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> <p style="margin-left: 20px;">- Written confirmation or verification from the municipality; Written approval obtained from the municipality</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>Within 500 feet of a wetland.</p> <p style="margin-left: 20px;">- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>Within the area overlying a subsurface mine.</p> <p style="margin-left: 20px;">- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>Within an unstable area.</p> <p style="margin-left: 20px;">- Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>Within a 100-year floodplain.</p> <p style="margin-left: 20px;">- FEMA map</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<p>Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.</p> <p style="margin-left: 20px;">- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells</p>	<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> <p style="margin-left: 20px;">- Topographic map; Visual inspection (certification) of the proposed site</p>	<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> <p style="margin-left: 20px;">- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <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> <p style="margin-left: 20px;">- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No <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> <p style="margin-left: 20px;">- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site</p>	<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> <p style="margin-left: 20px;">- Written confirmation or verification from the municipality; Written approval obtained from the municipality</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No																				
<p>Within 500 feet of a wetland.</p> <p style="margin-left: 20px;">- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No																				
<p>Within the area overlying a subsurface mine.</p> <p style="margin-left: 20px;">- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No																				
<p>Within an unstable area.</p> <p style="margin-left: 20px;">- Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</p>	<input type="checkbox"/> Yes <input type="checkbox"/> No																				
<p>Within a 100-year floodplain.</p> <p style="margin-left: 20px;">- FEMA map</p>	<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.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No  
☐ NA

Ground water is between 50 and 100 feet below the bottom of the buried waste

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No  
☐ NA

Ground water is more than 100 feet below the bottom of the buried waste.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No  
☐ 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).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ 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.

- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site

☐ Yes ☐ 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.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☐ 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: Jeffrey Leising Approval Date: 06/23/09

Title: Environmental Engineer OCD Permit Number: P1-01163

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: \_\_\_\_\_

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.

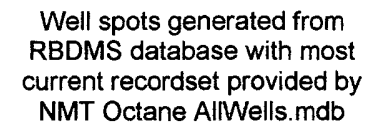
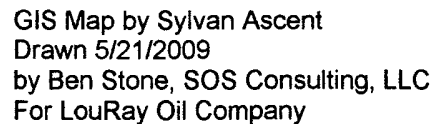
**Operator Closure Certification:**

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.

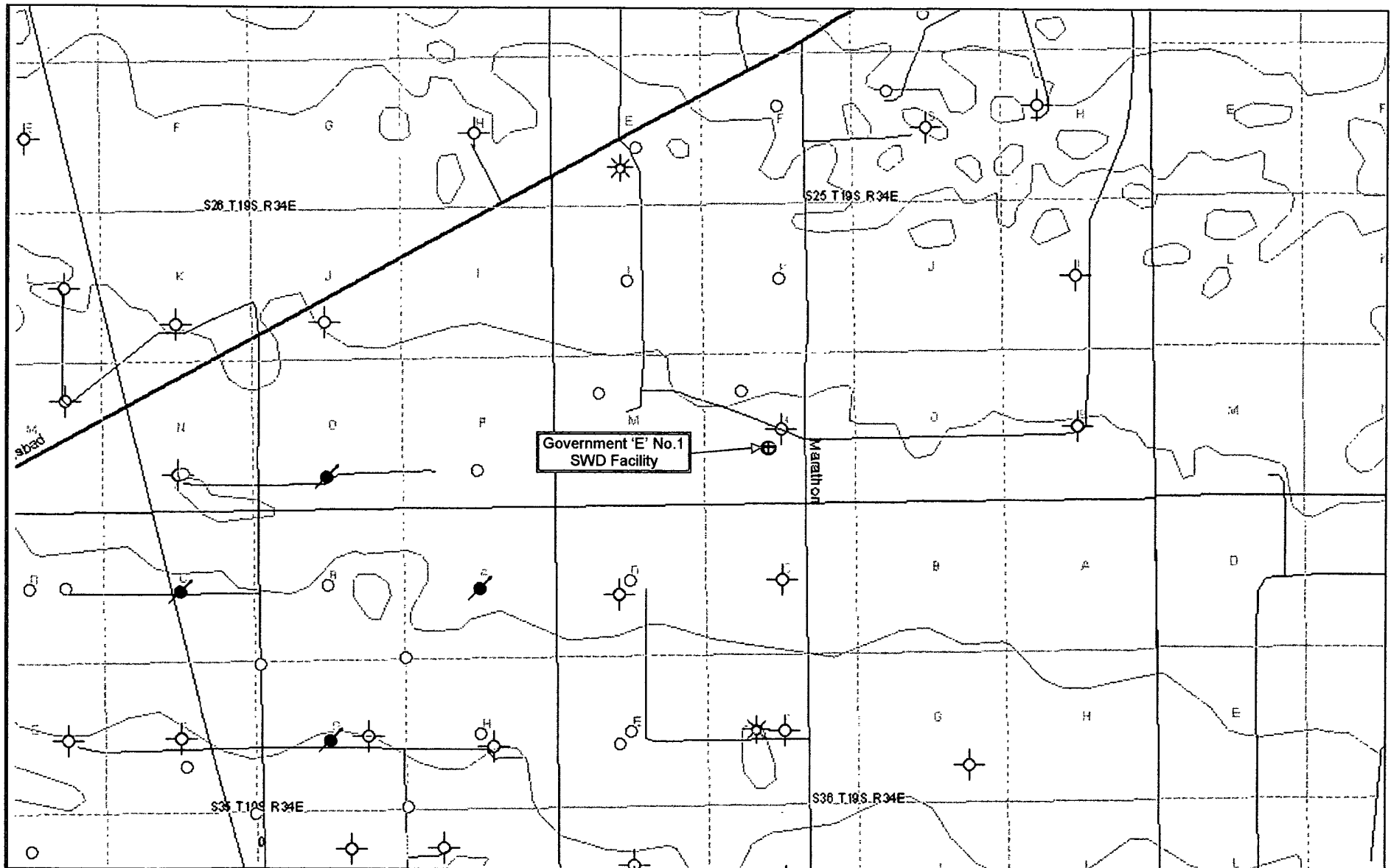
Name (Print): Ben Stone, SOS Consulting, LLC Title: Agent for LouRay Oil Company

Signature: [Signature] Date: May 27, 2009

e-mail address: ben@sosconsulting.us Telephone: 903-488-9850



# Government 'E' No. 1 – Location Map by ULSTR

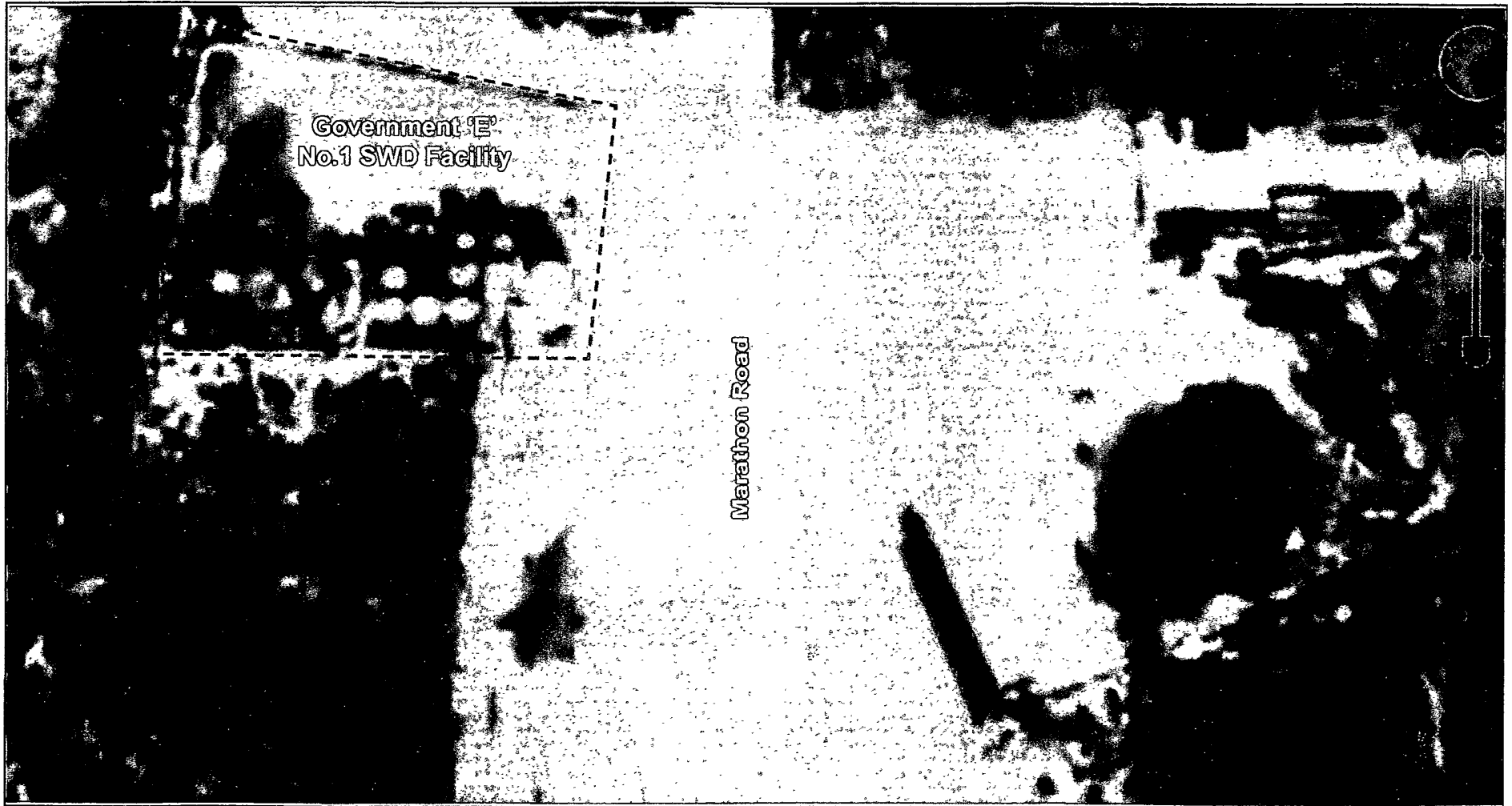


GIS Map by Sylvan Ascent  
 Drawn 5/26/2009  
 by Ben Stone, SOS Consulting, LLC  
 For Louray Oil Company



Well spots generated from  
 RBDMS database with most  
 current recordset provided by  
 NMT Octane AllWells.mdb

## Government 'E' No. 1 SWD Facility – Aerial View



**SOS TechMap**

Drawn 5/21/2009  
by Ben Stone, SOS Consulting, LLC  
For LouRay Oil Company



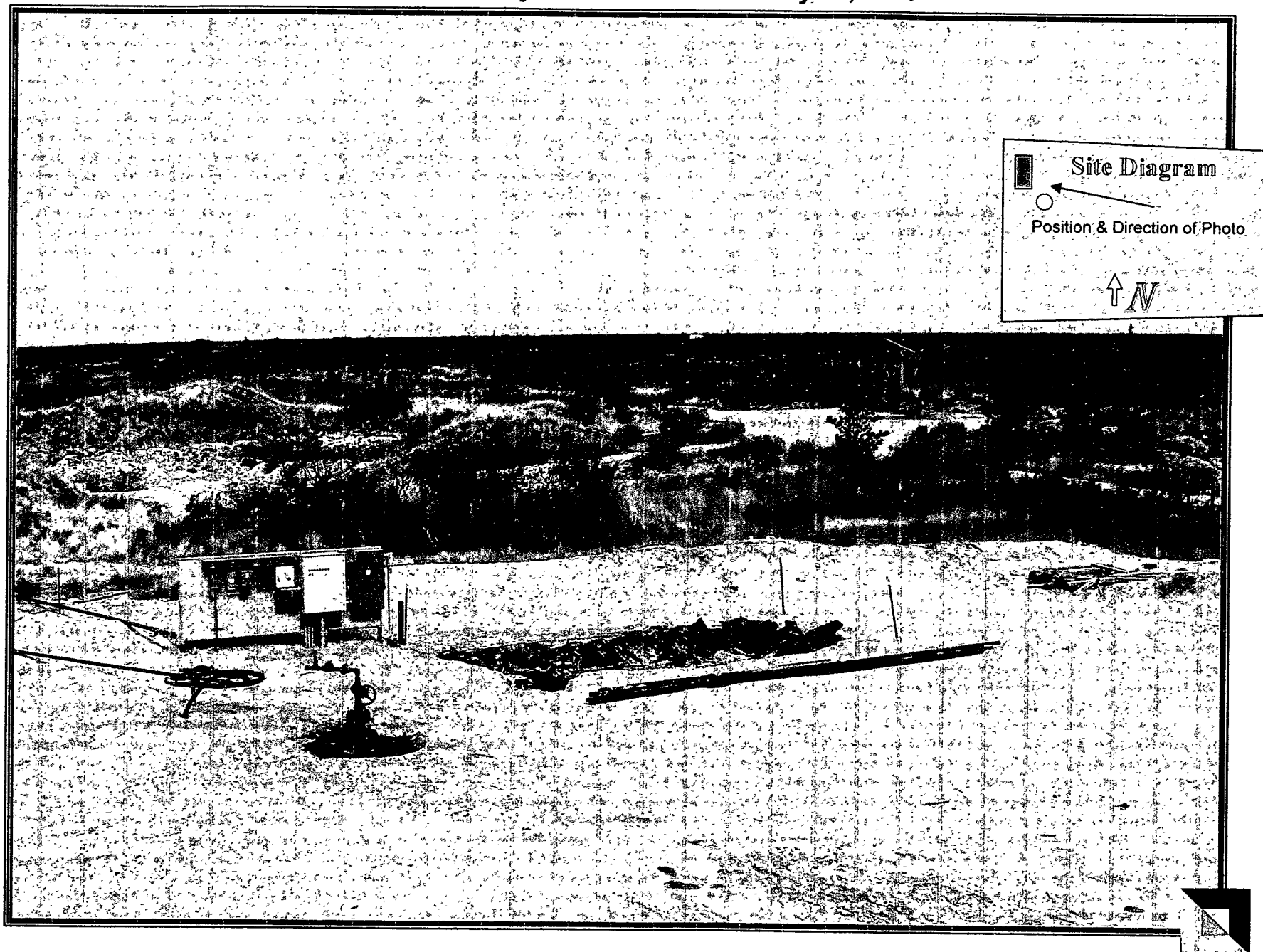
**SOS Consulting, LLC**

Aerial views provided by  
Google Earth © 2009

**Google Earth**

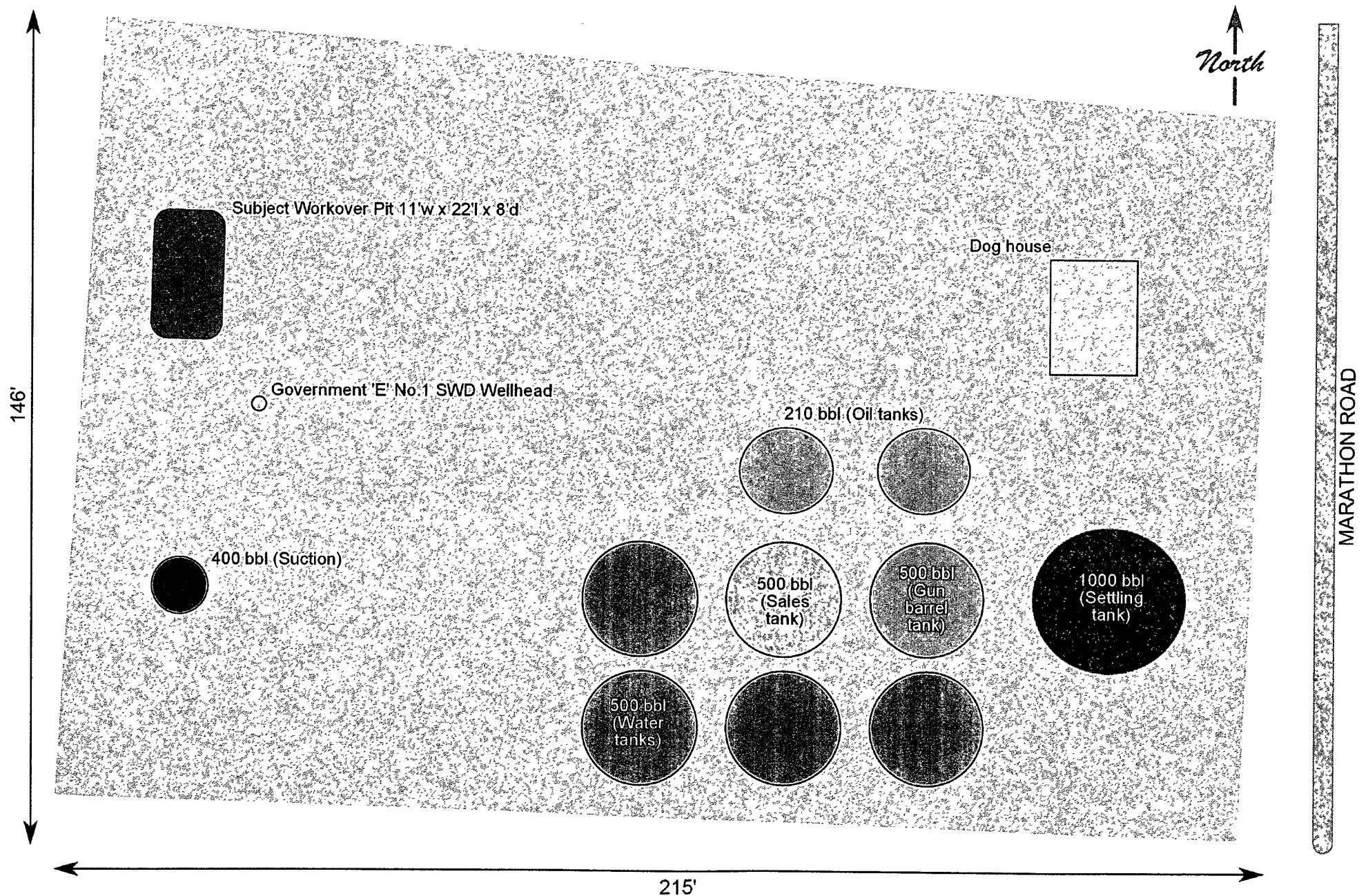


**Government 'E' No.1 SWD Facility – C-144 Closure Plan**  
**Photo of Subject Workover Pit – May 12, 2009**



# Government 'E' No1 SWD Facility - C-144 Site Diagram

(Note: Outside deminisions accurate - facilities and equipment scale is approximate.)





# New Mexico Office of the State Engineer

## Point of Diversion by Location

(with Owner Information)

No PODs found.

**PLSS Search:**

Section(s): 26

Township: 19S

Range: 34E

No PODs found.

**PLSS Search:**

Section(s): 35

Township: 19S

Range: 34E

No PODs found.

**PLSS Search:**

Section(s): 36

Township: 19S

Range: 34E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

5/26/09 11:53 AM

Page 1 of 1

POINT OF DIVERSION BY LOCATION

May 27, 2009

New Mexico Oil Conservation Division  
1625 N. French Drive  
Hobbs, New Mexico 88240

**RECEIVED**

MAY 29 2009  
**HOBBSOCD**

Attn: Mr. Geoff Leking, Environmental Engineer

*Re: C-144 submittal for LouRay Oil Company for pit closure on its Government 'E' Well  
No.1 SWD Facility located in Lea County, New Mexico.*

Dear Geoff,

LouRay Oil Company seeks approval for its plan contained herein, to responsibly close and otherwise remediate the existing workover pit at the Government 'E' No.1 SWD Facility. All wastes will be excavated and disposed of at the CRI licensed waste disposal facility. Complete delineation of possible contaminated soil will be conducted and remediation will proceed commensurate with those results. Further, LouRay will continue operations at the site with appropriate housekeeping guidelines in place and will notify the NMOCD and submit complete and accurate paperwork for any events requiring such.

At whatever point in the future the site is to be decommissioned while still operated by LouRay, a new C-144 and other required forms shall be submitted to NMOCD as well as BLM. Until that time, LouRay Oil Company endeavors to be a good steward of the environment and neighbor to all offset operators. Efforts will be ongoing in not only in remediating but also to improve the facility and the site for overall safety and quality operations to protect of underground sources of drinking water and the environment, public health and esthetics.

If there is any additional information or data that you may need, please don't hesitate to call or email.

Best regards,

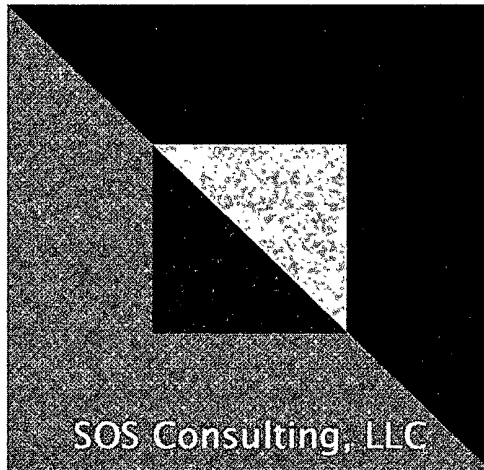


Ben Stone, Partner  
SOS Consulting, LLC  
Agent for Louray Oil Company

Cc: Application file

**PROJECT REPORT**

**OCD Form C-144 Attachment  
CLOSURE PLAN  
May 29, 2009**



**RECEIVED**

MAY 29 2009

HOBBSOCD

**Government 'E' No.1  
SWD Facility**

**Sec. 25, Twp 19-S, Rng 34-E  
Lea County, New Mexico**

**Prepared and Submitted for  
LouRay Oil Company**

**CLOSURE PLAN DETAIL**  
**Government 'E' No.1 SWD Facility**  
**LouRay Oil Company**

**Overview and Background**

LouRay Oil Company acquired the Government 'E' No.1 Salt Water Disposal Facility from Subsurface Water Disposal, Inc. in 2001. The well was authorized for salt water disposal into the Bone Spring formation under administrative division order SWD-559 dated May 19, 1994. The well was originally drilled as an oil producer February 1971.

The well is located in Unit Letter 'N' of Section 25, Township 19 South, Range 34 East and is approximately 15 miles west/southwest of Hobbs, New Mexico. The area, just off Marathon Road, is historically an oil and gas producing area. In the general area, vegetation is composed of native plains bristleglass and other sand grasses and mesquite shrubs and trees. Some yucca and sand shinnery (scrub) oak may also be found in the area. Grazing is limited and surface water is generally not present. Topography is very flat with less than 10 feet of change in elevation for approximately ½ mile in all directions. Groundwater in the area is more than 100 feet in depth. There are 2 domestic water wells in Section 25, within one mile to the northeast. There are no mineral mines or known karst areas in the immediate vicinity.

In recent years, the well began to exhibit mechanical failures and attempts were made to repair the wellbore using cement squeeze and other techniques. In early 2008, injection operations were terminated and the well was shut-in pending workover operations to make more substantial repairs. To relieve the well of considerable pressure, fluid was allowed to backflow into the subject workover pit and the fluid was disposed of via trucking.

The well was successfully and substantially repaired by installing 5754 feet of new 4-inch flush joint liner and cementing top to bottom. New tubing and a packer were installed and the well passed a recent mechanical integrity test, with zero pressure bleed-off in the prescribed 30-minute time interval. The MIT was witnessed by the OCD on April 14, 2009.

As the well was inactive for more than one year, injection authority was temporarily suspended pending the submittal of updated information to the engineering bureau in Santa Fe for reinstatement of SWD-559. The application is being set for examiner hearing to address objections from a nearby operator. As there are no technical issues with the suitability of the well for injection operations, LouRay wishes to further establish itself as an "operator in good standing" with the NMOCD by complying with 19.15.17.13 NMAC by submitting this C-144 Closure Plan.

***For the purpose of this narrative the term "operator" shall refer to LouRay Oil Company, its agent or its contractor(s) retained for the operations described herein.***

**Closure Plan Detail**

**1. Procedure and Protocols**

(a) The operator shall remove all liquids and BS&W and otherwise excavate all contents from the [temporary] pit prior to implementing a closure method and shall dispose of the liquids and BS&W in a division-approved facility.



(b) The operator shall remove the pit liner system, if applicable, and dispose of it in a division-approved facility. The operator shall remove any flowline or any other decommissioned equipment associated with the pit if necessary.

(c) The operator shall test the soils beneath the [temporary] pit to determine whether a release has occurred. The operator shall collect, at a minimum, a five point, composite sample; collect individual grab samples from any area that is wet, discolored or showing other evidence of a release; and analyze for **BTEX, TPH, the GRO and DRO combined fraction and chlorides** to demonstrate that:

- 1) benzene concentration does not exceed 0.2 mg/kg, and;
- 2) total BTEX concentration does not exceed 50 mg/kg, both constituents determined by EPA SW-846 methods 8021B or 8260B, and;
- 3) TPH concentration does not exceed 2500 mg/kg; as determined by EPA method 418.1 or 19.15.17 NMAC <http://www.nmcpr.state.nm.us/nmac/parts/title19/19.015.0017.htm> [1/16/2009 4:19:53 PM], and;
- 4) GRO and DRO combined fraction does not exceed 500 mg/kg, both constituents determined by EPA SW-846 method 8015M, and;
- 5) chloride concentration does not exceed 1000 mg/kg, as determined by EPA method 300.1.

The various contaminants will be remediated to the specified levels or background concentration, whichever is greater. Other EPA methods may be approved by the division but are not anticipated to be utilized in this closure or subsequent remediation.

**(d) The operator shall notify the division of its results on form C-141. Additional delineation may be performed pending a review of the results by NMOCD.**

(e) If the operator or the division determines that a release has occurred, then the operator shall comply with 19.15.29 NMAC and 19.15.30 NMAC, as appropriate.

- 1) Notification – The operator will report any unauthorized release of oil, gases, produced water, condensate or oil field waste including regulated NORM, or other oil field related chemicals, contaminants or mixtures of those chemicals or contaminants that occur during drilling, producing, storing, disposing, injecting, transporting, servicing or processing and to establish reporting procedures.
- 2) Remediation – The operator will conduct operations to abate pollution of subsurface water so that ground water of the state that has a background concentration of 10,000 mg/l or less TDS is either remediated or protected for use as domestic, industrial and agricultural water supply, and will remediate or protect those segments of surface waters that are gaining because of subsurface-water inflow for uses designated in the water quality standards for interstate and intrastate surface waters in New Mexico, 20.6.4 NMAC; and will abate surface-water pollution so that surface waters of the state are remediated or protected for designated or attainable uses as defined in the water quality standards for interstate and intrastate surface waters in New Mexico, 20.6.4 NMAC.

(f) If the sampling program demonstrates that a release has not occurred or that any release does not exceed the concentrations specified in Subparagraph (b) of Paragraph (1) of Subsection B of 19.15.17.13 NMAC, then the operator shall backfill the temporary pit excavation with compacted, non-waste containing, earthen material; construct a division-prescribed soil cover; recontour and re-vegetate the site. The division-prescribed soil cover, recontouring and re-vegetation requirements shall comply with Subsections G, H and I of 19.15.17.13 NMAC.



## **2. Waste Removal - Disposal Facility Name and Permit Number**

The waste (all pit contents, liner and any excavated contaminated soil) shall be transferred to the division-authorized, permitted facility in Lea County operated by CRI (Controlled Recovery Inc.). Permit number R-9166.

## **3. Soil Backfill and Cover Design Specifications**

~~(a) The soil cover for closures where the operator has removed the pit contents or remediated the contaminated soil to the division's satisfaction shall consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.~~

*Exception Requested - The operator proposes fill of clean, compacted caliche during the ongoing operation of the site as a salt water disposal facility. At the time of final decommissioning of all operations, the operator shall include a topsoil design to facilitate re-vegetation and will be properly permitted through applicable regulatory agencies.*

(b) The operator shall construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material.

## **4. Re-Vegetation Plan**

The operator shall substantially restore and re-vegetate the impacted area's surface in accordance with Subsections G, H and I of 19.15.17.13 NMAC.

*Exception Requested – As the facility is a semi-permanent, ongoing oil and gas operation, all surface area within the fenced perimeter is compacted caliche with some concrete equipment pads in use. At this time, for the duration of continuing operations, the operator proposes to backfill and compact the site to match the surrounding site location. As the area impacted by this pit closure is small, it would not be useful to only try a small footprint re-vegetation effort while the area is still subject to moving equipment and ongoing operations.*

*This plan will effectively prevent erosion, and protect fresh water, human health and the environment. The proposed alternative will be submitted for approval by the surface owner, Bureau of Land Management. Upon approval, the operator shall submit the proposed alternative, with written documentation that the surface owner agrees to the alternative, to the division for approval.*

~~(a) The first growing season after the operator closes a pit or trench or is no longer using a drying pad, below-grade tank or an area associated with a closed-loop system, pit or below-grade tank including access roads, the operator shall seed or plant the disturbed areas.~~

~~(b) The operator shall accomplish seeding by drilling on the contour whenever practical or by other division-approved methods. The operator shall obtain vegetative cover that equals 70% of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. During the two growing seasons that prove viability, there shall be no artificial irrigation of the vegetation.~~

~~(c) The operator shall repeat seeding or planting until it successfully achieves the required vegetative cover.~~





~~(d) When conditions are not favorable for the establishment of vegetation, such as periods of drought, the division may allow the operator to delay seeding or planting until soil moisture conditions become favorable or may require the operator to use additional cultural techniques such as mulching, fertilizing, irrigating, fencing or other practices.~~

(e) The operator shall notify the division when it has seeded or planted and when it successfully achieves re-vegetation.

#### **5. Site Reclamation Plan**

(a) Once the operator has closed a pit or trench or is no longer using a drying pad, below-grade tank or an area associated with a closed-loop system, pit, trench or below-grade tank, the operator shall reclaim the pit location, drying pad location, below-grade tank location or trench location and all areas associated with the closed-loop system, pit, trench or below-grade tank including associated access roads to a safe and stable condition that blends with the surrounding undisturbed area. The operator shall substantially restore the impacted surface area to the condition that existed prior to oil and gas *[specifically the opening and use of the subject pit]* operations by placement of the soil cover as provided in Subsection H of 19.15.17.13 NMAC, recontour the location and associated areas to a contour that approximates the original contour and blends with the surrounding topography and re-vegetate according to Subsection I of 19.15.17.13 NMAC.

(b) The operator may propose an alternative to the re-vegetation requirement if the operator demonstrates that the proposed alternative effectively prevents erosion, and protects fresh water, human health and the environment. The proposed alternative shall be agreed upon by the surface owner. The operator shall submit the proposed alternative, with written documentation that the surface owner agrees to the alternative, to the division for approval.

#### **Summary and Conclusion**

LouRay Oil Company seeks approval for its plan contained herein, to responsibly close and otherwise remediate the existing workover pit at the Government 'E' No.1 SWD Facility. All wastes will be excavated and disposed of at the CRI licensed waste disposal facility. Further, LouRay will continue operations at the site with appropriate housekeeping guidelines in place and will notify the NMOCD and submit complete and accurate paperwork for any events requiring such.

At whatever point in the future the site is to be decommissioned while still operated by LouRay, a new C-144 and other required forms shall be submitted to NMOCD as well as BLM. Until that time, LouRay will maintain a clean and well kept site for safe operations, protection of underground sources of drinking water and the environment, public health and esthetics.

**Prepared and submitted by:**

**Ben Stone, Partner  
SOS Consulting, LLC  
Agent for LouRay Oil Company**

