

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

Form C-144
July 21, 2008

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.

2623

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
☐ 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.

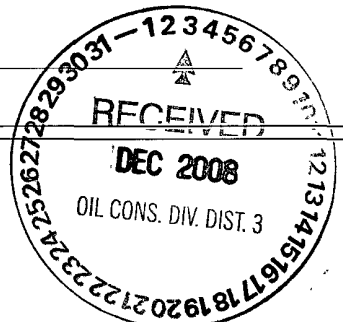
1.
Operator: **ELM RIDGE EXPLORATION COMPANY, LLC** OGRID #: **149052**
Address: **P. O. BOX 156, BLOOMFIELD, NM 87413**
Facility or well name: **SOUTH BISTI 21 H #2**
API Number: **30-045-34131** OCD Permit Number: _____
U/L or Qtr/Qtr **G** Section **21** Township **25 N** Range **12 W** County: **SAN JUAN**
Center of Proposed Design: Latitude **36.38855° N** Longitude **108.11442° W** NAD: ☐ 1927 ☒ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2.
☒ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☒ Lined ☐ Unlined Liner type: Thickness **20** mil ☒ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☒ String-Reinforced
Liner Seams: ☒ Welded ☒ Factory ☐ Other _____ Volume: **9,939** bbl Dimensions: L **160'** x W **40'** 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 ☐ HDPE ☐ PVC ☐ Other _____

5.
☐ **Alternative Method:**
Submittal of an exception request is required Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval



6.

Fencing: Subsection D of 19.15.17.11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)

- ☐ Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)
- ☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
- ☒ Alternate. Please specify minimum 36" hog wire topped with at least 1 strand of barbed wire = at least 48" high 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

9.

Administrative Approvals and Exceptions:

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

Please check a box if one or more of the following is requested, if not leave blank:

- ☒ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval. *See request for alternate marking on Page 2 of attachment*
- ☐ 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	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources, USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain - FEMA map	<input type="checkbox"/> Yes <input type="checkbox"/> No

11.

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)

13.

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☐ Climatological Factors Assessment
- ☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Quality Control/Quality Assurance Construction and Installation Plan
- ☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☐ Nuisance or Hazardous Odors, including H₂S, Prevention Plan
- ☐ Emergency Response Plan
- ☐ Oil Field Waste Stream Characterization
- ☐ Monitoring and Inspection Plan
- ☐ Erosion Control Plan
- ☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.

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

16.

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 identify 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> 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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

18.

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 See 10. on APD Page 9 (Exhibit K)
☐ 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

19.

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): **BRIAN WOOD** Title: **CONSULTANT**

Signature: _____

Date: **11-29-08**

e-mail address: **brian@permitswest.com** Telephone: **(505) 466-8120**

20.

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

OCD Representative Signature: _____

Approval Date: **12-11-08**

Title: **Enviro/spec**

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 identify 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

24.

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

25.

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: _____

Elm Ridge Exploration Company, LLC
South Bisti 21 H #2 temporary pit proposed closure
1980' FNL & 1920' FEL Sec. 21, T. 25 N., R. 12 W.
San Juan County, New Mexico
API #30-045-34131

PAGE 1

Siting Criteria

1. Ground water is >100' below the bottom of the pit. This estimate is based on the Carson well which is ≈3 miles ENE in 13-25n-12w and the windmill which is ≈4 miles NNE in 1-25n-12w. The Carson well produces from the Cliff House and deeper zones. The windmill may produce from the Ojo Alamo.

6,406' Carson well ground elevation
- 1,927' depth to water
4,479' water elevation

6,281' windmill ground elevation
-210' depth to water
6,071' water elevation

6,288' oil well ground elevation
- 10' deep pit
- 6,071' water level
≈207' depth to water

2. Pit is not within 300' of a continuously flowing watercourse. Pit is not within 200' of any other significant watercourse as defined by OCD. Closest first order tributary of Hunter Wash is over 3/4 mile southeast (Exhibit B).

3. Pit is not within 300' of any building. Closest buildings are ≈2 miles southwest (Exhibit C).

4. Pit is not within 1,000' any fresh water well or spring (Exhibits A & B).

5. Pit is not within municipal boundaries or within a municipal fresh water well field (Exhibits A & B).

6. Pit is not within 500' of a wetland (Exhibit D).

7. Pit does not overly a mine (Exhibit E).

Elm Ridge Exploration Company, LLC
South Bisti 21 H #2 temporary pit proposed closure
1980' FNL & 1920' FEL Sec. 21, T. 25 N., R. 12 W.
San Juan County, New Mexico
API #30-045-34131

PAGE 2

8. Pit is not in an unstable area. No evidence of earth movement was found during a November 17, 2008 inspection. Maximum grade is $\approx 3\%$ (Exhibit F).

9. Pit is not within a 100 year flood plain (Exhibit G).

10. C-102 is attached as Exhibit H.

11. Closure notice to surface owner (BLM) is attached as Exhibit I.

Alternative for 19.15.17.13 F. (1) (d)

An alternate interim marking system will be used to allow for safer and more efficient operations. A minimum 4" O. D. steel pipe will be set at least 36" deep at the center of the pit. A threaded collar will be on the top of the pipe. A minimum 12" x 12" steel plate will be welded atop the threaded collar. Top of the plate will be flush with ground level. The standard location information listed will be welded onto the plate, plus a notation that it marks an on site buried temporary pit. Upon plugging the well, the plate will be removed and the pit marked as described in 19.15.17.13 F. (1) (d).

Closure Plan

Elm Ridge will close the pit in accordance with OCD Rules 19.15.17.12. & 13. Post closure documents will be submitted within 60 days of pit closure and will include forms C-105 and C-144, cover details, pit diagram, inspection report, sample results, and a copy of deed notice to the county clerk.

All free standing liquids will be removed before back filling the pit and disposed of at an Elm Ridge disposal well (e. g., Carson Unit WDW 242, API 30-045-32447) or at Basin Disposal's evaporation pond (NM-01-005).

The preferred method of closure will be on site in place burial assuming all criteria in 19.15.17.13 (B) are met.

Elm Ridge Exploration Company, LLC
South Bisti 21 H #2 temporary pit proposed closure
1980' FNL & 1920' FEL Sec. 21, T. 25 N., R. 12 W.
San Juan County, New Mexico
API #30-045-34131

PAGE 3

The surface owner has been notified (attached).

Closure, including contouring and seeding, will be completed within 6 months of rig off.

After approval of this application, Elm Ridge will notify the OCD verbally or by other means at least 72 hours, but not more than one week, prior to any closure operation. The notice shall include the operator's name and the location to be closed by unit letter, section, township and range, well name & number, and API number.

All liner above the mud level will be cut and removed after stabilization. Removed liner will be disposed of in a licensed disposal facility.

Elm Ridge will stabilize or solidify the contents to a bearing capacity sufficient to support the temporary pit's final cover. Elm Ridge will not mix the contents with soil or other material at a mixing ratio of greater than 3:1, soil or other material to contents.

A 5 point composite sample will be taken of the pit and all samples tested per Subsection B of 19.15.17.13(B)(1)(b). If the criteria are not met, then all contents will be handled per Subparagraph (a) of Paragraph (1) of Subsection B of 19.15.17.13. (i. e., dig & haul). If dig & haul are required, then disposal facility will be Envirotech (NM01-0011).

<u>Component</u>	<u>Test Method</u>	<u>Limit (mg/Kg)</u>
benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2,500
GRO/DRO	EPA SW-846 8015M	500
chlorides	EPA 300.1	1,000 or background

Elm Ridge Exploration Company, LLC
South Bisti 21 H #2 temporary pit proposed closure
1980' FNL & 1920' FEL Sec. 21, T. 25 N., R. 12 W.
San Juan County, New Mexico
API #30-045-34131

PAGE 4

After completing solidification and testing, the pit area will be back filled with compacted, waste free, earth material. At least 4 feet of cover will be achieved. The cover will include 1 foot of suitable material to establish vegetation at the site, or the background thickness of the topsoil, whichever is greater.

Recontouring of the location will match the fit, shape, line, form, and texture of the surrounding area. Reshaping will control drainage and prevent ponds and erosion. Natural drainages will be unimpeded. Water bars and/or silt traps will be placed where needed to prevent erosion on a large scale. Final recontour will have a uniform appearance with smooth surface fitting the natural landscape.

Notice will be sent to the OCD when the reclaimed area is seeded.

Disturbed areas will be seeded the first growing season after the pit is closed. Seed will be drilled on the contour wherever practical or by other OCD approved method. BLM stipulated seed mix will be used. Vegetation cover will equal at least 70% of the native perennial vegetation cover prior to disturbance. Seed mix will include at least 3 native species, including at least 1 grass. Noxious weeds will be excluded. Vegetation cover will be maintained through 2 successive growing seasons. Repeat seeding or planting will be continued until successful vegetation growth occurs.

New Mexico Office of the State Engineer
POD Reports and DownloadsTownship: 25N Range: 12W Sections: NAD27 X: Y: Zone: 14N Search Radius: County: Basin: Number: Suffix: Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic ☒ All☐ POD / Surface Data Report ☐ Avg Depth to Water Report ☐ Water Column Report

POD / SURFACE DATA REPORT 11/28/2008

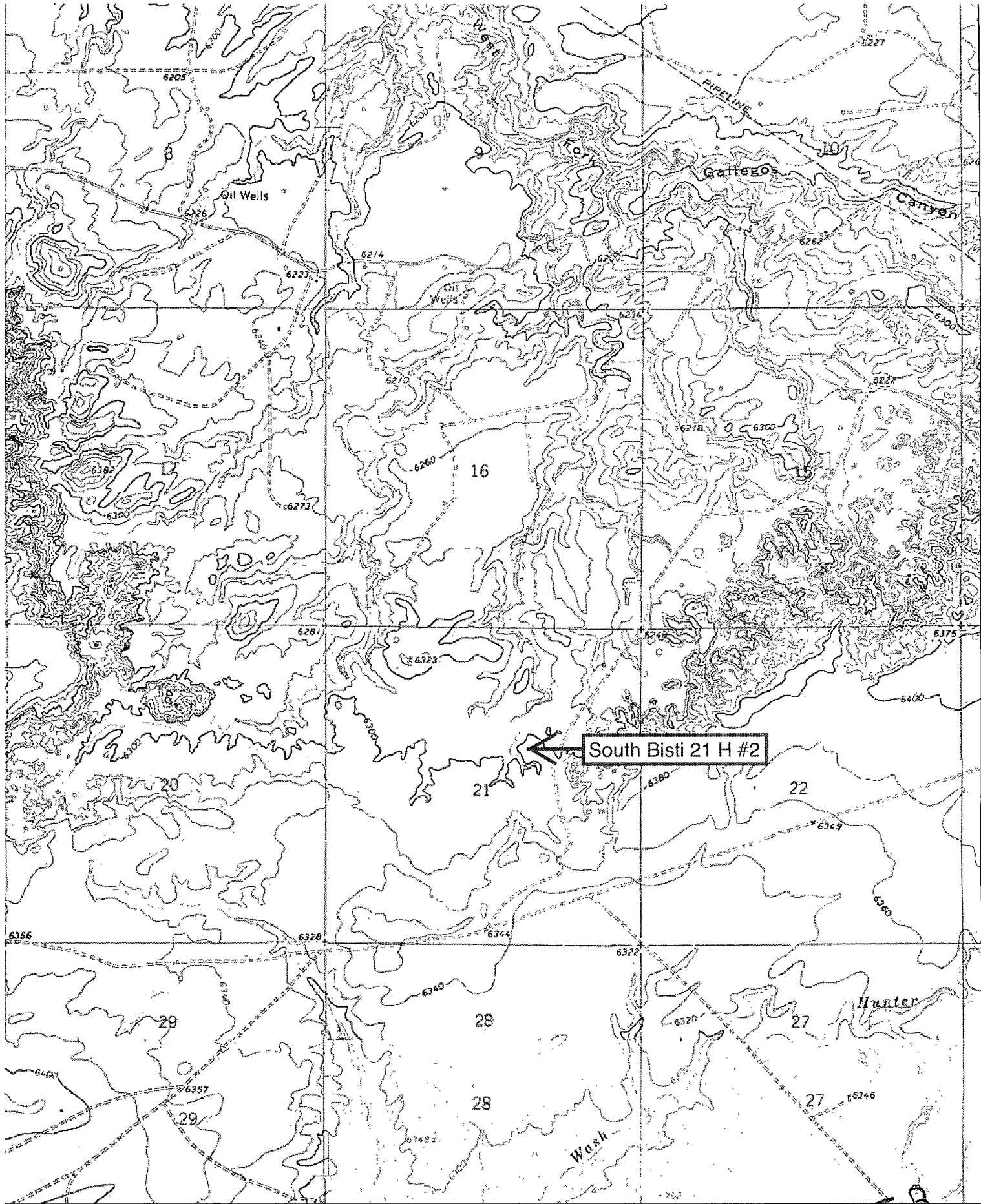
(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are biggest to smallest)

DB File Nbr	Use	Diversion	Owner	POD Number	Source	Tw	Rng	Sec	q	q	q	X Y are in Feet	UTM are in Meters	Start Date	Finish Date	Depth Well	Depth (in feet) Water		
												Zone X Y	UTM Zone Easting Northing						
RG 21872	DOM	0	LILA C. ROMERO	RG 21872		25N	12W	35					13	223514	4028055				
RG 37972	DOM	0	PATRICIA E. SOKOLL	RG 37972		25N	12W	24				C	689000	1959500					
RG 43582	DOM	3	BERNICE F. CORDOVA	RG 43582	Shallow	25N	12W	23					13	223616	4031274	05/01/1985	05/01/1985	50	8
RG 46561	DOM	0	SHIRLEY GORMAN	RG 46561		25N	12W	30					13	217131	4029874				
RG 47243	DOM	3	JOSEPH & ELAINE LOVATO	RG 47243	Shallow	25N	12W	12	4				13	225728	4034012	05/18/1987	05/18/1987	65	18
RG 49046	DOM	3	EDDIE BERG	RG 49046	Shallow	25N	12W	22					13	222007	4031325	04/22/1988	04/25/1988	40	8
RG 61107	DOM	3	GLEN D. WEATHERS	RG 61107	Shallow	25N	12W	27	3	3		C	678500	1958950			130	50	
RG 63120	DOM	3	CHRISTINA TRUJILLO	RG 63120	Shallow	25N	12W	31				C	689100	1949800			60	30	
RG 76392	DOM	3	CYNTHIA AGUIRRE	RG 76392	Shallow	25N	12W	11				C	684250	1972400			102	19	
SJ 00079	OIL	0	SHELL OIL COMPANY	SJ 00079	Shallow	25N	12W	13	4				13	225677	4032403	03/27/1957		2550	
SJ 01716	STK	15	U.S. DEPT. OF INTERIOR	SJ 01716	Shallow	25N	12W	01	3	2			13	225189	4035835	06/20/1963	02/05/1964	403	210
SP 02870 25	IRR	78.42	BLOOMFIELD IRRIGATION DISTRICT	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25A	IRR	5.4	ANN OSBURN	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25B	IRR	0	D.J. ELKINS	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25BA	IRR	0	MAX D. KENNEMER TRUST	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25BB	IRR	0	CITY OF FARMINGTON	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25C	IRR	8.76	MAX D. KENNEMER TRUST	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25D	IRR	3	CECIL C. & GLADYS CAST TRUST	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25E	IRR	6	DOUGLAS JAMES BURGER	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25F	IRR	10.5	ROBIN C. PRICE	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25G	IRR	41.1	LILLIE MAE JOHNSON	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25H	IRR	0	HENRY JOHN NOWAKOWSKI	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25I	IRR	4.65	MARTIN SALAZAR	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25L	IRR	1.8	JUSTIN L. KIDDOO	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25M	IRR	1.5	ZANE G. LESLIE, JR.	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25N	IRR	0	CAROLYN BETH MCKEE	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				
SP 02870 25O	IRR	0	AURORA LEE CHRISTENSEN	SP 02870 25C		25N	12W	24	3	4			13	225023	4030606				

Record Count: 27

EXHIBIT A



N
MN
11°

Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

EXHIBIT B

[Send To Printer](#)

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[Change to 11x17 Print Size](#)

[Show Grid Lines](#)

[Change to Portrait](#)

USGS 464 km SW of Denver, Colorado, United States 09 Oct 1997

South Bisti 21 H #2

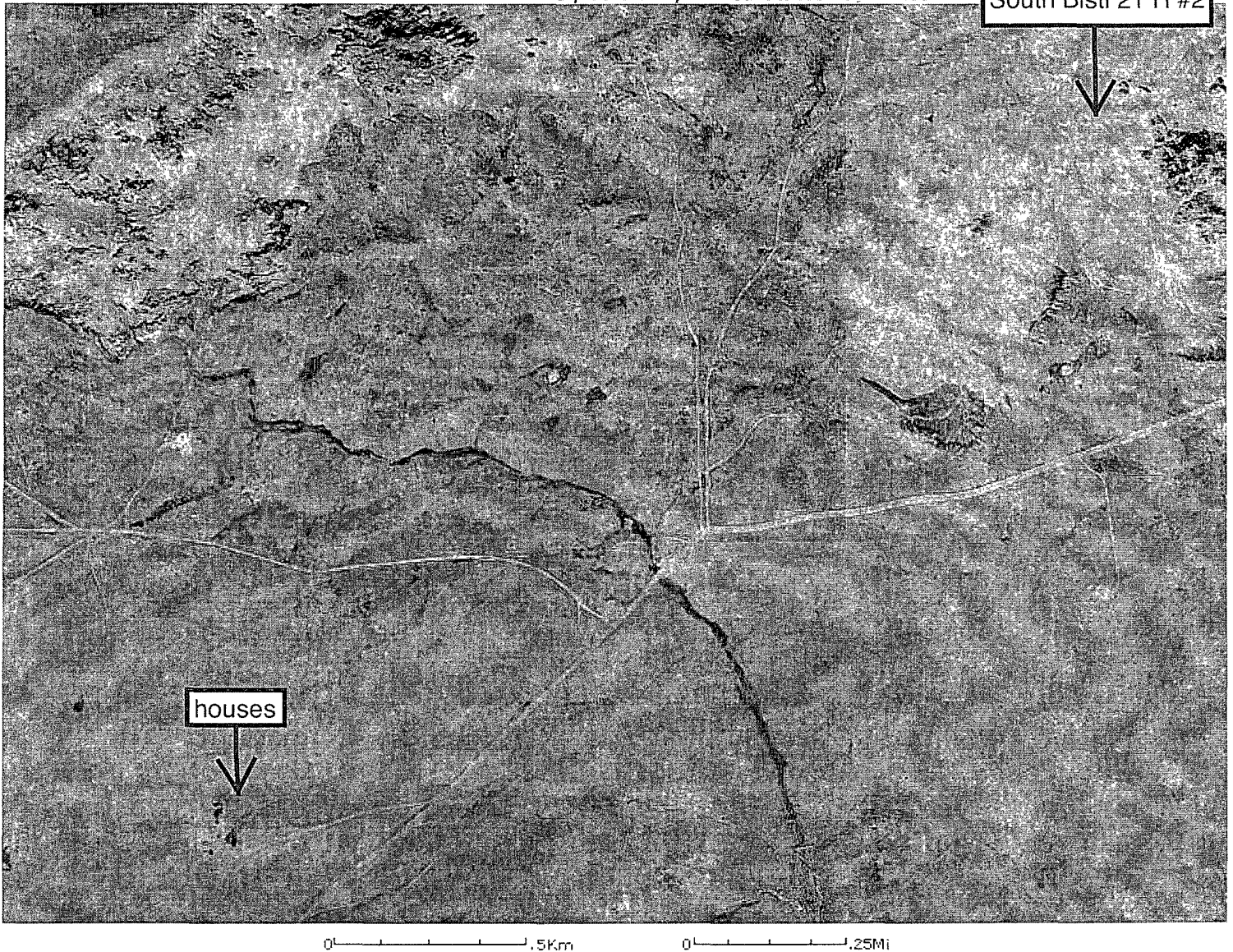


Image courtesy of the U.S. Geological Survey

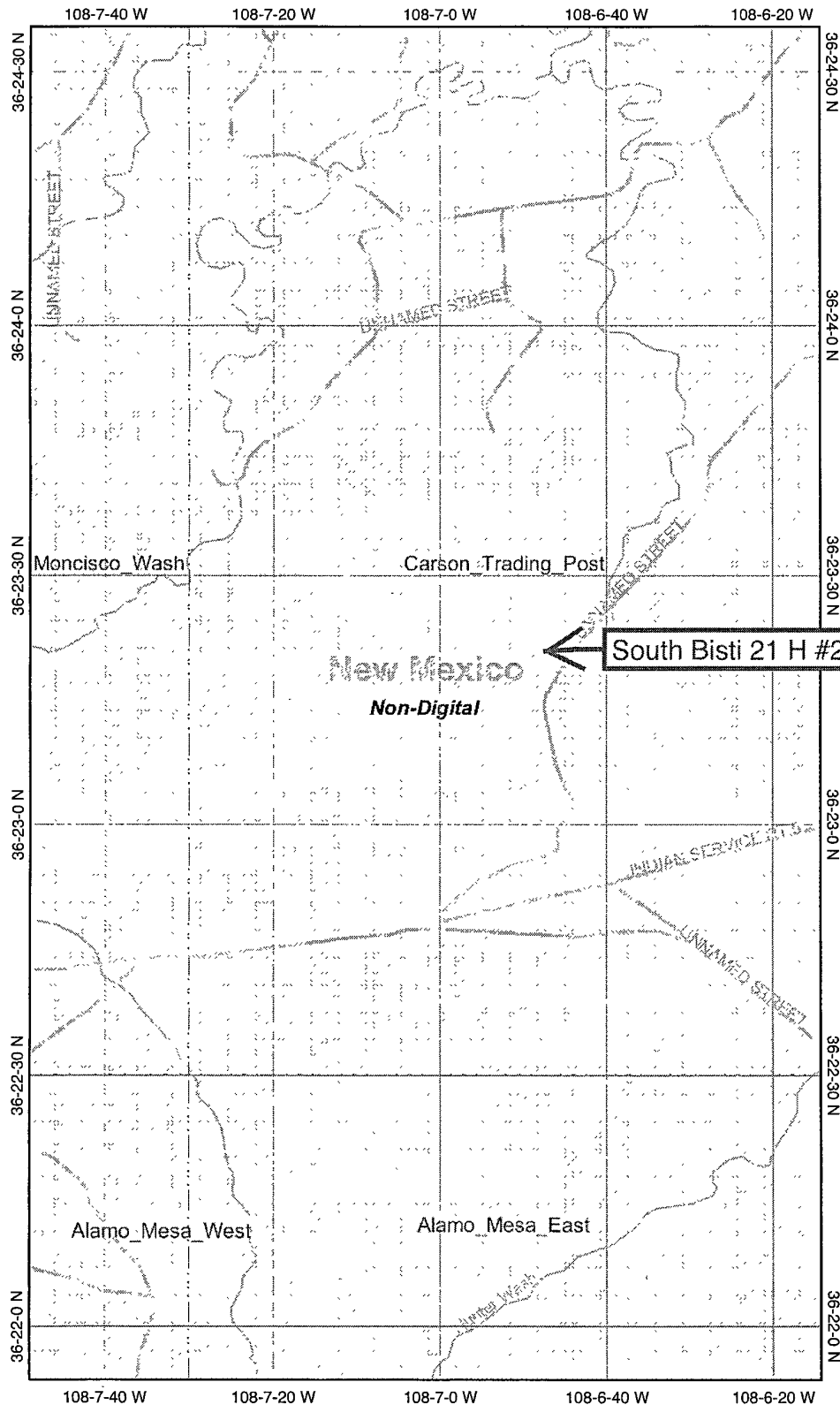
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Privacy Statement

EXHIBIT C

Section 21 wetland map



Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America

EXHIBIT D



Scale: 1:24,000

Map center: 36° 23' 15" N, 108° 7' 2" W

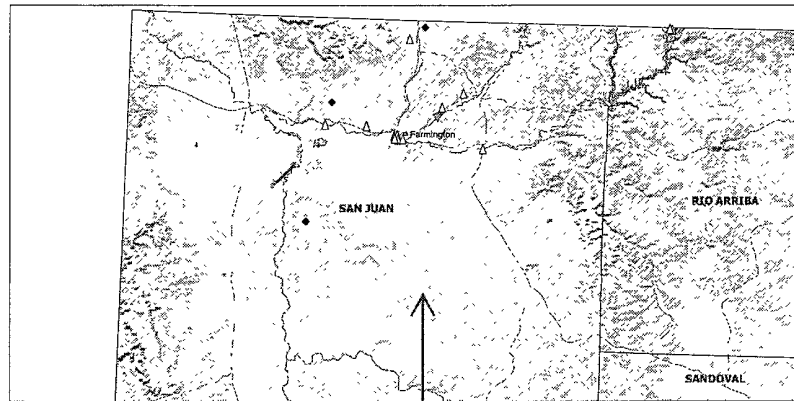
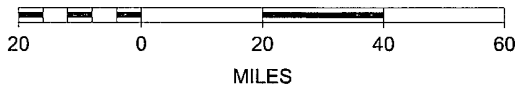
This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

MMQonline Public Version

Mines, Mills & Quarries Commodity Groups

-  Aggregate & Stone Mines
-  Coal Mines
-  Industrial Minerals Mines
-  Industrial Minerals Mills
-  Metal Mines and Mill Concentrate
-  Potash Mines & Refineries
-  Smelters & Refinery Ops.

SCALE 1 : 1,948,802



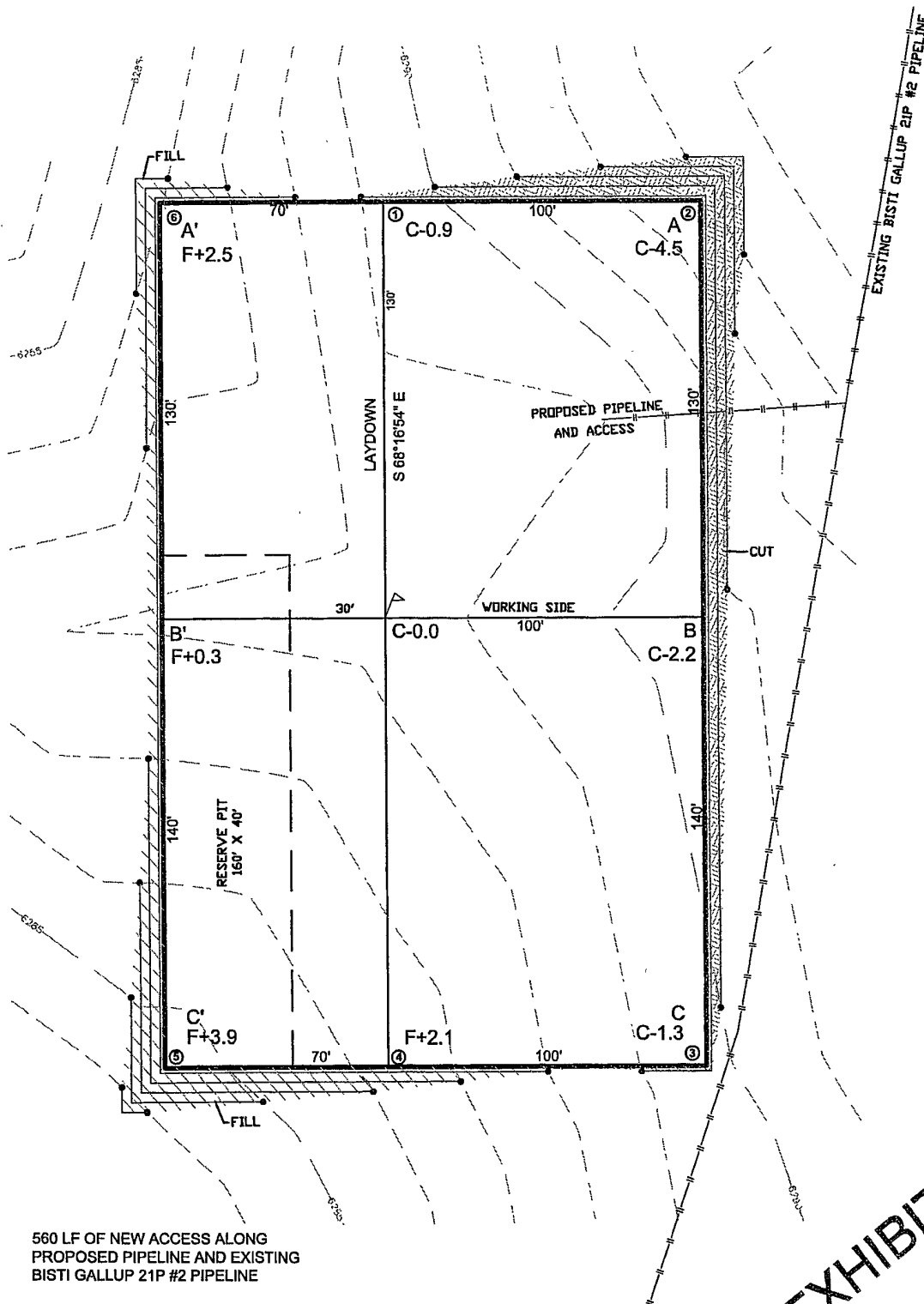
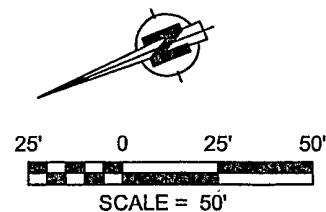
South Bisti 21 H #2



EXHIBIT E

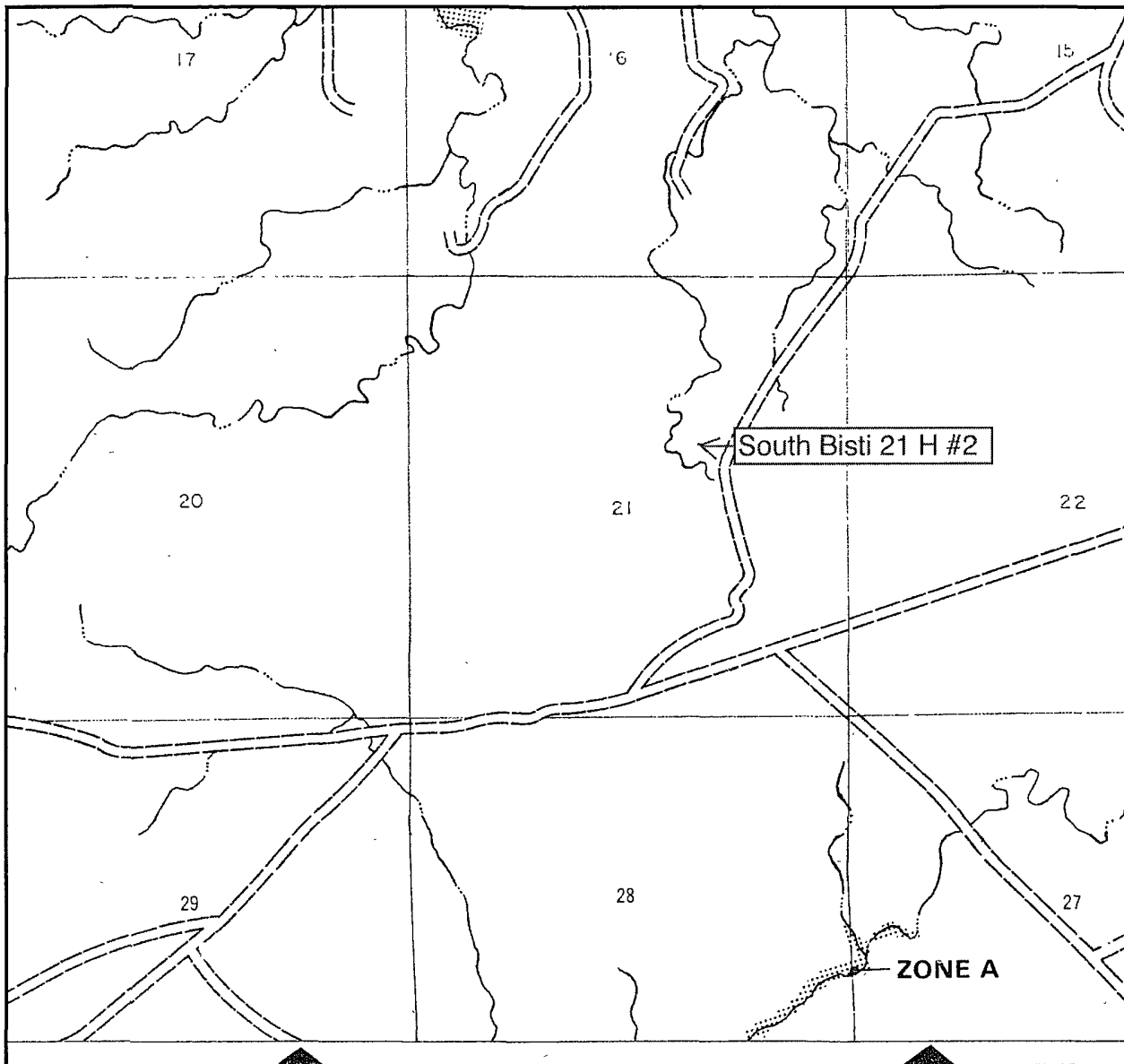
LATITUDE: 36.38850°N
LONGITUDE: 108.11440°W
DATUM: NAD 83

ELM RIDGE EXPLORATION, LLC
SOUTH BISTI GALLUP 21H #2
1980' FNL & 1920' FEL
LOCATED IN THE SW/4 NE/4 OF
SECTION 21, T25N, R12W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
GROUND ELEVATION: 6288', NAVD 88
FINISHED PAD ELEVATION: 6288.4', NAVD 88



1 FOOT CONTOUR INTERVAL SHOWN
SCALE: 1" = 50'
JOB No.: ERE004
DATE: 11/14/06; REV1

EXHIBIT F
Russell Surveying
1409 W. Aztec Blvd. #5
Aztec, New Mexico 87410
(505) 334-8637



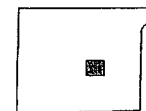
APPROXIMATE SCALE
2000 0

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

SAN JUAN COUNTY,
NEW MEXICO
UNINCORPORATED AREAS

PANEL 875 OF 1450
(SEE MAP INDEX FOR PANELS NOT PRINTED)



PANEL LOCATION

COMMUNITY-PANEL NUMBER
350064 0875

EFFECTIVE DATE:
AUGUST 4, 1988



Federal Emergency Management Agency

EXHIBIT G

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

DISTRICT II
811 South First, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

505
704 DEC 29 AM 8:44

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

Dr. J. Edgar Hoover

~~SECRET~~

1000

*API Number 30-045-34131		*Pool Code 5890	*Pool Name BISTI LOWER-GALLUP		DIST.
*Property Code 27280	*Property Name SOUTH BISTI GALLUP 21H			*Well Number 2	
*OGRID No. 149052	*Operator Name ELM RIDGE EXPLORATION, LLC			*Elevation 6288'	

¹⁰ Surface Location

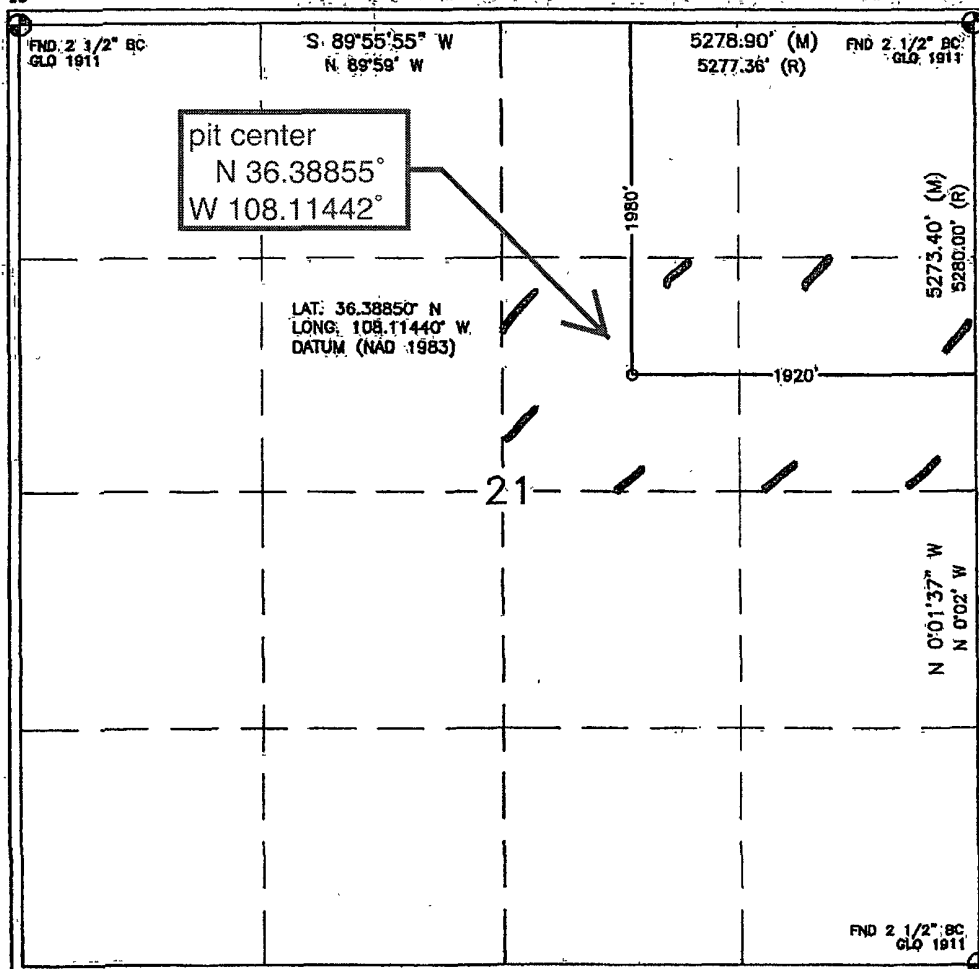
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	21	25N	12W		1980'	NORTH	1920'	EAST	SAN JUAN

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		80	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

16



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature **BRIAN WOOD**

Printed Name **CONSULTANT**

Title DEC. 21, 2006

Date

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, 2006

Date of Survey

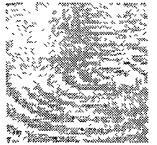
Signature and Seal of Professional Surveyor:

DAVID RUSSELL

Certificate Number 10201

EXHIBIT H

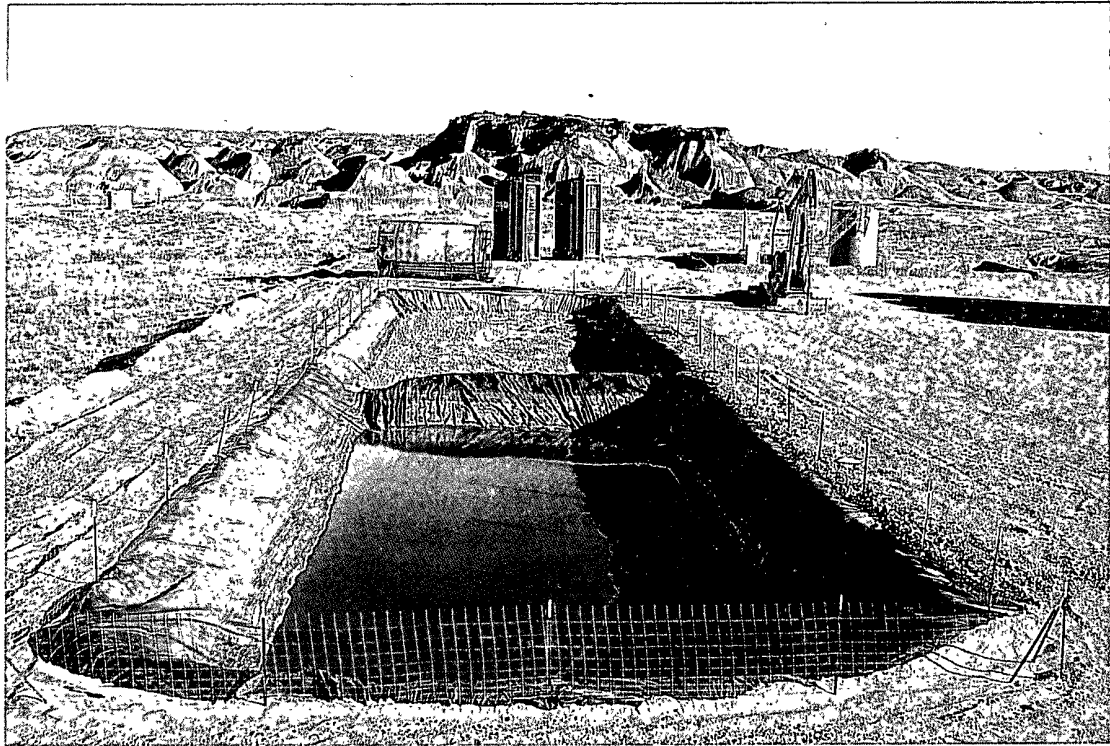
From: brian wood <brian@permitswest.com>
Subject: **Elm Ridge South Bisti 21 H 2 closure notice**
Date: November 29, 2008 5:06:41 PM MST
To: BILL LIESS <Bill_Liess@nm.blm.gov>



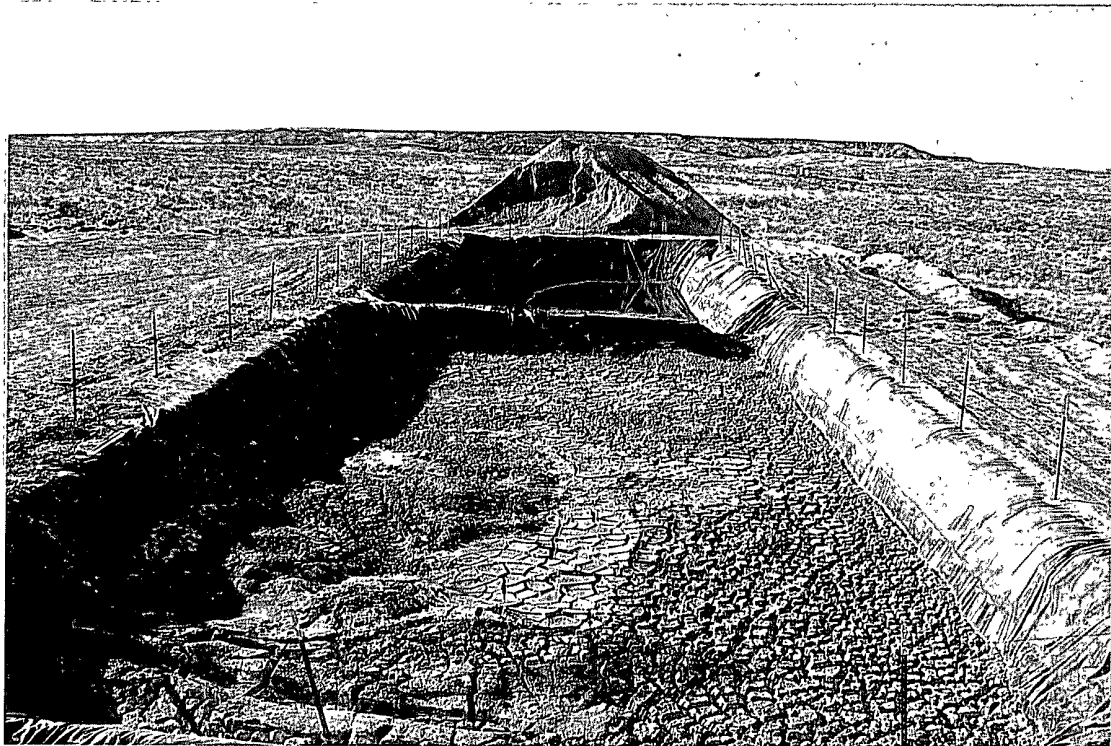
As required by NMOCD pit rule Subsection F of 19.15.17.13 NMAC, I am notifying BLM as surface owner that Elm Ridge plans to close its temporary (reserve) pit using on site closure (burial) in the same pit.
The well is at 1980 FNL & 1920 FEL 21-25n-12w.
The well is on lease NMSF-078065.
API # 30-045-34131
Please call me if you have any questions.

Brian Wood
Permits West, Inc.
37 Verano Loop, Santa Fe, NM 87508
Phone: 505 466-8120
FAX: 505 466-9682

EXHIBIT 1



LOOKING EAST AT SOUTH BISTI 21 H #2 PIT



LOOKING WEST AT PIT