



SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
7/10/08	W Jones	6/24/08	SWD 913-A	PKVRO817653271

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

ABOVE THIS LINE FOR DIVISION USE ONLY

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
 [A] Location - Spacing Unit - Simultaneous Dedication
 NSL NSP SD

Elm Ridge's
Central Bisti SWD 161
30-045-31606, SWD-913

Check One Only for [B] or [C]
 [B] Commingling - Storage - Measurement
 DHC CTB PLC PC OLS OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
 WFX PMX SWD IPI EOR PPR

[D] Other: Specify _____

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or _ Does Not Apply

- (A) Working, Royalty or Overriding Royalty Interest Owners
- (B) Offset Operators, Leaseholders or Surface Owner
- (C) Application is One Which Requires Published Legal Notice
- (D) Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- (E) For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name	Signature	Title	Date
BRIAN WOOD (505) 466-8120 FAX 466-9682		CONSULTANT	6-23-08
		c-mail Address	brian@permitswest.com

RECEIVED
 2008 JUN 24 PM 2:44

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance YES Disposal _____ Storage
Application qualifies for administrative approval? XXX Yes _____ No
- II. OPERATOR: ELM RIDGE EXPLORATION COMPANY, LLC
ADDRESS: P. O. BOX 156, BLOOMFIELD, NM 87413
CONTACT PARTY: BRIAN WOOD (PERMITS WEST, INC.) PHONE: (505) 466-8120
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? _____ Yes XXX No
If yes, give the Division order number authorizing the project:
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: BRIAN WOOD TITLE: CONSULTANT
SIGNATURE:  DATE: JUNE 23, 2008
E-MAIL ADDRESS: brian@permitswest.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

OPERATOR: ELM RIDGE EXPLORATION COMPANY, LLC

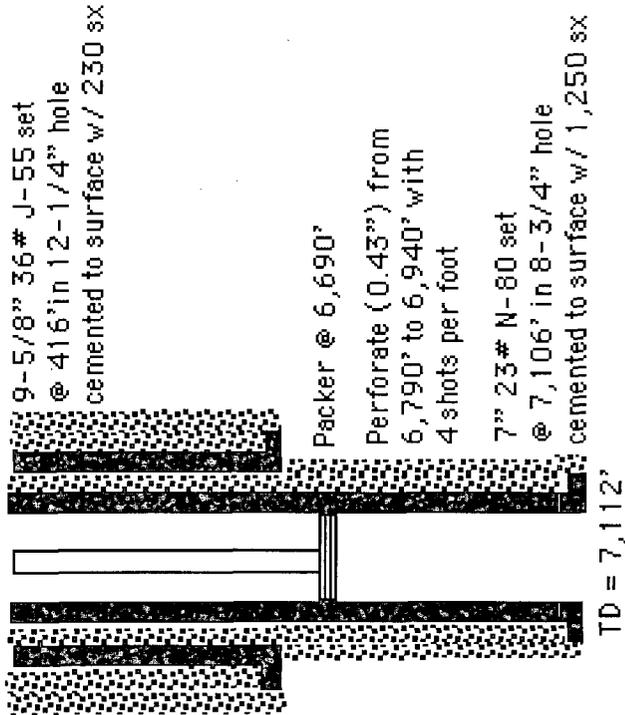
WELL NAME & NUMBER: CENTRAL BISTI SWD #161

WELL LOCATION: 1067' FNL & 2286' FEL
FOOTAGE LOCATION

UNIT LETTER: B

SECTION: 16 TOWNSHIP: 25 N RANGE: 12 W

WELLBORE SCHEMATIC



Hole Size: 12-1/4"

Cemented with: 230 sacks

Top of Cement: SURFACE

Casing Size: 9-5/8" 36# J-55

or _____ ft³

Method Determine: VISUAL

Intermediate Casing

Hole Size:

Cemented with:

Top of Cement:

Casing Size:

or _____ ft³

Method Determined:

Production Casing

Hole Size: 8-3/4"

Cemented with: 1,250 sacks

Top of Cement: SURFACE

Casing Size: 7" 23# N-80

or _____ ft³

Method Determine: VISUAL

Total Depth: 7,106'

Injection Interval

From 6,790 feet To 6,940 feet

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 3-1/2" 9.3# N-80

Lining Material: PLASTIC

Type of Packer: ARROW SET MODEL DB OR ITS EQUIVALENT

Packer Setting Depth: WITHIN 100' OF THE HIGHEST PERFORATION

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? XXX Yes No

If no, for what purpose was the well originally drilled? _____

2. Name of the Injection Formation: ENTRADA

3. Name of Field or Pool (if applicable): SWD; ENTRADA

4. Has the well ever been perforated in any other zone(s)? NO List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. (see attachments)

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: _____

OVER: FRUITLAND (772' - 1,117') & GALLUP (4,735' - 4,845')

UNDER: NONE

ELM RIDGE EXPLORATION COMPANY, LLC
CENTRAL BISTI SWD #161
1067' FNL & 2286' FEL
SEC. 16, T. 25 N., R. 12 W.
SAN JUAN COUNTY, NEW MEXICO

PAGE 1

I. Purpose is water disposal.

II. Operator: Elm Ridge Resources, Inc.
Operator phone number: (505) 632-3476
Operator address: P. O. Box 156
Bloomfield, NM 87413
Contact: Brian Wood (Permits West, Inc.)
Phone: (505) 466-8120

- III. A. (1) Lease: NM State Land Office lease E-6597-2
Lease Size: 640 acres
Lease Area: all Section 16, T. 25 N., R. 12 W.
Closest Lease Line: 1,067'
Well Name & Number: Central Bisti SWD #161
Well Location: 1067' FNL and 2286' FEL Sec. 16, T. 25 N., R. 12 W.
(see Exhibit A)
- A. (2) Well was spudded on February 17, 2005. No injection has occurred. Surface casing (9-5/8", 36#, J-55) was set at 416' in a 12-1/4" hole and cemented to the surface with \approx 230 sacks standard cement. Circulated 12 barrels to the surface. Pressure tested to 1,500 psi. Witnessed by Darell Davis of NMOCD. Production casing (7", 23#, N-80) was set at \approx 7,106' in a 8-3/4" hole and cemented to the surface. Lead with slurry of 800 sacks 50/50/standard poz and circulated 70 barrels to the surface. Tailed with 450 sacks 65/35 standard poz and circulated 40 barrels to surface. Pressure tested to 1,500 psi. Mechanical integrity of the casing was assured by hydraulically pressure testing both strings to 1,500 psi.
- A. (3) Tubing will be 3-1/2" 9.3# N-80 plastic lined injection string. It will be set at \approx 6,690' (disposal interval will be \approx 6,790' to \approx 6,940').
- A. (4) Arrow Set Model DB packer or its equivalent will be set at \approx 6,690' (which will be \approx 100' above top perforation).

- B. (1) Disposal zone will be the Entrada sandstone. Fracture gradient is expected to be a normal ≈ 0.70 psi per foot.
- B. (2) Disposal interval will be $\approx 6,790'$ to $\approx 6,940'$. Interval will be perforated (0.43") with four shots per foot.
- B. (3) Well has been drilled, but not yet perforated. It will be for the exclusive use by Elm Ridge and for the sole purpose of water disposal from present and future Elm Ridge wells. Water analyses from Elm Ridge wells in the Fruitland coal and Gallup sandstone are attached.
- B. (4) Well bore will be perforated from $\approx 6,790'$ to $\approx 6,940'$.
- B. (5) Top of the Entrada is at 6,781'. Oil is produced elsewhere in the San Juan Basin from the Entrada (e. g., Eagle Mesa). Closest Entrada production is a several dozen miles south. Bottom of the closest overlying actual productive formation (Gallup) is at $\approx 4,885'$. There will be a $\approx 1,905'$ interval between the highest injection perforation and the bottom of the Gallup. Bottom of the closest overlying potentially productive formation (Dakota) is at $\approx 5,900'$. There will be a $\approx 890'$ interval between the highest injection perforation and the bottom of the Dakota. There is no underlying productive formation within at least a dozen miles.

IV. This is not an expansion of an existing injection project. (Elm Ridge has a water flood in the Central Bisti Unit, but it is in the Lower Gallup - not the Entrada.)

V. A map (See Exhibit B) is attached showing all 13 well bores (6 P & A + 5 oil + 2 gas) within a half mile radius (= area of review). The wells within the area of review are summarized on the next page.

ELM RIDGE EXPLORATION COMPANY, LLC
 CENTRAL BISTI SWD #161
 1067' FNL & 2286' FEL
 SEC. 16, T. 25 N., R. 12 W.
 SAN JUAN COUNTY, NEW MEXICO

OPERATOR	WELL	T. 25 N., R. 12 W.	ZONE	TD	STATUS	DISTANCE	API 30-045
Elm Ridge	CBU 69	NWNE Sec. 16	Gallup	4885	Oil Well	107'	-05424
Elm Ridge	CBU 40	NENW Sec. 16	Gallup	4860	Oil Well	1,005'	-05445
Elm Ridge	CBU 38	NENE Sec. 16	Gallup	5150	Oil Well	1,198'	-05423
Hixon	Kelly State 1	NENE Sec. 16	Picture Cliff	1330	P & A	1,198'	-22383
Elm Ridge	Bisti Coal 16-1	SWNE Sec. 16	Fruitland	1265	Gas Well	1,284'	-27763
Elm Ridge	CBU 44	SENW Sec. 16	Gallup	4897	P & A	1,365'	-05394
Elm Ridge	CBU 36	SWSE Sec. 9	Gallup	4930	P & A	1,397'	-05448
Elm Ridge	CBU 71	SESE Sec. 9	Gallup	4880	Oil Well	1,905'	-05447
Elm Ridge	CBU 35	SESW Sec. 9	Gallup	5011	P & A	2,002'	-05458
Elm Ridge	CBU 96	SENE Sec. 16	Gallup	4960	Oil Well	2,041'	-25871
Hixon	CBU 41	NWNW Sec. 16	Gallup	4900	P & A	2,369'	-05432
Hixon	CBU 47	NESW Sec. 16	Gallup	4880	P & A	2,452'	-05367
Elm Ridge	Bisti Coal 16-2	NESW Sec. 16	Fruitland	1265	Gas Well	2,508'	-27764

There are 175 (102 P & A + 69 oil or gas + 3 water injection + 1 water) wells within a two mile radius (see Exhibit C).

The three water injection wells are over a mile away, are water flood wells in the Bisti Lower Gallup, and are in Elm Ridge's Central Bisti Unit (CBU). Those three wells are:

- CBU 57 (API 30-045-05528) 660 FSL & 1980 FEL 5-25n-12w
- CBU 63 (API # 30-045-05486) 1980 FNL & 660 FWL 8-25n-12w
- CBU 88 (API # 30-045-25913) 380 FNL & 1650 FEL 8-25n-12w

According to the Office of the State Engineer, the one water well (SENW Section 22) within two miles is 40' deep. (State Engineer's data base also shows a water well in 11-25n-12w. The range is in error. The range should be 12 East, not west.)

Maps showing all leases (State, Navajo allotted, or BLM) within a half mile (see Exhibit D) and all leases (State, Navajo allotted, or BLM) within two miles (see Exhibit E) are attached. Details on the leases within a half mile are:

<u>T. 25 N., R. 12 W.</u>	<u>TYPE LEASE</u>	<u>LEASE #</u>	<u>LESSEE(S)</u>
SW4 Sec. 9	Allotted	14-20-603-326	Elm Ridge
SE4 Sec. 9	Allotted	14-20-603-1228	Elm Ridge

ELM RIDGE EXPLORATION COMPANY, LLC
 CENTRAL BISTI SWD #161
 1067' FNL & 2286' FEL
 SEC. 16, T. 25 N., R. 12 W.
 SAN JUAN COUNTY, NEW MEXICO

<u>T. 25 N., R. 12 W.</u>	<u>TYPE LEASE</u>	<u>LEASE #</u>	<u>LESSEE(S)</u>
W2SW4 Sec. 10 & W2NW4 Sec. 15	BLM	NM 070322A	Elm Ridge, Ciniza, ConocoPhillips, Cyprus, Giant, & Questar
all Sec. 16	State	EO-6597-2	Elm Ridge, Burlington, & Kelly

VI. Thirteen wells are within a half mile. None penetrated the Entrada.

<u>OPERATOR</u>	<u>WELL</u>	<u>T. 25 N., R. 12 W.</u>	<u>ZONE</u>	<u>TD</u>	<u>STATUS</u>	<u>DISTANCE</u>	<u>API 30-045</u>
Elm Ridge	CBU 69	NWNE Sec. 16	Gallup	4885	Oil Well	107'	-05424
Elm Ridge	CBU 40	NENW Sec. 16	Gallup	4860	Oil Well	1,005'	-05445
Elm Ridge	CBU 38	NENE Sec. 16	Gallup	5150	Oil Well	1,198'	-05423
Hixon	Kelly State 1	NENE Sec. 16	Picture Cliff	1330	P & A	1,198'	-22383
Elm Ridge	Bisti Coal 16-1	SWNE Sec. 16	Fruitland	1265	Gas Well	1,284'	-27763
Elm Ridge	CBU 44	SENE Sec. 16	Gallup	4897	P & A	1,365'	-05394
Elm Ridge	CBU 36	SWSE Sec. 9	Gallup	4930	P & A	1,397'	-05448
Elm Ridge	CBU 71	SESE Sec. 9	Gallup	4880	Oil Well	1,905'	-05447
Elm Ridge	CBU 35	SESW Sec. 9	Gallup	5011	P & A	2,002'	-05458
Elm Ridge	CBU 96	SENE Sec. 16	Gallup	4960	Oil Well	2,041'	-25871
Hixon	CBU 41	NWNW Sec. 16	Gallup	4900	P & A	2,369'	-05432
Hixon	CBU 47	NESW Sec. 16	Gallup	4880	P & A	2,452'	-05367
Elm Ridge	Bisti Coal 16-2	NESW Sec. 16	Fruitland	1265	Gas Well	2,508'	-27764

- VII. 1. Average injection rate = 1,000 bwpd. Maximum rate = 2,000 bwpd.
 2. System will be open (water will be trucked). Facilities will include six 300 barrel water tanks, 2 filtration units, 2 injection pumps, and a 30' x 40' building.
 3. Average injection pressure = 1,700 psi
 Maximum pressure = 1,358 psi (0.2 psi/foot x 6,790' (top perforation) = 1,358 psi)
 4. Water source will be present and future Elm Ridge wells in the San Juan Basin. Three produced water analyses (Exhibit F) are attached. A summary follows.

<u>Parameter</u>	<u>Fruitland</u>	<u>Gallup</u>	<u>Gallup</u>
Bicarbonates	752.6 ppm	497.7 ppm	389.6 ppm
Calcium	258.7 ppm	517.4 ppm	239.5 ppm
Chlorides	5,970.1 ppm	12,736.3 ppm	13,173.7 ppm
Hydrogen Sulfide	0 ppm	0 ppm	0 ppm

ELM RIDGE EXPLORATION COMPANY, LLC
 CENTRAL BISTI SWD #161
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 SEC. 16, T. 25 N., R. 12 W.
 SAN JUAN COUNTY, NEW MEXICO

<u>Parameter</u>	<u>Fruitland</u>	<u>Gallup</u>	<u>Gallup</u>
Iron	0 ppm	0 ppm	5 ppm
Magnesium	495.7	411.0 ppm	873.1 ppm
pH	7.5	7.8	7.4
Potassium	160.0 ppm	100.0 ppm	150.0 ppm
Resistivity	0.45 ohm/meter	0.75 ohm/meter	0.62 ohm/meter
Sodium	2,919.8 ppm	7,069.4 ppm	6,760.6 ppm
Sulfates	0 ppm	0 ppm	0 ppm
Specific Gravity @ 67° F	1.005	1.005	1.002
Total Dissolved Solids	10,557.40 ppm	21,332.65 ppm	21,592.05 ppm

No local sample exists from the Entrada. Elm Ridge will try to swab load water back after stimulation and take an Entrada water sample. If successful, then the analysis will be provided to the New Mexico Oil Conservation Division.

5. The Entrada has not been proven productive within two miles of the proposed well. In general, Entrada water near recharge zones (basin fringe) has a specific conductance of <1,500 μ mhos. Entrada water from deeper parts of the basin has a specific conductance of >10,000 μ mhos. Stone et al in Hydrogeology and water resources of San Juan Basin, New Mexico wrote, "Generally, however, water from the Entrada is not suitable for drinking, especially in deeper parts of the basin." Summaries of analyses of Entrada produced water follow. The samples (see Exhibit G) are from Dome's Santa Fe 20 #1 at SW4NE4 20-21n-8w (\approx 31 miles southeast) and Merrion's Eagle Mesa #1 at SW4SW4 12-19n-4w (\approx 60 miles southeast).

<u>Parameter</u>	<u>Santa Fe 20 #1</u>	<u>Eagle Mesa #1</u>
Bicarbonate	2546 mg/l	1220 mg/l
Calcium	27 mg/l	160 mg/l
Chloride	903 mg/l	1773 mg/l
Iron	0.9 mg/l	0 mg/l
Magnesium	8 mg/l	49 mg/l
pH	7.73	7.32
Sodium	3228 mg/l	3726 mg/l
Sulfate	4400 mg/l	5000 mg/l
Specific Gravity	1.009	1.010
Total Dissolved Solids	11,114 mg/l	11,928 mg/l

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VIII. The Entrada sandstone is a very porous and permeable æolian sandstone. It produces oil elsewhere in the basin (e.g., Eagle Mesa, Leggs, Media, Ojo Encino, Papers Wash, Snake Eyes Fields). It is over 331' thick in the well bore. Logged well bore formation tops are:

Nacimiento Formation: 0'
Fruitland Formation: 789'
Pictured Cliffs Sandstone: 1,117'
Lewis Shale: 1,270'
Chacra Sandstone: 1,445'
Cliff house Sandstone: 1,855'
Menefee Formation: 2,520'
Point Lookout Sandstone: 3,559'
Mancos Shale: 3,792'
Gallup: 4,566'
Greenhorn: 5,464'
Dakota: 5,519'
Entrada: 6,781'
Total Depth: 7,112' (still in Entrada)

There is only one water well within a 2 mile radius. It is >8,000' southeast and 40' deep. Depth to water is 8'. The well bore is in the Nacimiento Formation. No existing underground drinking water sources are below the Entrada within a two mile radius. There is over a mile of vertical separation between the bottom of the lowest existing underground water source and the top of the Entrada.

IX. The well will be stimulated with ≈150,000 pounds 20/40 Ottawa sand with Ambormax gel.

X. CNL/FDC, IES logs will be run. Copies will then be provided to the NMOCD.

ELM RIDGE EXPLORATION COMPANY, LLC
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XI. There are no water wells within two miles which penetrate the Entrada. The only water well within 2 miles is 40' deep.

XII. Elm Ridge is not aware of any geologic or engineering data which may indicate the Entrada is in hydrologic connection with any underground sources of water. There is 6,741' of vertical separation and at least three shale zones (Kirtland, Lewis, and Menefee) between the top (6,781') of the Entrada and the bottom (40') of the closest water well.

XIII. Notice (this application) has been sent (Exhibit H) to the surface owner (Giant Mid-Continent, Inc.), operators of all wells (only Elm Ridge), and lease operating right holders (Burlington, Elm Ridge, Ciniza, ConocoPhillips, Cyprus, Giant, Kelly, and Questar), and lessors (BLM, Farmington Indian Minerals Office, and NM State Land Office) within a half mile. Giant Mid-Continent, Inc. owns all of Section 16. A legal ad (see Exhibit I) was published on May 16, 2008.

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised February 21, 1994

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

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

EXHIBIT A

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, NM 87504-2088

AMENDED REPORT

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

DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code		³ Pool Name	
⁴ Property Code		⁵ Property Name CENTRAL BISTI UNIT WDW			⁶ Well Number 161
⁷ OGRID No.		⁸ Operator Name ELM RIDGE RESOURCES, INC.			⁹ Elevation 6233

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
	16	25N	12W	B	1067	NORTH	2286	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	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		SECTION 16		<p>¹⁷ OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p>Signature _____</p> <p>Printed Name _____</p> <p>Title _____</p> <p>Date _____</p>
				<p>¹⁸ SURVEYOR CERTIFICATION</p> <p>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</p> <p>APRIL 8, 2002</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <div style="text-align: center;"> </div> <p>Certificate Number: N.M. PLS. 489979</p>

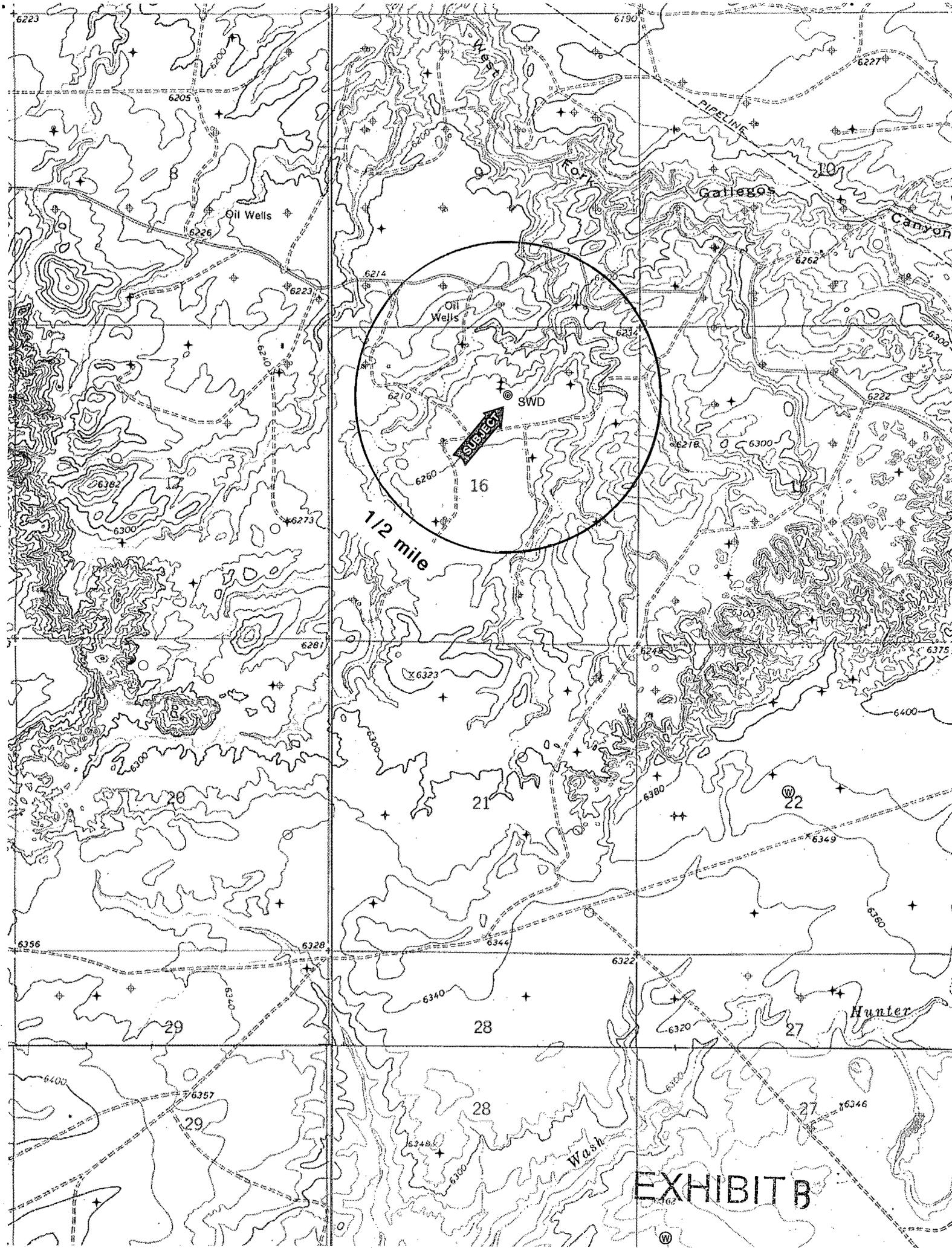
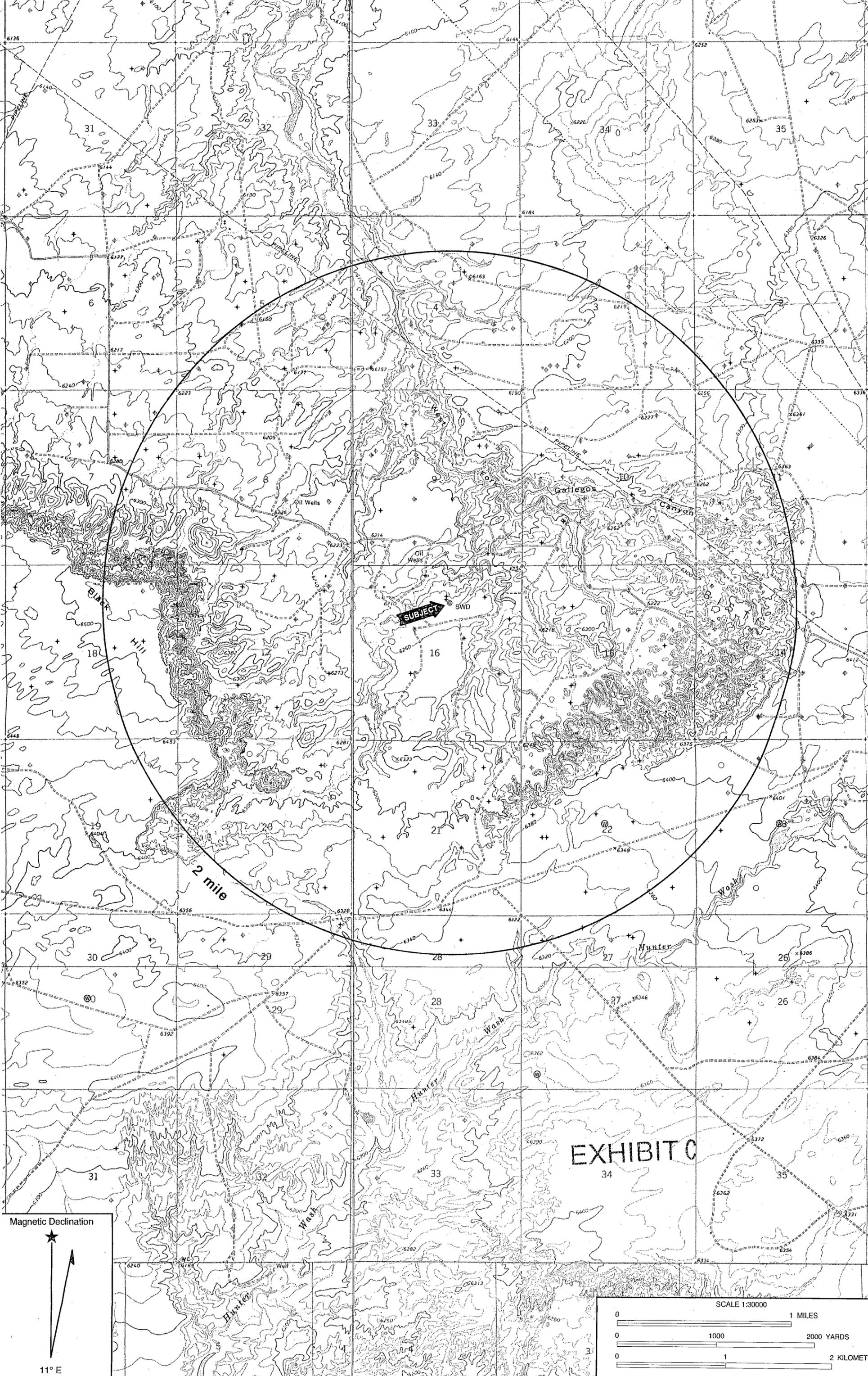


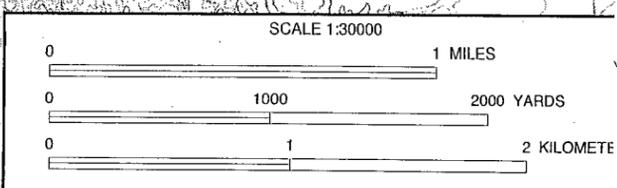
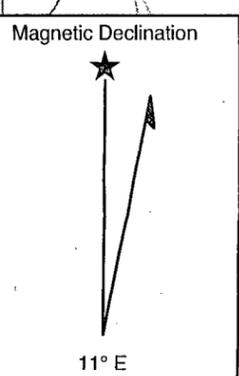
EXHIBIT B

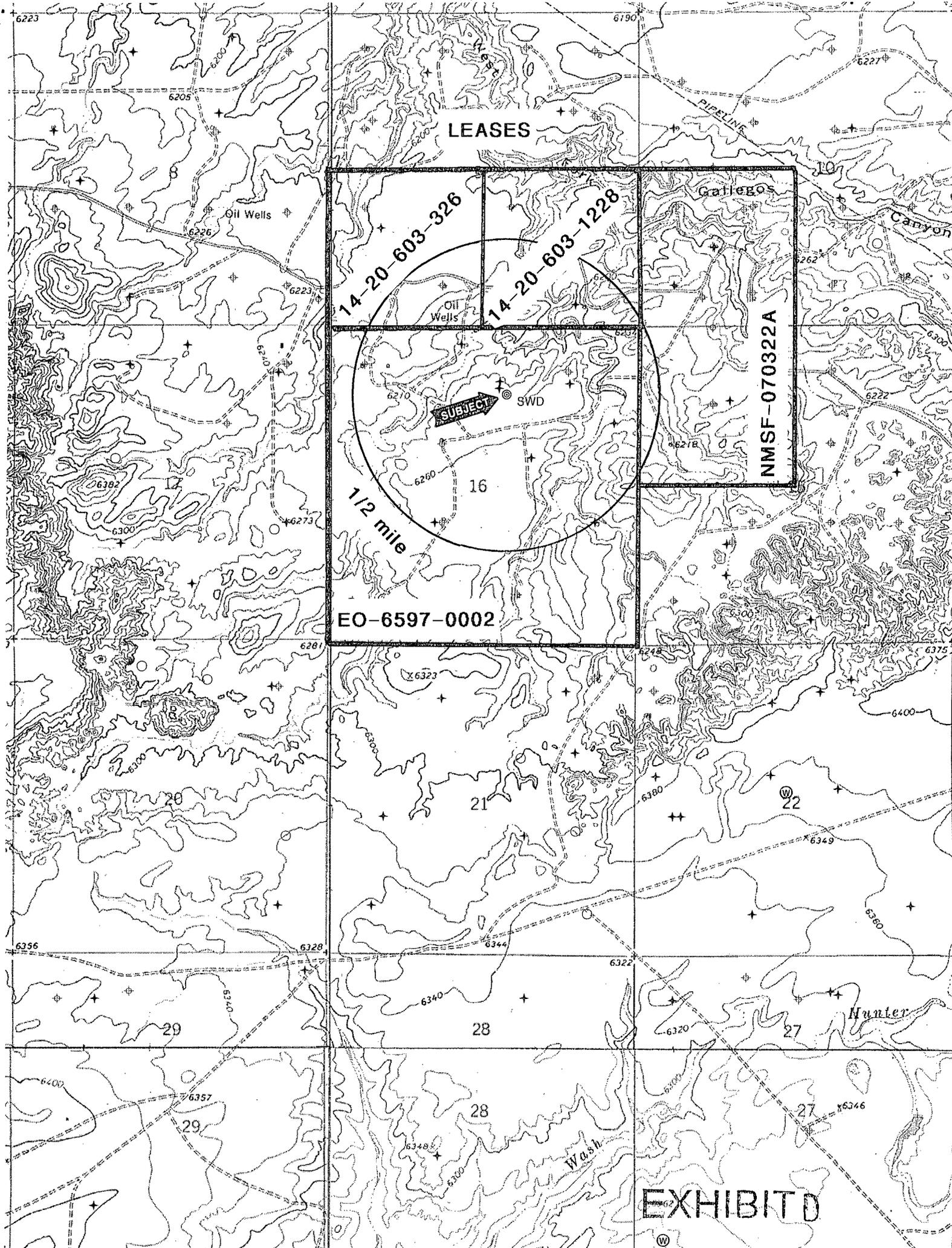


SUBJECT → SWD

2 mile

EXHIBIT C





LEASES

14-20-603-326

14-20-603-1228

1/2 mile

16

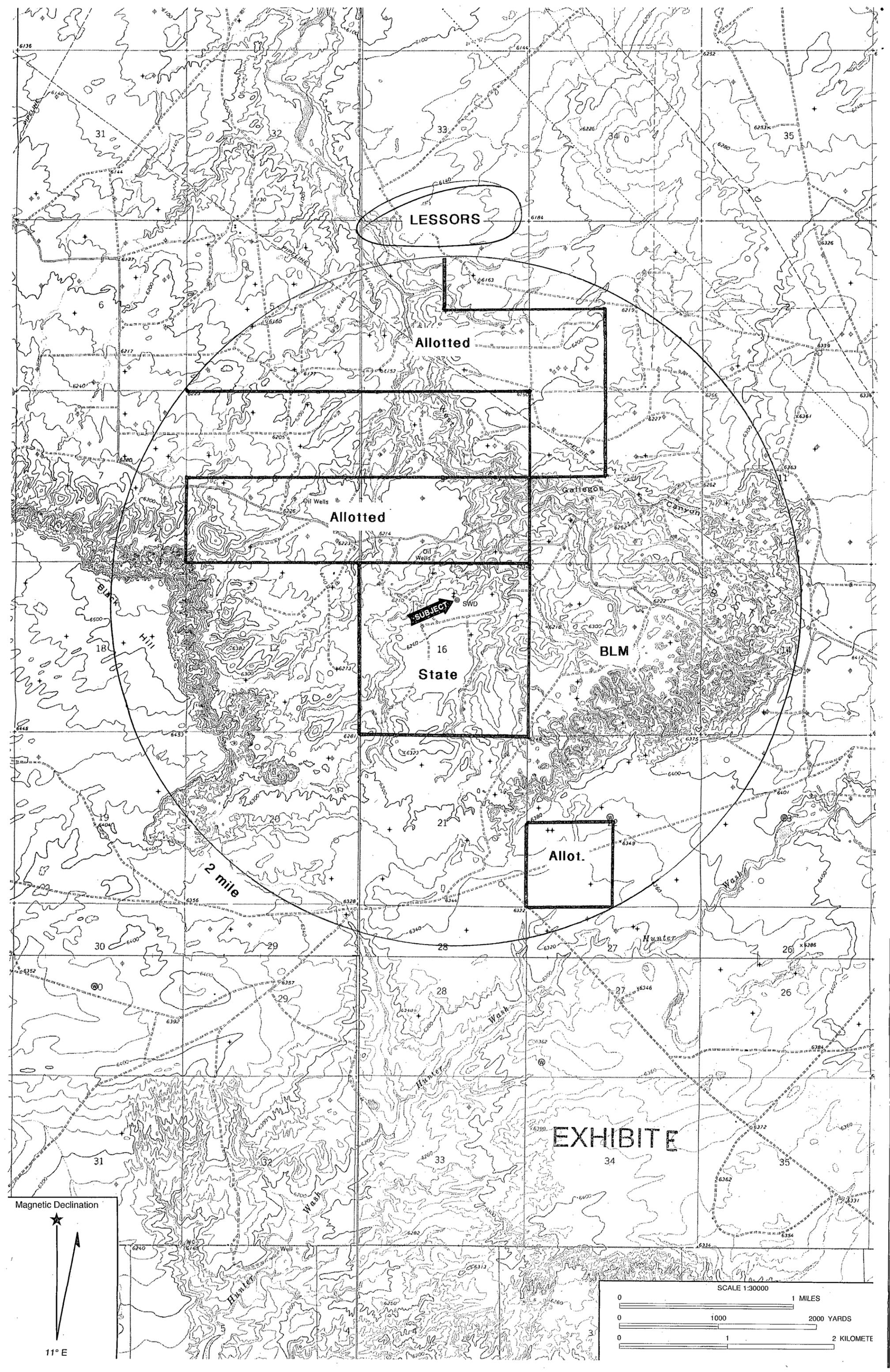
SUBJECT

SWD

NMSF-070322A

EO-6597-0002

EXHIBIT D



LESSORS

Allotted

Allotted

State

BLM

Allot.

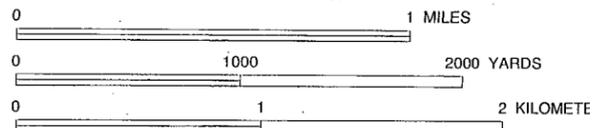
EXHIBITE

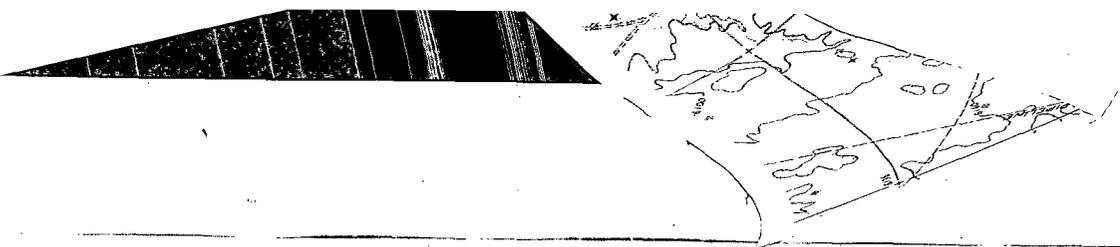
Magnetic Declination



11° E

SCALE 1:30000





American Energy Services

Water Analysis Results Sheet

Farmington NM

708 S. Tucker

Phone: (505)325-4192

Fax: (505)564-3524

Zip: 87401

Operator:	Elm Ridge	Date:	October 15, 2002
Well :	B.C. 28-1	District:	Farmington
Formation:	Coal	Requested by:	Tim Duggan
County:	San Juan	Technician:	Mike Brown
Depth:	1200	Source:	Well

PHYSICAL AND CHEMICAL DETERMINATION

SPECIFIC GRAVITY: 1.005 AT 67 Degrees F.			
pH:	7.5	SULFATES:	0 ppm
IRON:	0 ppm	CALCIUM:	258.7 ppm
H2S:	0 ppm	BICARBONATES:	752.6 ppm
MAGNESIUM:	495.7 ppm	RESISTIVITY:	0.45 ohm/meter
		CHLORIDES:	5970.1 ppm
		SODIUM:	2919.8 ppm
		POTASSIUM:	160.0 ppm
		TDS:	10557.4 ppm

CaCO3 Scale Tendency = Remote

CaSO4 Scale Tendency = Remote

REMARKS:

Data contained in this document is based on the best information & most current test procedures and materials available. No liability is expressed or implied.

EXHIBIT F



American Energy Services

Water Analysis Results Sheet

Farmington NM

708 S. Tucker

Phone:(505)325-4192

Fax:(505)564-3524

Zip:87401

Operator:	Elm Ridge	Date:	October 15, 2002
Well :	C.T.B.	District:	Farmington
Formation:	Gallup	Requested by:	Tim Duggan
County:	San Juan	Technician:	Mike Brown
Depth:	4800	Source:	Well

PHYSICAL AND CHEMICAL DETERMINATION

SPECIFIC GRAVITY:	1.005	AT 67 Degrees F.	
pH:	7.8		SULFATES: 0 ppm
IRON:	0	ppm	CALCIUM: 517.4 ppm
H2S:	0	ppm	BICARBONATES: 497.7 ppm
			RESISTIVITY: 0.75 ohm/meter
			CHLORIDES: 12736.3 ppm
			SODIUM : 7069.4 ppm
MAGNESIUM:	411.0	ppm	POTASSIUM: 100.0 ppm
			TDS: 21332.65 ppm

CaCO3 Scale Tendency = Remote

CaSO4 Scale Tendency = Remote

REMARKS:

Data contained in this document is based on the best information & most current test procedures and materials available. No liability is expressed or implied.

EXHIBIT P



American Energy Services

Water Analysis Results Sheet

Farmington NM

708 S. Tucker

Phone: (505)325-4192

Fax: (505)564-3524

Zip: 87401

Operator:	Elm Ridge	Date:	October 15, 2002
Well :	Joe Hixon #1 Joe Hixon #1	District:	Farmington
Formation:	N/A MO SESW 22-25w-12w	Requested by:	Tim Duggan
County:	San Juan	Technician:	Mike Brown
Depth:	4800	Source:	Well

PHYSICAL AND CHEMICAL DETERMINATION

SPECIFIC GRAVITY: 1.002 AT 67 Degrees F.			
pH:	7.4	SULFATES:	0 ppm
IRON:	5 ppm	CALCIUM:	239.5 ppm
H2S:	0 ppm	BICARBONATES:	389.6 ppm
MAGNESIUM:	873.1 ppm	RESISTIVITY:	0.62 ohm/meter
		CHLORIDES:	13173.7 ppm
		SODIUM:	6760.6 ppm
		POTASSIUM:	150.0 ppm
		TDS:	21592.05 ppm

CaCO3 Scale Tendency = Remote

CaSO4 Scale Tendency = Remote

REMARKS:

Data contained in this document is based on the best information & most current test procedures and materials available. No liability is expressed or implied.

EXHIBIT F

EXHIBIT G

4-5 MILES AWAY - INJECTION INTO THE MORRISON/ENTRADA



CORE LABORATORIES, INC.
Petroleum Reservoir Engineering
DALLAS, TEXAS
WATER ANALYSIS

RECEIVED

MAR 25 1977

Minerals Management Inc.

File WA - 5

Company Dome Petroleum Corp. Well Name Sante Fe 20 No. 1 Sample No. SS-2
Formation _____ Depth _____ Sampled From _____
Location Sec 20 T 21N R 8W Field _____ County San Juan State N.M.
Date Sampled 3-9-77 Date Analyzed 3-13-77 Engineer RGC

Total Dissolved Solids 11,114.5 mg/L

Sp. Gr. 1.009 @ 70 °F.

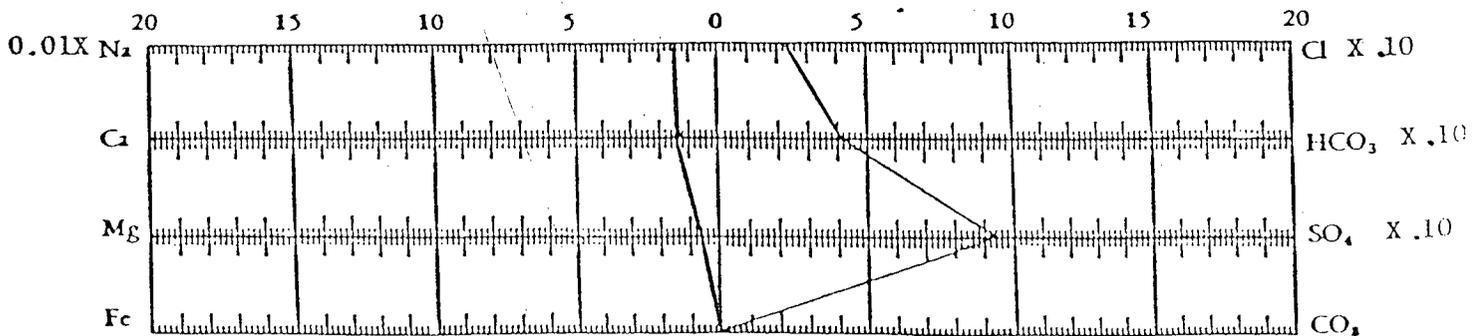
Resistivity 1.0 ohm-meters @ 70 °F.

Hydrogen Sulfide Present

pH 7.73

Constituents	meq/L	mg/L	Constituents	meq/L	mg/L
Sodium	<u>140.44</u>	<u>3228.7</u>	Chloride	<u>25.47</u>	<u>903.0</u>
Calcium	<u>1.35</u>	<u>27.0</u>	Bicarbonate	<u>41.73</u>	<u>2546.0</u>
Magnesium	<u>0.73</u>	<u>8.9</u>	Sulfate	<u>91.61</u>	<u>4400.0</u>
Iron	<u>0.03</u>	<u>0.9</u>	Carbonate	<u>ND</u>	<u>ND*</u>
Barium	<u>ND</u>	<u>ND</u>	Hydroxide	<u>ND</u>	<u>ND</u>

*ND = Less than 0.1 mg/L



Scale: meq/L

THE WESTERN COMPANY OF NORTH AMERICA

API WATER ANALYSIS

EXHIBIT G

Company: MERRION
 Field:
 Well: #1
 Depth:
 Formation: ENTRADA?
 State:
 County:

W.C.N.A. Sample No.: S106995
 Legal Description:
 Lease or Unit: EAGLE MESA
 Water.B/D:
 Sampling Point:
 Sampled By: STEVE DUNN
 Date Sampled: 05/03/95

Type of Water(Produced,Supply, ect.): PROD.

PROPERTIES

pH: 7.32
 Specific Gravity: 1.010
 Resistivity (ohm-meter): .81
 Temperature: 64F

Iron, Fe(total): 0
 Sulfide as H2S: 0
 Total Hardness:
 (see below)

D I S S O L V E D SOLIDS

CATIONS	mg/l	me/l
Sodium, Na:	3726	: 162
Calcium, Ca:	160	: 8
Magnesium, Mg:	49	: 4
Barium, Ba:	N/A	: N/A
Potassium, K:		:

Sample(ml): 1.0 ml of EDTA: .40
 Sample(ml): 1.0 ml of EDTA: .20

ANIONS	mg/l	me/l
.5000Chloride, Cl:	1773	: 50
Sulfate, SO4:	5000	: 104
Carbonate, CO3:		:
Bicarbonate, HCO3:	1220	: 20

Sample(ml): 1.0 ml of AgNO3: .10
 Sample(ml): 1.0 ml of H2SO4:
 Sample(ml): 1.0 ml of H2SO4: .20

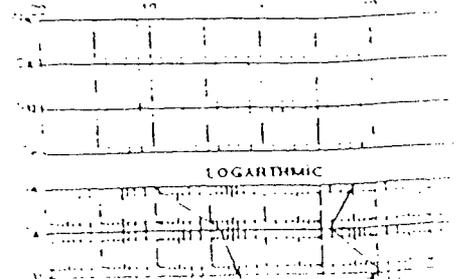
Total Dissolved
 Solids (calculated): 11928
 Total Hardness: 600

Sample(ml): 1.0 ml of EDTA: .60

REMARKS AND RECOMMENDATIONS:

ENTRADA WATER

WATER PATTERNS-mcf
 STANDARD



PERMITS WEST, INC.

PROVIDING PERMITS for LAND USERS

37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

June 21, 2008

BLM
1235 LaPlata Highway
Farmington, NM 87401

Elm Ridge Exploration Company, LLC is applying (see attached application) to activate its Central Bisti SWD #161 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: Central Bisti SWD #161 Total Depth: 7,112'
Proposed Disposal Zone: Entrada (from ≈6,790' to ≈6,940')
Location: 1067' FNL & 2286' FEL Sec. 16, T. 25 N., R. 12 W.,
San Juan County, NM on NM State Land Office lease EO-6597-0002
Approximate Location: ≈22 air miles south-southwest of Bloomfield, NM
Applicant Name: Elm Ridge Exploration Company, LLC (505) 632-3476
Applicant's Address: P. O. Box 156, Bloomfield, NM 87413

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,



Brian Wood

EXHIBIT H

7007 3020 0000 1000 7515 3881

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only, No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

FARMINGTON, NM 87401

Postage	\$ 1.51
Certified Fee	\$ 2.70
Return Receipt Fee (Endorsement Required)	\$ 2.00
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 6.41

POST OFFICE PRESS HERE
JUN 23 2008
FARMINGTON, NM 87401

Sent To: BLM & FIMO

Street, Apt. No., or PO Box No. _____

City, State, ZIP+4 _____

PS Form 3800, August 2006 See Reverse for Instructions

PERMITS WEST, INC.

PROVIDING PERMITS for LAND USERS

37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

June 21, 2008

Burlington Resources Oil and Gas Company
 ConocoPhillips Co.
 P. O. Box 4289
 Farmington, M 87499

Elm Ridge Exploration Company, LLC is applying (see attached application) to activate its Central Bisti SWD #161 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

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 San Juan County, NM on NM State Land Office lease EO-6597-0002
Approximate Location: ≈22 air miles south-southwest of Bloomfield, NM
Applicant Name: Elm Ridge Exploration Company, LLC (505) 632-3476
Applicant's Address: P. O. Box 156, Bloomfield, NM 87413

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Please call me if you have any questions.

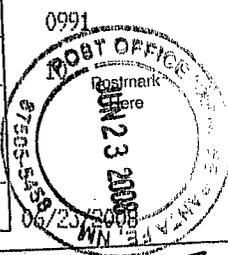
Sincerely,



Brian Wood

EXHIBIT A

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
<i>(Domestic Mail Only; No Insurance Coverage Provided)</i>	
<small>For delivery information visit our website at www.usps.com</small>	
OFFICIAL USE	
Postage	\$ 1.17
Certified Fee	\$ 2.70
Return Receipt Fee (Endorsement Required)	\$ 2.20
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 6.07



Sent To: Burlington Resources

Street, Apt. No., or PO Box No. _____

City, State, ZIP+4 _____

See Reverse for Instructions

4036 5152 1000 0202 2007

PERMITS WEST, INC.

PROVIDING PERMITS for LAND USERS

37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

June 21, 2008

Cyprus Gas Corp.
P. O. Box 3299
Englewood, CO 80155-3299

Elm Ridge Exploration Company, LLC is applying (see attached application) to activate its Central Bisti SWD #161 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

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San Juan County, NM on NM State Land Office lease EO-6597-0002
Approximate Location: ≈22 air miles south-southwest of Bloomfield, NM
Applicant Name: Elm Ridge Exploration Company, LLC (505) 632-3476
Applicant's Address: P. O. Box 156, Bloomfield, NM 87413

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

EXHIBIT H

7007 3020 0000 1000 7515 3843

U.S. Postal Service CERTIFIED MAIL RECEIPT (Domestic Mail Only, No Insurance Coverage Provided)		
For delivery information visit our website at www.usps.com		
ENGLEWOOD CO 80155 OFFICIAL USE		
Postage	\$ 1.17	0991
Certified Fee	\$2.70	10
Return Receipt Fee (Endorsement Required)	\$2.20	
Restricted Delivery Fee (Endorsement Required)	\$0.00	
Total Postage & Fees	\$ 6.07	06/23/2008
Sent To Cyprus		
Street, Apt. No., or PO Box No.		
City, State, ZIP+4		

PS Form 3800, August 2006 See Reverse for Instructions

PERMITS WEST, INC.

PROVIDING PERMITS for LAND USERS

37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

June 21, 2008

FIMO
1235 LaPlata Highway
Farmington, NM 87401

Elm Ridge Exploration Company, LLC is applying (see attached application) to activate its Central Bisti SWD #161 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

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Approximate Location: ≈22 air miles south-southwest of Bloomfield, NM
Applicant Name: Elm Ridge Exploration Company, LLC (505) 632-3476
Applicant's Address: P. O. Box 156, Bloomfield, NM 87413

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Please call me if you have any questions.

Sincerely,

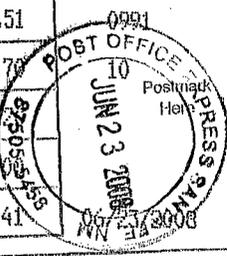


Brian Wood

EXHIBIT A

7007 3020 7000 0200 2007

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
<i>(Domestic Mail Only; No Insurance Coverage Provided)</i>	
<small>For delivery information visit our website at www.usps.com</small>	
FARMINGTON, NM 87401	
OFFICIAL USE	
Postage	\$ 1.51
Certified Fee	\$ 2.70
Return Receipt Fee (Endorsement Required)	\$ 2.00
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 6.41



Sent To BLM & FIMO	
Street, Apt. No., or PO Box No.	
City, State, ZIP+4	

PERMITS WEST, INC.

PROVIDING PERMITS for LAND USERS

37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

June 21, 2008

Giant Mid-Continent, Inc.
Giant Exploration & Production Co.
Ciniza Production Co.
23733 Scottsdale Rd.
Scottsdale, AZ 85020

Elm Ridge Exploration Company, LLC is applying (see attached application) to activate its Central Bisti SWD #161 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

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San Juan County, NM on NM State Land Office lease EO-6597-0002
Approximate Location: ≈22 air miles south-southwest of Bloomfield, NM
Applicant Name: Elm Ridge Exploration Company, LLC (505) 632-3476
Applicant's Address: P. O. Box 156, Bloomfield, NM 87413

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,



Brian Wood

EXHIBIT H

7007 3020 0001 7515 3850

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
<i>(Domestic Mail Only; No Insurance Coverage Provided)</i>	
For delivery information visit our website at www.usps.com	
PHOENIX, AZ 85020	
OFFICIAL USE	
Postage	\$ 1.17
Certified Fee	\$ 2.70
Return Receipt Fee (Endorsement Required)	\$ 2.20
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 6.07

Postmark Here
JUN 23 2008
SANTA FE, NM
06/23/2008

Sent To Giant & Ciniza
Street, Apt. No.,
or PO Box No.
City, State, ZIP+4

PERMITS WEST, INC.

PROVIDING PERMITS for LAND USERS

37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

June 21, 2008

Lawrence C. Kelly
P. O. Box 3986
Odessa, TX 79760

Dear Mr. Kelly:

Elm Ridge Exploration Company, LLC is applying (see attached application) to activate its Central Bisti SWD #161 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

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San Juan County, NM on NM State Land Office lease EO-6597-0002
Approximate Location: ≈22 air miles south-southwest of Bloomfield, NM
Applicant Name: Elm Ridge Exploration Company, LLC (505) 632-3476
Applicant's Address: P. O. Box 156, Bloomfield, NM 87413

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

EXHIBIT H

7007 3020 0001 7515 3874

U.S. Postal Service	
CERTIFIED MAIL RECEIPT	
<i>(Domestic Mail Only; No Insurance Coverage Provided)</i>	
For delivery information, visit our website at www.usps.com	
ODESSA TX 79760	
Postage	\$ 1.17
Certified Fee	\$ 2.70
Return Receipt Fee (Endorsement Required)	\$ 2.20
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 6.07
Postmark: JUN 22 2008 505-3468	
06/23/2008	
Sent To: Kelly	
Street, Apt. No., or PO Box No.	
City, State, ZIP+4	
PS Form 3800, August 2006 See Reverse for Instructions	

PERMITS WEST, INC.

PROVIDING PERMITS for LAND USERS

37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

June 21, 2008

NM State Land Office
P. O. Box 1148
Santa Fe, NM 87504-1148

Elm Ridge Exploration Company, LLC is applying (see attached application) to activate its Central Bisti SWD #161 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

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San Juan County, NM on NM State Land Office lease EO-6597-0002
Approximate Location: ≈22 air miles south-southwest of Bloomfield, NM
Applicant Name: Elm Ridge Exploration Company, LLC (505) 632-3476
Applicant's Address: P. O. Box 156, Bloomfield, NM 87413

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,



Brian Wood

EXHIBIT H

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com

OFFICIAL USE
SANTA FE NM 87504

Postage	\$ 1.17
Certified Fee	\$ 2.70
Return Receipt Fee (Endorsement Required)	\$ 2.20
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 6.07

0991
POST OFFICE
Postmark Here
2008 JUN 21
SANTA FE, NM

Sent To: SLO
Street, Apt. No., or PO Box No.
City, State, ZIP+4

7007 3020 0001 7515 3898

PERMITS WEST, INC.

PROVIDING PERMITS for LAND USERS

37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

June 21, 2008

Jennifer Bates
Questar E & P Company
Questar Market Resources
1050 17th St., Suite 500
Denver, CO 80265

Dear Jennifer,

Elm Ridge Exploration Company, LLC is applying (see attached application) to activate its Central Bisti SWD #161 water disposal well. As required by New Mexico Oil Conservation Division Rules, I am notifying you of the following proposed water disposal well. This letter is a notice only. No action is needed unless you have questions or objections.

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Proposed Disposal Zone: Entrada (from ≈6,790' to ≈6,940')

Location: 1067' FNL & 2286' FEL Sec. 16, T. 25 N., R. 12 W.,

San Juan County, NM on NM State Land Office lease EO-6597-0002

Approximate Location: ≈22 air miles south-southwest of Bloomfield, NM

Applicant Name: Elm Ridge Exploration Company, LLC (505) 632-3476

Applicant's Address: P. O. Box 156, Bloomfield, NM 87413

Submittal Information: Application for a water disposal well will be filed with the NM Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,



Brian Wood

U.S. Postal Service
CERTIFIED MAIL RECEIPT
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EXHIBIT A

7007 3020 0001 7515 3667

AFFIDAVIT OF PUBLICATION

Ad No. 60187

**STATE OF NEW MEXICO
County of San Juan:**

BOB WALLER, being duly sworn says: That he is the CLASSIFIED MANAGER of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication and appeared in the Internet at The Daily Times web site on the following day(s):

FRIDAY MAY 16, 2008

And the cost of the publication is \$53.50

ON 5/29/08 BOB WALLER appeared before me, whom I know personally to be the person who signed the above document.

Christine Sellers
My Commission Expires ~~November 17, 2008~~
11/05/11

COPY OF PUBLICATION

Elm Ridge Exploration Company, LLC is applying to activate the Central Bisti SWD 161 as a water disposal well. The Central Bisti SWD 161 is located at 1067' FNL & 2286' FEL, Sec. 16, T. 25 N., R. 12 W., San Juan County, NM. The well will dispose of water produced from oil and gas wells into the Entrada sandstone at a depth of 6,790' to 6,940' at a maximum rate of 2,000 barrels of water per day and at a maximum pressure of 1,358 psi. Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days. Additional information can be obtained by contacting Brian Wood, Permits West, Inc., 37 Verano Loop, Santa Fe, NM 87508. Phone number is (505) 466-8120.

Legal No. 60187 published in The Daily Times, Farmington, New Mexico on Friday May 16, 2008

EXHIBIT I

Injection Permit Checklist

SWD Order Number 913-A Dates: Division Approved _____ District Approved _____

Information Request Letter or Email sent _____

Well Name/Num: Gravel BISTE SWD #161 Date Spudded: 2/17/05 **Expired**

API Num: (30-) 045-31606 County: SAN JUAN

Footages 1067 FNL/2286 FEL Sec 16 Tsp 25N Rge 12W

Operator Name: ELM RIDGE EXPLORATION COMPANY LLC Contact Don Wood (County West, INC)

Operator Address: P.O. Box 156 Bloomfield, NM 87413 **PKR 0690'**

UNIT B

	Hole/Pipe Sizes	Depths	Cement	Top/Method
Surface	<u>12 1/4 9 5/8</u>	<u>416</u>	<u>230</u>	<u>Surf.</u>
Intermediate				
Production	<u>8 3/4 7"</u>	<u>7106</u>	<u>1250 SX</u>	<u>Surf.</u>
Last DV Tool				
Open Hole/Liner				
Plug Back Depth				

Diagrams Included (Y/N): Before Conversion _____ After Conversion _____

Checks (Y/N): Well File Reviewed _____ ELogs in Imaging _____

Intervals:	Depths	Formation	Producing (Yes/No)
Salt/Potash			
Capitan Reef			
Cliff House, Etc.			
Formation Above	<u>5519'</u>	<u>TOP DKTA</u>	
Top Inj Interval	<u>6790</u>	<u>Fracture</u>	
Bottom Inj Interval	<u>6940</u>	<u>Extm</u>	
Formation Below			

*Drilled 4 inj.
Water will BE Trapped in.*

*Rule 40 = OK
149052 OSR (D)*

*6790
112
13580*

Fresh Water Site Exists (Y/N) Yes Analysis Included (Y/N): _____

Salt Water Analysis: Injection Zone (Y/N/NA) _____ Disposal Waters (Y/N/NA) _____ Types: FRC/Gallup

Affirmative Statement Included (Y/N): ✓ Newspaper Notice Adequate (Y/N) _____ Well Table Adequate (Y/N) _____

Surface Owner: GIANT MIDDLE Noticed (Y/N) _____ Mineral Owner(s) _____

AOR Owners: Bud/Eam Top/CYPus/Gin/Kelly/Quinten Noticed (Y/N) _____

CID/Potash/Etc Owners: _____ Noticed (Y/N) _____

AOR Num Active Wells 7 Repairs? _____ Producing in Injection Interval in AOR NO

AOR Num of P&A Wells 6 Repairs? _____ Diagrams Included? _____

*Swab Test for a sample
Run logs & Turn in*

Data to Generate New AOR Table _____ New Table Generated? (Y/N) _____

	STR	E-W Footages	N-S Footages
Wellsite			
Northeast			
North			
Northwest			
West			
Southwest			
South			
Southeast			
East			

Conditions of Approval:

- _____
- _____
- _____
- _____

RBDMS Updated (Y/N) _____

UIC Form Completed (Y/N) _____

This Form completed _____