5/28/03

SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO
6/12/03	WJS	KV	SWD	pKRV0315353752

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]

Rec: 5-28-2003 1:45 pm

[A] Location - Spacing Unit - Simultaneous Dedication
NSL NSP SD

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

DOMINION'S
FEDERAL WDW 32 #44
SAN JUAN COUNTY, NM

[D] Other: Specify _____

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

Reviewed 6/6/03 WJJ Looks OK

(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	B. Wood	CONSULTANT	5-27-03

e-mail Address
brian@permitswest.com

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised 4-1-98

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance XXX Disposal _____Storage
Application qualifies for administrative approval? XXX Yes _____No

II. OPERATOR: DOMINION OKLAHOMA TEXAS EXPLORATION & PRODUCTION, INC.

ADDRESS: 14000 QUAIL SPRINGS PARKWAY, SUITE 600, OKLAHOMA CITY, OK 73134

CONTACT PARTY: BRIAN WOOD c/o 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: B Wood DATE: 5-27-03

* 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: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

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.

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2-3/8" 4.7# Lining Material: PLASTIC

Type of Packer: BAKER OR ITS EQUIVALENT

Packer Setting Depth: ≈4,080'

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: SWD - POINT LOOKOUT

3. Name of Field or Pool (if applicable): WILDCAT

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

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

   NOW PRODUCING OVERLYING: FRUITLAND & PICTURED CLIFFS

   NOW PRODUCING UNDERLYING: DAKOTA

Side 1

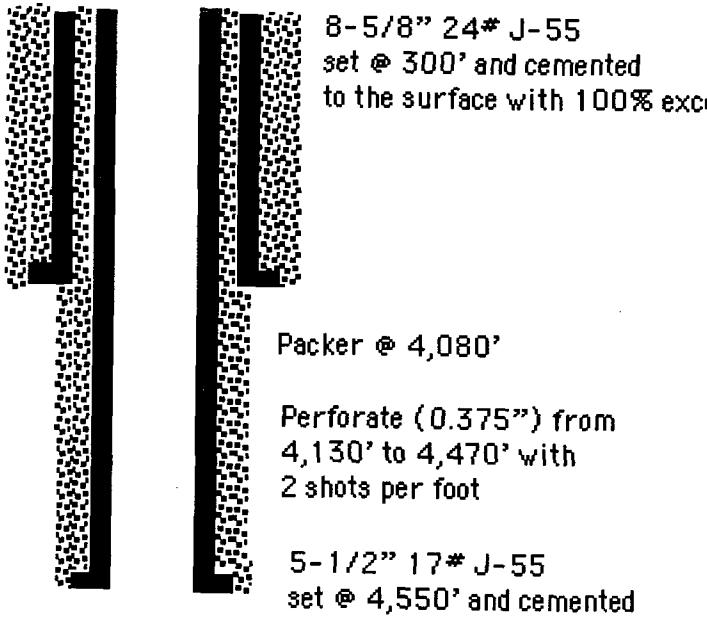
INJECTION WELL DATA SHEET

OPERATOR: DOMINION OKLAHOMA TEXAS EXPLORATION & PRODUCTION, INC.

WELL NAME & NUMBER: FEDERAL WDW 32 #44

WELL LOCATION:	700' FSL & 700' FEL	P	32	27N	11W
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4" Casing Size: 8-5/8" @ 300'

Cemented with: 165 sx. *or* 251 ft³

Top of Cement: SURFACE Method Determined: VISUAL & TEMP. SURVEY

Intermediate Casing

Hole Size: · Casing Size: ·

Cemented with: · sx. *or* · ft³

Top of Cement: · Method Determined: ·

Production Casing

Hole Size: 7-7/8" Casing Size: 5-1/2" @ 4,550'

Cemented with: 820 sx. *or* 951 ft³

Top of Cement: SURFACE Method Determined: VISUAL & BOND LOG

Total Depth: 4,550'

Injection Interval

4,130' feet to 4,470'

(Perforated or Open Hole; indicate which)

FEDERAL WDW 32 #44
700' FSL & 700' FEL
SEC. 32, T. 27 N., R. 11 W.
SAN JUAN COUNTY, NEW MEXICO

I. Purpose is water disposal.

II. Operator: Dominion Oklahoma Texas Exploration & Production, Inc.
Operator phone number: (405) 748-2759
Operator address: 14000 Quail Springs Parkway, #600
Oklahoma City, OK 73134
Contact: Brian Wood (Permits West, Inc.)
Phone: (505) 466-8120

III. A. (1) Lease: BLM lease NMSF-078896
Lease Size: 1,920 acres
Lease Area: all within T. 27 N., R. 11 W.
all Section 29
NE4 Section 30
N2 & SE4 Section 32
all Section 33
Closest Lease Line: 700'
Well Name & Number: Federal WDW 32 #44
Well Location: 700' FSL and 700' FEL Sec. 32, T. 27 N., R. 11 W.
(see Exhibit A)

A. (2) Surface casing (8-5/8", 24#, J-55) will be set at ≈300' in a 12-1/4" hole and cemented to the surface. Cement will be ≈165 sacks (= 100% excess) Class III + 2% $CaCl_2$ + 1/4 pound per sack cello flake. Yield = 1.52 cubic feet per sack. Weight = 14.5 pounds per gallon. If cement does not circulate, a temperature survey will be run to find the T. O. C. and will then finish cementing to the surface through 1" pipe. Centralizers will be set @ ≈260', ≈220', and ≈180'.

Production casing (5-1/2", 17#, J-55) will be set at ≈4,550' in a 7-7/8" hole and cemented to the surface. T. O. C. will be determined by visual observation and bond log. Cement will be ≈820 (≥20% excess) sacks BJ Premium Lite High Strength FM + 10%

gypsum + 5% polymer + 1/4 pound per sack cello flake. Yield = 1.16 cubic feet per sack. Weight = 13.5 pounds per gallon. Volumes will be determined by caliper. Centralizers will be set on top of the shoe joint and every other joint to ≈1,000'. A cement basket will be set every 600'.

U. S. Environmental Protection Agency Method B will be used for the mechanical integrity test. Pressure/vacuum gauge will be installed and checked weekly to monitor down hole conditions once operational.

A. (3) Tubing will be plastic coated 2-3/8" 4.7# J-55 injection string. It will be set at ≈4,100'.

A. (4) A Baker packer or its equivalent will be set at ≈4,080' (≈50' above the top perforation at ≈4,130').

B. (1) Disposal zone will be the Point Lookout sandstone member of the Mesa Verde sandstone. Fracture gradient is expected to be normal ≈0.58 psi per foot.

B. (2) Disposal interval will be ≈4,130' to ≈4,470' (well logs will determine exact interval after drilling). It will be perforated (0.375") with two shots per foot.

B. (3) Well has not yet been drilled. It will be drilled for the exclusive use by Dominion and for the sole purpose of water disposal from present and future Dominion wells. Water analyses from Dominion wells in the Fruitland coal and Pictured Cliffs are attached.

B. (4) Well bore has not yet been perforated since it has not been drilled. It will be perforated from ≈4,130' to ≈4,470' (logs will determine exact interval after drilling).

B. (5) Top of the Point Lookout is at ≈4,094'. Gas is produced elsewhere in the San Juan Basin from the Point Lookout as part of the Blanco Mesa Verde field. Closest Mesa Verde production is 10+ miles northeast. Bottom of the closest overlying productive zone (Pictured Cliffs) is at ≈1,805'. There will be a ≈2,325' interval between the highest injection perforation and the bottom of the Pictured Cliffs. Closest underlying productive formation is the

Gallup. Top of the Gallup is at ≈5,200'. There will be a ≈730' interval between the lowest injection perforation (≈4,470') and the top of the Gallup. Most of the intervening strata is Mancos shale.

IV. This is not an expansion of an existing injection project.

V. A map (See Exhibit B) is attached showing all 4 well bores (2 P & A + 1 existing gas + 1 planned Dominion gas) within a half mile radius and all 78 (1 water + 30 P & A + 47 oil or gas) existing well bores within a two mile radius. Details on the wells within a half mile radius are below.

OPERATOR	WELL	LOCATION	ZONE	TD	STATUS	DISTANCE
Depco	Fed. 32-44	SESE 32-27n-11w	PC	1,870'	P & A	458'
Beta-Mesa	Henderson 1	NENE 5-26n-11w	Dakota	6,400'	P & A	1,492'
Dominion	Henderson 5-1	NENE 5-26n-11w	Fruit. Coal & PC	2,000'	Planned	1,580'
Dominion	Fed. 33-24	SESW 33-27n-11w	PC	1,900'	Gas Well	2,205'

A map (see Exhibit C) showing all leases (3 BLM + 1 allotted lease) within a half mile and all leases within two miles is attached. Except for an allotted lease comprising SW4 32-27n-11w, all other leases in the 2 mile radius are BLM. Details on the leases within a half mile are:

AREA	TYPE LEASE	LEASE #	LESSEE(S)
E2 32 & W2 33 27n-11w	BLM	NMSF-078896	Dominion Burlington ConocoPhillips El Paso Natural Gas XTO Energy
SW4 32 27n-11w	Navajo Allotment	I-149-Ind-9110	ConocoPhillips
NW4 4 26n-11w	BLM	NMSF-078641A	ConocoPhillips Energen Resources J G & R V Merrion Trust Merrion Oil & Gas Corp.

AREA	TYPE LEASE	LEASE #	LESSEE(S)
N2 5 26n-11w	BLM	NMNM-0359212	Dominion Burlington ConocoPhillips El Paso Natural Gas XTO Energy

VI. Three existing wells and one planned well are within a half mile. Only one (Henderson 1) of the four did or will penetrate the Point Lookout. See Exhibit D for a profile, construction details, and plugging Sundry of the P & A Henderson.

VII. 1. Average injection rate = 1,000 bwpd. Maximum = 2,000 bwpd.
2. System will be open (water will be trucked). Facilities will include four ≈400 barrel water tanks, filtration unit, and injection pump.
3. Average injection pressure =1,000 psi
Maximum pressure = 1,500 psi
4. Water source will be present and future Dominion wells in the San Juan Basin. Five produced water analyses (Exhibit E) from the Pictured Cliffs and Fruitland are attached. Averages follow. No local sample exists from the Point Lookout.

Calcium	472 mg/l
Iron	186 mg/l
Magnesium	258 mg/l
Potassium	120 mg/l
Sodium	21,340 mg/l
Chloride	32,460 mg/l
Sulfate	17 mg/l
Alkalinity Bicarbonate (as $CaCO_3$)	547 mg/l $CaCO_3$
Alkalinity Total (as $CaCO_3$)	547 mg/l $CaCO_3$
Hardness (as $CaCO_3$)	2,244 mg/l
pH	6.9 pH units
Resistivity	0.13 ohms
Specific Gravity	1.04 units
Total Dissolved Solids (residue allowable)	53,180 mg/l
Total Dissolved Solids (calculated)	55,800 mg/l

5. The Point Lookout has not been proven productive within two miles of the proposed well. (Dominion will attempt to swab load water back after stimulation and take a Point Lookout water sample. If successful, then the analysis will be provided to the New Mexico Oil Conservation Division.) According to Stone et al in Hydrogeology and water resources of San Juan Basin, New Mexico, Point Lookout water generally has a specific conductance of >1,500 μmhos. Point Lookout water from deeper parts of the basin can have a specific conductance of >59,000 μmhos. Summaries of analyses of Mesa Verde water follow (also see Exhibit F).

Parameter	Sanchez O'Brien #1	GCU #13	King Gas Comm. #1
Bicarbonate	548 mg/l	1,780 mg/l	14,152 mg/l
Calcium	336 mg/l	76 mg/l	40 mg/l
Carbonate	-	-	1,200 mg/l
Chloride	22,137 mg/l	12,600 mg/l	10,600 mg/l
Hydrogen Sulfide	No Trace	-	-
Iron	3 mg/l	-	1.9 mg/l
Magnesium	57 mg/l	12 mg/l	73 mg/l
pH	7.23	7.6	8.4
Potassium	84 mg/l	-	-
Resistivity	0.16 ohms @ 76° F	0.38 ohms @ 66° F	-
Sodium	-	8,700 mg/l	-
Sodium Chloride	36,415 mg/l	-	-
Sodium + Potassium	14,075 mg/l	-	-
Sulfate	0 mg/l	-	90 mg/l
Specific Gravity	1.025	1.0174	-
Total Hardness	1,074 mg/l	-	8 mg/l
Total Dissolved Solids	37,823 mg/l	23,000 mg/l	-
Location	13-28n-13w	6-24n-9w	-
Distance	15 miles SW	16 miles NNW	-

VIII. The Point Lookout sandstone is a shoreline marine sandstone. It produces gas elsewhere in the basin (e. g., Blanco Mesa Verde). It is estimated it will be ≈371' thick in the well bore. Top will be ≈4,094'. Bottom will be ≈4,465'. Estimated well bore formation tops are:

Nacimiento Mudstone & Sandstone: 0'
Ojo Alamo Sandstone: 579'

Kirtland Shale: 709'
Fruitland formation: 1,291'
Upper Basal Fruitland Coal: 1,567'
Basal Fruitland Coal: 1,637'
Pictured Cliffs Sandstone: 1,654
Base of Pictured Cliffs: 1,805'
Huerfanito Bentonite: 2,045'
Cliff House Sandstone: 2,525'
Menefee Formation: 3,255'
Point Lookout Sandstone: 4,094'
Mancos Shale: 4,466'
Total Depth: 4,550'

There is only one water well within a two mile radius. It is ≈3,057' southeast and 230' deep. Water bearing strata are 0' to 708'. The well bore is in the Nacimiento. No existing underground drinking water sources are below the Point Lookout within a two mile radius. There will be ≈3,864' vertical separation between the bottom of the lowest existing underground water source and the top of the Point Lookout.

IX. The well will be stimulated with a gelled water frac and ≈84,000 pounds of 20/40 sand.

X. DIL log will be run from TD to surface. GR/CNL/CDL, ML, CBL/GR logs will be run from TD to bottom of surface casing. Copies will then be provided to the NMOCD.

XI. There are no water wells within two miles which penetrate the Point Lookout. The only water well within two miles is 230' deep and ≈3,057' southeast.

XII. Dominion is not aware of any geologic or engineering data which indicate the Point Lookout is in hydrologic connection with any underground sources of

water. There will be ≈3,864' of vertical separation and three shale or bentonite zones (Kirtland (581' thick), Huerfanito (479' thick), and Menefee (838')) between the top (3,534') of the Point Lookout and the bottom (230') of the closest water well.

XIII. Notice (this application) has been sent to the surface owner (Navajo Nation), operators of all wells (only Dominion), and lease operating right holders (Dominion, Burlington, ConocoPhillips, El Paso, Energen, and Merrions), and lessors (BLM and allotted (c/o FIMO)) within a half mile. A legal ad (see Exhibit G) was published on February 26, 2003.

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code	POINT LOOKOUT WATER DISPOSAL
⁴ Property Code	⁵ Property Name FEDERAL WDW 32	⁶ Well Number #44
⁷ OGRID No. 025773	⁸ Operator Name Dominion Exploration & Production Inc.	⁹ Elevation 6191

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
P.	32	27N	11W		700	South	700	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

700'

700'

¹⁷ OPERATOR CERTIFICATION

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

B. Wood

Signature

BRIAN WOOD

Printed Name

CONSULTANT

Title

JAN. 24, 2003

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.

July 18, 2002

Date of Survey

Signature and Seal of Professional Surveyor:

CECIL B. TULLIS
NEW MEXICO
9672
PROFESSIONAL

Certificate Number

EXHIBIT A

Subject

1/2 mile radius

2 mile radius

Well Map

EXHIBIT B

Gas Well

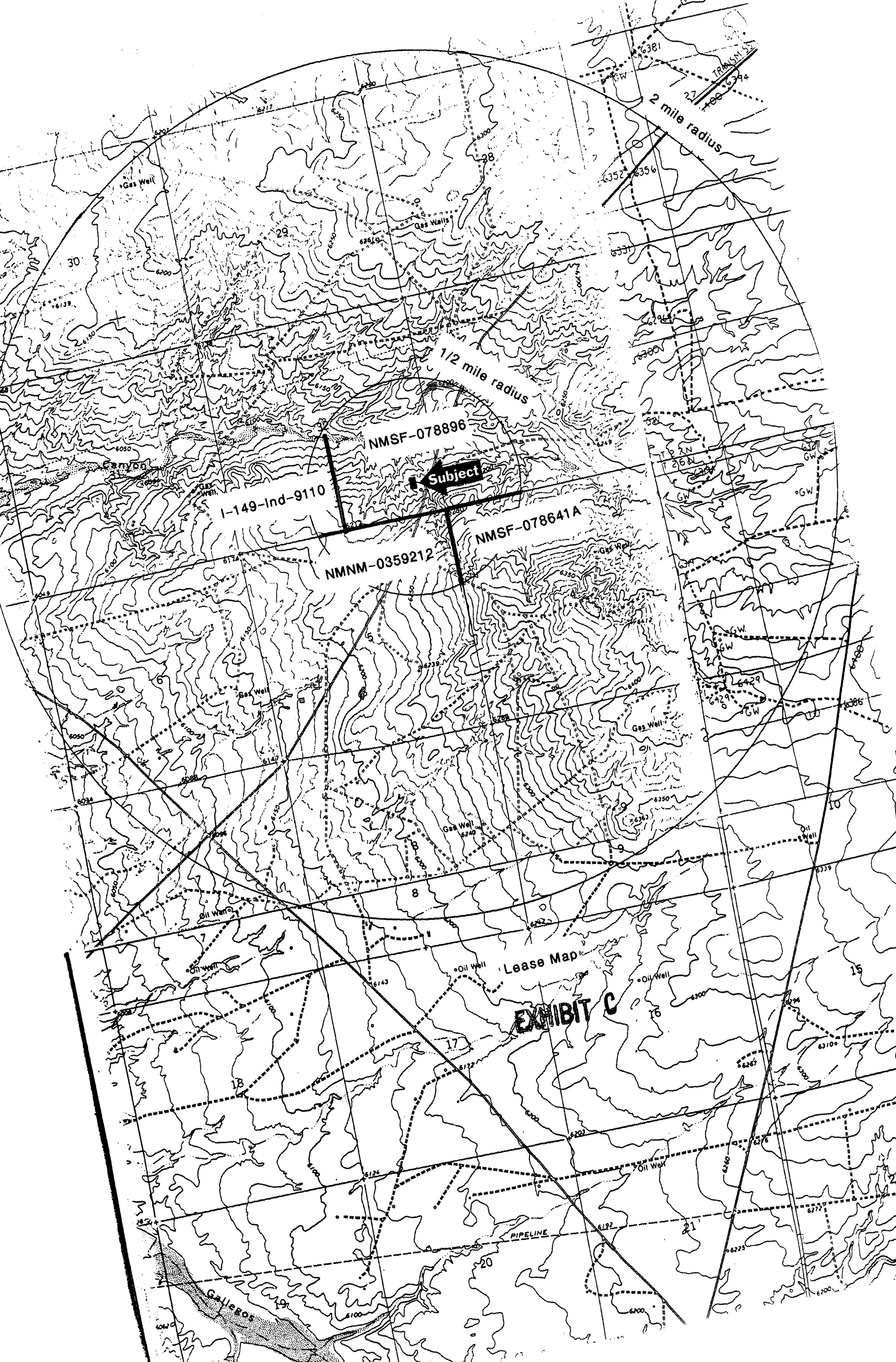
Oil Well

Canyon

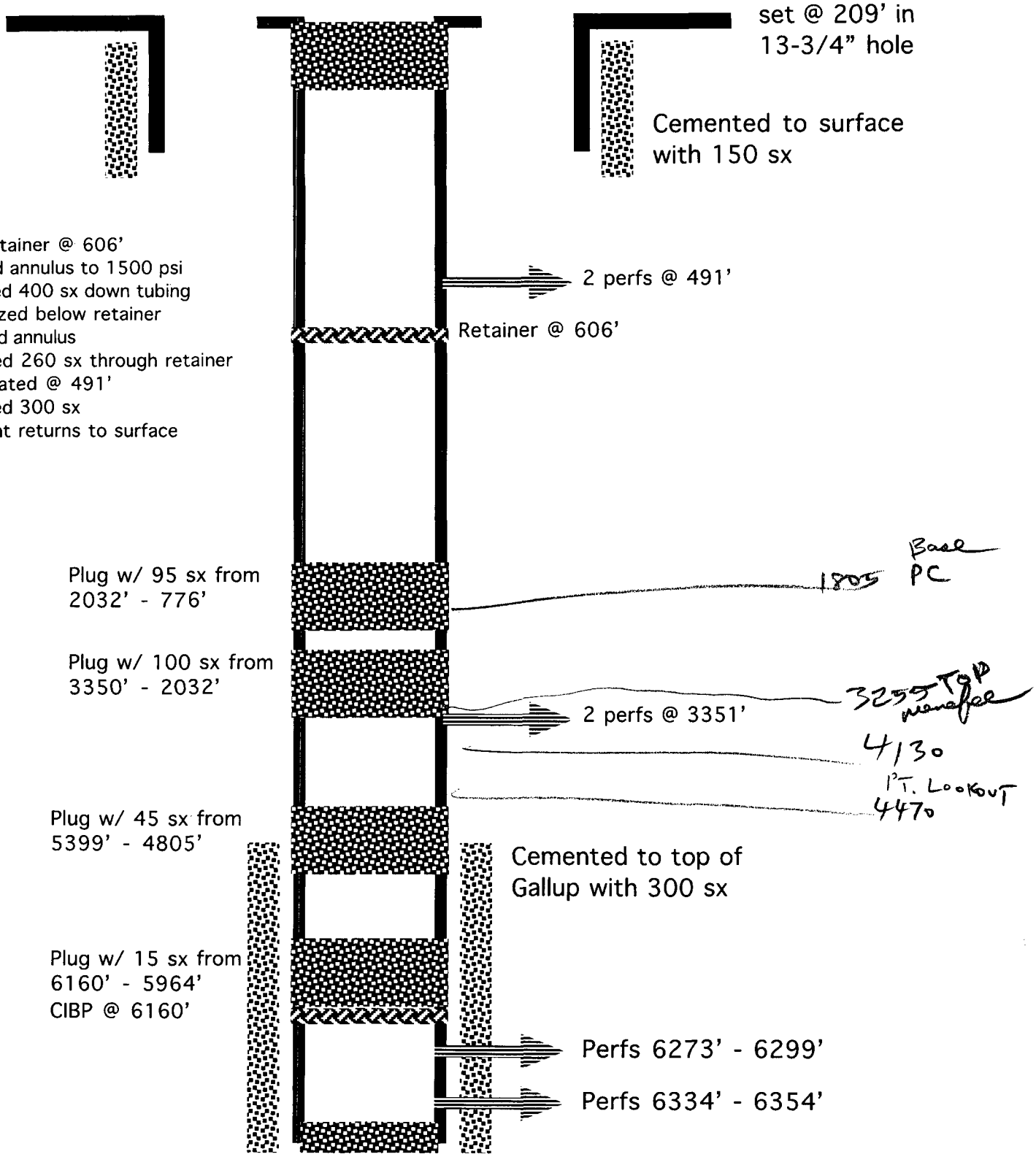
Gallegos Canyon

PIPELINE

T 26 N


2 mile radius
1/2 mile radius
NMSF-078896
I-149-Ind-9110
Subject
NMSF-078641A
NMNM-0359212
Lease Map
EXHIBIT C
Gas Well
Gas Wells
Oil Well
Canyon
PIPELINE
Gallegos
TRANSMISS
GW

HENDERSON 1



Spudded: 6-12-61
Plugged: 10-6-88

EXHIBIT D

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS

Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.: NM-0359212

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

RECEIVED
MAIL ROOM
88 OCT 31 PM 1:33
FARMINGTON RESOURCE AREA
FARMINGTON, NEW MEXICO

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL ☐ GAS WELL ☒ OTHER

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: Beta Development Company

8. FARM OR LEASE NAME: HENDERSON FEDERAL

3. ADDRESS OF OPERATOR: c/o Mesa Operating Ltd Partnership, P.O.Box 2009, Amarillo, TX

9. WELL NO.: #1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 790' FNL/790' FEL

10. FIELD AND POOL, OR WILDCAT: Basin Dakota

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 5-26N-11W

14. PERMIT NO.	15. ELEVATIONS (Show whether DF, RT, GR, etc.)	12. COUNTY OR PARISH	13. STATE
	6234' GR	San Juan	NM

16. **Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data**

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF ☐	PULL OR ALTER CASING ☐	WATER SHUT-OFF ☐	REPAIRING WELL ☐
FRACTURE TREAT ☐	MULTIPLE COMPLETE ☐	FRACTURE TREATMENT ☐	ALTERING CASING ☐
SHOOT OR ACIDIZE ☐	ABANDON* ☐	SHOOTING OR ACIDIZING ☐	ABANDONMENT* ☒
REPAIR WELL ☐	CHANGE PLANS ☐	(Other) ☐	
(Other) ☐		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.) *

MI & RU Big A # 6 on 10/3/88 to plug and abandon as follows: Tagged CIBP @ 6160'. Pmpd 225 bbls 9.1 ppg 53 vis mud. Pump down annulus; circ up tubing; set packer press to 1000 psig below packer; POH to 3314'; pumped 3 bbls down tbg w/3000 psig; circ up 4½" csg; RU Western; spotted 15 sx cement Class "B" from 6160'-5964'; spotted 45 sx Class "B" cmt plug from 5399'-4805'; RIH w/WL; perf's @ 3351'; RU Western, mixed & spotted 100 sx cement plug from 3350'-2032'; mixed & spotted 95 sx plug from 2032'-776'; set retainer @ 606'; tstd annulus to 1500 psig; mixed & pumped 400 sx down tubing and squeezed below retainer; opened 10 3/4" x 4 1/2" annulus and mixed & pumped 260 sx Class "B" cement thru retainer w/mud returns on 10 3/4" x 4½" annulus. No cement returns to surface. Perf'd @ 491'; broke circ down 4½" csg and up 10 3/4" x 4½" annulus. Mixed & pmpd 300 sx Class "B" cement. Had cement returns to surface. ND BOP's, Cut off wellhead. Installed dry hole marker. Witnessed by Mark Phillibar w/BLM. Well PUA 10/6/88.

RECEIVED
NOV 07 1988
OIL CON. DIV.
DIST. 3

Approved as to plugging of the well bore. Liability under bond is retained until surface restoration is completed.

xc: BLM-F (0+5), Prod Rcds, Reg, Land, Expl.

18. I hereby certify that the foregoing is true and correct

SIGNED Carolyn McKee TITLE Regulatory Analyst DATE 10/28/88

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE James F. Edwards Jr.

CONDITIONS OF APPROVAL, IF ANY:

EXHIBIT D

PINNACO

*See Instructions on Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any

612 E. Murray Drive
Farmington, NM 87401

Off: (505) 327-1072

iiná bá

P.O. Box 2606
Farmington, NM 87499

Fax: (505) 327-1496

ANALYTICAL REPORT

Date: *26-Mar-03*

CLIENT:	Dominion E & P
Work Order:	0303011
Project:	Produced Water
Lab ID:	0303011-001A

Client Sample Info:	Produced Water
Client Sample ID:	Mudge A #9 (Fruitland Coal)
Collection Date:	3/12/2003 8:52:00 AM
Matrix:	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B				Analyst: **DJC**
Calcium	421	1.00		mg/L	100	3/17/2003
Iron	86.6	2.40		mg/L	100	3/19/2003
Magnesium	252	0.700		mg/L	100	3/21/2003
Potassium	92.3	6.20		mg/L	100	3/21/2003
Sodium	21500	18.0		mg/L	1000	3/21/2003
ANIONS BY ION CHROMATOGRAPHY		E300				Analyst: **HNR**
Chloride	37500	300		mg/L	5000	3/19/2003
Sulfate	ND	10.0		mg/L	100	3/18/2003
ALKALINITY, TOTAL		M2320 B				Analyst: **HNR**
Alkalinity, Bicarbonate (As CaCO3)	630	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Carbonate (As CaCO3)	ND	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Total (As CaCO3)	630	5		mg/L CaCO3	1	3/20/2003
HARDNESS, TOTAL		M2340 B				Analyst: **HNR**
Hardness (As CaCO3)	2090	1		mg/L	1	3/24/2003
PH		E150.1				Analyst: **HNR**
pH	6.70	2.00		pH units	1	3/13/2003
Temperature	20.0	0		Deg C	1	3/13/2003
RESISTIVITY (@ 25 DEG. C)		M2510 C				Analyst: **HNR**
Resistivity	0.121	0.001		ohm-m	1	3/18/2003
SPECIFIC GRAVITY		M2710 F				Analyst: **HNR**
Specific Gravity	1.040	0.001		Units	1	3/18/2003
TOTAL DISSOLVED SOLIDS		E160.1				Analyst: **HNR**
Total Dissolved Solids (Residue, Filterable)	57000	40		mg/L	1	3/18/2003
TOTAL DISSOLVED SOLIDS		CALC				Analyst: **HNR**
Total Dissolved Solids (Calculated)	60800	5		mg/L	1	3/24/2003

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted precision limits

E - Value above Upper Quantitation Limit - UQL

EXHIBIT E

612 E. Murray Drive
Farmington, NM 87401

Off: (505) 327-1072

iiná bá

P.O. Box 2606
Farmington, NM 87499

Fax: (505) 327-1496

ANALYTICAL REPORT

Date: 26-Mar-03

CLIENT: Dominion E & P
Work Order: 0303011
Project: Produced Water
Lab ID: 0303011-002A

Client Sample Info: Produced Water
Client Sample ID: Hancock 42-12 (Fruitland Coal)
Collection Date: 3/12/2003 10:45:00 AM
Matrix: AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B				Analyst: DJC
Calcium	238	1.00		mg/L	100	3/17/2003
Iron	207	2.40		mg/L	100	3/19/2003
Magnesium	190	0.700		mg/L	100	3/21/2003
Potassium	64.1	6.20		mg/L	100	3/21/2003
Sodium	16000	1.80		mg/L	100	3/21/2003
ANIONS BY ION CHROMATOGRAPHY		E300				Analyst: HNR
Chloride	24000	300		mg/L	5000	3/19/2003
Sulfate	ND	10.0		mg/L	100	3/18/2003
ALKALINITY, TOTAL		M2320 B				Analyst: HNR
Alkalinity, Bicarbonate (As CaCO3)	430	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Carbonate (As CaCO3)	ND	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Total (As CaCO3)	430	5		mg/L CaCO3	1	3/20/2003
HARDNESS, TOTAL		M2340 B				Analyst: HNR
Hardness (As CaCO3)	1180	1		mg/L	1	3/24/2003
PH		E150.1				Analyst: HNR
pH	6.34	2.00		pH Units	1	3/13/2003
Temperature	22.0	0		Deg C	1	3/13/2003
RESISTIVITY (@ 25 DEG. C)		M2510 C				Analyst: HNR
Resistivity	0.150	0.001		ohm-m	1	3/18/2003
SPECIFIC GRAVITY		M2710 F				Analyst: HNR
Specific Gravity	1.030	0.001		Units	1	3/18/2003
TOTAL DISSOLVED SOLIDS		E160.1				Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	41000	40		mg/L	1	3/18/2003
TOTAL DISSOLVED SOLIDS		CALC				Analyst: HNR
Total Dissolved Solids (Calculated)	42600	5		mg/L	1	3/24/2003

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

EXHIBIT E

612 E. Murray Drive
Farmington, NM 87401

Ofl: (505) 327-1072

iiná bá

P.O. Box 2606
Farmington, NM 87499

Fax: (505) 327-1496

ANALYTICAL REPORT

Date: *26-Mar-03*

CLIENT:	Dominion E & P.	Client Sample Info:	Produced Water
Work Order:	0303011	Client Sample ID:	Hancock #4 (Fruitland Coal)
Project:	Produced Water	*Collection Date:*	*3/12/2003 10:57:00 AM*
Lab ID:	0303011-004A	Matrix:	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B				Analyst: DJC
Calcium	466	1.00		mg/L	100	3/17/2003
Iron	ND	2.40		mg/L	100	3/19/2003
Magnesium	300	0.700		mg/L	100	3/21/2003
Potassium	953	6.20		mg/L	100	3/21/2003
Sodium	24000	10.0		mg/L	1000	3/21/2003
ANIONS BY ION CHROMATOGRAPHY		E300				Analyst: HNR
Chloride	36000	300		mg/L	5000	3/19/2003
Sulfate	ND	10.0		mg/L	100	3/18/2003
ALKALINITY, TOTAL		M2320 B				Analyst: HNR
Alkalinity, Bicarbonate (As CaCO3)	468	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Carbonate (As CaCO3)	ND	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Total (As CaCO3)	468	5		mg/L CaCO3	1	3/20/2003
HARDNESS, TOTAL		M2340 B				Analyst: HNR
Hardness (As CaCO3)	2400	1		mg/L	1	3/24/2003
PH		E150.1				Analyst: HNR
pH	7.59	2.00		pH units	1	3/13/2003
Temperature	20.0	0		Deg C	1	3/13/2003
RESISTIVITY (@ 25 DEG. C)		M2510 C				Analyst: HNR
Resistivity	0.134	0.001		ohm-m	1	3/18/2003
SPECIFIC GRAVITY		M2710 F				Analyst: HNR
Specific Gravity	1.043	0.001		Units	1	3/18/2003
TOTAL DISSOLVED SOLIDS		E160.1				Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	62680	40		mg/L	1	3/18/2003
TOTAL DISSOLVED SOLIDS		CALC				Analyst: HNR
Total Dissolved Solids (Calculated)	62000	5		mg/L	1	3/24/2003

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted precision limits

E - Value above Upper Quantitation Limit - UQL

EXHIBIT E

612 E. Murray Drive
Farmington, NM 87401

Off: (505) 327-1072

iiná bá

P.O. Box 2606
Farmington, NM 87499

Fax: (505) 327-1496

ANALYTICAL REPORT

Date: 26-Mar-03

CLIENT: Dominion E & P
Work Order: 0303011
Project: Produced Water
Lab ID: 0303011-003A

Client Sample Info: Produced Water
Client Sample ID: Hancock #1 (Pictured Cliffs)
Collection Date: 3/12/2003 10:13:00 AM
Matrix: AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B				Analyst: DJC
Calcium	404	1.00		mg/L	100	3/17/2003
Iron	7.63	2.40		mg/L	100	3/19/2003
Magnesium	206	0.700		mg/L	100	3/21/2003
Potassium	146	6.20		mg/L	100	3/21/2003
Sodium	19200	1.60		mg/L	100	3/21/2003
ANIONS BY ION CHROMATOGRAPHY		E300				Analyst: HNR
Chloride	28000	300		mg/L	5000	3/19/2003
Sulfate	ND	10.0		mg/L	100	3/18/2003
ALKALINITY, TOTAL		M2320 B				Analyst: HNR
Alkalinity, Bicarbonate (As CaCO3)	547	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Carbonate (As CaCO3)	ND	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Total (As CaCO3)	547	5		mg/L CaCO3	1	3/20/2003
HARDNESS, TOTAL		M2340 B				Analyst: HNR
Hardness (As CaCO3)	1660	1		mg/L	1	3/24/2003
PH		E150.1				Analyst: HNR
pH	6.91	2.00		pH Units	1	3/13/2003
Temperature	22.0	0		Deg C	1	3/13/2003
RESISTIVITY (@ 25 DEG. C)		M2510 C				Analyst: HNR
Resistivity	0.144	0.001		ohm-m	1	3/18/2003
SPECIFIC GRAVITY		M2710 F				Analyst: HNR
Specific Gravity	1.033	0.001		Units	1	3/18/2003
TOTAL DISSOLVED SOLIDS		E160.1				Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	45000	40		mg/L	1	3/10/2003
TOTAL DISSOLVED SOLIDS		CALC				Analyst: HNR
Total Dissolved Solids (Calculated)	48.000	5		mg/L	1	3/24/2003

Qualifiers:

ND - Not Detected at the Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted precision limits
E - Value above Upper Quantitation Limit - UQL

EXHIBIT E

612 E. Murray Drive
Farmington, NM 87401
Off: (505) 327-1072

iiná bá

P.O. Box 2606
Farmington, NM 87499
Fax: (505) 327-1496

ANALYTICAL REPORT

Date: *26-Mar-03*

CLIENT:	Dominion E & P	Client Sample Info:	Produced Water
Work Order:	0303011	Client Sample ID:	Hancock 13-11 (Pictured Cliffs)
Project:	Produced Water	Collection Date:	3/12/2003 11:08:00 AM
Lab ID:	0303011-005A	Matrix:	AQUEOUS

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B				Analyst: OJC
Calcium	832	1.00		mg/L	100	3/17/2003
Iron	ND	2.40		mg/L	100	3/19/2003
Magnesium	343	0.700		mg/L	100	3/21/2003
Potassium	199	6.20		mg/L	100	3/21/2003
Sodium	25100	18.0		mg/L	1000	3/21/2003
ANIONS BY ION CHROMATOGRAPHY		E300				Analyst: HNR
Chloride	36800	300		mg/L	5000	3/19/2003
Sulfate	16.9	8.00		mg/L	100	3/19/2003
ALKALINITY, TOTAL		M2320 B				Analyst: HNR
Alkalinity, Bicarbonate (As CaCO3)	654	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Carbonate (As CaCO3)	ND	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	3/20/2003
Alkalinity, Total (As CaCO3)	654	5		mg/L CaCO3	1	3/20/2003
HARDNESS, TOTAL		M2340 B				Analyst: HNR
Hardness (As CaCO3)	3490	1		mg/L	1	3/24/2003
PH		E150.1				Analyst: HNR
pH	6.84	2.00		pH units	1	3/13/2003
Temperature	20.0	0		Deg C	1	3/13/2003
RESISTIVITY (@ 25 DEG. C)		M2510 C				Analyst: HNR
Resistivity	0.115	0.001		ohm m	1	3/18/2003
SPECIFIC GRAVITY		M2710 F				Analyst: HNR
Specific Gravity	1.043	0.001		Units	1	3/18/2003
TOTAL DISSOLVED SOLIDS		E160.1				Analyst: HNR
Total Dissolved Solids (Residue, Filterable)	58600	40		mg/L	1	3/18/2003
TOTAL DISSOLVED SOLIDS		CALC				Analyst: HNR
Total Dissolved Solids (Calculated)	61700	5		mg/L	1	3/24/2003

Qualifiers:

ND - Not Detected at the *Practical Quantitation Limit*

J - Analyte detected below *Practical Quantitation Limit*

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted precision limits

I - Value above *Upper Quantitation Limit* - UQL

EXHIBIT E

FW01W027

SWD 694

BJ SERVICES COMPANY

WATER ANALYSIS #FW01W027

FARMINGTON LAB

GENERAL INFORMATION			
OPERATOR:	DUGAN PRODUCTION	DEPTH:	
WELL:	SANCHEZ O'BRIEN #1	DATE SAMPLED:	12/03/97
FIELD:	SEC.6/T24N/R9W	DATE RECEIVED:	12/03/97
SUBMITTED BY:	JOHN ALEXANDER	COUNTY:	SAN JUAN STATE: NM
WORKED BY :	D. SHEPHERD	FORMATION:	MESAVERDE
PHONE NUMBER:			

SAMPLE DESCRIPTION

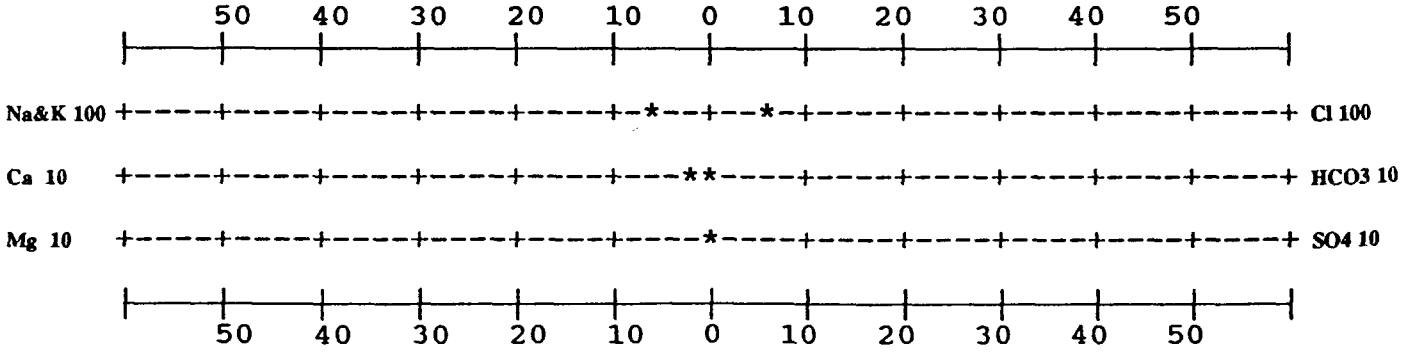
SWAB SAMPLE AFTER 200 BBL.

PHYSICAL AND CHEMICAL DETERMINATIONS

SPECIFIC GRAVITY:	1.025 @ 76°F	PH:	7.23
RESISTIVITY (MEASURED):	0.160 ohms @ 76°F		
IRON (FE++) :	3 ppm	SULFATE:	0 ppm
CALCIUM:	336 ppm	TOTAL HARDNESS	1,074 ppm
MAGNESIUM:	57 ppm	BICARBONATE:	548 ppm
CHLORIDE:	22,137 ppm	SODIUM CHLORIDE(Calc)	36,415 ppm
SODIUM+POTASS:	14,065 ppm	TOT. DISSOLVED SOLIDS:	37,823 ppm
H2S: NO TRACE		POTASSIUM (PPM):	84

REMARKS

STIFF TYPE PLOT (IN MEQ/L)



ANALYST _____

D. SHEPHERD

EXHIBIT F

API WATER ANALYSIS REPORT FORM

Laboratory No. 25-920113-3

Company	Sample No.	Date Sampled
BHP Petroleum		1-9-92

Field	Legal Description	County or Parish	State
	Sec 13 - T29N - R13W	San Juan	NM

Lease or Unit	Well	Depth	Formation	Water, B/D
	GCU 13 SWD #7	2870' - 2972'	Mesa Verde Cliffhouse	

Type of Water (Produced, Supply, etc.)	Sampling Point	Sampled By
	Swab Line	

DISSOLVED SOLIDS

CATIONS	*mg/l*	*me/l*
Sodium, Na (calc.)	8,700	380
Calcium, Ca	76	3.8
Magnesium, Mg	12	1
Barium, Ba		

ANIONS		
Chloride, Cl	12,600	356
Sulfate, So_4	-	-
Carbonate, CO_3	-	-
Bicarbonate, HCO_3	1,780	29.2

Total Dissolved Solids (calc.) 23,000

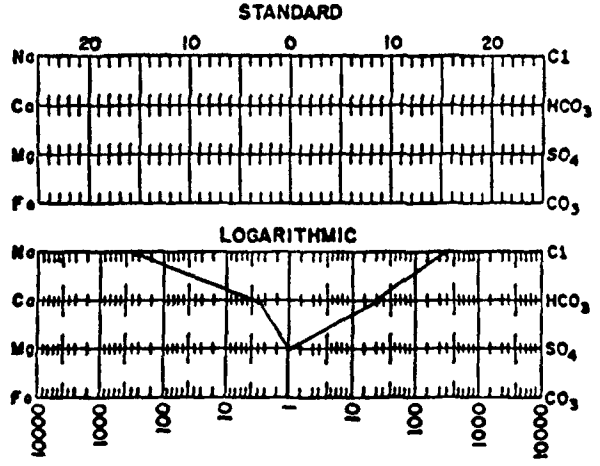
Iron, Fe (total)

Sulfide, as H_2S

OTHER PROPERTIES

pH	7.60
Specific Gravity, 60/60 F.	1.0174
Resistivity (ohm-meters) 66 F.	0.58

WATER PATTERNS — *me/l*



REMARKS & RECOMMENDATIONS:

Date Received	Preserved	Date Analyzed	Analyzed By
13th Jan, 1992.		20th Jan, 1992.	R.H.

TECH, Inc.
333 East Main
Farmington
New Mexico
87401
505/327-3311

EXHIBIT 1

SWD 450

BAROID DIVISION
N L Industries, Inc.
P.O. Box 1675 Houston, Texas 77001

BAROID TREATING CHEMICALS

WATER ANALYSIS TEST REPORT

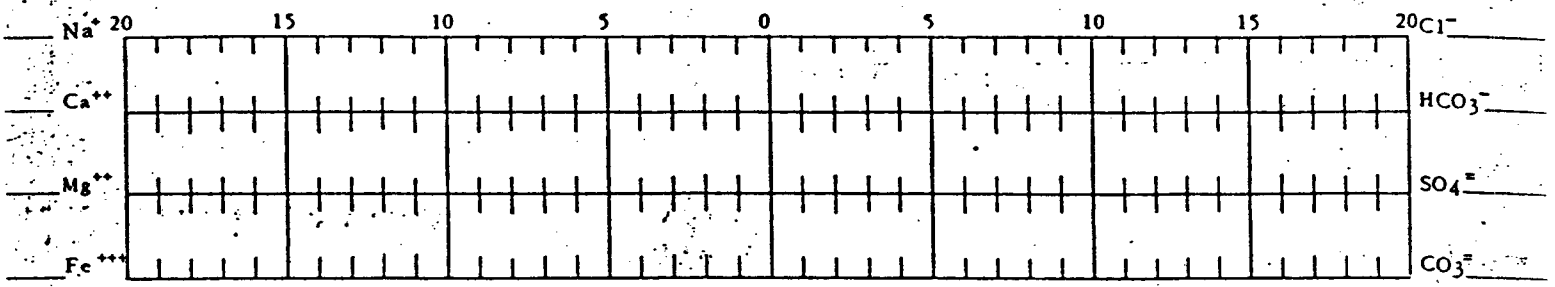
Exhibit D

RECEIVED JUN 28 1977 OIL CON. COM. DIST. 3

COMPANY: Energy Reserves			SHEET NUMBER / DATE: 6-10-77
FIELD: Basin Dakota	COUNTY OR PARISH: San Juan		STATE: N. Mexico
LEASE OR UNIT: King Gas Com.	WELL(S) NAME OR NO.: #1	WATER SOURCE (FORMATION): Mesaverde - Cliffhouse	
DEPTH, FT.	BHT, F	SAMPLE SOURCE / TEMP, F	WATER, BBL/DAY / OIL, BBL/DAY / GAS, MMCF/DAY
TYPE OF OIL	API GRAVITY: °	TYPE OF WATER: ☒ PRODUCED WATER ☐ INJECTION WATER OTHER	

WATER ANALYSIS PATTERN

(NUMBER BESIDE ION SYMBOL INDICATES me/l * SCALE UNIT)



DISSOLVED SOLIDS

CATIONS	me/l *	mg/l *
Total Hardness	8	
Sodium, Na^+ (calc.)		
Calcium, Ca^{++}	2	40
Magnesium, Mg^{++}	6	73
Iron (Total), Fe^{+++}		1.9
ANIONS		
Chloride, Cl^-		10,600
Sulfate, $SO_4^=$		90
Carbonate, $CO_3^=$		1,200
Bicarbonate, HCO_3^-	232	14,152
Hydroxyl, OH^-		-0-
Sulfide, $S^=$		
Phosphate-Meta, PO_3^-		
Phosphate-Ortho, $PO_4^{\equiv}$		

DISSOLVED GASES

Hydrogen Sulfide, H_2S		mg/l *
Carbon Dioxide, CO_2		mg/l *
Oxygen, O_2		mg/l *

PHYSICAL PROPERTIES

pH	8.4	
Eh (Redox Potential)		MV
Specific Gravity		
Turbidity, JTU Units		
Total Dissolved Solids (Calc.)		mg/l *
Stability Index @ ___ F		
@ ___ F		
$CaSO_4$ Solubility @ ___ F		mg/l *
@ ___ F		mg/l *
Max. $CaSO_4$ Possible (Calc.)		mg/l *
Max. $BaSO_4$ Possible (Calc.)		mg/l *
Residual Hydrocarbons		ppm (Vol/Vol

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide ☐ Iron Oxide ☐ Calcium Carbonate ☐ Acid Insoluble ☐

REMARKS AND RECOMMENDATIONS:

* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

EXHIBIT F

ENGINEER	DIST. NO.	ADDRESS		HOME PHONE
Max Woolery		Farmington, NM	325-9701	
ENTERED BY: Woolery	DATE: 6-10-77	DISTRIBUTION: ☐ CUSTOMER ☐ AREA OR ☐ DISTRICT OFFICE ☐ BTC ENGINEER OR ☐ BTC LAB ☐ BTC SALES SUPERVISOR		

AFFIDAVIT OF PUBLICATION

Ad No. 47508

STATE OF NEW MEXICO
County of San Juan:

CONNIE PRUITT, being duly sworn says: That she is the Advertising 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 meeting of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication on the following day(s): Wednesday, February 26, 2003.

And the cost of the publication is $35.00

Connie Pruitt

ON 2-26-03 CONNIE PRUITT appeared before me, whom I know personally to be the person who signed the above document.

Ginny Beck
My Commission Expires April 2, 2004.

COPY OF PUBLICATION

918 Legals

LEGAL NOTICE

Dominion Oklahoma Texas Exploration & Production, Inc. is applying to drill the Federal WDW 32 #44 water disposal well. The federal WDW 32 #44 will be located at 700' FSL & 700' FEL, Sec. 32, T. 27 N., R. 11 W., San Juan County, NM. The well will dispose of water produced from oil and gas wells into the Point Lookout sandstone at a depth of 4,130' to 4,470' at a maximum rate of 2,000 barrels of water per day and at a maximum pressure of 1,500 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. 87508, published in The Daily Times, Farmington, New Mexico, Wednesday, February 26, 2003.

EXHIBIT G

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

May 27, 2003

BLM
1235 LaPlata Highway
Farmington, NM 87401

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.

Dominion Oklahoma Texas Exploration & Production, Inc. is applying (see attached application) to drill its Federal WDW 32 #44 well.

Well Name: Federal WDW 32 #44 Total Depth: 4,550'
Proposed Disposal Zone: Point Lookout (from ≈4,130' to ≈4,470')
Location: 700' FSL & 700' FEL Sec. 32, T. 27 N., R. 11 W.,
San Juan County, NM on a state lease
Approximate Location: ≈13 air miles south-southwest of Bloomfield, NM
Applicant Name: Dominion Oklahoma Texas Exploration & Production, Inc.
Applicant's Address: 14000 Quail Springs Pkwy, #600 OKC, Ok. 73134-2600

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
(Domestic Mail Only; No Insurance Coverage Provided)

7002 0460 0000 9182 7468

OFFICIAL USE

Postage $
Certified Fee
Return Receipt Fee (Endorsement Required)
Restricted Delivery Fee (Endorsement Required)
Total Postage & Fees $ 8.80

SANTA FE NM 87508 MAY 27 2003

Sent To BLM + FMD
Street, Apt. No.; or PO Box No. 1235 LaPlata Hwy
City, State, ZIP+4 Farmington NM 87401

PS Form 3800, January 2001 See Reverse for Instructions

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

May 27, 2003

Burlington Resources Oil & Gas Co. LP
P. O. Box 51810
Midland, TX 79710-1810

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.

Dominion Oklahoma Texas Exploration & Production, Inc. is applying (see attached application) to drill its Federal WDW 32 #44 well.

Well Name: Federal WDW 32 #44 Total Depth: 4,550'
Proposed Disposal Zone: Point Lookout (from ≈4,130' to ≈4,470')
Location: 700' FSL & 700' FEL Sec. 32, T. 27 N., R. 11 W.,
San Juan County, NM on a state lease
Approximate Location: ≈13 air miles south-southwest of Bloomfield, NM
Applicant Name: Dominion Oklahoma Texas Exploration & Production, Inc.
Applicant's Address: 14000 Quail Springs Pkwy, #600 OKC, Ok. 73134-2600

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
(Domestic Mail Only; No Insurance Coverage Provided)
OFFICIAL USE
Postage $
Certified Fee
Return Receipt Fee (Endorsement Required)
Restricted Delivery Fee (Endorsement Required)
Total Postage & Fees $ 2.57
SANTA FE NM 87508 USPS MAY 27 2003 Postmark
Sent To Burlington
Street, Apt. No.; or PO Box No. PO Box 51810
City, State, ZIP+4 Midland TX 79711
7002 0460 0000 9182 6508

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

May 27, 2003

Jim Ball
ConocoPhillips Company
P. O. Box 2197
Houston, Tx. 77252

Dear Mr. Ball:

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.

Dominion Oklahoma Texas Exploration & Production, Inc. is applying (see attached application) to drill its Federal WDW 32 #44 well.

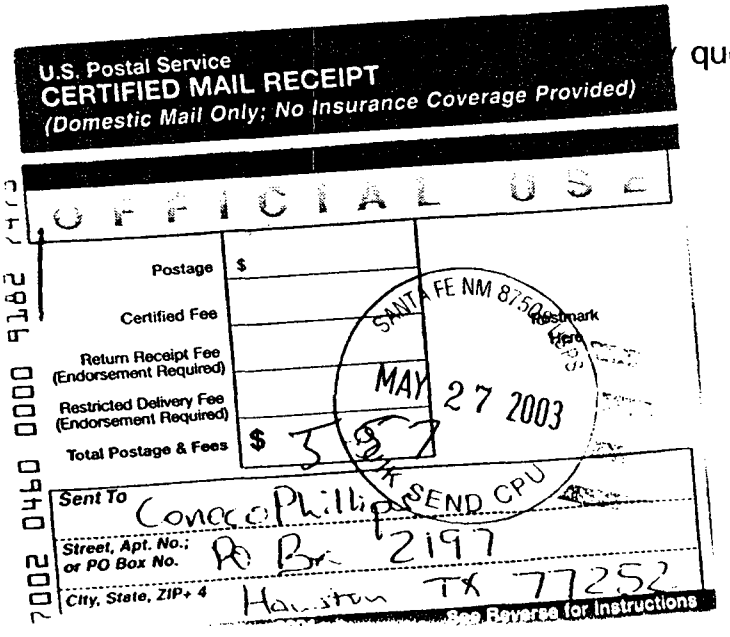
Well Name: Federal WDW 32 #44 Total Depth: 4,550'
Proposed Disposal Zone: Point Lookout (from ≈4,130' to ≈4,470')
Location: 700' FSL & 700' FEL Sec. 32, T. 27 N., R. 11 W.,
San Juan County, NM on a state lease
Approximate Location: ≈13 air miles south-southwest of Bloomfield, NM
Applicant Name: Dominion Oklahoma Texas Exploration & Production, Inc.
Applicant's Address: 14000 Quail Springs Pkwy, #600 OKC, Ok. 73134-2600

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.

questions.

Sincerely,

Brian Wood


U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
OFFICIAL USE
Postage $
Certified Fee
Return Receipt Fee (Endorsement Required)
Restricted Delivery Fee (Endorsement Required)
Total Postage & Fees $ 3.97
SANTA FE NM 87501 MAY 27 2003 Postmark Here
SEND CPU
Sent To ConocoPhillips
Street, Apt. No.; or PO Box No. PO Box 2197
City, State, ZIP+4 Houston TX 77252
See Reverse for Instructions
7002 0460 0000 9182 2713

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

May 27, 2003

El Paso Natural Gas Co.
P. O. Box 1087
Colorado Springs, CO 80944

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.

Dominion Oklahoma Texas Exploration & Production, Inc. is applying (see attached application) to drill its Federal WDW 32 #44 well.

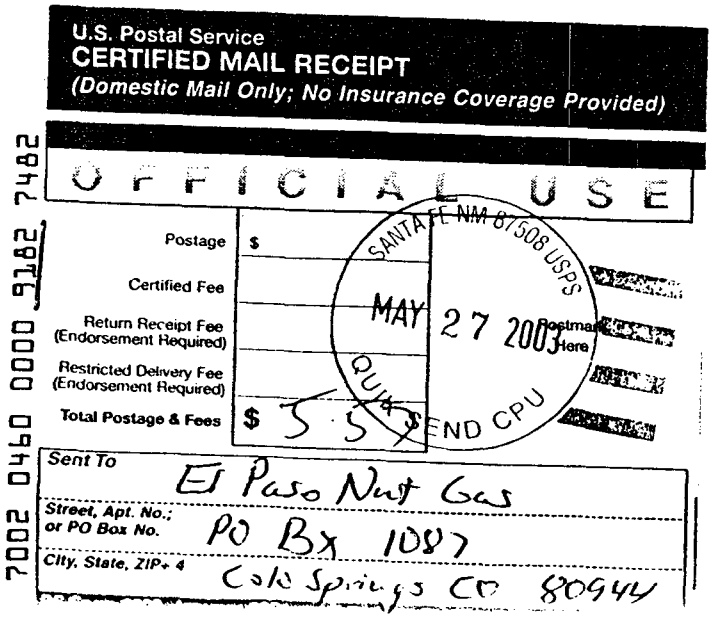
Well Name: Federal WDW 32 #44 Total Depth: 4,550'
Proposed Disposal Zone: Point Lookout (from ≈4,130' to ≈4,470')
Location: 700' FSL & 700' FEL Sec. 32, T. 27 N., R. 11 W.,
San Juan County, NM on a state lease
Approximate Location: ≈13 air miles south-southwest of Bloomfield, NM
Applicant Name: Dominion Oklahoma Texas Exploration & Production, Inc.
Applicant's Address: 14000 Quail Springs Pkwy, #600 OKC, Ok. 73134-2600

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
(Domestic Mail Only; No Insurance Coverage Provided)
OFFICIAL USE
Postage $
Certified Fee
Return Receipt Fee (Endorsement Required)
Restricted Delivery Fee (Endorsement Required)
Total Postage & Fees $ 3.55
SANTA FE NM 87508 USPS
MAY 27 2003
Postmark Here
QUAIL SEND CPU
Sent To El Paso Nat Gas
Street, Apt. No.; or PO Box No. PO Bx 1087
City, State, ZIP+4 Colo Springs CO 80944
7002 0460 0000 9182 7482

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

May 27, 2003

Energen Resources Corp.
605 Richard Arrington Jr. Blvd.
Birmingham, AL 35203-2707

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.

Dominion Oklahoma Texas Exploration & Production, Inc. is applying (see attached application) to drill its Federal WDW 32 #44 well.

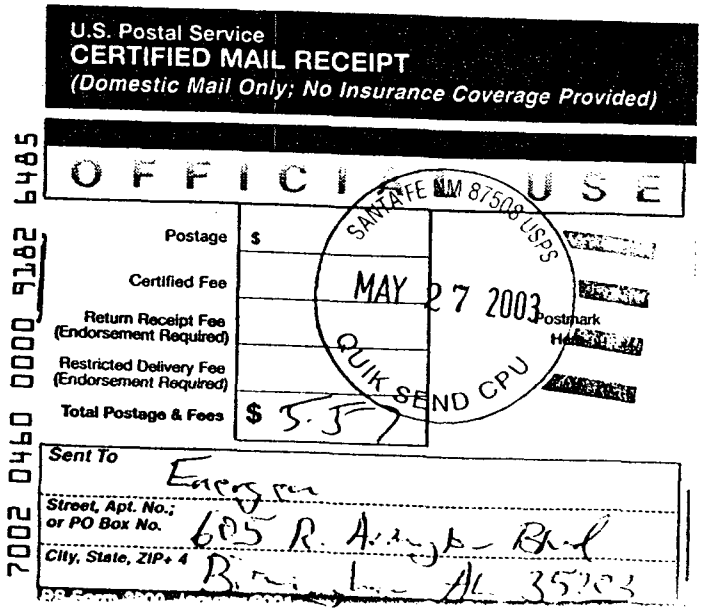
Well Name: Federal WDW 32 #44 Total Depth: 4,550'
Proposed Disposal Zone: Point Lookout (from ≈4,130' to ≈4,470')
Location: 700' FSL & 700' FEL Sec. 32, T. 27 N., R. 11 W.,
San Juan County, NM on a state lease
Approximate Location: ≈13 air miles south-southwest of Bloomfield, NM
Applicant Name: Dominion Oklahoma Texas Exploration & Production, Inc.
Applicant's Address: 14000 Quail Springs Pkwy, #600 OKC, Ok. 73134-2600

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
(Domestic Mail Only; No Insurance Coverage Provided)
OFFICIAL USE
Postage $
Certified Fee
Return Receipt Fee (Endorsement Required)
Restricted Delivery Fee (Endorsement Required)
Total Postage & Fees $ 3.57
SANTA FE NM 87508 USPS
MAY 27 2003
Postmark Here
QUIK SEND CPU
Sent To Energen
Street, Apt. No.; or PO Box No. 605 R. Arrington Blvd
City, State, ZIP+4 Birmingham AL 35203
7002 0460 0000 9182 6485

Welcome Back!

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

May 27, 2003

Mary Lou Drywater
FIMO
1235 LaPlata Highway
Farmington, NM 87401

Dear Mary Lou,

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.

Dominion Oklahoma Texas Exploration & Production, Inc. is applying (see attached application) to drill its Federal WDW 32 #44 well.

Well Name: Federal WDW 32 #44 Total Depth: 4,550'
Proposed Disposal Zone: Point Lookout (from ≈4,130' to ≈4,470')
Location: 700' FSL & 700' FEL Sec. 32, T. 27 N., R. 11 W.,
San Juan County, NM on a state lease
Approximate Location: ≈13 air miles south-southwest of Bloomfield, NM
Applicant Name: Dominion Oklahoma Texas Exploration & Production, Inc.
Applicant's Address: 14000 Quail Springs Pkwy, #600 OKC, Ok. 73134-2600

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.

estions.

Sincerely,

Brian Wood

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

OFFICIAL USE

Postage $
Certified Fee
Return Receipt Fee (Endorsement Required)
Restricted Delivery Fee (Endorsement Required)
Total Postage & Fees $ 8.20

SANTA FE, NM 87508 MAY 27 2003

Sent To BLM & FIMD
Street, Apt. No.; or PO Box No. 1235 LaPlata Hwy
City, State, ZIP+4 Farmington NM 87401

PS Form 3800, January 2001 See Reverse for Instructions

7002 0460 0000 4102 7468

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

May 27, 2003

Steve Dunn
J. R. & R. V. Merrion Trust and Merrion Oil & Gas Corp.
610 Reilly Ave.
Farmington, NM 87401

Dear Steve,

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.

Dominion Oklahoma Texas Exploration & Production, Inc. is applying (see attached application) to drill its Federal WDW 32 #44 well.

Well Name: Federal WDW 32 #44 Total Depth: 4,550'
Proposed Disposal Zone: Point Lookout (from ≈4,130' to ≈4,470')
Location: 700' FSL & 700' FEL Sec. 32, T. 27 N., R. 11 W.,
San Juan County, NM on a state lease
Approximate Location: ≈13 air miles south-southwest of Bloomfield, NM
Applicant Name: Dominion Oklahoma Texas Exploration & Production, Inc.
Applicant's Address: 14000 Quail Springs Pkwy, #600 OKC, Ok. 73134-2600

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.

uestions.

Sincerely,

Brian Wood

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

OFFICIAL USE

Postage $
Certified Fee
Return Receipt Fee (Endorsement Required)
Restricted Delivery Fee (Endorsement Required)
Total Postage & Fees $ 5.57

SANTA FE NM 87508 USPS
MAY 27 2003
Postmark Here
QUIK SEND CPU

Sent To Merrion Trust & Merrion Oil
Street, Apt. No.; or PO Box No. 610 Reilly Ave
City, State, ZIP+4 Farmington NM 87401

7002 0460 0000 9182 7499

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

May 27, 2003

XTO Energy Inc.
810 Houston St., #2000
Ft. Worth, TX 76102-6298

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.

Dominion Oklahoma Texas Exploration & Production, Inc. is applying (see attached application) to drill its Federal WDW 32 #44 well.

Well Name: Federal WDW 32 #44 Total Depth: 4,550'
Proposed Disposal Zone: Point Lookout (from ≈4,130' to ≈4,470')
Location: 700' FSL & 700' FEL Sec. 32, T. 27 N., R. 11 W.,
San Juan County, NM on a state lease
Approximate Location: ≈13 air miles south-southwest of Bloomfield, NM
Applicant Name: Dominion Oklahoma Texas Exploration & Production, Inc.
Applicant's Address: 14000 Quail Springs Pkwy, #600 OKC, Ok. 73134-2600

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
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage $
Certified Fee
Return Receipt Fee (Endorsement Required)
Restricted Delivery Fee (Endorsement Required)
Total Postage & Fees $ 3.57

SANTA FE NM 87508 USPS MAY 27 2003 QUICK SEND CPU

Postmark Here

Sent To XTO
Street, Apt. No.; or PO Box No. 810 Houston # 2000
City, State, ZIP+4 Ft Worth TX 76102

7002 0460 0000 9182 6492