Form C-144 July 21, 2008

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

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

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|---------------|---|---|--|
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# 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 X 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 theoperator 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 Energen Resources OGRID # 162928  |
|--|
| Address 2010 Afton Place, Farmington, New Mexico 87401   |
| Facility or well name Santa Rosa 29-9-8 #4   |
| API Number 3004531854 OCD Permit Number  |
| U/L or Qtr/Qtr 1 Section 8 Township 29N Range 09W County San Juan  |
| Center of Proposed Design Latitude <u>36 73575</u> Longitude <u>-107 80254</u> 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 Thicknessmil LLDPE HDPE PVC Other   |
| String-Reinforced  |
| Liner Seams  |
| 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 permitter notice of intent)   Drying Pad   Above Ground Steel Tanks   Haul-off Bins   Other   Drying Pad   Unlined Liner type Thickness   mil   LLDPE   HDPE   PVC   Other   Drying Pad   Factory   Other   Drying Pad   Dry |
| □ 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 □ Compared to the compar  |
| Lined Unlined Liner type Thicknessmil LLDPE HDPE PVC Other   |
| Liner Seams   Welded   Factory   Other   FEB 2009   STATE  |
| 4  X Below-grade tank: Subsection I of 19 15 17.11 NMAC  Volume  |
| X Below-grade tank: Subsection I of 19 15 17.11 NMAC   |
| Volumebbl Type of fluidProduced Water  |
| Tank Construction material   |
| Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off  |
| $\square$ Visible sidewalls and liner $\widetilde{X}$ Visible sidewalls only $\square$ Other $\square$   |
| 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   |

| 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, institution or church)  Four foot height, four strands of barbed wire evenly spaced between one and four feet  Alternate. Please specify  | hospital,                   |
|---|-----------------------------|
| 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  |                             |
|   |                             |
| 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 consideration of approval  Exception(s) Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.  | office for                  |
| 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 accept material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying above-grade tanks associated with a closed-loop system. | priate district<br>pproval. |
| Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank - NM Office of the State Engineer - iWATERS database search, USGS, Data obtained from nearby wells  | ☐ Yes ☐ 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)  - 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 (Applies to temporary, emergency, or cavitation pits and below-grade tanks)  - Visual inspection (certification) of the proposed site, Aerial photo; Satellite image   | ☐ Yes ☐ No<br>☐ NA          |
| Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application (Applies to permanent pits)   | ☐ Yes ☐ No<br>☐ NA          |
| <ul> <li>Visual inspection (certification) of the proposed site; Aerial photo, Satellite image</li> <li>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</li> <li>NM Office of the State Engineer - iWATERS database search, Visual inspection (certification) of the proposed site</li> </ul>  | 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                  |

Form C.144 Oil Conservation Division Pege 2 of 5

| II   |
|--|
| 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   |
| 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)  |
| 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   Dil 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 |
| 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)  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 G of 19 15.17 13 NMAC   |

| Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Instructions: Please indentify the facility or facilities for the disposal of liquids, facilities are required.  |   |                       |
|--|---|-----------------------|
| •  | Disposal Facility Permit Number   |                       |
| Disposal Facility Name   | Disposal Facility Permit Number   |                       |
| Will any of the proposed closed-loop system operations and associated activities of ☐ Yes (If yes, please provide the information below) ☐ No  | ecur on or in areas that will not be used for future serv   | vice and operations?  |
| Required for impacted areas which will not be used for future service and operatio  Soil Backfill and Cover Design Specifications based upon the appropriate  Re-vegetation Plan - based upon the appropriate requirements of Subsection  Site Reclamation Plan - based upon the appropriate requirements of Subsection  | e requirements of Subsection H of 19 15 17 13 NMA<br>I of 19 15 17 13 NMAC  | C                     |
| Siting Criteria (regarding on-site closure methods only): 19 15 17 10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the provided below. Requests regarding changes to certain siting criteria may require considered an exception which must be submitted to the Santa Fe Environmental demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC.  | e administrative approval from the appropriate dist.<br>I Bureau office for consideration of approval. Justi  | rict office or may be |
| 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   | a obtained from nearby wells  | ☐ Yes ☐ No<br>☐ 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   | a obtained from nearby wells  | Yes No                |
| Ground water 15 more than 100 feet below the bottom of the buried waste - NM Office of the State Engineer - 1WATERS database search, USGS, Data  | a obtained from nearby wells  | ☐ Yes ☐ No<br>☐ NA    |
| Within 300 feet of a continuously flowing watercourse, or 200 feet of any other sig lake (measured from the ordinary high-water mark)  - Topographic map, Visual inspection (certification) of the proposed site   | nificant watercourse or lakebed, sinkhole, or playa   | Yes No                |
| Within 300 feet from a permanent residence, school, hospital, institution, or church - Visual inspection (certification) of the proposed site, Aerial photo, Satellite   |   | ☐ Yes ☐ No            |
| Within 500 horizontal feet of a private, domestic fresh water well or spring that les watering purposes, or within 1000 horizontal feet of any other fresh water well or significant water well or spring that less watering purposes, or within 1000 horizontal feet of any other fresh water well or spring that less watering purposes, or within 1000 horizontal feet of any other fresh water well or spring that less watering purposes, or within 1000 horizontal feet of any other fresh water well or spring that less watering purposes, or within 1000 horizontal feet of any other fresh water well or spring that less watering purposes, or within 1000 horizontal feet of any other fresh water well or spring that less water well or spring that water well or spring that well or spring that well or spring that the spring that well or spring that water well or spring that well | pring, in existence at the time of initial application  | ☐ Yes ☐ No            |
| Within incorporated municipal boundaries or within a defined municipal fresh water adopted pursuant to NMSA 1978, Section 3-27-3, as amended.  - Written confirmation or verification from the municipality, Written approv  | •   | Yes No                |
| Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map, Topographic map, Visus   | al 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 Geolog Society, Topographic map  | y & Mineral Resources, USGS, NM Geological  | ☐ Yes ☐ No            |
| Within a 100-year floodplain - FEMA map  |   | ☐ Yes ☐ No            |
| On-Site Closure Plan Checklist: (19 15 17 13 NMAC) Instructions: Each of the by a check mark in the box, that the documents are attached.  Sting Criteria Compliance Demonstrations - based upon the appropriate requirements of Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Construction/Design Plan of Temporary Pit (for in-place burial of a drying proceeding and Procedures - based upon the appropriate requirements of 19 1:  Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Disposal Facility Name and Permit Number (for liquids, drilling fluids and Confirmation Plan - based upon the appropriate requirements of Subsection Re-vegetation Plan - based upon the appropriate requirements of Subsection Site Reclamation Plan - based upon the appropriate requirements of Subsection   | uirements of 19 15 17 10 NMAC f Subsection F of 19 15 17 13 NMAC propriate requirements of 19 15 17 11 NMAC pad) - based upon the appropriate requirements of 19 5 17 13 NMAC uirements of Subsection F of 19 15 17 13 NMAC Subsection F of 19.15 17 13 NMAC frill cuttings or in case on-site closure standards cann H of 19 15.17.13 NMAC I of 19 15.17 13 NMAC | 15 17 11 NMAC         |

Tank (14) Oil Conservation Division Page 4 of S

| Operator Application Certification:  |  |
|--|--|
| I hereby certify that the information submitted with this application is true, accur   | ate and complete to the best of my knowledge and belief.   |
| Name (Print) Tri   | le   |
| Signature  | Date   |
| e-mail address Telephone   |  |
| OCD Approval: Permit Application (including closure plan) Closure  |  |
| OCD Representative Signature:  | Approval Date: 11/01/20[]  |
| Title: Compliance Officer  | OCD Permit Number:   |
| Closure Report (required within 60 days of closure completion): Subsection Instructions: Operators are required to obtain an approved closure plan prior to the closure report is required to be submitted to the division within 60 days of to section of the form until an approved closure plan has been obtained and the closure plan prior to the division within 60 days of the div | o implementing any closure activities and submitting the closure report.<br>he completion of the closure activities. Please do not complete this |
| Closure Method:  X Waste Excavation and Removal  On-Site Closure Method  Alternation  If different from approved plan, please explain  | ve Closure Method   Waste Removal (Closed-loop systems only)   |
| Closure Report Regarding Waste Removal Closure For Closed-loop Systems Instructions: Please indentify the facility or facilities for where the liquids, drift two facilities were utilized.  Disposal Facility Name NO WASTE DISPOSAL NECESSARY  Disposal Facility Name  Were the closed-loop system operations and associated activities performed on or  Yes (If yes, please demonstrate compliance to the items below) No  Required for impacted areas which will not be used for future service and operation  Site Reclamation (Photo Documentation)  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique  | Disposal Facility Permit Number  Disposal Facility Permit Number  in areas that will not be used for future service and operations?              |
| Closure Report Attachment Checklist: Instructions: Each of the following it 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  Longit  |  |
| Operator Clasure Contribution  |  |
| Operator Closure Certification:  I hereby certify that the information and attachments submitted with this closure is belief. I also certify that the closure complies with all applicable closure requirements.   | report is true, accurate and complete to the best of my knowledge and nents and conditions specified in the approved closure plan                |
| Name (Print) Ed Hasely   | Title: Sr Environmental Engineer .   |
| Signature El Hosely  | Date: <u>2/18/09</u>   |
| e-mail address ed hasely@energen com   | Telephone(505) 324-4131  |

# BELOW-GRADE TANK CLOSURE REPORT

### **ENERGEN RESOURCES**

### Santa Rosa 8 #4

### **CLOSURE STEPS:**

- (1) Notified the surface owner (BLM) that the below-grade tank will be closed. ---- Letter Attached
- (2) Notified the Aztec OCD office (Brandon Powell) that the below-grade tank will be closed. ---- Email Attached
- (3) The tank contained no liquids at the time of the work.
- (4) Removed the below-grade tank The tank was reused in an above-ground setup.
- (5) 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 ND
- Total BTEX concentration 0.012 ppm
- TPH concentration (418 1) 15.9 ppm
- Chloride concentration 15 ppm
- (6) The soil analyses showed that the soils were **below** the concentrations specified in 19.15 17 NMAC as an indication of a release.
- (7) Backfilled the excavation with compacted, non-waste containing, earthen material in a manner that will prevent ponding or erosion
- (8) 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 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

| Client:             | Energen         | Project #:          | 03022-0001 |
|---------------------|-----------------|---------------------|------------|
| Sample ID:          | Santa Rosa 8 #4 | Date Reported.      | 12-23-08   |
| Laboratory Number.  | 48529           | Date Sampled        | 12-15-08   |
| Chain of Custody No | 5929            | Date Received.      | 12-17-08   |
| Sample Matrix:      | Soil            | Date Extracted:     | 12-19-08   |
| Preservative        | Cool            | Date Analyzed:      | 12-22-08   |
| Condition:          | Intact          | Analysis Requested: | 8015 TPH   |

| Parameter                    | Concentration<br>(mg/Kg) | Det.<br>Limit<br>(mg/Kg) |
|------------------------------|--------------------------|--------------------------|
| Gasoline Range (C5 - C10)    | ND                       | 0.2                      |
| Diesel Range (C10 - C28)     | ND                       | 0.1                      |
| Total Petroleum Hydrocarbons | ND                       | 0.2                      |

ND - Parameter not detected at the stated detection limit

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996

Comments:

**BGT** 

Analyst

Beview 1 / Ce les

Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com



# EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

| Client                 | Energen         | Project #·                      | 03022-0001 |
|------------------------|-----------------|---------------------------------|------------|
| Sample ID:             | Santa Rosa 8 #4 | Date Reported.                  | 12-23-08   |
| Laboratory Number      | 48529           | Date Sampled:                   | 12-15-08   |
| Chain of Custody.      | 5929            | Date Received:                  | 12-17-08   |
| Sample Matrix          | Soil            | Date Analyzed.                  | 12-22-08   |
| Preservative.          | Cool            | Date Extracted:                 | 12-19-08   |
| Condition <sup>-</sup> | Intact          | Analysis Requested <sup>,</sup> | BTEX       |

| Parameter    | Concentration<br>(ug/Kg) | Det.<br>Limit<br>(ug/Kg) |    |
|--------------|--------------------------|--------------------------|----|
| Benzene      | ND                       | 0.9                      | φ. |
| Toluene      | 6.6                      | 1.0                      |    |
| Ethylbenzene | 1.2                      | 1.0                      | -  |
| p,m-Xylene   | 2.2                      | 1.2                      |    |
| o-Xylene     | 2.2                      | 0.9                      |    |
| Total BTEX   | 12.2                     |                          |    |

ND - Parameter not detected at the stated detection limit

| Surrogate Recoveries: | Parameter           | Percent Recovery |
|-----------------------|---------------------|------------------|
|                       | Fluorobenzene       | 97.0 %           |
|                       | 1,4-difluorobenzene | 97.0 %           |
|                       | Bromochlorobenzene  | 97.0 %           |

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:

**BGT** 

Analyst

Review



### EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

| Client:              | Energen         | Project #:       | 03022-0001 |
|----------------------|-----------------|------------------|------------|
| Sample ID:           | Santa Rosa 8 #4 | Date Reported    | 12-23-08   |
| Laboratory Number.   | 48529           | Date Sampled:    | 12-15-08   |
| Chain of Custody No: | 5929            | Date Received:   | 12-17-08   |
| Sample Matrix:       | Soil            | Date Extracted:  | 12-18-08   |
| Preservative:        | Cool            | Date Analyzed:   | 12-18-08   |
| Condition:           | Intact          | Analysis Needed: | TPH-418.1  |

|                              |               | Det.    |
|------------------------------|---------------|---------|
|                              | Concentration | Limit   |
| Parameter                    | (mg/kg)       | (mg/kg) |
|                              |               |         |
|                              |               | ۷       |
| Total Petroleum Hydrocarbons | 15.9          | 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:

BGT.

Analyst



### Chloride

| Client         | Energen         | Project #:        | 03022-0001 |
|----------------|-----------------|-------------------|------------|
| Sample ID:     | Santa Rosa 8 #4 | Date Reported:    | 12-23-08   |
| Lab ID#        | 48529           | Date Sampled:     | 12-15-08   |
| Sample Matrix: | Soil            | Date Received:    | 12-17-08   |
| Preservative:  | Cool            | Date Analyzed:    | 12-19-08   |
| Condition:     | Intact          | Chain of Custody: | 5929       |

Parameter

Concentration (mg/Kg)

**Total Chloride** 

15.0

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:

BGT.

Analyst

"Mustlu m Welle Review From: Ed Hasely

Sent: Thursday, January 15, 2009 10:17 AM

To: 'Powell, Brandon, EMNRD'

Subject: BGT Closures

Brandon - This is to notify you that Energen will be closing the below grade tanks on the following locations in the near future.

Plans are to set the tanks above grade

Santa Rosa 29-9-8 #3 -Unit Letter F, Section 8, Township 29N, Range 9W Santa Rosa 29-9-8 #4 -Unit Letter I, Section 8, Township 29N, Range 9W Santa Rosa 29-9-9 #3 -Unit Letter F, Section 9, Township 29N, Range 9W

# **Ed Hasely**

## **Energen Resources Corporation**

Sr Environmental Engineer ed hasely@energen com Office (505) 324-4131 Cell (505) 330-3584



November 25, 2008

Bureau of Land Management 1235 La Plata Highway Farmington, New Mexico 87401

Re:

Dear Mr. Lavoto:

1,490 Sent To BFM200 Attn: Mr. Jim Lavoto Street, Apt. No.; or PO Box No. City, State, ZIP+ Below Grade Tank Closures Multiple Locations Energen Resources plans to close the below grade tanks located on the well locations listed

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S. Postal Service:

Postage

Certified Fee

Return Receipt Fee (Endorsement Required)

Restricted Delivery Fee

Total Postage & Fees

GERMEIED WAILS REGEIRT stic Mail Only; No Insurance

> Here Multiple BG-T

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 Jatter G. Section 9. Townshin 29N. Range 9W

Multiple BGT Clusures

If there are any questions or ce

Sincerely,

Ed Hasely

Sr. Environmental Engineer

Energen Resources

| SENI | DER: CO    | MPLETE T    | HIS SECT  | ION      |
|------|------------|-------------|-----------|----------|
| ■ Co | mplete ite | ms 1, 2, an | d 3. Also | complete |

- 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: Jin Lando

| A. Signature                                  | Λ             |               |
|---|---------------|---------------|
| 1 / L V                                       | []            | ☐ Agen¹       |
| KXX   | Culleia       |               |
| B. Received by Pril                           | ited Mamer    | C. Date of De |
| D. Is delivery address<br>If YES, enter deliv |               |               |
| *   |               | 1             |
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| 3. Service Type                               |               |               |
| 🔼 Certified Mail                              | ☐ Express Mai | ti            |
| ☐ Registered                                  | D Potum Dans  |               |

☐ C.O.D.

COMPLETE THIS SECTION ON DELIVERY

2. Article Number

(Transfer from service &

7007 1490 0000 5397 4387

☐ Insured Mail

4. Restricted Delivery? (Extra Fee)

Energen Resources Corporation, an Eri

PS Form 3811, February 2004

Domestic Return Receipt

☐ Yes

<u>District I</u> 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   |               |                 |             |                                    |                           |  |                   |                  |   |
|--|---------------|-----------------|-------------|------------------------------------|---------------------------|--|-------------------|------------------|---|
|  |               |                 |             | <b>OPERATOR</b>                    |                           | Initial  | Report            |                  |   |
| Name of Company: Energen Resources, Inc.   |               |                 |             |                                    | d Hasely                  |  |                   |                  |   |
| Address: 2010 Afton Place, Farmington, NM 87401  |               |                 |             | Telephone No: 50 Tacility Type: On |                           |  |                   |                  |   |
| Facility Name: Santa Rosa 29-9-8 #4  |               |                 | r           | acinty Type: On                    | i/Gas well site           |  |                   |                  |   |
| Surface Own  | er: Federa    | 1               |             | Mineral Own                        | er:                       | Federal  |                   | Lease No.        |   |
|  |               |                 |             | LOCATI                             | ON                        | OF RELEAS  | SE                |                  |   |
| Unit Letter  | Section<br>8  | Township<br>29N | Range<br>9W | Feet from the                      | Nor                       | th/South Line  | Feet from the     | East/West Li     | ne County<br>San Juan                                 |
| 1  |               | 29N             |             | 1 26 52555                         |                           |  | 107.00054         | <u></u>          | San Juan  |
|  |               |                 | Latii       | tude 36.73575                      |                           | -  | <u>-107 80254</u> |                  |   |
|  |               |                 |             | NATUR                              | E (                       | OF RELEASI   |                   |                  |   |
| Type of Relea  |               | EASE            |             |                                    |                           | Volume of Release  |                   | Volume Rec       |   |
| Source of Rele   | ease:         |                 |             |                                    |                           | Date and Hour o  | 1 Occurrence:     | Date and He      | our of Discovery:                                     |
| Was Immedia  | te Notice Gi  |                 |             |                                    |                           | If YES, To Whor  | m?                | <u> </u>         |   |
|  |               | Y               | es L N      | lo 🗌 Not Requir                    | ed                        |  |                   |                  | 09031-1-  |
| By Whom? Was a Watero  | D             | L - 40          |             |                                    |                           | Date and Hour:   | Importing the W   | Jatawaan         | 12293031-123  |
| was a water  | ourse Reac    |                 | res 🗌 N     | lo                                 |                           | Date and Hour:  If YES, Volume Impacting the Watercourse.  PECEIVED  OIL CONS. DIV. DIST 3 |                   |                  |   |
| If a Watercou  | rse was Imp   | acted, Descri   | be Fully.   | •                                  |                           | ····   |                   | /21              | FOOT 0011: 9  |
|  |               |                 |             |                                    |                           |  |                   | 324              | OCT 2011  |
|  |               |                 |             |                                    |                           |  |                   | 23242            | OIL CONS. DIV. DIST 3                                 |
|  |               |                 |             |                                    |                           |  |                   |                  | 67  |
| Describe Caus  | e of Proble   | m and Remed     | lial Actior | Taken.*                            |                           |  |                   |                  | COS6181713121212                                      |
|  |               |                 | EDIAL A     | CTION TAKEN T                      | HIS                       | FORM IS FILLED   | OUT TO SERV       | E AS A COVE      | R FOR LAB ANALYSES -                                  |
| ONLY TO SA   | TISFY 19 1:   | 5 17 13 E(4)    |             |                                    |                           |  |                   |                  |   |
| Describe Area Affected and Cleanup Action Taken.*  |               |                 |             |                                    |                           |  |                   |                  |   |
|  |               |                 |             |                                    |                           |  |                   |                  |   |
| I hereby certify   | that the inf  | ormation give   | n above is  | true and complete                  | to th                     | e best of my knowl   | edge and underst  | and that pursua  | nt to NMOCD rules and                                 |
| 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 |               |                 |             |                                    |                           |  |                   |                  |   |
| public health o  | r the enviror | nment The ac    | ceptance c  | of a C-141 report by               | y the                     | NMOCD marked a   | as "Final Report" | does not reliev  | e the operator of hability urface water, human health |
| or the environ   | nent In add   | ition, NMOCI    | D acceptan  | ice of a C-141 repo                | rt do                     | es not relieve the o   | perator of respon | sibility for com | pliance with any other                                |
| federal, state, o  | r local laws  | and/or regula   | ions        |                                    |                           |  |                   |                  | TY HOLON I  |
| 6001 h   |               |                 |             | ſ                                  | OIL CONSERVATION DIVISION |  |                   |                  |   |
| Signature La Hase  |               |                 |             |                                    |                           |  |                   |                  |   |
| Printed Name Ed Hasely   |               |                 |             | Approved by District Supervisor    |                           |  |                   |                  |   |
| Title Sr Environmental Engineer A  |               |                 |             | A                                  | Approval Date             |  | Expiration Date   |                  |   |
| E-mail Address ed hasely@energen.com   |               |                 | _   c       | Conditions of Approval             |                           | Attached   |                   |                  |   |
| Date 10/14/11 Phone 505-324-4131 / 505-330-3584(cell)  |               |                 |             |                                    |                           |  |                   |                  |   |

<sup>\*</sup> Attach Additional Sheets If Necessary

