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 Plan Application

	ystem, below-grade tank, or proposed alternative method system, below-grade tank, or proposed alternative method
, -	dividual pit, closed-loop system, below-grade tank or alternative request
	ability should operations result in pollution of surface water, ground water or the
	ply with any other applicable governmental authority's rules, regulations or ordinances.
Operator:Energen Resources	
Address:2010 Afton Place, Farmington, New Mexico 87401	
Facility or well name:Carracas 28 B 2	
API Number:30-039-30168 OCD Permit	
U/L or Qtr/QtrE Section27 Township32N	•
Center of Proposed Design: Latitude36.9061 N Long	•
Surface Owner: Sederal State Private Tribal Trust or Indian	Allotment
Pit: Subsection F or G of 19.15.17.11 NMAC	☐ Closed-loop System: Subsection H of 19.15.17.11 NMAC
Temporary:  Drilling  Workover	☐ Drying Pad  ☐ Tanks ☐ Haul-off Bins ☐ Other
☐ Permanent ☐ Emergency ☐ Cavitation ☐ Steel Pit	☐ Lined ☐ Unlined
Lined Unlined	Liner type: Thicknessmil
Liner type: Thicknessmil	☐ Other
Other String-Reinforced	Seams: Welded Factory Other
Seams: Welded Factory Other	Volume:bblyd <sup>3</sup>
Volume: bbl Dimensions: L x W x D	Dimensions: Length_20 ft_ x Width_12 ft_
Below-grade tank: Subsection I of 19.15.17.11 NMAC	Fencing: Subsection D of 19.15.17.11 NMAC
Volume:bbl	☐ Chain link, six feet in height, two strands of barbed wire at top
Type of fluid:	☐ Four foot height, four strands of barbed wire evenly spaced between one and
Tank Construction material:	four feet
Secondary containment with leak detection	Netting: Subsection E of 19.15.17.11 NMAC
☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	Screen Netting Other
☐ Visible sidewalls and liner	Monthly inspections
☐ Visible sidewalls only	Signs: Subsection C of 19.15.17.11 NMAC
Other	12'x24', 2' lettering, providing Operator's name, site location, and
Liner type: Thicknessmil  HDPE PVC	emergency telephone numbers
Other	Signed in compliance with 19.15.3.103 NMAC
Alternative Method:	Administrative Approvals and Exceptions:
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau Office for consideration	Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.
of approval. 4617 18 19 20 27 3	Please check a box if one or more of the following is requested, if not leave
AND TO	blank:
E CEIVED	Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for
submitted to the Santa Fe Environmental Bureau office for consideration of approval.  RECEIVED	consideration of approval.

Oil Conservation Division

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 ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to permanent pits)  - 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.	☐ Yes ☐ No
- 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
<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 Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the do attached.  Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC	
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.  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 - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	9 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 deattached.  Geologic and Hydrogeologic Data (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of Siting Criteria Compliance Demonstrations (required for on-site closure) - based upon the appropriate requirements of 19.15.17.10 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 - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	19.15.17.9
Previously Approved Design (attach copy of design) API Number:	

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 deattached.	ocuments are
☐ 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	
<ul> <li>☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC</li> </ul>	
Quality Control/Quality Assurance Construction and Installation Plan	
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC	
<ul> <li>□ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>□ Nuisance or Hazardous Odors, including H<sub>2</sub>S, Prevention Plan</li> </ul>	
☐ 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	
Type: 🗌 Drilling 🔲 Workover 📗 Emergency 🔲 Cavitation 🔲 Permanent Pit 🔲 Below-grade Tank 🔯 Closed-loop System 🕻	Alternative
Proposed Closure Method: Waste Excavation and Removal	
<ul> <li>☐ Waste Removal (Closed-loop systems only)</li> <li>☐ On-site Closure Method (Only for temporary pits and closed-loop systems)</li> </ul>	
In-place Burial On-site Trench Burial	
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for co	nsideration)
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; 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 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.  - 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; 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

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 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.
Disposal Facility Name: _Envirotech,; Carracas SWD #1 Disposal Facility Permit Number: _NM-01-0011; API 30-039-24278
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 and Design of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC
Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC ☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
Re-vegetation Plan - based upon the appropriate requirements of Subsection 1 of 19.15.17.13 NMAC
Site Reclamation Plan - based upon the appropriate requirements of Subsection G 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):Pat Sanchez Title:District Engineer
Signature: 7-10-2008
e-mail address:psanchez@energen.com Telephone:505.324.4141
OCD Approval: Permit Application (including closure plan) Closure Plan (only)
OCD Representative Signature: Branchon Someth Approval Date: 7-10-08
Title: ENV:00/506. OCD Permit Number:
That I would be a second of the second of th
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Completion Date: 9/9/208
Closure Method:
<ul> <li>Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method</li> <li>If different from approved plan, please explain.</li> </ul>
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.
NA  Proof of Closure Notice  ↑N  Proof of Deed Notice (if applicable)
√A ☐ Plot Plan
Confirmation Sampling Analytical Results
Waste Material Sampling Analytical Results
Disposal Facility Name and Permit Number
Noil Backfilling and Cover Installation     Re-vegetation Application Rates and Secding 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.
DIS In
Name (Print): Pat Suchet Title: USTICH Engineer
N. 6 11/2 12/19/200
Signature:

#### **Closed-loop Design Plan:**

Our closed loop system will not entail a drying pad, temporary pit, below grade tank or sump. It will entail an above ground tank suitable for holding the cuttings and fluids for rig operations. The tank will be of sufficient volume to maintain a safe free board between disposal of the liquids and solids from rig operations.

- 1) Fencing is not required for an above ground closed-loop system.
- 2) It will be signed in compliance with 19.15.3.103 NMAC.
- 3) A frac tank will be on location to store fresh water.

## **Closed-loop Operating and Maintenance Plan:**

The closed-loop tank will be operated and maintained; to contain liquids and solids, to aid in the prevention of contamination of fresh water sources, in order to protect public health and the environment. To attain this goal the following steps will be followed:

- The liquids will be vaccumed out and disposed of at the Carracas SWD#1 facility (Disposal API Number 30-039-30168). Solids in the closed-loop tank will be vacuumed out and disposed of at Envirotech (Permit Number NM-01-0011) on a periodic basis to prevent over topping.
- 2) No hazardous waste, miscellaneous solid waste or debris will be discharged into or stored in the tank. Only fluids or cuttings used or generated by rig operations will be placed or stored in the tank.
- 3) The division district office will be notified within 48 hours of the discovery of compromised integrity of the closed-loop tank. Upon the discovery of the compromised tank, repairs will be enacted immediately.
- 4) All of the above operations will be inspected and a log will be signed and dated. During rig operations the inspection will be daily.

#### **Closed-loop Closure Plan:**

The closed loop tank will be closed in accordance with 19.15.17.13. This will be done by transporting cuttings and all remaining sludges to Envirotech (Permit Number NM-01-0011) following rig operations. All remaining liquids will be transported and disposed of in the Carracas SWD#1 facility (Disposal API number 30-039-30168). The tanks will be removed from the location as part of the rig move. At time of well abandonment, the site will be reclaimed and re-vegetated to pre-existing conditions when possible.

Olstrict I - PO Box 1980, Hobbs, NM 88241-1980

District II PO Drawer'DD. Artesia, NM 88211-0719

District III 1000 Rio Brazos Rd. Aztec, NM 87410

Oistrict IV PO Box 2088. Santa Fe. NM 87504-2088 State of New Mexico.

Energy, Minerals & Natural Resources Department

Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies

OIL CONSERVATION DIVISION PO Box 2088

Santa Fe, NM 87504-2088 PM 2: 19

MENDED REPORT

Fee Lease - 3 Copies

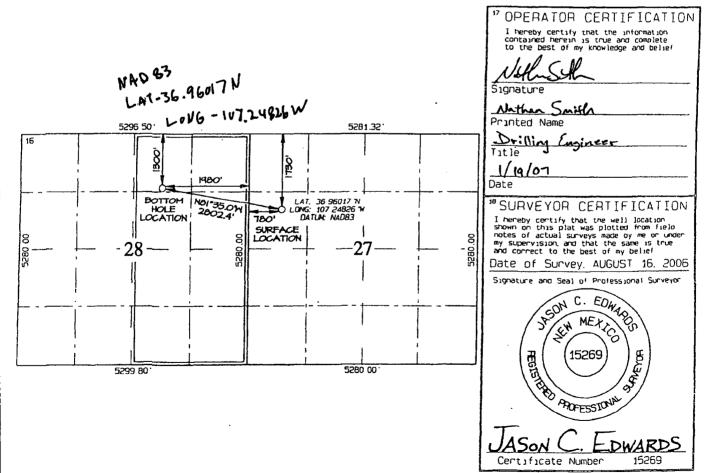
RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number	*Pool Code	'Pool Name	
	71629	BASIN FRUITLA	ND COAL
Property Code	· 'Property CARRACA		. S
'OGRIO № 162928	'Operator ENERGEN RESOURCE		*Elevation 7241

<sup>10</sup> Surface Location · Feet from the UL or lot no Range Lot Idn North/South line Feet from the East/West line RIO 27 Ε 32N 4W 1730 NORTH 780 WEST ARRIBA <sup>11</sup>Bottom Hole Location If Different From Surface UL or lot no North/South line Feet from the Let Ide Feet from the Sect ion East/West line RIÒ 28 4W 1300 NORTH 1980 R 32N EAST ARRIBA 12 Dedicated Acres licini no incol 14 Consolidation Code 15 Order No 320 0 Acres - (E/2)

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



## **Pat Sanchez**

From: Pat Sanchez

**Sent:** Friday, December 19, 2008 10:22 AM

To: 'charlie.perrin@state.nm.us'; 'brandon.powell@state.nm.us'

Cc: Vicki Donaghey; Kirt Snyder; Martin Cabrera; Charlie Donahue; Ed Hasely

Subject: Pit closures for Closed Loop flow Back tanks - remedial/work over type

#### Mr. Powell and Mr. Perrin;

We will be submitting several work over - flow back tank type closed loop permits for closure. The permits were approved by NMOCD from Mid summer until late fall of 2008. A miscommunication in our internal processing occurred and we did not submit closure reports.

The fluids are typically produced water with spent treatment fluid that have been pumped into the reservoir during operations and were disposed of in our own SWD's typically.

I will be out of the office from December 20th and back in on Monday January 5, 2009 - if you need to follow-up by phone please call my Supervisor Mr. Charlie Donahue at 505.324.4140.

They will be submitted as soon as possible.

**Thanks** 

Patricio W. Sanchez Energen Resources District Engineer- San Juan 2010 Afton Place Farmington, NM 87401 Telephone 505.324.4141 Cell 505.793.7605

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District-1 1625 N. French Dr., Hobbs, NM 88240 District [I]
1301 W. Grand Avenue, Artesia, NM 88210
District [II] 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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$\bigcirc$	Or	$\mathcal{Q}_{\mathcal{Q}}$

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

Type of action: Permit of a pit closed-loop system below-grade tank or proposed alternative method

	system, below-grade tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per in	dividual pit, closed-loop system, below-grade tank or alternative request
Please be advised that approval of this request does not relieve the operator of lie environment. Nor does approval relieve the operator of its responsibility to com	ability should operations result in pollution of surface water, ground water or the ply with any other applicable governmental authority's rules, regulations or ordinances.
Operator:Energen Resources	
Address:2010 Afton Place, Farmington, New Mexico 87401	RCVD JUL 14'08
Facility or well name:Carracas 10 A 8	<u>OIL CONS.</u> DIV.
API Number:30-039-26420 OCD Permit	Number:DIST. 3
U/L or Qtr/QtrHSection10Township32N	Range5W County:Rio Arriba
Center of Proposed Design: Latitude36.99789 NLor	ngitude107.34193W NAD: □1927 ⊠ 1983
Surface Owner: ☑ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian	Allotment
Pit: Subsection F or G of 19.15.17.11 NMAC	☐ Closed-loop System: Subsection H of 19.15.17.11 NMAC
Temporary: Drilling Workover	☐ Drying Pad  ☐ Tanks ☐ Haul-off Bins ☐ Other
☐ Permanent ☐ Emcrgency ☐ Cavitation ☐ Steel Pit	Lined Unlined
Lined Unlined	Liner type: Thicknessmil
Liner type: Thicknessmil	Other
Other String-Reinforced	Seams: Welded Factory Other
Seams: Welded Factory Other	Volume:bblyd³
Volume:bbl Dimensions: L x W x D	Dimensions: Length_20 ft x Width12 ft_
Below-grade tank: Subsection I of 19.15.17.11 NMAC	Fencing: Subsection D of 19.15.17.11 NMAC
Volume:bbl	☐ Chain link, six feet in height, two strands of barbed wire at top
Type of fluid:	Four foot height, four strands of barbed wire evenly spaced between one and
Tank Construction material:	four feet
Secondary containment with leak detection	Netting: Subsection E of 19.15.17.11 NMAC
☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	Screen Netting Other
☐ Visible sidewalls and liner	☐ Monthly inspections
☐ Visible sidewalls only	Signs: Subsection C of 19.15.17.11 NMAC
Other	12'x24', 2' lettering, providing Operator's name, site location, and
Liner type: Thicknessmil  HDPE PVC	emergency telephone numbers
Other	☑ Signed in compliance with 19.15.3.103 NMAC
Alternative Method: Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration	Administrative Approvals and Exceptions:  Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.
submitted to the Santa Fe Environmental Bureau office for consideration of approval.  RECEIVED  RECEIVED	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.
C NAME OF THE POST	Environmental Bureau office for consideration of approval.

OIL CONS. DIV. DIST, 3

Dif Conservation Division

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 ☐ NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to permanent pits)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Ycs 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	Ycs 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 Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the do 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 19.15.17.1 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 - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	9 NMAC
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 do attached.  Geologic and Hydrogeologic Data (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of Siting Criteria Compliance Demonstrations (required for on-site closure) - based upon the appropriate requirements of 19.15.17.10 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 - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	19.15.17.9
Previously Approved Design (attach copy of design) API Number:	

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 de	ocuments 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	
Critical Pactors Assessment  Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC  Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC  Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC	
Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC  Quality Control/Quality Assurance Construction and Installation Plan	
Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC	
Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  Nuisance or Hazardous Odors, including H <sub>2</sub> S, Prevention Plan	
☐ Emergency Response Plan ☐ Oil Field Waste Stream Characterization	
☐ Monitoring and Inspection Plan ☐ Erosion Control Plan	
Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC  Proposed Closure: 19.15.17.13 NMAC	
Type: Drilling Workover Emergency Cavitation Permanent Pit Below-grade Tank Closed-loop System	Alternative
Proposed Closure Method:  Waste Excavation and Removal	<del>-</del>
<ul> <li>☐ Waste Removal (Closed-loop systems only)</li> <li>☐ On-site Closure Method (Only for temporary pits and closed-loop systems)</li> </ul>	
☐ In-place Burial ☐ On-site Trench Burial ☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for co	nsideration)
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; 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
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.  - 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; 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.	☐ Yes ☐ No

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 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.
Disposal Facility Name: _Envirotech,; Carracas SWD #1 Disposal Facility Permit Number:NM-01-0011; API 30-039-24278
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 and Design of Burial Trench (if applicable) 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  Site Reclamation Plan - based upon the appropriate requirements of Subsection G 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):Pat Sanchez Title:District Engineer
Signature:
e-mail address:psanchez@energen.com Telephone:505.324.4141
OCD Approval: Permit Application (including closure plan) Closure Plan (only)  OCD Representative Signature: Bould Pough Approval Date: 7-14-08
Title:OCD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Completion Date: 3/33/208
Closure Method:
Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative Closure Method  If different from approved plan, please explain.
If different from approved plan, please explain.  Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check
If different from approved plan, please explain.  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.
☐ If different from approved plan, please explain.  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  Proof of Deed Notice (if applicable)
☐ If different from approved plan, please explain.  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  Proof of Deed Notice (if applicable)  Plot Plan
☐ If different from approved plan, please explain.  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 ☐ Proof of Deed Notice (if applicable) ☐ Plot Plan ☐ Confirmation Sampling Analytical Results ☐ Waste Material Sampling Analytical Results
☐ If different from approved plan, please explain.  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 ☐ Proof of Deed Notice (if applicable) ☐ Plot Plan ☐ Plot Plan ☐ Confirmation Sampling Analytical Results ☐ Waste Material Sampling Analytical Results ☐ Disposal Facility Name and Permit Number
☐ If different from approved plan, please explain.  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  Proof of Deed Notice (if applicable)  Plot Plan  Plot Plan  Waste Material Sampling Analytical Results  Waste Material Sampling Analytical Results  Disposal Facility Name and Permit Number  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique
If different from approved plan, please explain.    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   Proof of Deed Notice (if applicable)   Plot Plan   Plot Plan   Plot Plan   Waste Material Sampling Analytical Results   Waste Material Sampling Analytical Results   Disposal Facility Name and Permit Number   Soil Backfilling and Cover Installation   Re-vegetation Application Rates and Seeding Technique   Site Reclamation (Photo Documentation)
If different from approved plan, please explain.    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   Proof of Deed Notice (if applicable)   Plot Plan
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If different from approved plan, please explain.    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   Proof of Deed Notice (if applicable)   Plot Plan
If different from approved plan, please explain.   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   Proof of Deed Notice (if applicable)   Proof of Closure Native (if applicable)   Proof of Closure Native (if applicable)   Proof of Closure Proof of Cl
If different from approved plan, please explain.   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   Proof of Deed Notice (if applicable)   Proof of Deed Notice (if applicable)   Plot Plan   Plot Plan

#### **Closed-loop Design Plan:**

Our closed loop system will not entail a drying pad, temporary pit, below grade tank or sump. It will entail an above ground tank suitable for holding the cuttings and fluids for rig operations. The tank will be of sufficient volume to maintain a safe free board between disposal of the liquids and solids from rig operations.

- 1) Fencing is not required for an above ground closed-loop system.
- 2) It will be signed in compliance with 19.15.3.103 NMAC.
- 3) A frac tank will be on location to store fresh water.

## Closed-loop Operating and Maintenance Plan:

The closed-loop tank will be operated and maintained; to contain liquids and solids, to aid in the prevention of contamination of fresh water sources, in order to protect public health and the environment. To attain this goal the following steps will be followed:

- 1) The liquids will be vaccumed out and disposed of at the Carracas SWD#1 facility (Disposal API Number 30-039-30168). Solids in the closed-loop tank will be vacuumed out and disposed of at Envirotech (Permit Number NM-01-0011) on a periodic basis to prevent over topping.
- 2) No hazardous waste, miscellaneous solid waste or debris will be discharged into or stored in the tank. Only fluids or cuttings used or generated by rig operations will be placed or stored in the tank.
- . 3) The division district office will be notified within 48 hours of the discovery of compromised integrity of the closed-loop tank. Upon the discovery of the compromised tank, repairs will be enacted immediately.
- 4) All of the above operations will be inspected and a log will be signed and dated. During rig operations the inspection will be daily.

#### **Closed-loop Closure Plan:**

The closed loop tank will be closed in accordance with 19.15.17.13. This will be done by transporting cuttings and all remaining sludges to Envirotech (Permit Number NM-01-0011) following rig operations. All remaining liquids will be transported and disposed of in the Carracas SWD#1 facility (Disposal API number 30-039-30168). The tanks will be removed from the location as part of the rig move. At time of well abandonment, the site will be reclaimed and re-vegetated to pre-existing conditions when possible.

District I 1625 N. French Dr., Hobbs, NM 88240 District II

1301 W. Grand Avenue, Artesia, NM 88210

District III 1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

## WELL LOCATION AND ACREAGE DEDICATION PLAT

Santa Fe, NM 87505

1,	API Numbe	r		<sup>2</sup> Pool Code		<sup>3</sup> Pool Name				
3	30-039-26420			71629		Basin Fruitland Coal				
4 Property (	Code				<sup>5</sup> Property	operty Name			<sup>6</sup> Well Number	
				Carracas 10A			1	#8		
7OGRID	No.		Operator Name , Eleva						<sup>9</sup> Elevation	
162928	1			Energen Resources Corporation 7590' G				7590' GL		
					<sup>10</sup> Surface	Location				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
H	10	32N	5W		800	North	540	East	Rio Arriba	
		<u> </u>	11 Bo	ottom Ho	le Location I	f Different From	m Surface			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
G	10	32AF	5W	ĺ	1100	North	2530	East	Rio Arriba	
Dedicated Acres	Joint o	r Infill 14 Co	nsolidation	Code 15 Or	der No.		<u>'</u>			
236.72 N	2			ţ						

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16				17 OPERATOR CERTIFICATION  I hereby certify that the information contained herein is true and complete
				to the best of my knowledge and belief, and that this organization either
	COLORADO			owns a working interest or unleased mineral interest in the land including
			the proposed bottom hole location or has a right to drill this well at this	
	NEW MEXICO			location pursuant to a contract with an owner of such a mineral or working
		1 1	800'	interest, or to a wohintary pooling agreement or a compulsory pooling
	<u> </u>	· · · · · · · · · · · · · · · · · · ·		order heregofore entered by the division.
		1100'	SHL 540	Jason 1 8/30/2007
				Signature Date
				Jason Kincaid
		· ·	2530' MAD 63	Printed Name
	BHL		LAT 36.99789	
			LOW 107 74143	
				18SURVEYOR CERTIFICATION
				I hereby certify that the well location shown on this
				plat was plotted from field notes of actual surveys
				made by me or under my supervision, and that the
				same is true and correct to the best of my belief.
				June 6, 1988
				Date of Survey
				Signature and Seal of Professional Surveyor.
				Ongunal Survey Conducted and Recorded By Neale C. Edwards
	]			
	]			6857
				Certificate Number