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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Pit, Closed-Loop System, Below-Grade Tank, or

Proposed Alternative Method Permit or Closure P	Plan Application
Type of action: Permit of a pit, closed-loop system, below-grade tank, of Closure of a pit, closed-loop system, below-grade tank, of Modification to an existing permit Closure plan only submitted for an existing permitted or below-grade tank, or proposed alternative method	or proposed alternative method
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop syste	em, below-grade tank or alternative request
ease be advised that approval of this request does not relieve theoperator of liability should operations result in vironment. Nor does approval relieve the operator of its responsibility to comply with any other applicable go	
Operator: Energen Resources OGRID #:OGRID #:	162928
Address: 2010 Afton Place, Farmington, New Mexico 87401	
Facility or well name:	
API Number: 3003922329 OCD Permit Number:	
U/L or Qtr/Qtr <u>E</u> Section <u>8</u> Township <u>24N</u> Range <u>03W</u> County:	
Center of Proposed Design: Latitude 36.32707 Longitude -107.18562	NAD: □ <u>-1-927-</u> ⊠-1 <u>9</u> 83
Surface Owner: ☑ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment	NAD: 21977 1983
Pit: Subsection F or G of 19.15.17.11 NMAC	PECEIVED P
Temporary: Drilling Workover	168L APR 2010 2324
Permanent Emergency Cavitation P&A	CONS. DIV. DIST. 3
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A ☐ Lined ☐ Unlined Liner type: Thicknessmil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Ot	her A
String-Reinforced	15 05 67 87 10 10 10 10 10 10 10 10 10 10 10 10 10
Liner Seams: Welded Factory Other Volume: bbl	Dimensions: Lx Wx D
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 whintent)	ich require prior approval of a permit or notice of
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	
Below-grade tank: Subsection I of 19.15.17.11 NMAC	
Volume:bbl Type of fluid:Produced Water	.
Tank Construction material:	
Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and automatic ov	
☐ Visible sidewalls and liner X Visible sidewalls only ☐ Other	
Liner type: Thickness mil HDPE PVC Other	
5.	
Alternative Method:	

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

6 '	·
Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)	
Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, institution or church)	hospital,
Four foot height, four strands of barbed wire evenly spaced between one and four feet	
Alternate. Please specify	<u>,</u>
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)	
Monany inspections (if neutring of screening is not physically reastore)	
8. <u>Signs</u> : 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.	
10.	
Siting Criteria (regarding permitting): 19.15.17.10 NMAC	
Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of accepmaterial are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appro-	otable source priate district
office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of a	pproval.
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.	ing pads or
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	☐ Yes ☐ No
lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ No
(Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	□ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.	☐ Yes ☐ No
(Applies to permanent pits) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	□ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock	☐ Yes ☐ No
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	
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	☐ Yes ☐ No
adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	
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.	☐ Yes ☐ No
 Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	
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:
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 H₂S, 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
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 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		
Instructions: Please indentify the facility or facilities for the disposal of liquids, a facilities are required.	rilling fluids and drill cuttings. Use attachment if r	nore than two
	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	cur 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 operation 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	requirements of Subsection H of 19.15.17.13 NMAC of 19.15.17.13 NMAC	2
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 requir 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 f	e administrative approval from the appropriate disti 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	obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data	obtained from nearby wells	☐ Yes ☐ No ☐ NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data	obtained from nearby wells	☐ Yes ☐ No ☐ NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other 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 less watering purposes, or within 1000 horizontal feet of any other fresh water well or s - NM Office of the State Engineer - iWATERS database; Visual inspection (oring, 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 approve		☐ Yes ☐ No
Within 500 feet of a wetland US Fish and Wildlife Wetland Identification map; Topographic map; Visua	I 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 Society; Topographic map	& 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 9.15.17.13 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, accu	rate and complete to the best of my knowledge and belief.
Name (Print): Ti	ele:
Signature:	Date:
e-mail address: Telephone:	·
OCD Approval: Permit Application (including closure plan) (Closure F	'lan (only) OCD Conditions (see attachment)
OCD Representative Signature:	Approval Date: 1/04/11
Title: Compliance Office	OCD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection Instructions: Operators are required to obtain an approved closure plan prior The closure report is required to be submitted to the division within 60 days of section of the form until an approved closure plan has been obtained and the c	to implementing any closure activities and submitting the closure report. the completion of the closure activities. Please do not complete this
	☐ Closure Completion Date: 2/22/09
Closure Method: ☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Altern ☐ If different from approved plan, please explain.	ative Closure Method Waste Removal (Closed-loop systems only)
23. Closure Report Regarding Waste Removal Closure For Closed-loop System	s That Utilize Above Ground Steel Tanks or Haul-off Bins Only:
Instructions: Please indentify the facility or facilities for where the liquids, dritwo facilities were utilized.	lling fluids and drill cuttings were disposed. Use attachment if more than
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 o Yes (If yes, please demonstrate compliance to the items below) No	r in areas that will not be used for future service and operations?
Required for impacted areas which will not be used for future service and operated Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique	ions:
24.	Discount in the standard of th
Closure Report Attachment Checklist: Instructions: Each of the following is 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 TNT Landfarm (WM-1-C) ☐ Soil Backfilling and Cover Installation ☐ Re-vegetation Application Rates and Seeding Technique	
Site Reclamation (Photo Documentation) On-site Closure Location: LatitudeLongi	tude NAD: 🔲 1927 🔲 1983
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure belief. I also certify that the closure complies with all applicable closure required.	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: 2 Hand	Date: 4/15/10
e-mail address: ed.hasely@energen.com	Telephone:(505) 324-4131

BELOW-GRADE TANK CLOSURE REPORT

ENERGEN RESOURCES Jillson Federal #4 – Drain Pit Tank

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.

Attached

- (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; Soils were visually impacted. No samples were collected until excavation was complete.
 - Collect individual grab samples from any area that is wet, discolored or showing other evidence of a release;

No 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	No Sample – visual impact
Total BTEX	50.0	
TPH (418.1)	100	66
Chlorides	250	46

(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.

Not applicable.

(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.

Proceeded per 19.15.29 and 19.15.30. Notifying the OCD of the visually impacted soils was overlooked. OCD was verbally notified of this oversight on 4/14/10. On future work, all efforts will be made to make the required notifications upon discovery of impacted soils (either visual or lab analyses).

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 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Energen	Project #:	03022-0001
Sample ID:	Drain Pit Exc. Sides	Date Reported:	12-18-09
Laboratory Number:	52709	Date Sampled:	12-15-09
Chain of Custody No:	8547	Date Received:	12-15-09
Sample Matrix:	Soil	Date Extracted:	12-16-09
Preservative:	Cool	Date Analyzed:	12-17-09
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:

Jillson Fed #4 BGTs

Analyst

Review



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

2 0. / .	_		
Client:	Energen	Project #:	03022-0001
Sample ID:	Drain Pit Exc. Bottom	Date Reported:	12-18-09
Laboratory Number:	52710	Date Sampled:	12-15-09
Chain of Custody No:	8547	Date Received:	12-15-09
Sample Matrix:	Soil	Date Extracted:	12-16-09
Preservative:	Cool	Date Analyzed:	12-17-09
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)	27.4	0.1
Total Petroleum Hydrocarbons	27.4	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:

Jillson Fed #4 BGTs

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 #:	03022-0001
Sample ID:	Drain Pit Exc. Sides	Date Reported:	12-18-09
Laboratory Number:	52709	Date Sampled:	12-15-09
Chain of Custody:	8547	Date Received:	12-15-09
Sample Matrix:	Soil	Date Analyzed:	12-17-09
Preservative:	Cool	Date Extracted:	12-16-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	g - Program of the	Concentration (ug/Kg)	Det. Limit (ug/Kg)	
A. C.				
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	Percent Recovery
	Fluorobenzene	91.1 %
	1,4-difluorobenzene	95.0 %
	Bromochlorobenzene	96.0 %

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:

Jillson Fed #4 BGTs

Analyst

Review



EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Energen	Project #:	03022-0001
Sample ID:	Drain Pit Exc. Bottom	Date Reported:	12-18-09
Laboratory Number:	52710	Date Sampled:	12-15-09
Chain of Custody:	8547	Date Received:	12-15-09
Sample Matrix:	Soil	Date Analyzed:	12-17-09
Preservative:	Cool	Date Extracted:	12-16-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	. Concentration (ug/Kg)	Det. Limit (ug/Kg)	
d			
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	Percent Recovery
	Fluorobenzene	94.1 %
•	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	99.0 %

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:

Jillson Fed #4 BGTs

Analyst

Mustum Welles
Review



Chloride

Project #: 03022-0001 Client: Energen Date Reported: Sample ID: Drain Pit Exc. Sides 12-17-09 Date Sampled: 12-15-09 Lab ID#: 52709 Date Received: 12-15-09 Sample Matrix: Soil Date Analyzed: 12-17-09 Preservative: Cool Condition: Intact Chain of Custody: 8547

Parameter

Concentration (mg/Kg)

Total Chloride

25

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:

Jillson Fed #4 BGT's.

Analyst

Review



Chloride

Client: Project #: Energen 03022-0001 Drain Pit Exc. Bottom Date Reported: Sample ID: 12-17-09 Lab ID#: 52710 Date Sampled: 12-15-09 Sample Matrix: Soil Date Received: 12-15-09 Cool Preservative: Date Analyzed: 12-17-09 Condition: Intact Chain of Custody: 8547

Parameter

Concentration (mg/Kg)

Total Chloride

40

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:

Jillson Fed #4 BGT's.

Ed Hasely

From:

Ed Hasely

Sent:

Monday, December 07, 2009 10:49 AM

To:

'Powell, Brandon, EMNRD'

Subject:

Jillson Fed. #4 BGT Closure Notification.

Energen plans to close the BGT on the subject location in the near future. The BGT is located in Unit Letter E, Sec 8 - T24N - R3W, Rio Arriba County.

Ed Hasely

Energen Resources Corporation

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



December 7, 2009

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

Re:

Below Grade Tank Closure

Jillson Federal #4

Dear Mr. Lavoto:

Energen Resources plans to close a below grade tank located on the subject location. You are on record as the surface owner where this tank is located. New Mexico Oil Conservation Division (NMOCD) rules require notification to the surface owner of our plans to close the below grade tank. NMOCD rules and guidelines will be followed. The well is located in Unit Letter E, Section 8, Township 24N, Range 3W in Rio Arriba County, New Mexico.

5397

700

Certified Fee

Return Receipt Fee (Endorsement Required)

Restricted Delivery Fee (Endorsement Required)

Street, Apt. No.;

Total Postage & Fees

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

Sincerely,

Ed Hasely

Sr. Environmental Engineer

Energen Resources

Cc:

Well File Correspondence

Jillson Feal 4 BGT	
SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
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 mailplece, or on the front if space permits.	A. Signature Agent Addresse B. Received by (Printed Name) C: Date of Deliver
1. Article Addressed to:	D is delivery address different from item 1? Yes If YES, enter delivery address below:
Bureau of Level Management	
1235 La Planta Hury.	
Farmington, NM 87401	3. Service Type
Attn: Jim Lavate	⊠ Certified Mail □ Express Mail □ Registered □ Return Receipt for Merchandis □ Insured Mail □ C.O.D.
	4. Restricted Delivery? (Extra Fee)
2. Article Number 7007 1498	5397 4479
PS Form 3811, February 2004 Domestic Ret	urn Receipt 102595-02-M-15

