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

	Santa Fe, NM 87505 District Office	
7111 Pit, Closed-Lo	oop System, Below-Grade Tank, or	
Proposed Alternative I	Method Permit or Closure Plan Application	
	osed-loop system, below-grade tank, or proposed alternative method closed-loop system, below-grade tank, or proposed alternative method n existing permit v submitted for an existing permitted or non-permitted pit, closed-loop system,	
below-grade tank, or proposed alternati		
Instructions: Please submit one application (Form (	C-144) per individual pit, closed-loop system, below-grade tank or alternative request	
Please be advised that approval of this request does not relieve the environment. Nor does approval relieve the operator of its responsi	operator of liability should operations result in pollution of surface water, ground water or the sibility to comply with any other applicable governmental authority's rules, regulations or ordinal	ances
Operator Energen Resources	OGRID# 162928	
Address 2010 Afton Place, Farmington, New Mexico 874	401	
Facility or well name Martin Federal COM 1		
API Number 3004513087	OCD Permit Number	
U/L or Qtr/Qtr H Section 13 Township	29N Range 11W County San Juan	1
Center of Proposed Design Latitude 36 72651	Longitude107 93673 NAD □1927 ⋈ 1983	
Surface Owner   Federal   State   Private   Tribal Tru	ist or Indian Allotment	
Pit: Subsection F or G of 19 15 17 11 NMAC	RCVD OCT 27 '10	
Temporary Drilling Workover	OIL CONS. DIV.	
Permanent Emergency Cavitation P&A		
☐ String-Reinforced Liner type Thicknessmi	ILLDPE HDPE PVC Other DIST. 3	
Line Scalis   Weided   Lactory   Other	Volumebbl Dimensions Lx Wx D	
Closed-loop System: Subsection H of 19 15 17 11 NMA	A.C.	
	rkover or Drilling (Applies to activities which require prior approval of a permit or notice of	of
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off	f Bins 🔲 Other	
Lined Unlined Liner type Thickness	mil LLDPE HDPE PVC Other	
Liner Seams		
4		
X Below-grade tank: Subsection I of 19 15 17 11 NMAC		
Volumebbl Type of fluid	Produced Water .	
Tank Construction material		
☐ Secondary containment with leak detection ☐ Visible s	sidewalls, liner, 6-inch lift and automatic overflow shut-off	
$\square$ Visible sidewalls and liner $\tilde{X}$ Visible sidewalls only $\square$	Other	
Liner type Thickness mil HDPE	E PVC Other	
5		
Alternative Method:		

D

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, lemporary 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,
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)	
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 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 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
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 ☐ NA
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application  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
<ul> <li>Within an unstable area</li> <li>Engineering measures incorporated into the design, NM Bureau of Geology &amp; Mineral Resources. USGS. NM Geological Society, Topographic map</li> </ul>	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 12 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   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   Cilm 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
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, a facilities are required.	irilling fluids and drill cuttings. Use attachment if n	nore than two
	Disposal Facility Permit Number	
	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		
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 NMA0 I of 19.15.17 13 NMAC	0
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	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	a 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	a 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	a 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 so.  NM Office of the State Engineer - iWATERS database, Visual inspection (	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 approx	·	☐ Yes ☐ No
Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map, Topographic map; Visua	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 protocols 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 Subsection F of 19 15 17 13 NMAC propriate requirements of 19 15 17 11 NMAC ad) - 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 drill 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

Operator Application Certification:  I hereby certify that the information submitted with this application is	s true, accurate and complete to the best of my knowledge and belief	
Name (Print)	Title	
Signature.	Date	
e-mail address Teleph	none	
OCD Approval: Permit Application (including closure plan)	·-•	
OCD Representative Signature:	Approval Date:	
Title: Compliance Office	OCD Permit Number:	
	plan prior to implementing any closure activities and submitting the closure report. 60 days of the completion of the closure activities. Please do not complete this 1 and the closure activities have been completed.	
	□ Closure Completion Date: S/23/2010	
Closure Method:    Waste Excavation and Removal ☐ On-Site Closure Method ☐ If different from approved plan, please explain	☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)	
	op Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: liquids, drilling 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.		
	ormed on or in areas that will not be used for future service and operations?	
Required for impacted areas which will not be used for future service  Site Reclamation (Photo Documentation)  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique	and operations	
24		
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 place) □ 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	LongitudeNAD	
Operator Closure Certification:  I hereby certify that the information and attachments submitted with the belief I also certify that the closure complies with all applicable closure.	his closure report is true, accurate and complete to the best of my knowledge and are requirements and conditions specified in the approved closure plan	
Name (Print) Ed Hasely	Title Sr Environmental Engineer	
Signature 2 Harris	Date 10/25/10	
e-mail address <u>ed hasely@energen com</u>	Telephone(505) 324-4131	

# **BELOW-GRADE TANK CLOSURE REPORT**

# ENERGEN RESOURCES Martin Federal Com #1

# **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; 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	0.014
TPH (418.1)	100	134
Chlorides	250	40

(7) If the soil analyses show that the soils meet the concentrations specified in (6) above, 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 15.29 & 30 NMAC

See attached email notification. Closure proceeded per 19.15.29&30.

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.



### Chloride

Client:	Energen	Project #:	03022-0168
Sample ID:	BGT	Date Reported:	08-20-10
Lab ID#:	55611	Date Sampled:	08-18-10
Sample Matrix:	Soil	Date Received:	08-19-10
Preservative <sup>,</sup>	Cool	Date Analyzed:	08-20-10
Condition: .	Intact	Chain of Custody:	10219

Danamakan	 	 C	.1
Parameter		Concentration (mg/Kg	l)

**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:

Martin Fed. Com #1

Analyst

A(YUL M (Y)) f Review



# EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Energen	Project #:	03022-0168
Sample ID:	BGT	Date Reported:	08-20-10
Laboratory Number:	55611	Date Sampled:	08-18-10
Chain of Custody No:	10219	Date Received:	08-19-10
Sample Matrix:	Soil	Date Extracted:	08-20-10
Preservative:	Cool	Date Analyzed:	08-20-10
Condition:	Intact	Analysis Needed:	TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

134

12.7

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:

Martin Fed. Com #1

Analyst



# EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Energen	Project #:	03022-0168
Sample ID:	BGT	Date Reported.	08-20-10
Laboratory Number:	55611	Date Sampled:	08-18-10
Chain of Custody:	10219	Date Received.	08-19-10
Sample Matrix:	Soil	Date Analyzed:	08-20-10
Preservative <sup>-</sup>	Cool	Date Extracted:	08-20-10
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	5.9	1.0
Ethylbenzene	2.2	1.0
p,m-Xylene	2.8	1.2
o-Xylene	3.4	0.9
Total BTEX	14.3	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	101 %
	1,4-difluorobenzene	106 %
	Bromochlorobenzene	96.1 %

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:

Martin Fed. Com #1

Analyst



# EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client	Energen	Project #:	03022-0168
Sample ID.	BGT	Date Reported:	08-20-10
Laboratory Number <sup>,</sup>	55611	Date Sampled:	08-18-10
Chain of Custody No:	10219	Date Received:	08-19-10
Sample Matrix	Soil	Date Extracted:	08-20-10
Preservative:	Cool	Date Analyzed:	08-20-10
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	0.3	0.2
Diesel Range (C10 - C28)	0.5	0.1
Total Petroleum Hydrocarbons	0.8	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:

Martin Fed. Com #1

Analyst

Review

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



August 12, 2010

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

Re:

Below Grade Tank Closures

Multiple Locations

Dear Mr. Lavoto:

						<b>3</b> (	ΉΞ	len			
7	(Domestic Mail O		Noi	ij	Teire	Ole	ÓΧ		Roz	io co	
47.	For delivery informa	illoi	visi.	out	WED.	110	alaw	WWW	ps.co	mos	
~	OFF		C		A	Ĺ		U	(3)	E	
539	Postage	\$									
•	Certified Fee										ŀ
0000	Return Receipt Fee (Endorsement Required)							F	Postma Here	rk	U
3 06	Restricted Delivery Fee (Endorsement Required)										
149	Total Postage & Fees	\$									
~	Sent To										
7007	Street, Apt No , or PO Box No									·	••••••
-	City, State, ZIP+4					•			•		
	RS Form 3800 August 2	006	<b>3</b> 4				Sec	Reve	sellor	İnstru	ctions

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

MARTIN FEDERAL COM #1 - Unit Letter H, Section 13, Township 29N, Range 11W
TIBBAR FEDERAL #2 - Unit Letter P, Section 13, Township 26N, Range 9W
GARLAND #3 - Unit Letter M, Section 27, Township 29N, Range 11W
MARSHALL COM #1E - Unit Letter P, Section 14, Township 27N, Range 9W
NEWSOM B #11 - Unit Letter P, Section 5, Township 26N, Range 8W

If there are any questions or concerns, please contact me at 505-330-3584.

Sincerely, COMPLETE THIS SECTION ON DELIVERY SENDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. Also complete ☐ Agent item 4 if Restricted Delivery is desired. ☐ Addressee Print your name and address on the reverse Ed Hasely so that we can return the card to you. Date of Delivery Sr. Environmental Engineer Attach this card to the back of the mailpiece, or on the front if space permits. Energen Resources ☐ Yes 1. Article Addressed to If YBS, enter delivery address Cc: Well File Correspondence Service Type Certified Mail ☐ Express Mail ☐ Return Receipt for Merchandis □ Registered ☐ C.O.D. ☐ Insured Mail 4. Restricted Delivery? (Extra Fee) ☐ Yes 7007 1490 0000 5397 4721 2. Article Number

(Transfer from service laper)

# **Ed Hasely**

From:

Ed Hasely

Sent:

Thursday, August 12, 2010 4 46 PM

To: Subject:

'Powell, Brandon, EMNRD' BGT Closure Notifications

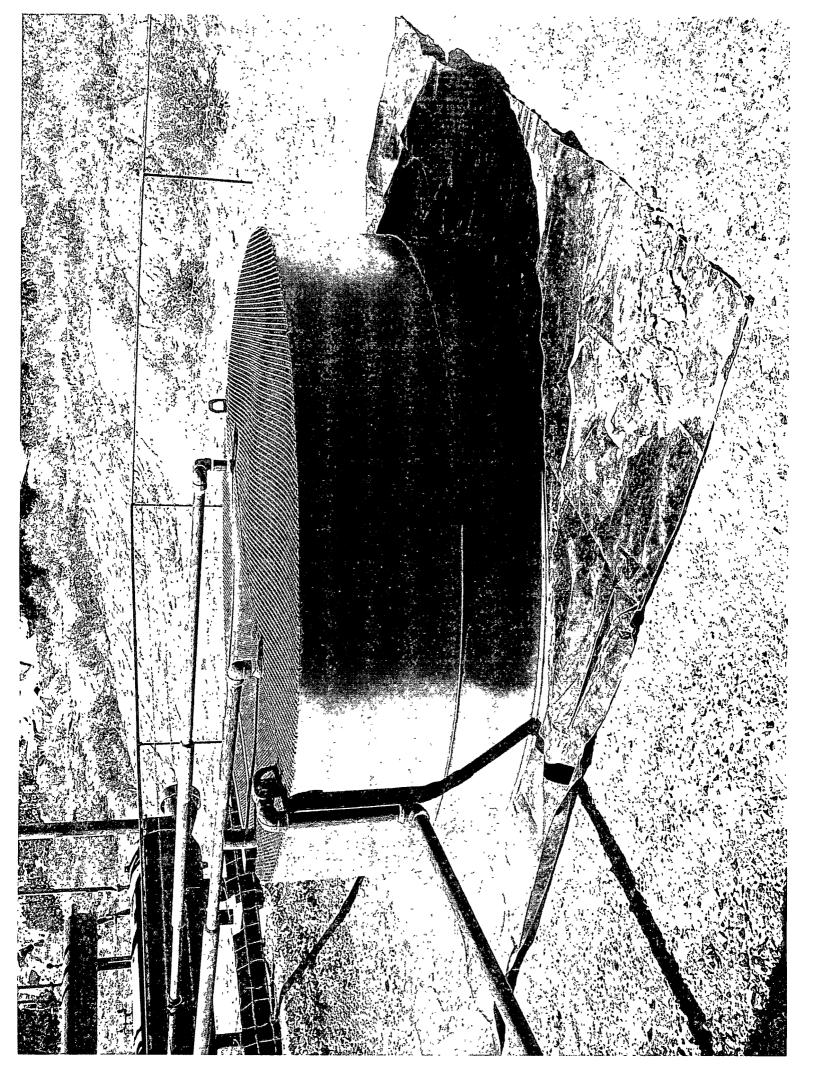
Brandon – This email is your notification that Energen plans to close the BGT's on the following locations in the near future. Let me know if you have questions. Thanks.

M ARTIN FEDERAL COM #1 - Unit Letter H, Section 13, Township 29N, Range 11W
TIBBAR FEDERAL #2 - Unit Letter P, Section 13, Township 26N, Range 9W
GARLAND #3 - Unit Letter M, Section 27, Township 29N, Range 11W
MARSHALL COM #1E - Unit Letter P, Section 14, Township 27N, Range 9W
NEWSOM B #11 - Unit Letter P, Section 5, Township 26N, Range 8W

# **Ed Hasely**

# **Energen Resources Corporation**

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





October 25, 2010

New Mexico Oil Conservation Division 1000 Rio Brazos Road Aztec, New Mexico 87410 Attn: Brandon Powell

Re: Martin Federal Com #1

C-141 Submittal

Below Grade Tank Closure - Release Submittal

Dear Mr. Powell:

Enclosed is the final C-141 Form for the possible release identified during a Below-Grade Tank closure on the subject well location.

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

Sincerely,

Ed Hasely

Sr. Environmental Engineer

**Energen Resources** 

Attachments: Final C-141

Lab Reports

Cc: BLM

HSE File Facility File Correspondence



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

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

# State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Revised October 10, 2003

Submit 2 Copies to appropriate

Form C-141

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

#### Release Notification and Corrective Action **OPERATOR** Initial Report Name of Company: Energen Resources, Inc. Contact: Ed Hasely Address: 2010 Afton Place, Farmington, NM 87401 Telephone No: 505-324-4131 Facility Name: Martin Federal Com #1 (API# 3004513087) Facility Type: Oil/Gas Well Site Surface Owner: Federal Mineral Owner: Federal Lease No. NM-3717A LOCATION OF RELEASE Unit Letter Section Township Range Feet from the North/South Line Feet from the East/West Line County Н 13 29N 11W 2310 North 990 East San Juan Latitude 36.72651 Longitude -107.93673 NATURE OF RELEASE Volume of Release: Unknown Type of Release: Produced Fluids Volume Recovered: 0 bbls Source of Release: Production Pit Tank Date and Hour of Occurrence: Date and Hour of Discovery: Unknown 9/13/10 Was Immediate Notice Given? If YES, To Whom? Brandon Powell - OCD X Yes No Not Required By Whom? Ed Hasely Date and Hour: 9/13/10 10:09 am Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. NA ☐ Yes ☒ No If a Watercourse was Impacted, Describe Fully.\* NA Describe Cause of Problem and Remedial Action Taken.\* Sampling underneath the tank during the below-grade tank closure showed TPH (Method 418.1) results of 134 ppm. According to the Pit Rule, any result over 100 ppm is an indication of a release Describe Area Affected and Cleanup Action Taken.\* GRO/DRO (Method 8015) was 0.8 ppm, which is below remediation levels per the "Guidelines for Remediation of Leaks, Spills and Releases". No remediation required. Area is needed for operations. Upon abandonment, seeding will be deferred to the BLM / Tribal requirements per the BLM / OCD MOU. 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. OIL CONSERVATION DIVISION Signature: Approved by District Supervisor: Printed Name Ed Hasely Title. Sr Environmental Engineer **Expiration Date:** Approval Date: E-mail Address: ed.hasely@energen com Conditions of Approval: Attached

Phone. 505-324-4131 / 505-330-3584(cell)

Date: 10/25/10

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



# EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Energen	Project #:	03022-0168
Sample ID:	BGT	Date Reported:	08-20-10
Laboratory Number:	55611	Date Sampled:	08-18-10
Chain of Custody:	10219	Date Received:	08-19-10
Sample Matrix:	Soil	Date Analyzed:	08-20-10
Preservative:	Cool	Date Extracted:	08-20-10
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Llmit (ug/Kg)	
Benzene	ND	0.9	
Toluene	5.9	1.0	
Ethylbenzene	2.2	1.0	
p,m-Xylene	2.8	1.2	
o-Xylene	3.4	0.9	
Total BTEX	14.3		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter		Percent Recovery	
	Fluorobenzene		101 %	
	1,4-difluorobenzene	`	106 %	
	Bromochlorobenzene		96.1 %	

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:

Martin Fed. Com #1

Analyst



# EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Energen	Project #:	03022-0168
Sample ID:	BGT	Date Reported:	08-20-10
Laboratory Number:	55611	Date Sampled:	08-18-10
Chain of Custody No:	10219	Date Received:	08-19-10
Sample Matrix:	Soll	Date Extracted:	08-20-10
Preservative:	Cool	Date Analyzed:	08-20-10
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	0.3	0.2
Diesel Range (C10 - C28)	0.5	0.1
Total Petroleum Hydrocarbons	0.8	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:

Martin Fed. Com #1

Analyst



#### Chloride

Client:	Energen	Project #:	03022-0168
Sample ID:	BGT	Date Reported:	08-20-10
Lab ID#:	55611	Date Sampled:	08-18-10
Sample Matrix:	Soil	Date Received:	08-19-10
Preservative:	Cool	Date Analyzed:	08-20-10
Condition:	Intact	Chain of Custody:	10219

	 <del></del>	
Parameter	Concentration (mg/Kg)	
Paramerer	L'ARCERTISTION (MA/KA)	
r aramoto:	Ourcentiation (ingrity)	

**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:

Martin Fed. Com #1

Analyst

You Monpo



## EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:	Energen	Project #:	03022-0168
Sample ID:	BGT	Date Reported:	08-20-10
Laboratory Number:	55611	Date Sampled:	08-18-10
Chain of Custody No:	10219	Date Received:	08-19-10
Sample Matrix:	Soil	Date Extracted:	08-20-10
Preservative:	Cool	Date Analyzed:	08-20-10
Condition:	Intact	Analysis Needed:	TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

134

12.7

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:

Martin Fed. Com #1

## **Ed Hasely**

From:

Ed Hasely

Sent:

Monday, August 23, 2010 11:10 AM

To:

'Powell, Brandon, EMNRD'

Subject:

RE BGT Closure Notifications - Possible Release Notification

Brandon – This note is to let you know that the lab analysis of the sample collected below the BGT on the Martin Federal Com #1 tested 134 ppm for TPH using the 418.1 method. Per the Pit Rule, this is an indication of a past release. We will proceed following 19.15.29 and 19.15.30. Thanks.

## **Ed Hasely**

## **Energen Resources Corporation**

From: Ed Hasely

Sent: Thursday, August 12, 2010 4:46 PM

**To:** 'Powell, Brandon, EMNRD' **Subject:** BGT Closure Notifications

Brandon – This email is your notification that Energen plans to close the BGT's on the following locations in the near future. Let me know if you have questions. Thanks.

M ARTIN FEDERAL COM #1 - Unit Letter H, Section 13, Township 29N, Range 11W	,
TIBBAR FEDERAL #2 - Unit Letter P, Section 13, Township 26N, Range 9W	1
GARLAND #3 - Unit Letter M, Section 27, Township 29N, Range 11W	
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