Form C-144
July 21, 2008

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

State of New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

8209

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

Type of action:
- [X] Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
- [ ] Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
- [ ] Modification to an existing permit
- [ ] Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

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 operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1
Operator: Energen Resources Corporation OGRID #: 162928
Address: 2010 Afton Place, Farmington, NM 87401
Facility or well name: Northwest #4N
API Number: 30-039-31038 OCD Permit Number:
U/L or Qtr/Qtr G Section 08 Township 26N Range 04W County: Rio Arriba
Center of Proposed Design: Latitude 36.50200 N Longitude 107.27123 W NAD: [ ]1927 [X]1983
Surface Owner: [ ] Federal [ ] State [ ] Private [X] Tribal Trust or Indian Allotment

2
[X] **Pit**: Subsection F or G of 19.15.17.11 NMAC
Temporary: [X] Drilling [ ] Workover
[ ] Permanent [ ] Emergency [ ] Cavitation [ ] P&A
[X] Lined [ ] Unlined Liner type: Thickness 20 mil [X] LLDPE [ ] HDPE [ ] PVC [ ] Other
[X] String-Reinforced
Liner Seams: [ ] Welded [X] Factory [ ] Other Volume: 1500 bbl Dimensions: L 155 x W 85 x D 10

3
[ ] **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: [ ] P&A [ ] Drilling a new well [ ] Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
[ ] Drying Pad [ ] Above Ground Steel Tanks [ ] Haul-off Bins [ ] Other
[ ] Lined [ ] Unlined Liner type: Thickness mil [ ] LLDPE [ ] HDPE [ ] PVC [ ] Other
Liner Seams: [ ] Welded [ ] Factory [ ] Other

4.
[ ] **Below-grade tank**: Subsection I of 19.15.17.11 NMAC
Volume: bbl Type of fluid:
Tank Construction material:
[ ] Secondary containment with leak detection [ ] Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
[ ] Visible sidewalls and liner [ ] Visible sidewalls only [ ] Other
Liner type: Thickness mil [ ] LLDPE [ ] HDPE [ ] PVC [ ] Other

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MAR 2010
OIL CONS. DIV. DIST. 3

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, hospital, institution or church)*

☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet

☒ Alternate. Please specify 4 ft. high weld wire fence

7.

Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)

☐ Screen ☐ Netting ☐ Other

☐ Monthly inspections (If netting or screening is not physically feasible)

8.

Signs: Subsection C of 19.15.17.11 NMAC

☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

☒ Signed in compliance with 19.15.3.103 NMAC

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Administrative Approvals and Exceptions:
Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

☐ 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 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
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	☐ Yes ☒ No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes ☒ No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	☐ Yes ☒ No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	☐ Yes ☒ No
Within a 100-year floodplain. - FEMA map	☐ Yes ☒ No

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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: _____

12.

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)*

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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
☐ Quality Control/Quality Assurance Construction and Installation Plan the appropriate requirements of 19.15.17.11 NMAC
☐ 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

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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)

15

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

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Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)
Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Soil Backfill and Cover Design Specifications - - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

17

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
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

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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 19.15.17.11 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 I of 19.15.17.13 NMAC
☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

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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): Andrew Soto Title: Drilling Engineer

Signature: Date: 3/30/11

e-mail address: asoto@energen.com Telephone: 505-325-6800

20.

OCD Approval: ☒ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: Jonathan D - Kelly **Approval Date:** 7/21/2011

Title: Compliance Officer **OCD Permit Number:**

21

Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ **Closure Completion Date:**

22

Closure Method:

☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)

☐ If different from approved plan, please explain.

23

Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: Disposal Facility Permit Number:

Disposal Facility Name: Disposal Facility Permit Number:

Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)

☐ Soil Backfilling and Cover Installation

☐ Re-vegetation Application Rates and Seeding Technique

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Closure Report Attachment Checklist: *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

☐ Proof of Closure Notice (surface owner and division)

☐ Proof of Deed Notice (required for on-site closure)

☐ Plot Plan (for on-site closures and temporary pits)

☐ Confirmation Sampling Analytical Results (if applicable)

☐ Waste Material Sampling Analytical Results (required for on-site closure)

☐ Disposal Facility Name and Permit Number

☐ Soil Backfilling and Cover Installation

☐ Re-vegetation Application Rates and Seeding Technique

☐ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude Longitude NAD: ☐ 1927 ☐ 1983

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Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Title:

Signature: Date:

e-mail address: Telephone:

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 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.
Santa Fe, NM 87505

Form C-102
Revised July 10, 2010

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name

[4] Property Code	[5] Property Name	[6] Well Number
	NORTHWEST	4N
[7] OGRID No.	[8] Operator Name	[9] Elevation
	ENERGEN RESOURCES CORPORATION	7139'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	8	26N	4W		2252'	NORTH	1528	EAST	RIO ARRIBA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.

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

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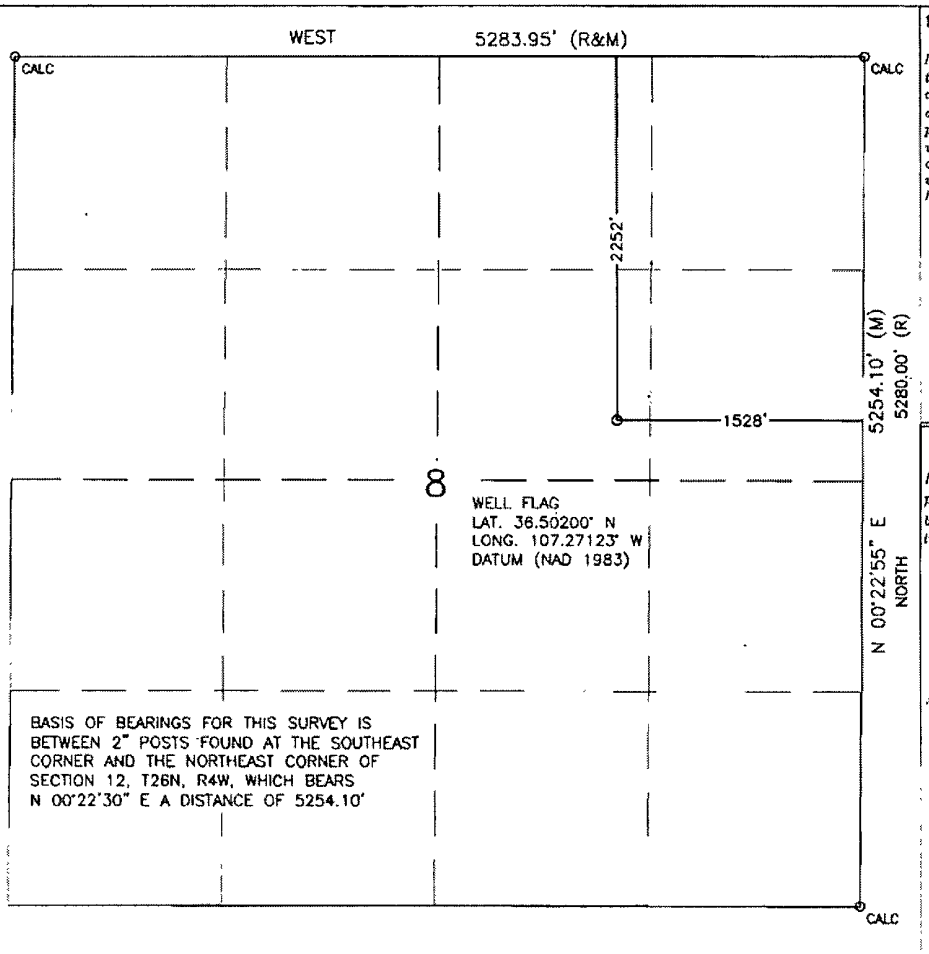


[17] OPERATOR CERTIFICATION

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 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 location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

RECEIVED
JUL 2011
OIL CONS. DIV. DIST. 3

Signature Date

Printed Name

E-mail Address

[18] SURVEYOR 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.

OCTOBER 13, 2010
Date of Survey

Signature and Seal of Professional Surveyor:

DAVID R. RUSSELL
NEW MEXICO
10201
REGISTERED PROFESSIONAL LAND SURVEYOR

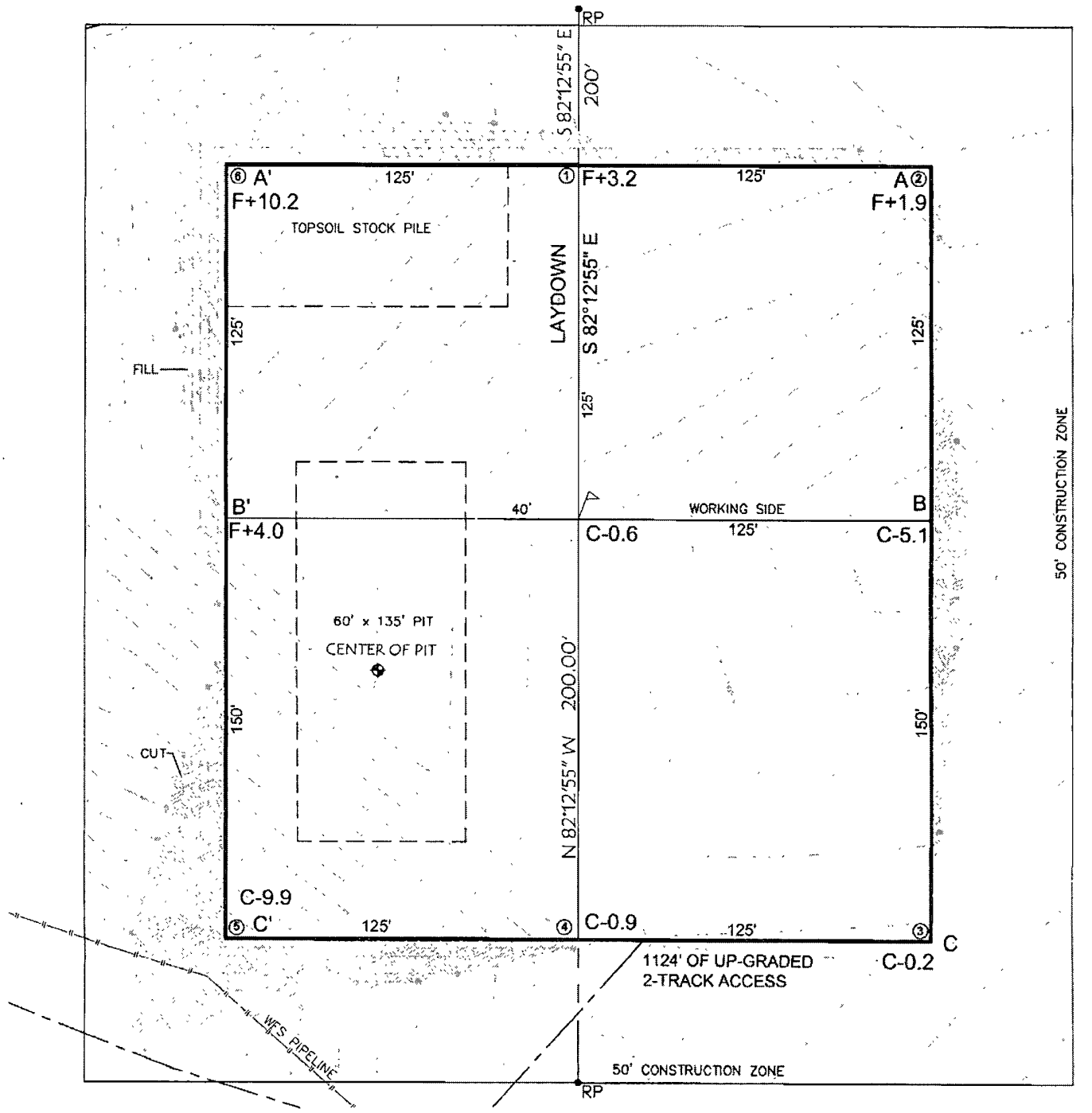
DAVID RUSSELL
Certificate Number 10201

WELL FLAG
LATITUDE: 36.50200° N
LONGITUDE: 107.27123° W
DATUM. NAD 83
CENTER OF PIT
LATITUDE: 36.50128° N
LONGITUDE: 107.27142° W
ELEVATION: 7126.0'
NAD83 & NAVD88

ENERGEN RESOURCES CORPORATION

NORTHWEST #4N
2252' FNL & 1528' FEL
LOCATED IN THE SW/4 NE/4 OF SECTION 8,
T26N, R4W, N.M.P.M.,
RIO ARRIBA COUNTY, NEW MEXICO
GROUND ELEVATION: 7139', NAVD 88
FINISHED PAD ELEVATION: 7138 0', NAVD 88

25' 0 25' 50'
SCALE = 50'

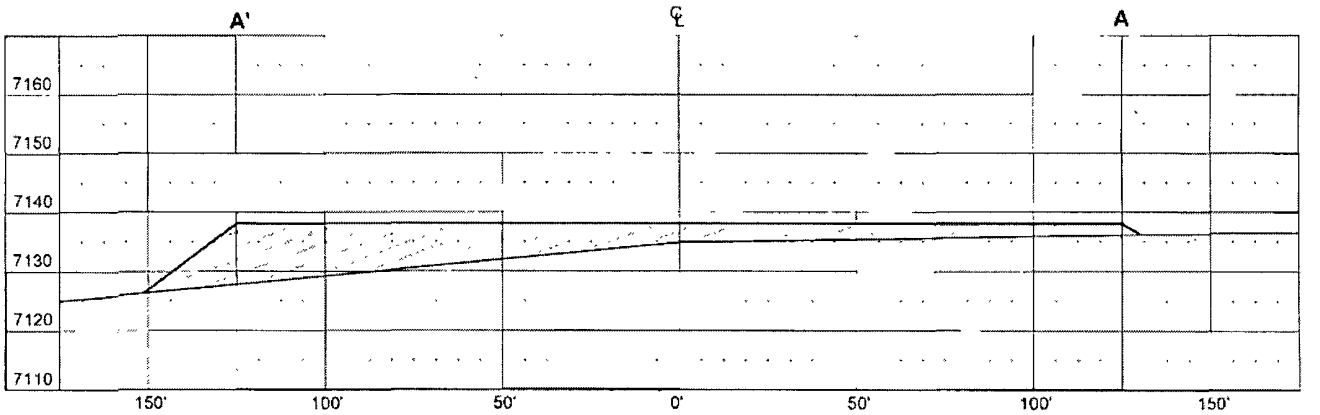


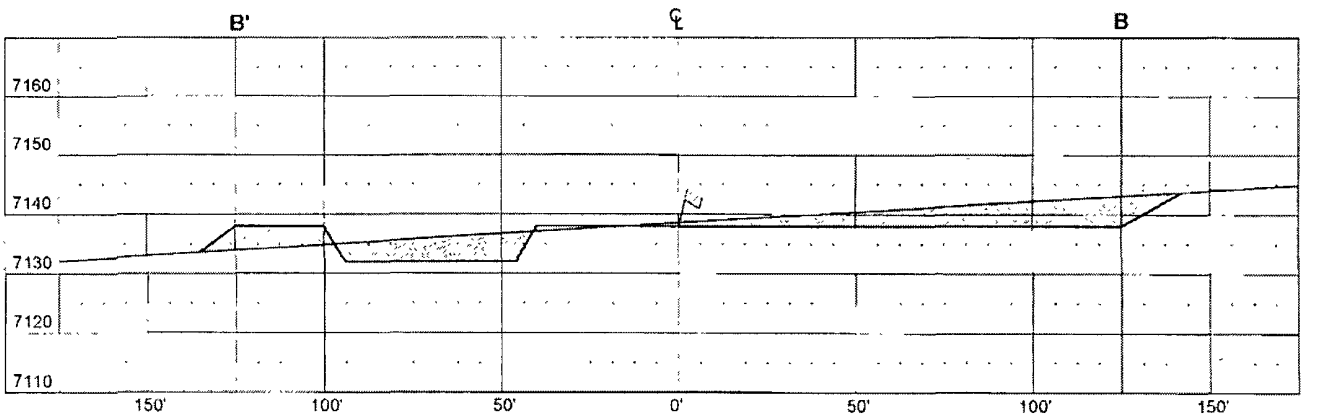
1 FOOT CONTOUR INTERVAL SHOWN
SCALE: 1" = 50'
JOB No.: ERG297
DATE: 10/26/10
DRAWN BY: GRR

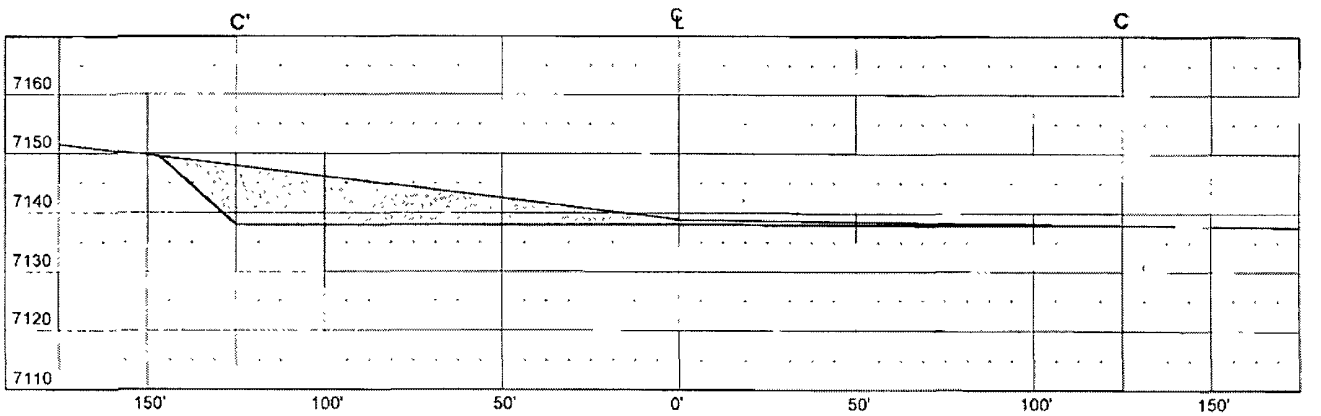
Russell Surveying
1409 W. Aztec Blvd. #2
Aztec, New Mexico 87410
(505) 334-8637

ENERGEN RESOURCES CORPORATION

NORTHWEST #4N
2252' FNL & 1528' FEL
LOCATED IN THE SW/4 NE/4 OF SECTION 8,
T26N, R4W, N.M.P.M.,
RIO ARRIBA COUNTY, NEW MEXICO
GROUND ELEVATION: 7139', NAVD 88
FINISHED PAD ELEVATION: 7138.0', NAVD 88







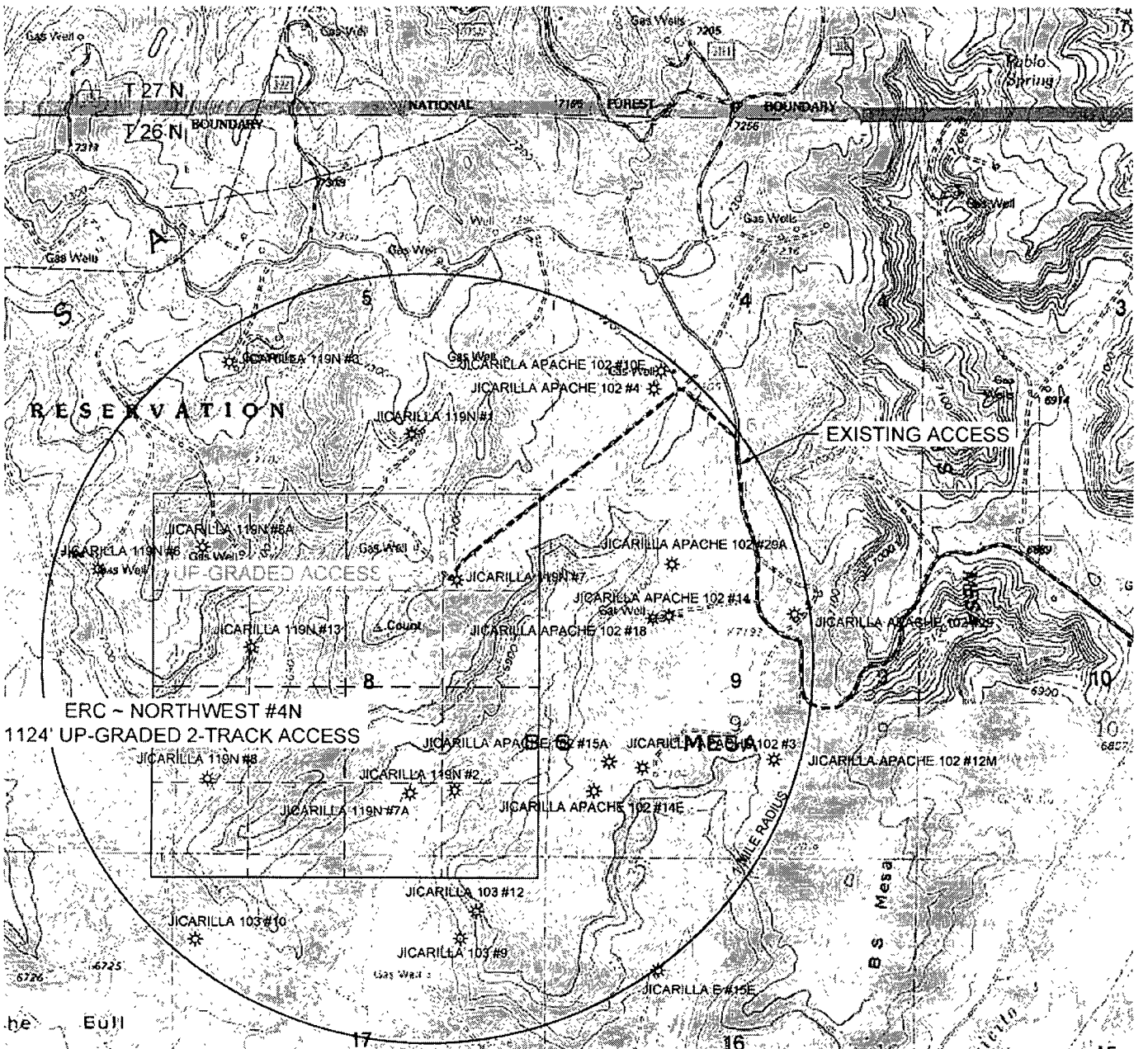
VERT. SCALE: 1" = 30'
HORZ. SCALE: 1" = 50'
JOB No.: ERG297
DATE: 10/26/10

CUT
FILL

Russell Surveying
1409 W. Aztec Blvd. #2
Aztec, New Mexico 87410
(505) 334-8637

ENERGEN RESOURCES CORPORATION

NORTHWEST #4N
2252' FNL & 1528' FEL
LOCATED IN THE SW/4 NE/4 OF SECTION 8,
T26N, R4W, N.M.P.M.,
RIO ARRIBA COUNTY, NEW MEXICO
GROUND ELEVATION: 7139', NAVD 88
1124' OF UP-GRADED 2-TRACK ACCESS



1) FROM BLOOMFIELD, NM, TRAVEL SOUTH ON HIGHWAY 550 TO HIGHWAY 537.
2) TRAVEL NORTH ON HIGHWAY 537 TO JICARILLA ROAD "J6".
3) TURN LEFT LEFT ON J6 AND TRAVEL 2.6 MILES.
4) TURN RIGHT AND TRAVEL 0.3 MILES.
5) TURN LEFT AND TRAVEL 2.0 MILES.
6) TURN LEFT AND TRAVEL 0.2 MILES.
7) TURN LEFT AND TRAVEL 0.8 MILES TO THE JICARILLA 119N #7 WELL LOCATION.
8) CONTINUE SOUTH AND FOLLOW PIPELINE 1124' TO PROPOSED WELL LOCATION.

WELL FLAG LOCATED AT LAT. 36.50200° N, LONG. 107.27123° W (NAD 83)

U.S.G.S. QUAD: LAPIS POINT
SCALE: 1" = 2000' (1:24,000)
JOB No.: ERG297
DATE: 10/26/10

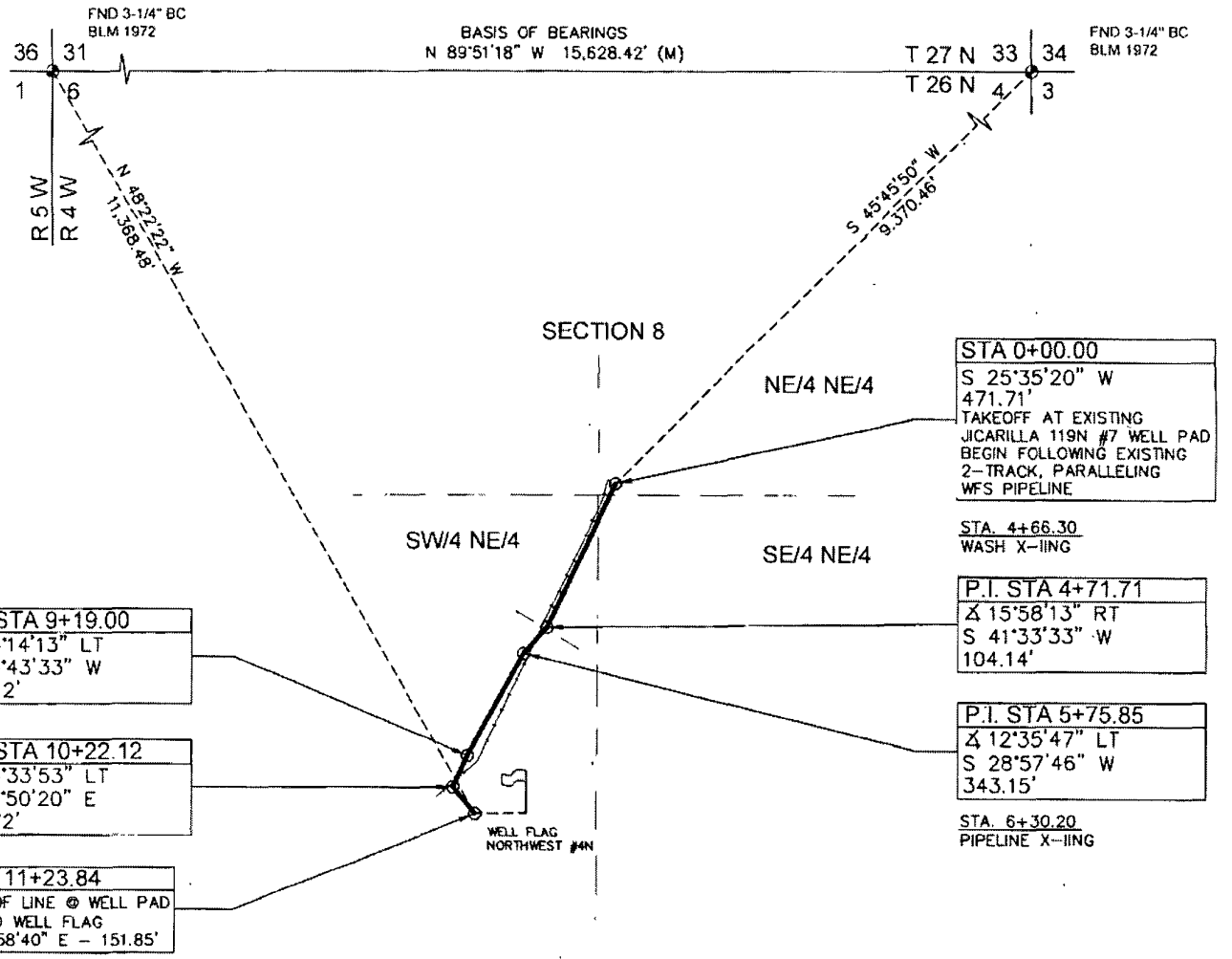
NEW OR RECONSTRUCTED ROADS MUST MEET
SMA DESIGN STANDARDS
INSTALL CULVERTS AS NEEDED

Russell Surveying
1409 W. Aztec Blvd. #2
Aztec, New Mexico 87410
(505) 334-8637

ENERGEN RESOURCES CORPORATION

PROPOSED ACCESS FOR
NORTHWEST #4N
LOCATED IN THE NE/4 NE/4, THE SE/4 NE/4,
AND THE SW/4 NE/W OF SECTION 8,
T26N, R4W, N.M.P.M.,
RIO ARRIBA COUNTY, NEW MEXICO

500' 0 250' 500'
SCALE = 500'



STA 0+00.00
S 25°35'20" W
471.71'
TAKEOFF AT EXISTING JICARILLA 119N #7 WELL PAD BEGIN FOLLOWING EXISTING 2-TRACK, PARALLELING WFS PIPELINE

STA. 4+66.30
WASH X-IING

P.I. STA 4+71.71
Δ 15°58'13" RT
S 41°33'33" W
104.14'

P.I. STA 5+75.85
Δ 12°35'47" LT
S 28°57'46" W
343.15'

STA. 6+30.20
PIPELINE X-IING

P.I. STA 9+19.00
Δ 04°14'13" LT
S 24°43'33" W
103.12'

P.I. STA 10+22.12
Δ 64°33'53" LT
S 39°50'20" E
101.72'

STA 11+23.84
END OF LINE @ WELL PAD
TIE TO WELL FLAG
N 88°58'40" E - 151.85'

NOTES:

1.) BASIS OF BEARING: BETWEEN FOUND MONUMENTS AT THE NORTHWEST CORNER OF SECTION 6 AND THE NORTHEAST CORNER OF SECTION 1, TOWNSHIP 26 NORTH RANGE 4 WEST, N.M.P.M., RIO ARRIBA COUNTY, NEW MEXICO. LINE BEARS N 89°51'18" W A DISTANCE OF 15,628.42 FEET AS MEASURED BY G.P.S.

2.) LOCATION OF UNDERGROUND UTILITIES DEPICTED ARE APPROXIMATE PRIOR TO EXCAVATION UNDERGROUND UTILITIES SHOULD BE FIELD VERIFIED. ALL CONSTRUCTION ACTIVITIES SHOULD BE FIELD VERIFIED WITH NEW MEXICO ONE-CALL AUTHORITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION

DAVID R. RUSSELL
NEW MEXICO
10201
REGISTERED PROFESSIONAL LAND SURVEYOR

~ SURFACE OWNERSHIP ~ JICARILLA APACHE TRIBE		
SECTION 8		
0+00.00 TO 11+23.84		
1123.84 FT/ 68.11 RODS		
DATE OF SURVEY	10/13/10	RR, JE

I, DAVID R. RUSSELL, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

David R Russell

DAVID R. RUSSELL, PLS
NEW MEXICO L.S. #10201

DATE: 10-27-2010

JOB No.: ERG297 DATE: 10/26/10

Russell Surveying
1409 W. Aztec Blvd. #2
Aztec, New Mexico 87410
(505) 334-8637

ENERGEN RESOURCES

Temporary Pit Design Plan

The pit will be designed and constructed in the following manner:

1) Top soil will be stripped, stockpiled and stored as designated on the attached well sight layout schematic. Storage will be in accordance with the requirements set forth as described in item B of the the siting requirements of 19.15.17.11 NMAC.
2) A sign will be posted on location in accordance with 19.15.3.103 NMAC.
3) A four strand barbwire fence will be constructed around the perimeter of the pit with the strands evenly spaced between one and four feet from the ground. This fence will be used to excluded livestock from inadvertently entering the pit. The side of the fence adjacent to the rig will be removed during operations. This fence if located within 1000 feet of a permanent residence, school, hospital, institution or church will be a six foot chain link fence with two strands of barbed wire at the top.
4) The pit will be designed to confine liquids, prevent unauthorized releases by constructing a foundation with interior slopes consisting of a firm and unyielding base that are smooth and free of rocks, debris or other sharp edges to prevent liner damage.
5) The slopes will be constructed with a 2:1 ratio of vertical to horizontal with a changing slope within five feet of the shale shakers trending towards horizontal.
6) The volume of the pit will no exceed 10 acre feet including freeboard.
7) The pit will be lines with a LLDPE geomembrane liner with a thickness of no less then 20mm. The liner material will be compatible with EPA SW-846 method 9090A.
8) Liner seams will be orientated perpendicular to the largest slope with an overlap of four to six inches.
9) If needed a geotextile will be place under the liner to reduce localized stress-strain that may compromise liner integrity.
10) The edges of the liner will be anchored in the bottom of a compacted earth-filled trench no less the 18 inches deep.
11) To prevent runon of surface water a berm no less then 12 inches high will be constructed around the perimeter of the pit. With drainage ditches being directed to the runoff requirements set forth in the APD Condition of Approval.

ENERGEN RESOURCES

Temporary Pit Operations Plan

The pit will be operated and maintained; to contain liquids and solids, to insure liner and secondary containment integrity, 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 fluids in the pit remaining after rig release will be vacuumed out and transported to active drilling locations to be reused or disposed of with Agua Moss LLC in the Pretty Lady #1 (Disposal API Number # 30-048-30922) within 30 days. Residual fluids after vacuuming will be allowed to evaporate.
2) No hazardous waste, miscellaneous solid waste or debris will be discharged into or stored in the pit. Only fluids or cuttings used or generated in the drilling process will be placed or stored in the pit.
3) The division district office will be notified within 48 hrs of the discovery of compromised liner integrity. Upon the discovery of the compromised liner repairs will be enacted immediately.
4) The division district office will be notified within 48 hrs of the discovery of compromised liner integrity below the fluid level unless more then 25 bbls is released in which case Rule 116's 24 hr notification will apply. All liquid above the damaged liner section will be removed to a level below the damage within 48 hrs and repairs will be enacted.
5) Precautionary measures will be taken to insure no liner damage is caused when adding or removing fluids and solids from the pit. This will be accomplished by gradually increasing the slope of the pit from negligible underneath the shale shakers to the 2:1 ratio required by 19.15.17.11 within five feet. A perforated pipe will be installed in the corner of the pit so that a vacuum hose can be run through it to remove fluids without damaging the liner.
6) Perimeter berms and ditches will be constructed around the exterior of the pit to prevent surface water run-on but the rig side may be left open to allow location drainage.
7) An oil absorbent boom will be maintained on site to remove oil from the pit's surface if necessary. Immediately on the cessation of drilling any accumulated oil will be removed from the surface of the pit.
8) A minimum of two feet of freeboard will be maintained at all times. Once fluid levels have the possibility of rising above the minimum freeboard fluid will be vacuumed out of the pit.
9) All of the above operations will be inspected and a log will be signed and dated. During drilling operations the inspection will be daily and after rig release they will be carried out weekly as log as there is fluid in the pit.

ENERGEN RESOURCES

Temporary Pit Closure Plan

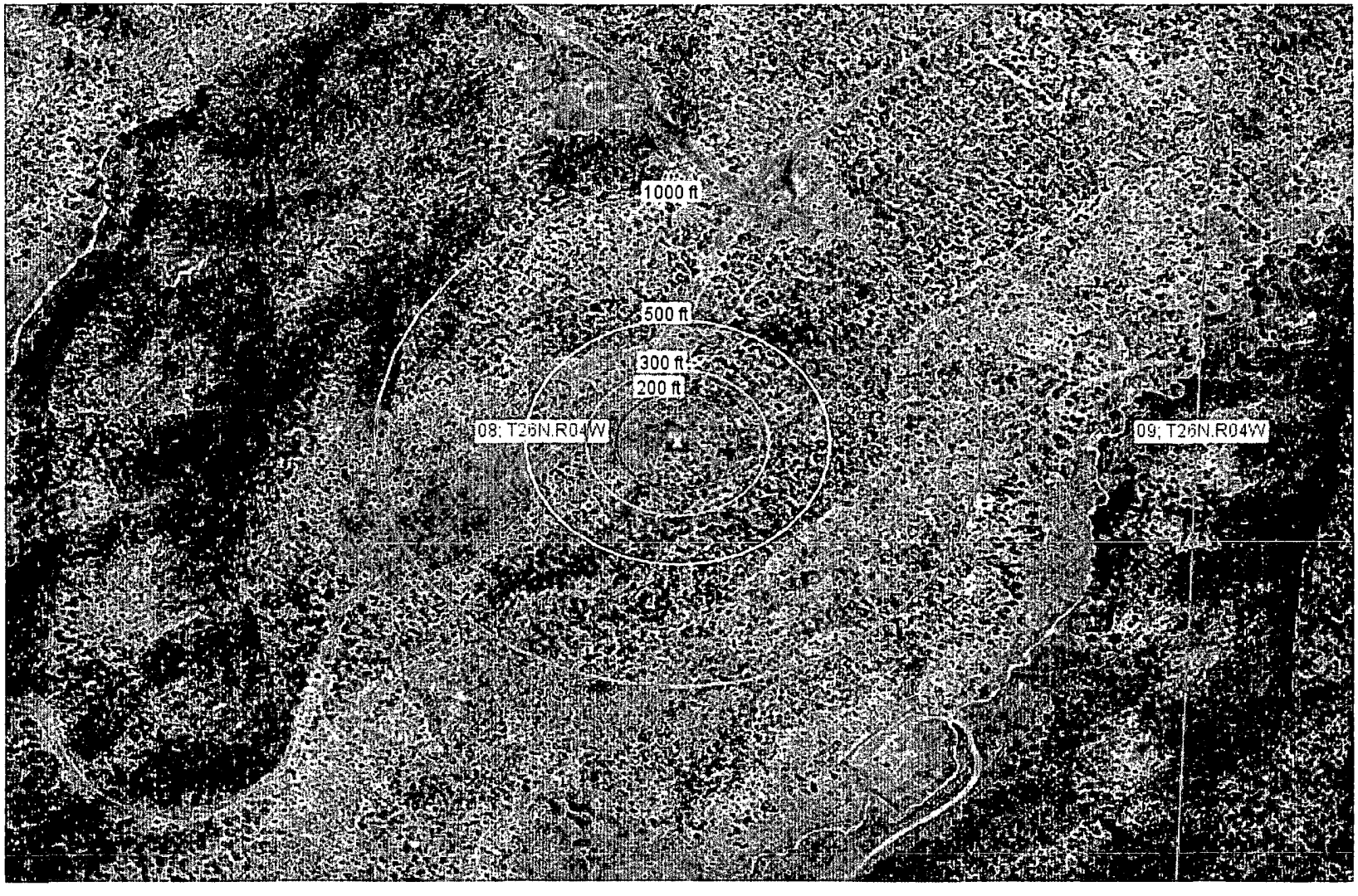
The pit will be closed with in place burial. If the pit is located on private surface, the surface owner will be notified prior to closure by certified mail and the return receipt will be included in the closure packet. The OCD will be verbally or by other means notified at least 72 hours and not more then one week prior to the pit closing. The following process will be used to close the pit:

1) At time of closure, all free standing fluids will be removed and reused or disposed with Agua Moss LLC in the Pretty Lady #1 (Disposal API Number # 30-048-30922) or an Energen operated permitted disposal well. The contents will be solidified to a bearing capacity sufficient to support the final cover. This will be accomplished by mixing the contents with soil at a mixing ratio no greater then 3:1 soil to contents.
2) The liner will be cut off at the mudline of the stabilized contents.
3) Sampling will be done by collecting a minimum of a five-point composite sample of the contents after stabilization. The sample will be analyzed for the following components (if the groundwater is less than 100 feet below the pit but greater than 50 feet, testing for chlorides will be done to the lower limit);

Components	Tests Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	500/1000

4) After demonstrating that the stabilized contents are under the limits listed above, the contents will be covered with compacted non-waste containing earthen material to a minimum of three feet. If stabilized contents exceed a volume that can be covered with three feet of earth and a foot of topsoil the excess contents will be removed and sent to Envirotech (Permit NM-01-0011)or IEI Landfarm (Permit NM-01-0010B). If the stabilized contents do no meet the above stated limits the stabilized contents will all be hauled to Envirotech pursuant to excavation and removal guidelines (19.15.17.13 B1).
5) After the stabilized contents have been covered, the stockpiled topsoil will be replaced to a minimum depth of one foot. Topsoil cover will be graded to prevent ponding of water and erosion of the cover material. This will be accomplished within six months of rig release.
6) The exact location of the on-site burial will be reported to the Aztec field office on the C-105 form. A deed notice identifying the exact location of the on-site burial will be filed with the county clerk if the pit is on private surface.
7) The final closure report (C-144) will be filed within 60 days of closure completion and include sampling results, plot plan, details on backfilling / covering and inspections during the life of the pit.

8) If the pit is located on federal or tribal surface, seeding will be deferred to BLM requirements per the BLM / OCD MOU. Otherwise, the disturbed area will be seeded or planted the first growing season after closing the pit. Seed will be drilled on the contour whenever practical or by other division-approved methods. The goal being to obtain vegetative cover that equals 70% of the native 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. Cover will be maintained through two successive growing seasons. During the two growing seasons that prove viability there shall be no artificial irrigation of the vegetation. Seeding or planting will continue until the required cover is reached. If conditions are not favorable to establishment of vegetation due to periods of drought or similar problems then the Aztec office of the OCD will be notified. The Aztec office of the OCD will also be notified when the disturbed ground successfully achieves re-vegetation.
9) Until the abandonment of the wells on the pad where the pit is located a steel marker no less then four inches in diameter will be cemented in a hole three feet deep in the center of the onsite burial. The top of this marker will be flush with the ground. Once all wells on the pad are abandoned a four foot tall riser will be welded on top of the marker with; operator name, lease name, well name and number, unit number, section, township and rage, and a designation that it is an onsite burial location

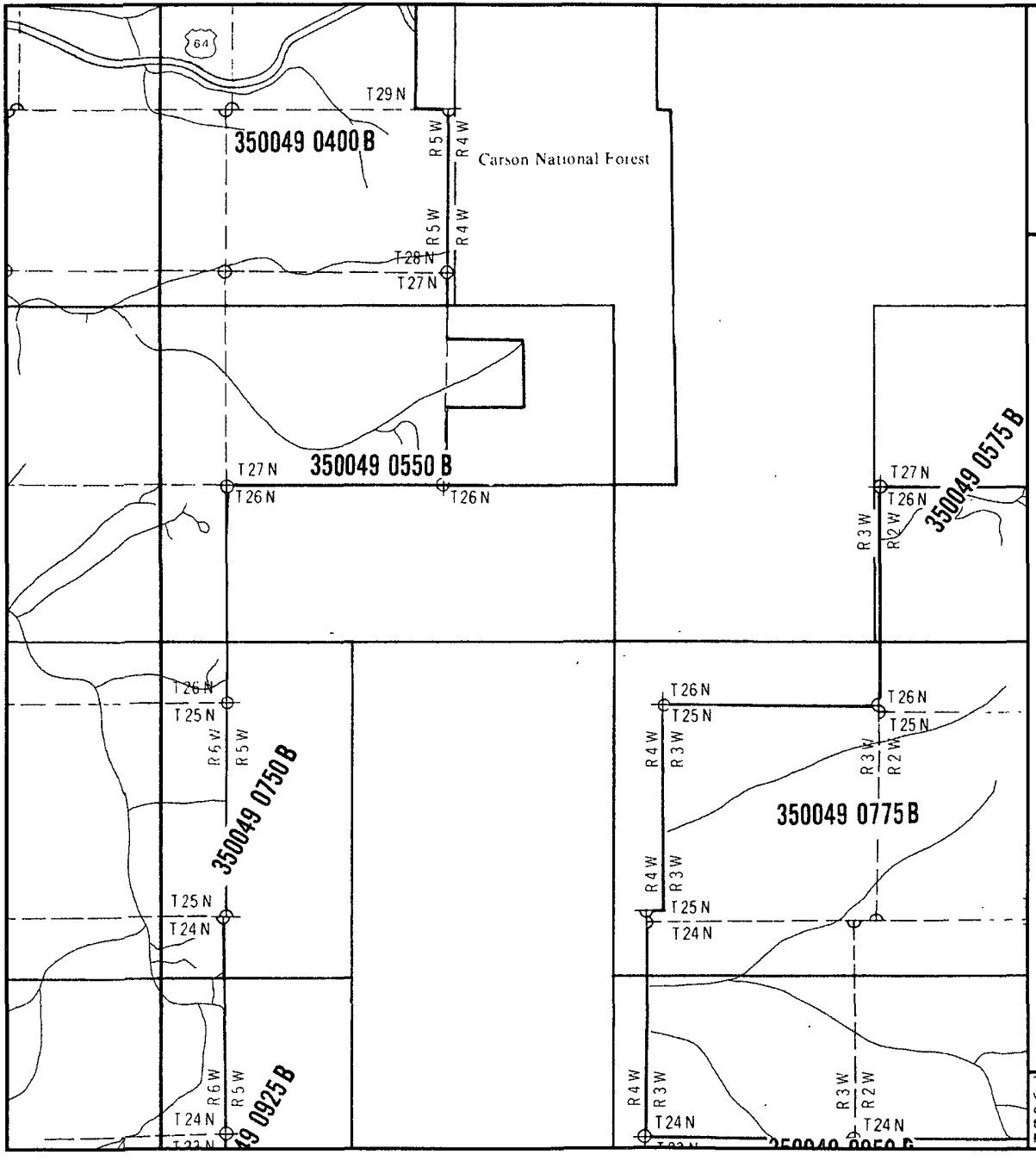


Distance (ft): 200 300 500 1000

0 200 400ft

N W E S

Petroleum Recovery Research Center	Aerial Photo	Figure:
	Energen Resources/Northwest #4N	Mar 30, 2011



NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

RIO ARRIBA COUNTY, NEW MEXICO

UNINCORPORATED AREAS

MAP INDEX

PANELS PRINTED: 25, 50, 75, 95, 100, 125, 150, 175, 200, 225, 250, 260, 275, 300, 325, 350, 375, 400, 425, 450, 475, 500, 525, 550, 575, 600, 625, 650, 675, 700, 725, 750, 775, 800, 825, 850, 875, 900, 925, 950, 975 1000, 1025, 1050, 1070, 1075, 1090, 1125, 1150, 1175, 1180, 1190, 1200, 1205, 1225, 1270, 1275, 1280, 1285, 1290, 1325

COMMUNITY-PANEL NUMBERS
350049 0001-1325

MAP REVISED:
AUGUST 5, 1997

Federal Emergency Management Agency

Hydrogeologic Data:

100-year Floodplain:

There is no map available from FEMA depicting a 100-year floodplain for the subject well, Northwest #4N located in Rio Arriba County, NM.

Site Specific:

The San Jose formation is the highest water bearing zone at this site with the exception of possible perched water. It is the youngest Tertiary bedrock unit in the San Juan Basin. The formation occurs at the surface for the Northwest #4N location and ranges from 0' to 2,600' in this township and range. There are no potentially unstable areas in the region. This below grade tank is not located over a subsurface mine.

The New Mexico State Engineers Water Report shows no water wells in Sec. 08, Township 26N, Range 4W.

Geologic Summary:

The San Jose is a sequence of interbedded sandstones and mudstones deposited in an alluvial and fluvial environment. The formation accumulated in broad, wet, alluvial aprons. Groundwater is associated with the alluvial and fluvial sandstone aquifers, hence it is controlled by the distribution of these sands. The San Jose ranges in thickness from 200' to 2,700'. The San Jose can further be broken into four members: Cuba Mesa, Regina, Llaves, and Tapicitos (in ascending order). The first two, Cuba Mesa and Regina, are predominately sandstone and the latter two, Llaves and Tapicitos, are predominately mudstone.

Reference:
Stone W.J., Lyford F.P., Frenzel P.F., Mizell N.H., and Padgett E.T.: Hydrology and water resources of San Juan Basin, New Mexico Hydrologic Report 6, 1983.

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

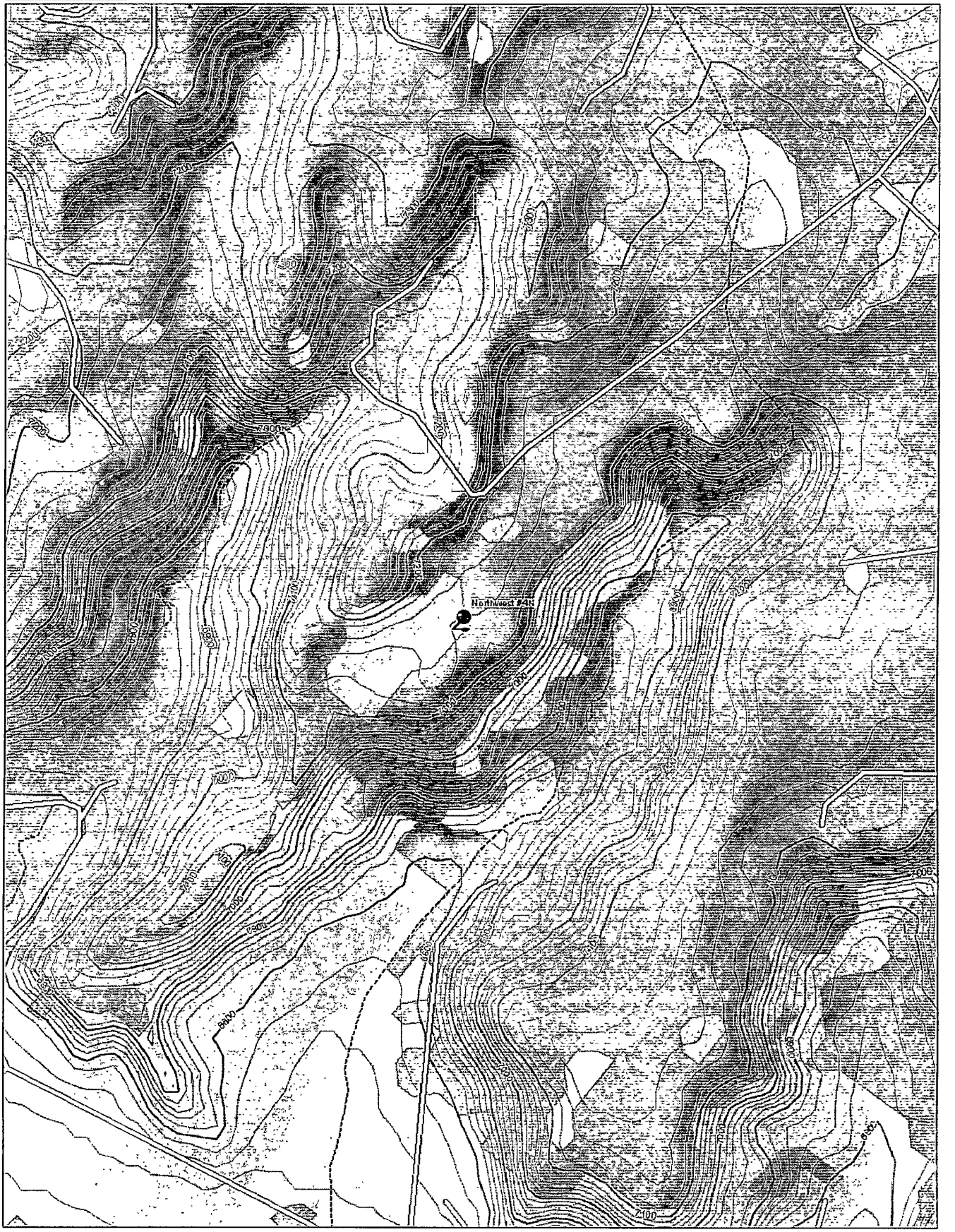
No records found.

PLSS Search:

Section(s): 8 **Township:** 26N **Range:** 04W

Usage Filter:

Use: All Usages



MN (9.7° E)

0 400 800 1200 1600 2000 ft

Data Zoom 14-0

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