District I 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

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

	1 toposed Attenuative Wethod 1 climit of Closure 1 lan 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		
In	structions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request		
	vised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or order.		

Please b the ordinances environi

Operator Energen Resources OGRID # 162928
Address 2010 Afton Place, Farmington, New Mexico 87401
Facility or well name
API Number 3003920168 OCD Permit Number
U/L or Qtr/Qtr 1 Section 23 Township 26N Range 03W County Rio Arriba
Center of Proposed Design: Latitude <u>36 46908</u> Longitude <u>-107 10678</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 permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other
☐ Lined ☐ Unlined Liner type Thicknessmil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other
Drying Pad
** Below-grade tank: Subsection I of 19 15 17 11 NMAC
Wellow-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 Visible sidewalls and liner **\tilde{X}\$ Visible sidewalls only Other
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 Thicknessmil
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,	hospital,	
 institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet 		
Alternate Please specify		
7		
Netting: Subsection E of 19 15.17 11 NMAC (Applies to permanent pits and permanent open top tanks) Screen Netting Other		
☐ Monthly inspections (If netting or screening is not physically feasible)		
8. Signs: Subsection C of 19 15 17 11 NMAC 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers Signed in compliance with 19 15 3 103 NMAC		
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		
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 - 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	
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application (Applies to permanent pits) - 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 search, 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	

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 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 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 ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Erosion Control 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 I of 19 15 17 13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection I 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 indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two				
facilities are required.	D. I.B. Iv. D. W.Y. I			
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 o Yes (If yes, please provide the information below) No	ccur on or in areas that will not be used for future ser	vice and operations?		
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 G 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 - NM Office of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search, USGS, Date of the State Engineer - iWATERS database search - iWATERS d	a obtained from nearby wells	Yes No		
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; Da	ta 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, Database search, US	ta obtained from nearby wells	☐ Yes ☐ No ☐ NA		
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other signake (measured from the ordinary high-water mark) - Topographic map, Visual inspection (certification) of the proposed site	gnificant 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, Satellit		☐ Yes ☐ No		
Within 500 horizontal feet of a private, domestic fresh water well or spring that less watering purposes, or within 1000 horizontal feet of any other fresh water well or - NM Office of the State Engineer - iWATERS database, Visual inspection	spring, in existence at the time of initial application	☐ Yes ☐ No		
Within incorporated municipal boundaries or within a defined municipal fresh wat adopted pursuant to NMSA 1978, Section 3-27-3, as amended - Written confirmation or verification from the municipality, Written appro	•	☐ Yes ☐ No		
Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map, Topographic map, Visu	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-Minin	g 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 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 13 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				

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		
OCD Approval: Permit Application (including closure plan) Closure Plan (only). OCD Conditions (see attachment) OCD Representative Signature: Approval Date: 10/04/2011 Title: OCD Permit Number:		
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: 8/19/10		
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		
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: Instructions: Please indentify 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		
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		
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 Date		
e-mail address ed hasely@energen com Telephone (505) 324-4131		

BELOW-GRADE TANK CLOSURE REPORT

ENERGEN RESOURCES Jicarilla 99 #15 (2nd BGT)

CLOSURE STEPS: (Closure Report information is in **bold**)

- (1) Notify the surface owner by certified mail, return receipt requested, of the plans to close the below-grade tank.

 Attached
- (2) Notify the Aztec OCD office (Brandon Powell 334-6178, Ext 15) verbally or by other means at least 72 hours, but not more than one week, prior to the planned closure operation.

Was not completed. The Jicarilla Environmental Protection Office was notified, but not the NMOCD. The NMOCD will be notified on future closures.

- (3) Remove liquids from the below-grade tank. Dispose of the liquids and sludge in a division-approved facility.

 No disposal of liquids was required.
- (4) Remove the below-grade tank for re-use in an above-ground setup or for disposal in a division-approved manner **Tank removed.**
- (5) Unless the equipment is required for some other purpose, remove any on-site equipment associated with the below-grade tank.

All remaining equipment is required for operations.

- (6) Test the soils beneath the below-grade tank to determine whether a release has occurred.
 - Collect, at a minimum, a five point, composite sample;
 Composite sample was collected.
 - Collect individual grab samples from any area that is wet, discolored or showing other evidence of a release.

No additional sampling was necessary.

Analyze for BTEX, TPH and chlorides to demonstrate:

- Benzene concentration does not exceed 0.2 mg/kg, as determined by EPA SW-846 methods 8021B or 8260B
- Total BTEX concentration does not exceed 50 mg/kg, as determined by EPA SW-846 methods 8021B or 8260B
- TPH concentration does not exceed 100 mg/kg, as determined by EPA method 418.1
- Chloride concentration does not exceed 250 mg/kg, as determined by EPA method 300 1 or the background concentration, whichever is greater.

Constituent	Limit (mg/kg)	Actual Results (mg/kg)
Benzene	0.2	ND
Total BTEX	50.0	ND
TPH (418.1)	100	14.1
Chlorides	250	45

(7) <u>IF the soil analyses show that the soils meet the concentrations specified in (6) above,</u> backfill the excavation with compacted, non-waste containing, earthen material in a manner that will prevent ponding or erosion. If the area will not be needed for operations, reclaim the area as described in the "RECLAMATION" section

Excavation was backfilled w/ non-waste containing, earthen material in a manner that will prevent ponding and erosion, including one foot on top soil.

(8) IF the soil analyses show that the soils exceed one or more of the concentrations specified in (6) above, notify the Aztec OCD office (Brandon Powell – 334-6178, Ext 15) and proceed per 19 15.3.116 NMAC.

Not applicable.

NOTE. If groundwater is encountered at any time during the closure process, the OCD office will be notified and a specific closure plan will be submitted to the Aztec and Santa Fe OCD offices for approval.

Not applicable.

FINAL CLOSURE REPORT:

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

This submittal is the closure report.

RECLAMATION:

If the area is not needed for operations, reclaim the area to a safe and stable condition that blends with the surrounding undisturbed area. Restore the impacted surface area to the condition that existed prior to oil and gas operations by placement of the soil cover, recontour the location and associated areas to a contour that approximates the original contour and blends with the surrounding topography and re-vegetate.

- (A) Construct the soil cover to the site's existing grade and prevent ponding of water and erosion of the cover material. The soil cover shall consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater.
- (B) Seed or plant the disturbed areas the first growing season after closing the below-grade tank. Drill on the contour whenever practical or by other division-approved methods. The goal is to 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 successive growing seasons that prove viability, there shall be no artificial irrigation of the vegetation.
 - (C) Repeat seeding or planting until it successfully achieves the required vegetative cover
- (D) If conditions are not favorable for the establishment of vegetation, such as periods of drought, contact the Aztec OCD office to discuss possibly delaying seeding or planting until soil moisture conditions become favorable or using additional techniques such as mulching, fertilizing, irrigating, fencing or other practices.
- (E) Notify the Aztec OCD office (Brandon Powell 334-6178, Ext 15) when the area has been seeded or planted <u>and</u> when it successfully achieves re-vegetation.

Area is needed for operations. Upon abandonment, seeding will be deferred to the BLM / Tribal requirements per the BLM / OCD MOU.



EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Energen	Project #:	03022-0168
Sample ID:	Jic 99 #15 BGT 2	Date Reported [.]	08-13-10
Laboratory Number:	55496	Date Sampled:	08-10-10
Chain of Custody No:	10176	Date Received:	08-10-10
Sample Matrix:	Soil	Date Extracted:	08-13-10
Preservative:	Cool	Date Analyzed:	08-13-10
Condition:	Intact	Analysis Needed:	TPH-418 1

[Det.
1		Concentration		Limit
I	Parameter	 (mg/kg)	arangan wakana sa	(mg/kg)

Total Petroleum Hydrocarbons

14.1

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.

Comments¹

Jicarilla BGT

Analyst

Ravion



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client.	Energen	Project #:	03022-0168
Sample ID:	Jic 99 #15 BGT 2	Date Reported:	08-12-10
Laboratory Number:	55496	Date Sampled:	08-10-10
Chain of Custody No:	10176	Date Received:	08-10-10
Sample Matrix:	Soil	Date Extracted:	08-11-10
Preservative:	Cool	Date Analyzed:	08-12-10
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (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:

Jicarilla BGT

Analyst

Review

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 #:	03022-0168
Sample ID.	Jic 99 #15 BGT 2	Date Reported [.]	08-12-10
Laboratory Number:	55496	Date Sampled:	08-10-10
Chain of Custody	10176	Date Received:	08-10-10
Sample Matrix:	Soil	Date Analyzed:	08-12-10
Preservative:	Cool	Date Extracted:	08-11-10
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)	
r arameter	(dg/Ng)	<u>\ugn\g/</u>	
Benzene	ND	0.9	
Toluene	ND	1.0	
Ethylbenzene	ND	1.0	
p,m-Xylene	ND	1.2	
o-Xylene	ND	0.9	
Total BTEX	ND		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Pe	Percent Recovery		
	Fluorobenzene		99.2	%	
	1,4-difluorobenzene		101	%	
	Bromochlorobenzene		97.1	%	

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:

Jicarilla BGT

Analyst

Review



Chloride

Client ⁻	Energen	Project #:	03022-0168
Sample ID:	Jic 99 #15 BGT 2	Date Reported:	08-12-10
Lab ID#:	55496	Date Sampled:	08-10-10
Sample Matrix:	Soil	Date Received:	08-10-10
Preservative:	Cool	Date Analyzed:	08-12-10
Condition:	Intact	Chain of Custody:	10176

Parameter Concentration (mg/Kg)

Total Chloride 45

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: Jicarilla BGT

Analyst Monpoor

Review



July 26, 2010

Jicarilla Apache Nation Environmental Protection Office P.O. Box 507 Dulce, NM 87528

Attn: Mr. Dixon Sandoval, Environmental Specialist

Re:

Below Grade Tank Closures

Multiple Wells

Energen Resources Corporation, an

Dear Sirs:

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 Rio Arriba County, New Mexico.

Certified Mc

Certified Fee

Return Receipt Fee

Restricted Delivery Fee (Endorsement Required)

Total Postage & Fees

Street, Apt No. or PO Box No.

City, State, ZIP+4

Postmark

Here

Jicarilla 67 #19 - Unit Letter L, Section 30, Township 25N, Range 5W

Jicarilla 67 #20 - Unit Letter E, Section 30, Township 25N, Range 5W

Jicarilla 99 #10 - Unit Letter D, Section 24, Township 26N, Range 3W

Jicarilla 99 #12 - Unit Letter O, Section 24, Township 26N, Range 3W

Jicarilla 99 #15 - Unit Letter I, Section 23, Township 26N, Range 3W

If there are any questions or concerns, please contact me at 505-324-4131 BGT - 5 Vie. Wells COMPLETE THIS SECTION ON DELIVERY SENDER: COMPLETE THIS SECTION Sincerely, Complete items 1, 2, and 3. Also complete Agent Addressee 5 Marchy item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. C. Date of Delivery Attach this card to the back of the mailpiece, 28/10 CATHY JAMES Ed Hasely or on the front if space permits. □ Xes D. Is delivery address different from item 1 Sr. Environmental Engineer ₩.No 1 Article Addressed to If YES, enter delivery address below-**Energen Resources** Vicarillo Apache Nation EPU PO B . 507 Service Type Well Files Cc: Dulce NM 87528 ☐ Express Mail Certified Mail Correspondence ☐ Return Receipt for Merchandise □ Registered Atta: Dixon Samlowal ☐ Insured Mail ☐ C.O.D. ☐ Yes 4. Restricted Delivery? (Extra Fee) 2. Article Number 7007 1490 0000 5397 4691

(Transfer from service

Ed Hasely

From:

Ed Hasely

Sent:

Monday, July 26, 2010 3 31 PM 'Powell, Brandon, EMNRD'

To: Subject:

BGT Notification - Five Jicarilla Wells

Brandon – this is to notify you that Energen plans to close the below grade tanks that are located on the following locations:

Jicarilla 67 #19 - Unit Letter L, Section 30, Township 25N, Range 5W	C A BUT A U TAGATAMA BABBANA DA ATATATA
Jicarilla 67 #20 - Unit Letter E, Section 30, Township 25N, Range 5W	
Jicarilla 99 #10 - Unit Letter D, Section 24, Township 26N, Range 3W	,
Jicarilla 99 #12 - Unit Letter O, Section 24, Township 26N, Range 3W	\$
Jicarilla 99 #15 - Unit Letter I, Section 23, Township 26N, Range 3W	*

Let me know if you have any questions.

Ed Hasely

Energen Resources Corporation

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

1.cc. / 2 - 1 - 2)

<u>District I</u> 1625 N French Dr , Hobbs, NM 88240 District II 1301 W Grand Avenue, Artesia, NM88210 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

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back

side of form

Form C-141

Revised October 10, 2003

Release Notification and Corrective Action									
						OPERATOR	₹	Initial	Report
					d Hasely				
				Telephone No: 50		·			
Facility Name: Jicarılla 99 #15 (2 nd BGT)				Facility Type: O	il/Gas Well Site				
Surface Own	ner: Tribal			Mineral Owi	ner:	Tribal		Lease No.	•
LOCATION OF RELEASE									
Unit Letter	Section	Township	Range	Feet from the		rth/South Line	Feet from the	East/West Li	1
1	23	26N	3W	1650	Sou	ıth	990	East	Rio Arriba
			Lati	tude <u>36 46908</u>		Longitude	-107 10678		
				NATUI	RE (OF RELEAS	E		
Type of Relea	se: NO REL	EASE	***************************************					Volume Rec	covered:
Source of Rel	ease:					Date and Hour	of Occurrence:		our of Discovery:
Was Immedia	te Notice G	iven?				If YES, To Who	m?	101 July 201	13 15 16 17
		\	res 🔲 i	No 🔲 Not Requi	red	,		A L	(2) B)
By Whom?						Date and Hour:		/2/	TECETURE SI
Was a Water	course Reac		V [])	1-		If YES, Volume	Impacting the V	/atercougse.	1988 1988 P
			Yes 🔲 1					10 0	Il con Table NI
If a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Percedial Action Token *									
Describe Cau	se of Proble	m and Remed	dial Actio	n 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.									
(n/h					OIL CONSERVATION DIVISION				
Signature 2 Hase									
Printed Name				/	Approved by District Supervisor				
Title	Sr Envir	onmental Eng	ineer		1	Approval Date		Expiration Da	ite
E-mail Addres	s ed hasely	@energen con	<u>n</u>		Conditions of Approval Attached		Attached		
Date: 2/15/11	F	Phone 505-324	4-4131 / 50	05-330-3584(cell))				

^{*} Attach Additional Sheets If Necessary