

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

State of New Mexico  
Energy Minerals and Natural Resources  
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

3149

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.

|   |                                     |   |
|---|-------------------------------------|---|
| Operator <u>Energen Resources</u>   |                                     | OGRID # <u>162928</u>   |
| Address <u>2010 Afton Place, Farmington, New Mexico 87401</u>   |                                     |   |
| Facility or well name <u>Burrell 29-9-3 #1</u>  |                                     |   |
| API Number <u>3004527863</u>  | OCD Permit Number <u>3004527863</u> |   |
| U/L or Qtr/Qu <u>H</u>  | Section <u>3</u>                    | Township <u>29N</u> Range <u>09W</u> County <u>San Juan</u>   |
| Center of Proposed Design Latitude <u>36 75507</u>  |                                     | Longitude <u>-107 76111</u> NAD. <input type="checkbox"/> 1927 <input checked="" type="checkbox"/> 1983 |
| Surface Owner <input type="checkbox"/> Federal <input type="checkbox"/> State <input checked="" type="checkbox"/> Private <input type="checkbox"/> Tribal Trust or Indian Allotment |                                     |   |

|   |  |
|---|--|
| <input type="checkbox"/> <b>Pit:</b> Subsection F or G of 19 15 17 11 NMAC  |  |
| Temporary <input type="checkbox"/> Drilling <input type="checkbox"/> Workover   |  |
| <input type="checkbox"/> Permanent <input type="checkbox"/> Emergency <input type="checkbox"/> Cavitation <input type="checkbox"/> P&A  |  |
| <input type="checkbox"/> Lined <input type="checkbox"/> Unlined Liner type Thickness _____ mil <input type="checkbox"/> LLDPE <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____ |  |
| <input type="checkbox"/> String-Reinforced  |  |
| Liner Seams <input type="checkbox"/> Welded <input type="checkbox"/> Factory <input type="checkbox"/> Other _____ Volume _____ bbl Dimensions L _____ x W _____ x D _____   |  |

|  |  |
|--|--|
| <input type="checkbox"/> <b>Closed-loop System:</b> Subsection H of 19 15 17 11 NMAC   |  |
| Type of Operation <input type="checkbox"/> P&A <input type="checkbox"/> Drilling a new well <input type="checkbox"/> Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) |  |
| <input type="checkbox"/> Drying Pad <input type="checkbox"/> Above Ground Steel Tanks <input type="checkbox"/> Haul-off Bins <input type="checkbox"/> Other _____  |  |
| <input type="checkbox"/> Lined <input type="checkbox"/> Unlined Liner type Thickness _____ mil <input type="checkbox"/> LLDPE <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____  |  |
| Liner Seams <input type="checkbox"/> Welded <input type="checkbox"/> Factory <input type="checkbox"/> Other _____  |  |

|   |                                     |
|---|-------------------------------------|
| <input checked="" type="checkbox"/> <b>Below-grade tank:</b> Subsection I of 19 15 17 11 NMAC   |                                     |
| Volume _____ bbl  | Type of fluid <u>Produced Water</u> |
| Tank Construction material _____  |                                     |
| <input type="checkbox"/> Secondary containment with leak detection <input type="checkbox"/> Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off |                                     |
| <input type="checkbox"/> Visible sidewalls and liner <input checked="" type="checkbox"/> Visible sidewalls only <input type="checkbox"/> Other _____              |                                     |
| Liner type Thickness _____ mil <input type="checkbox"/> HDPE <input type="checkbox"/> PVC <input type="checkbox"/> Other _____                                    |                                     |

|  |  |
|--|--|
| <input type="checkbox"/> <b>Alternative Method:</b>  |  |
| Submission of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval |  |

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**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 \_\_\_\_\_

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**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)

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**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

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**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.

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**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 above-grade tanks associated with a closed-loop system.

|   |   |
|---|---|
| Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank<br>- NM Office of the State Engineer - iWATERS database search, USGS, Data obtained from nearby wells   | <input type="checkbox"/> Yes <input type="checkbox"/> No                                |
| 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 ( <i>Applies to temporary, emergency, or cavitation pits and below-grade tanks</i> )<br>- Visual inspection (certification) of the proposed site, Aerial photo, Satellite image  | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| 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> )<br>- Visual inspection (certification) of the proposed site, Aerial photo; Satellite image   | <input type="checkbox"/> Yes <input type="checkbox"/> No<br><input type="checkbox"/> NA |
| 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 search, 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                                |

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**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 \_\_\_\_\_

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**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)

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**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

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**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)

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**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

**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

**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                                |

**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

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**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 \_\_\_\_\_

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

OCD Representative Signature: Jennifer D. Kelly Approval Date: 1/17/2012

Title: Compliance Officer OCD Permit Number: \_\_\_\_\_

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**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.*

X Closure Completion Date: 2/5/09

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**Closure Method:**

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

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**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 NO WASTE DISPOSAL NECESSARY 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

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**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.*

- X 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)  
X 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

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**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) Ed Hasely Title Sr. Environmental Engineer

Signature [Signature] Date 2/10/09

e-mail address ed.hasely@energen.com Telephone: (505) 324-4131

# **BELOW-GRADE TANK CLOSURE REPORT**

## **ENERGEN RESOURCES**

**Burrell 29-9-3 #1**

### **CLOSURE STEPS:**

(1) Notified the surface owner (BLM) that the below-grade tank will be closed. ---- Letter Attached

(2) The tank contained no liquids at the time of the work.

(3) Removed the below-grade tank. The tank was reused in an above-ground setup.

(4) Tested the soils beneath the below-grade tank to determine whether a release has occurred.

- Collected composite sample;

Analyzed for BTEX, TPH and chlorides ---- Analyses Attached

- Benzene concentration - 0.0047 ppm
- Total BTEX concentration – 0.0363 ppm
- TPH concentration (418.1) - 20.2 ppm
- Chloride concentration – 20 ppm

(5) The soil analyses showed that the soils were **below** the concentrations specified in 19.15.17 NMAC as an indication of a release.

(6) Backfilled the excavation with compacted, non-waste containing, earthen material in a manner that will prevent ponding or erosion.

(7) The area is needed for operations as a tank was set above ground in the same location. Seeding and final reclamation will take place upon P&A.

### **FINAL CLOSURE REPORT:**

Submitted a closure report on form C-144, with necessary attachments to document all closure activities including sampling results, within 60 days of closure completion.



EPA METHOD 8021  
AROMATIC VOLATILE ORGANICS

|                    |                   |                     |            |
|--------------------|-------------------|---------------------|------------|
| Client:            | Energen           | Project #:          | 03022-0001 |
| Sample ID          | Burrell 29-9-3 #1 | Date Reported:      | 01-27-09   |
| Laboratory Number. | 48823             | Date Sampled:       | 01-20-09   |
| Chain of Custody   | 6229              | Date Received:      | 01-22-09   |
| Sample Matrix:     | Soil              | Date Analyzed:      | 01-26-09   |
| Preservative       | Cool              | Date Extracted:     | 01-23-09   |
| Condition:         | Intact            | Analysis Requested: | BTEX       |

| Parameter    | Concentration<br>(ug/Kg) | Det.<br>Limit<br>(ug/Kg) |
|--------------|--------------------------|--------------------------|
| Benzene      | 4.7                      | 0.9                      |
| Toluene      | 5.3                      | 1.0                      |
| Ethylbenzene | 7.0                      | 1.0                      |
| p,m-Xylene   | 10.5                     | 1.2                      |
| o-Xylene     | 8.8                      | 0.9                      |
| Total BTEX   | 36.3                     |                          |

ND - Parameter not detected at the stated detection limit

| Surrogate Recoveries: | Parameter           | Percent Recovery |
|-----------------------|---------------------|------------------|
|                       | Fluorobenzene       | 98.0 %           |
|                       | 1,4-difluorobenzene | 98.0 %           |
|                       | Bromochlorobenzene  | 98.0 %           |

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Below Grade Tanks

Analyst

Review



**envirotech**  
Analytical Laboratory

**EPA METHOD 418.1  
TOTAL PETROLEUM  
HYDROCARBONS**

|                      |                      |                  |            |
|----------------------|----------------------|------------------|------------|
| Client:              | Energen              | Project #:       | 03022-0001 |
| Sample ID:           | Santa Rosa 29-9-3 #1 | Date Reported:   | 01-26-09   |
| Laboratory Number:   | 48823                | Date Sampled:    | 01-20-09   |
| Chain of Custody No: | 6229                 | Date Received:   | 01-22-09   |
| Sample Matrix:       | Soil                 | Date Extracted:  | 01-23-09   |
| Preservative:        | Cool                 | Date Analyzed:   | 01-23-09   |
| Condition:           | Intact               | Analysis Needed: | TPH-418.1  |

| Parameter                    | Concentration<br>(mg/kg) | Det.<br>Limit<br>(mg/kg) |
|------------------------------|--------------------------|--------------------------|
| Total Petroleum Hydrocarbons | 20.2                     | 5.0                      |

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **Below Grade Tanks.**

Analyst

Review





## Chloride

|                |                   |                   |            |
|----------------|-------------------|-------------------|------------|
| Client:        | Energen           | Project #:        | 03022-0001 |
| Sample ID:     | Burrell 29-9-3 #1 | Date Reported:    | 01-26-09   |
| Lab ID#:       | 48823             | Date Sampled:     | 01-20-09   |
| Sample Matrix: | Soil              | Date Received:    | 01-22-09   |
| Preservative:  | Cool              | Date Analyzed:    | 01-23-09   |
| Condition:     | Intact            | Chain of Custody: | 6229       |

### Parameter

### Concentration (mg/Kg)

Total Chloride

20

Reference: U.S.E.P.A , 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.  
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Below Grade Tanks.

Analyst

Review

November 25, 2008

Bureau of Land Management  
1235 La Plata Highway  
Farmington, New Mexico 87401  
Attn: Mr. Jim Lavoto

Re: Below Grade Tank Closures  
Multiple Locations

Dear Mr. Lavoto:

Energen Resources plans to close the below grade tanks located on the well locations listed below. You are on record as the surface owner where these wells are located. New Mexico Oil Conservation Division (NMOCD) rules require notification to the surface owner of our plans to close the below grade tanks. NMOCD rules and guidelines will be followed. The wells are all located in San Juan County, New Mexico.

BURRELL 29-9-3 #1 FC - Unit Letter H, Section 3, Township 29N, Range 9W

FEDERAL 29-9-15 #1 FC - Unit Letter B, Section 15, Township 29N, Range 9W

SANTA ROSA 29-9-17 #3 FC - Unit Letter C, Section 17, Township 29N, Range 9W

SANTA ROSA 29-9-4 #4 FC - Unit Letter P, Section 4, Township 29N, Range 9W

SANTA ROSA 29-9-8 #3 FC - Unit Letter F, Section 8, Township 29N, Range 9W

SANTA ROSA 29-9-8 #4 FC - Unit Letter I, Section 8, Township 29N, Range 9W

SANTA ROSA 29-9-9 #3 FC - Unit Letter F, Section 9, Township 29N, Range 9W

SANTA ROSA 9 #1 FC - Unit Letter G, Section 9, Township 29N, Range 9W

Multiple BGT Closures

If there are any questions or comments,

Sincerely,

*Ed Hasely*

Ed Hasely  
Sr. Environmental Engineer  
Energen Resources

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

BLM  
1235 La Plata Hwy  
Farmington, NM 87401  
Attn: Jim Lavoto

2. Article Number

(Transfer from service tag)

**COMPLETE THIS SECTION ON DELIVERY**

- A. Signature ☐ Agent  
*Ed Hasely* ☐ Address
- B. Received by (Printed Name) *Ed Hasely* C. Date of Delivery
- D. Is delivery address different from item 1? ☐ Yes  
If YES, enter delivery address below: ☐ No

3. Service Type

- ☒ Certified Mail ☐ Express Mail  
☐ Registered ☐ Return Receipt for Merchandise  
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

Energen Resources Corporation, an Equal Opportunity Employer

7007 1490 0000 5397 4387

**U.S. Postal Service™**  
**CERTIFIED MAIL™ RECEIPT**  
(Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**OFFICIAL USE**

|  |    |
|--|----|
| Postage  | \$ |
| Certified Fee                                  |    |
| Return Receipt Fee (Endorsement Required)      |    |
| Restricted Delivery Fee (Endorsement Required) |    |
| Total Postage & Fees                           | \$ |

Postmark Here  
Multiple BGT

Sent To BLM

Street, Apt. No., or PO Box No

City, State, ZIP+4

PS Form 3800, August 2006 See Reverse for Instructions



November 3, 2011

New Mexico Oil Conservation Division  
1000 Rio Brazos Road  
Aztec, New Mexico 87410  
Attn: Jonathan Kelly

Re: <sup>3149</sup> **Burrell 29-9-3 #1** and <sup>2980</sup> **Federal 29-9-15 #1**  
C-141 / Photo Submittal

Dear Mr. Kelly:

Enclosed are the C-141 Forms and closure photos for the subject Below-Grade Tank closures.

If there are any questions or concerns with this submittal, please contact me at 505-324-4131.

Sincerely,

A handwritten signature in black ink, appearing to read "Ed Hasely".

Ed Hasely  
Sr. Environmental Engineer  
Energen Resources

Attachments: C-141 Forms  
Photos

Cc: HSE File  
Facility File  
Correspondence

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

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

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: Energen Resources, Inc         | Contact: Ed Hasely               |
| Address: 2010 Afton Place, Farmington, NM 87401 | Telephone No: 505-324-4131       |
| Facility Name: Burrell 29-9-3 #1                | Facility Type: Oil/Gas Well Site |

|                        |                        |           |
|------------------------|------------------------|-----------|
| 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   |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|----------|
| H           | 3       | 29N      | 9W    |               |                  |               |                | San Juan |

Latitude\_\_ Longitude\_\_

### NATURE OF RELEASE

|   |   |                             |
|---|---|-----------------------------|
| Type of Release: NO RELEASE   | Volume of Release:                        | Volume Recovered:           |
| Source of Release:  | Date and Hour of Occurrence:              | Date and Hour of Discovery: |
| Was Immediate Notice Given?<br><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required | If YES, To Whom?                          |                             |
| By Whom?  | Date and Hour:                            |                             |
| Was a Watercourse Reached?<br><input type="checkbox"/> Yes <input type="checkbox"/> No  | If YES, Volume Impacting the Watercourse. |                             |

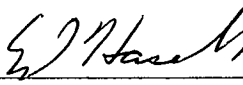
If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

THERE WAS NO PROBLEM OR REMEDIAL ACTION TAKEN THIS FORM IS FILLED OUT TO SERVE AS A COVER FOR LAB ANALYSES - ONLY TO SATISFY 19 15 17 13 E(4)

Describe Area Affected and Cleanup Action Taken.\*

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

|   |                                  |                                   |
|---|----------------------------------|-----------------------------------|
| Signature  | OIL CONSERVATION DIVISION        |                                   |
| Printed Name Ed Hasely  | Approved by District Supervisor. |                                   |
| Title Sr Environmental Engineer   | Approval Date                    | Expiration Date                   |
| E-mail Address ed.hasely@energen.com  | Conditions of Approval           | Attached <input type="checkbox"/> |
| Date 11/2/11 Phone 505-324-4131 / 505-330-3584(cell)  |                                  |                                   |

\* Attach Additional Sheets If Necessary



Federal 29-9-15 #1

## **BELOW-GRADE TANK CLOSURE REPORT**

ENERGEN RESOURCES

Burrell 29-9-3 #1

### **CLOSURE STEPS:**

- (1) Notified the surface owner (BLM) that the below-grade tank will be closed. ---- Letter Attached
- (2) Failed to notify the NM Oil Conservation Division prior to closure. ---- The NMOCD will be notified in advance of future closures
- (2) The tank contained no liquids at the time of the work so not disposal of liquids were required.
- (3) Removed the below-grade tank. The tank was reused in an above-ground setup.
- (4) Tested the soils beneath the below-grade tank to determine whether a release has occurred.
- Collected composite sample,
- Analyzed for BTEX, TPH and chlorides: ---- Analyses Attached
- Benzene concentration - 0.0047 ppm
  - Total BTEX concentration – 0.0363 ppm
  - TPH concentration (418 l) - 20.2 ppm
  - Chloride concentration – 20 ppm

(5) The soil analyses showed that the soils were **below** the concentrations specified in 19.15.17 NMAC as an indication of a release

(6) Backfilled the excavation with compacted, non-waste containing, earthen material in a manner that will prevent ponding or erosion.

(7) The area is needed for operations as a tank was set above ground in the same location. Seeding and final reclamation will take place upon P&A and be deferred to BLM requirements per the BLM/OCD MOU.

### **FINAL CLOSURE REPORT:**

Submitted a closure report on form C-144, with necessary attachments to document all closure activities including sampling results, within 60 days of closure completion.