

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: Mobil Producing Texas & New Mexico Inc.
Address: P. O. Box 5444, Denver, CO 80217-5444
Contact party: C. N. Eggerman Phone: (303) 298-2346
- 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 ☒ 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 geological data on the injection zone including appropriate lithologic detail, geological 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 source 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 source 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: B. R. Maynard Title Regulatory Compliance Manager
Signature: *B. R. Maynard* Date: 10-14-88

If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance 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 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, P. O. Box 2088, Santa Fe, New Mexico 87501 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.

**SUPPLEMENTAL DATA
WATER DISPOSAL WELL APPLICATION**

III. WELL DATA

A.

- 1.) Lindrith "B" Unit, Well No. 25
1250' FSL and 1840' FEL of Section 9, T24N, R3W
Rio Arriba County, New Mexico

2.) Casing

<u>O. D.</u>	<u>Depth</u>	<u>Sacks Cement</u>	<u>Hole Size</u>	<u>Top of Cement</u>	<u>How Determined</u>
13 3/8	405	475	17 1/2	Surface	Circulated
8 5/8	3300	750	11	Surface	50 sx @ Surf
		+200			
4 1/2	7700	475	7 7/8	3300' +/-	125 sx Sqz
		+200			
		800 (DV)			
		+ 50			

3.) Tubing

2 3/8" O.D., 4.7 #, J-55, EUE Set @ 7547'. Internally coated
w/PA 400

4.) Packer

Baker Model R3 set @ 7547'

B.

- 1.) Injection Formations: Dakota "E"
West Lindrith Gallup Field

2.) Injection Perforations: 7570-7594

- 3.) Well was drilled and completed as a producer. Became
uneconomic in less than 3 years. Attempted recompletion
produced water from Dakota "E".

4.) Previous Perforations

7313-7329, 7418-7424, 7494-7504, 7507-7513, 7515-7522
Squeezed with 150 sacks, 125 sacks into formation.

A casing leak was found at 3322' while recompleting in the
Dakota "E" and was squeezed with 125 sacks of cement in three
stages. Casing was pressure tested to 2100 psi for 30 minutes
without pressure loss.

- 5.) The next higher producing zone in the area of the well is the
Pictured Cliffs formation. There is no lower producing Zone.

Mobil Oil Corporation Schematic to Salt Water Disposal

Elevation: KB 6892'
GL 6879'

13-3/8" 48# H-40 casing at
405' cemented w/ 475 sx
Class C, 2% CaCl₂, 1/4"
Flo-Cele.

8-5/8" 24 & 32# J-SS casing
at 3300' cemented w/
750 sx Class B, 50/50 poz,
6% gel. 1/2 ft³/sx per lift
1/4" Flo-Cele. Tailed in w/
150 sx Class B, 1/4" Flo-Cele

DV @ 5361' cemented w/ 800 sx
Class B, 65-35 poz, 6% gel
5# gilsonite. 1/4" Flo-Cele. Tailed
in w/ 50 sx Class B, 1/4" Flo-Cele
Did not circ.

Lindrith B-2S

1250' FSL. 1840' FEL
Section 9, T24N, R3W
Rio Arriba County, NM

17-1/2" hole to 405'

11" hole to 3300'

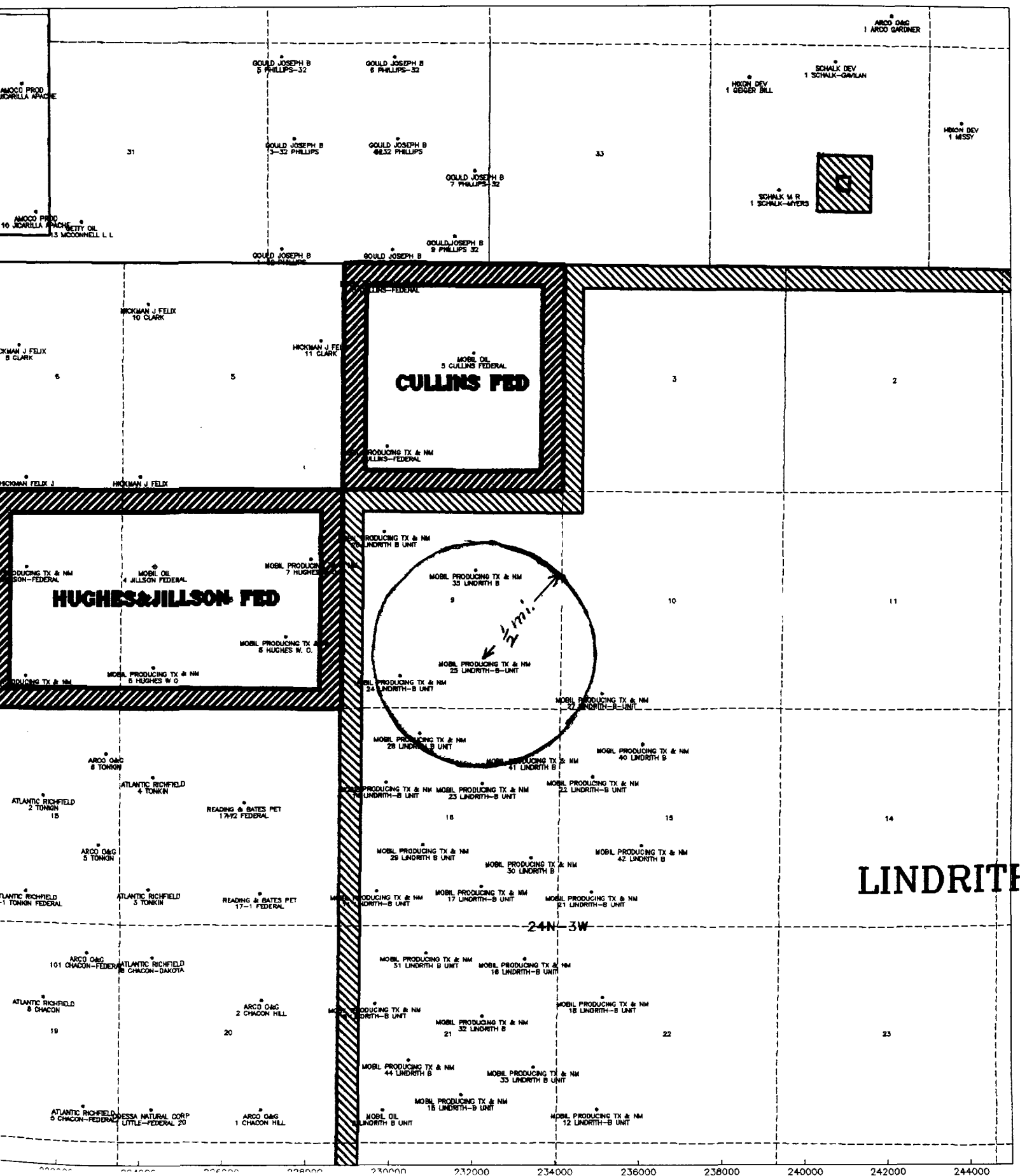
2-3/8" 4.6# J-SS tubing internally
coated w/ PA400.

Dakota A, B & D perfs
7313-7522' OA. Squeezed w/
125 sx Class B

Baker R-3 @ 7547'
Dakota E perfs 7570-94'

4 1/2" 10.5# & 9.5# K-SS casing
at 7700' cemented w/ 475
sx Class B, 65-35 poz, 6% gel,
5# gilsonite, 1/4" Flo-Cele. Tailed
in w/ 50 sx Class B, 1/4" Flo-Cele

DEEP WELLS - NW PORTION OF LINDRITH UNIT



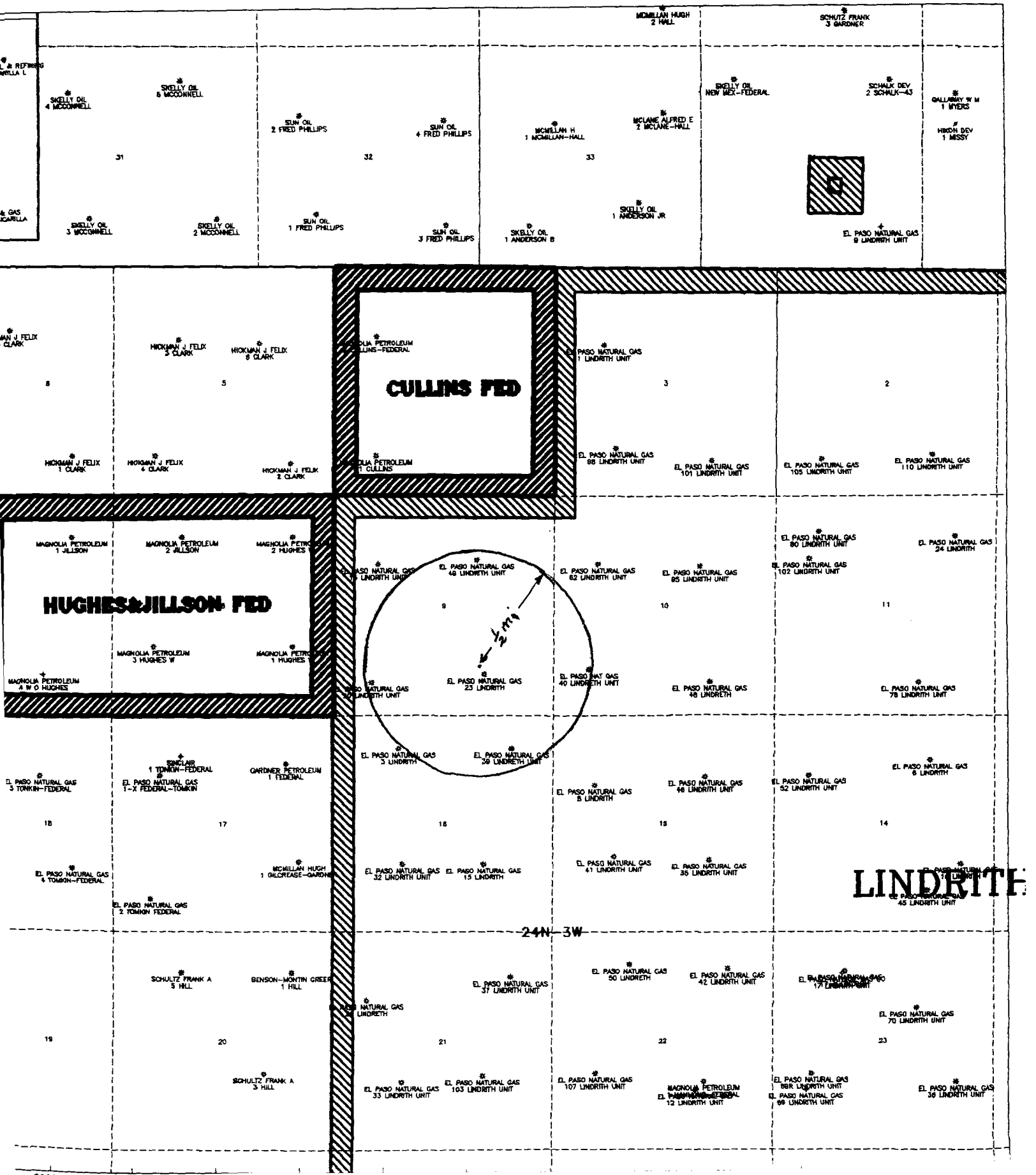
ATTACHMENT NUMBER 3

LINDRITH B # 25
 Section 9, T24N, R3W, NMPM
 RIO ARriba COUNTY, NEW MEXICO

WELL HISTORIES - AREA OF REVIEW
 Wells within the prescribed one-half mile radius of
 Lindrith B Unit Well No. 25 are as follows:

Operator	MOBIL	MOBIL	MOBIL	MOBIL
Well Name	LINDRITH B UNIT # 24	LINDRITH B UNIT # 35	LINDRITH B UNIT # 41	LINDRITH B UNIT # 28
Location	789 FSL 1495 FWL	1914 FNL 2076 FEL	1105 FNL 660FEL	610 FNL 1980 FWL
T-R	9-24N-3W	9-24N-3W	16-24N-3W	16-24N-3W
Elevation	6869 GR	6978 GR	6920 GR	6869 GR
Well Status	PROD	PROD	PROD	PROD
Prod Date	8-16-83	10-12-85	12-1-85	8-56-85
Total Depth	7750	7800	7750	7665
Zone	DAKOTA	DAKOTA	DAKOTA	DAKOTA
Perforations	7284-7508	7446-7652	7364-7575	7272-7494
Surface Casing	13 3/8 @ 395	9 5/8 @ 424	9 5/8 @ 422	13 3/8 @ 1500
Surf. Csg. Cmt.	475 SX	400 SX	400 SX	500 SX
Inter. Casing	8 5/8 @ 3300			8 5/8 @ 3293
Inter. Csg. Cmt.	900 SX			430 SX
Production Csg.	4 1/2 @ 7750	5 1/2 @ 7800	5 1/2 @ 7735	5 1/2 @ 7665
Prod. Csg. Cmt.	1480 SX	3300 SX	2100 SX	1750 SX

SHALLOW WELLS - NW PORTION OF LINDRITH UNIT



ATTACHMENT NUMBER 3 (Continued)

LINDRITH B # 25
 Section 9, T24N, R3W, NMPM
 RIO ARriba COUNTY, NEW MEXICO

WELL HISTORIES - AREA OF REVIEW

Wells within the prescribed one-half mile radius of
 Lindrith B Unit Well No. 25 are as follows:

Operator	EPNG	EPNG	EPNG	EPNG	EPNG	EPNG
Well Name	LINDRITH UNIT # 23	LINDRITH UNIT # 20	LINDRITH UNIT # 49	LINDRITH UNIT # 40	LINDRITH UNIT # 39	LINDRITH UNIT # 3
Location	1150 FSL 1800 FEL	800 FSL 900 FWL	1550 FNL 1840 FEL	1100 FSL 840 FWL	800 FNL 990 FEL	800 FNL 1550 FWL
T-R	9-24N-3W	9-24N-3W	9-24N-3W	10-24N-3W	16-24N-3W	16-24N-3W
Elevation	6892 GR	6886 DF	7030 GR	6905 GR	6916 GR	6896 DF
Well Status	PROD	PROD	PROD	PROD	PROD	PROD
Prod Date	3-14-58	4-7-57	9-15-63	6-16-61	6-13-61	7-25-55
Total Depth	3194	3160	3351	3183	3151	3086
Zone	PICTURED CLIFFS	PICTURED CLIFFS	PICTURED CLIFFS	PICTURED CLIFFS	PICTURED CLIFFS	PICTURED CLIFFS
Perforations	3074-3120	3040-3088	3268-3296	3124-3154	3078-3116	3033-3086
Surface Casing	8 5/8 @ 128	9 5/8 @ 132	8 5/8 @ 120	8 5/8 @ 107	8 5/8 @ 96	9 5/8 @ 133
Surf. Csg. Cmt.	80 SX	100 SX	110 SX	140 SX	140 SX	100 SX
Inter. Casing						
Inter. Csg. Cmt						
Production Csg.	5 1/2 @ 3193	5 1/2 @ 3160	2 7/8 @ 3351	2 7/8 @ 3183	2 7/8 @ 3151	5 1/2 @ 3033
Prod. Csg. Cmt.	150 SX	50 SX	140 SX	230 SX	140 SX	150 SX

**OPERATING DETAILS
WATER DISPOSAL WELL APPLICATION**

VII. PROPOSED OPERATIONS

1. Maximum Injection Rate 1.1 BPM, Average Rate 0.8 BPM.
Average Daily Injection Volume estimated at 250 BWPd.
2. The system is an open system with water trucked from producing properties to the water storage tanks on the well location.
3. Maximum injection pressure will be 1000 psi. Anticipated average pressure is 800 psi.
4. Sources of the injection water will be all of the Mobil operated wells within the San Juan Basin producing any volume of water requiring disposal by other than evaporation. A tabulation of the leases, producing formation location and approximate water production rate is attached.
5. The Dakota E sand is non-productive within a mile of the proposed injection well

The proposed injection well will be used to dispose of produced water from the following leases. Water will be trucked from these properties to the injection well holding tanks at the Lindrith B 25. Rates are based on average

Lease	Zone	Location	Lease No.	BWPD
Cheney Federal	PC,MV	8-26N-2W	NM-046	<1
		17-26N-2W	NM-046	
Cullins Federal	PC,DK	4-24N-3W	SF-080472	3
Federal 28714	DK	31-24N-3W	NM 28714	<1
Featherstone Federal	PC,MV	19-26N-2W	NM 014733	1
Jicarilla B	PC,MV	17-26N-3W	Jicarilla 98	1
		18-26N-3W	Jicarilla 98	
		19-26N-3W	Jicarilla 98	
		20-26N-3W	Jicarilla 98	
Jicarilla C	PC,MV	W1/2 10-26N-3W	Jicarilla 97	<1
		E1/2 11-26N-3W	Jicarilla 97	
Jicarilla D	PC,MV,GP	13-26N-3W	Jicarilla 99	1
		14-26N-3W	Jicarilla 99	
		23-26N-3W	Jicarilla 99	
		24-26N-3W	Jicarilla 99	
Jicarilla E	PC,MV	11-27N-3W	Jicarilla 89	8
		12-27N-3W	Jicarilla 89	
		13-27N-3W	Jicarilla 89	
		14-27N-3W	Jicarilla 89	
		15-27N-3W	Jicarilla 89	
Jicarilla F	PC,MV	22-27N-3W	Jicarilla 94	9
		23-27N-3W	Jicarilla 94	
		24-27N-3W	Jicarilla 94	
		27-27N-3W	Jicarilla 94	
Jicarilla G	PC,MV	25-27N-3W	Jicarilla 95	4
		26-27N-3W	Jicarilla 95	
		35-27N-3W	Jicarilla 95	
		36-27N-3W	Jicarilla 95	
Jicarilla H	PC,MV	1-26N-3W	Jicarilla 96	10
		2-26N-3W	Jicarilla 96	
		11-26N-3W	Jicarilla 96	
		12-26N-3W	Jicarilla 96	
Jillson Federal	PC,DK	7-24N-3W	SF-080472	1
		8-24N-3W	SF-080472	
Lindrith B Unit	DK	9-24N-3W	Fee, SF-078910	100
		10-24N-3W	SF-078912	
		15-24N-3W	SF-078913	
		16-24N-3W	SF-078913	
		21-24N-3W	SF-078913	
		22-24N-3W	SF-078913	
		26-24N-3W	SF-078914	
		27-24N-3W	SF-078914	
		28-24N-3W	SF-078914	
		34-24N-3W	SF-078915	
Lindrith B Unit	GP	4-24N-2W	SF-078907	1
		6-24N-2W	SF-078907	
		8-24N-2W	SF-078908	
		9-24N-2W	SF-078908	
		32-25N-2W	SF-078907	
W.D. Hughes	PC,GP,DK	7-24N-3W	SF-080472	3
		8-24N-3W	SF-080472	

VIII. GEOLOGICAL DATA

1. INJECTION INTRERVAL

Dakota "E" Sandstone (A section of the well log is enclosed)

Thickness	25'
Depth	7510'

3. AQUIFERS PENETRATED IN THIS WELL

Ojo Alamo

Base of sand	2765'
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(This depth is based on offsetting well log.
This interval was not logged in this well).

IX. STIMULATION PROGRAM

No additional stimulation is planned for this well. Perforations were treated wiht 4500 gallons of 15% HCl on conversion for injection.

X. WELL LOGS

Logs are on file with the Oil Conservation Department.

XI. FRESH WATER

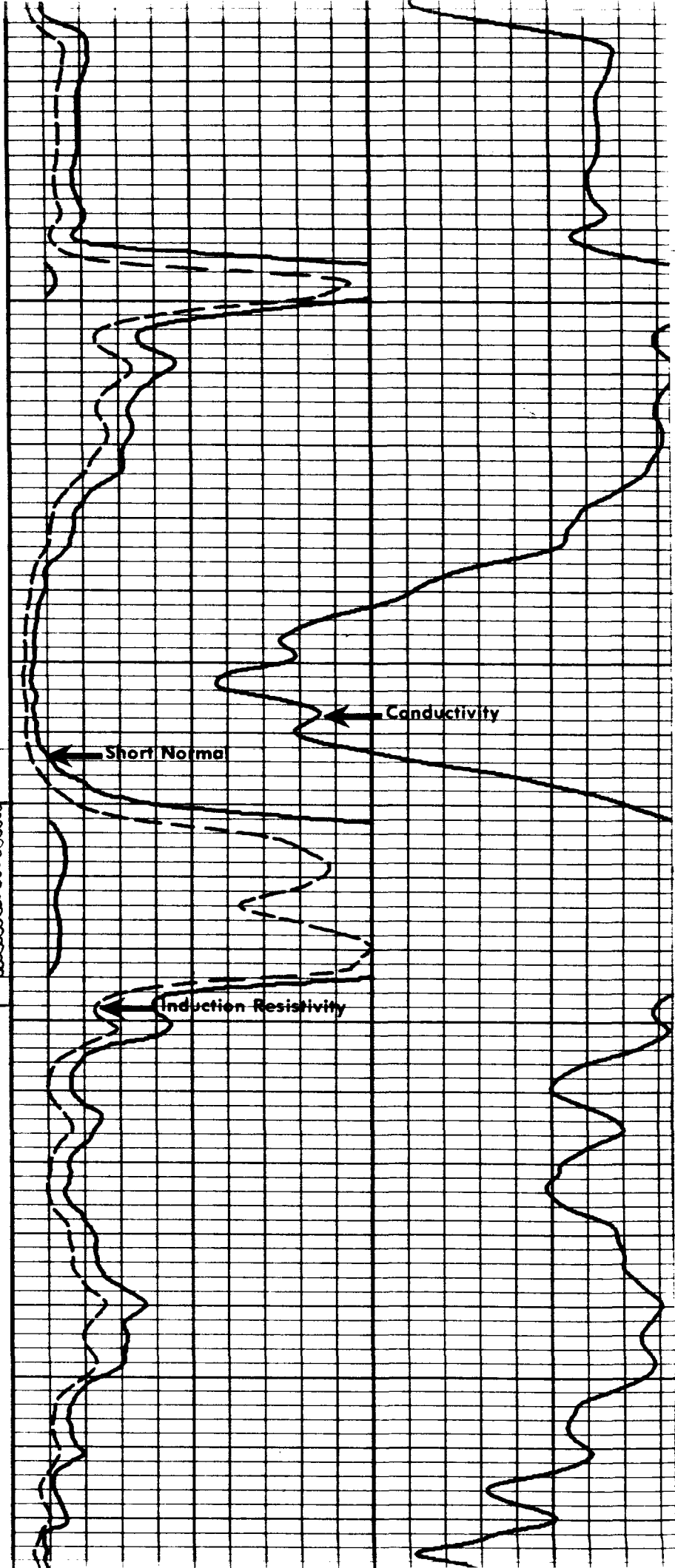
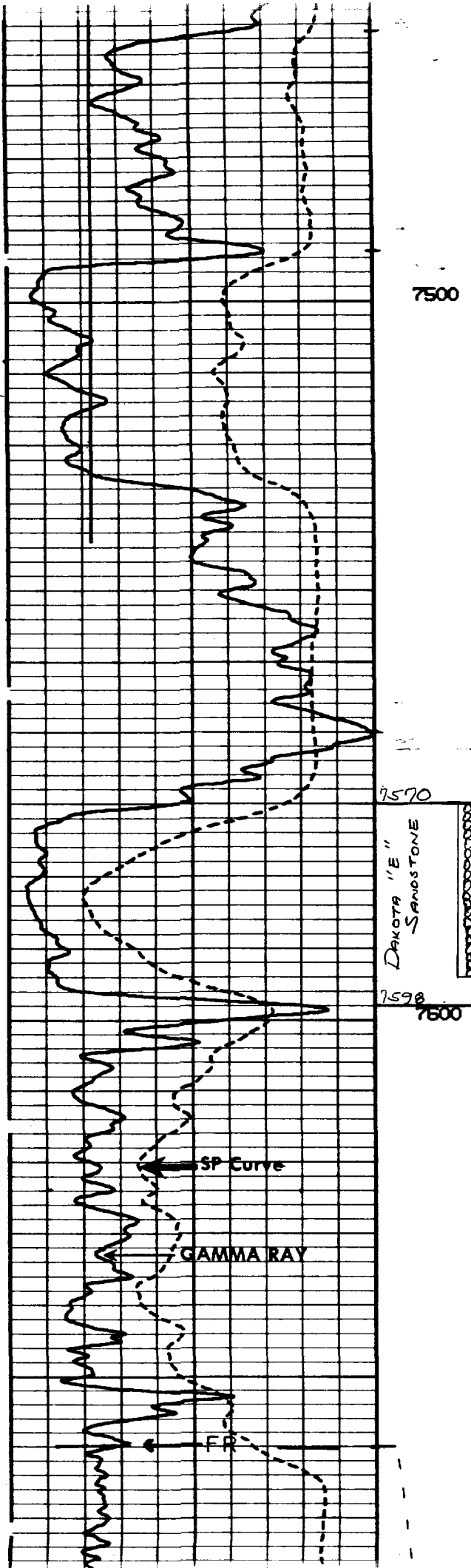
No fresh water wells exist within one mile of the planned injection well.

XIII. STATEMENT OF APPLICANT

Available geologic and engineering data has been examined and no evidence of open faults or any other hydraulic connection between the disposal zone and any underground source of drinking water.

XIII. PROOF OF NOTICE

Proof of notice will be furnished directly from the publisher upon publication. Traansmittal letter and draft of notice are enclosed.



Mobil Exploration & Producing U.S. Inc.

P.O. BOX 5444
DENVER, COLORADO 80217-5444

October 14, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO. 75
APPLICATION FOR PERMIT

Vera E. Hughes
P. O. Box 1243
Klamath Falls, Oregon 97601

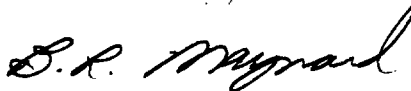
Dear Mrs. Hughes:

Mobil Producing TX & NM Inc. proposes to initiate a produced water disposal project into the Lindrith B Unit Well No. 25 in Section 9, T24N, R3W, Rio Arriba County, New Mexico. We enclose a copy of our application to the Oil Conservation Department of the Energy, Minerals and Natural Resources Department.

We are notifying you of our intent in this letter and would appreciate your signing both copies of the enclosed Waiver of Objection and returning them to this office in the self addressed, stamped envelope.

Should you have any questions concerning this request, please contact Craig Eggerman at (303) 298-2346.

Yours truly,



B. R. Maynard
Regulatory Compliance Manager

WEL:

Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec

Mobil Exploration & Producing U.S. Inc.

P.O. BOX 5444
DENVER, COLORADO 80217-5444

October 14, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO. 25
APPLICATION FOR PERMIT

Howard A. Hughes
Janet A. Hughes
P. O. Box 6552
Bend, Oregon 97708

Dear Mr. and Mrs. Hughes:

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DENVER, COLORADO 80217-5444

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WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO. 75
APPLICATION FOR PERMIT

Floyd O. Hughes
Lois M. Hughes
P. O. Box 5325
Bend, Oregon 97708

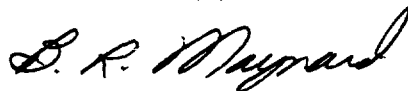
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B. R. Maynard
Regulatory Compliance Manager

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N. M. Oil Conservation Division, Aztec

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DENVER, COLORADO 80217-5444

October 14, 1988

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WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO. 75
APPLICATION FOR PERMIT

Billy Wayne Stone
Diana Sylvia Hughes Stone
P. O. Box 558
Polson, Montana 59860

Dear Mr. and Mrs. Stone:

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Regulatory Compliance Manager

WEL:

Enclosures

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October 14, 1988

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WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO. 75
APPLICATION FOR PERMIT

Archie F. Hughes
Sylvia B. Hughes
P. O. Box 189
Big Arm, Montana 59710

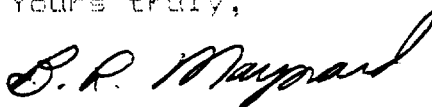
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WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO. 75
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CONOCO, Inc.
P. O. Box 460
Hobbs, N. M. 88240

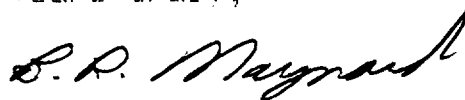
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WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO. 75
APPLICATION FOR PERMIT

TENNECO OIL E & P
P. O. Box 3249
Englewood, CO 80155-3249
Attn: Joint Interest Manager

Gentlemen:

Mobil Producing TX & NM, Inc. proposes to initiate a produced water disposal project into the Lindrith B Unit Well No. 25 in Section 9, T24N, R3W, Rio Arriba County, New Mexico. We enclose a copy of our application to the Oil Conservation Department of the Energy, Minerals and Natural Resources Department.

We are notifying you of our intent in this letter and would appreciate your signing both copies of the enclosed Waiver of Objection and returning them to this office in the self addressed, stamped envelope.

Should you have any questions concerning this request, please contact Craig Eggerman at (303) 298-2346.

Yours truly,



B. R. Maynard
Regulatory Compliance Manager

WEL:
Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec

MOBIL EXPLORATION & PRODUCING U. S. INC.

P. O. Box 5444
Denver, Colorado 80217

October 13, 1988

Farmington Daily Times
201 N. Allen Ave.
Farmington, N. M. 87401

LEGAL PUBLICATIONS

Gentlemen:

Enclosed is a draft of a Notice of Application for a water disposal well which requires publication in a paper of general circulation in the state. We request that this notice be published one day in your paper at the earliest possible date and no later than October 20, 1988 and that proof of publication be furnished to the following:

State of New Mexico
Oil Conservation Division
310 Old Santa Fe Trail
Room 216
Santa Fe, New Mexico 87503

and

Mobil Exploration and Producing
Regulatory Compliance, 9D
P. O. Box 5444
Denver, CO 80217

Please invoice the undersigned for the publication costs.

Yours very truly,



B. R. Maynard
Manager,
Regulatory Compliance

WEL/Attachment

LEGAL NOTICE OF APPLICATION WATER DISPOSAL WELL

1.) Contact Party for Applicant:

Craig N. Eggerman
Mobil E & P U. S. Inc.
1225 17th Street
Denver, CO 80201
(303) 298-2620

P. O. Box 5444
Denver, CO 80271-5444

2.) Purpose of the Injection Well:

Disposal of produced water from the wells operated by Mobil Oil Corporation, or its Affiliates, in the Lindrith "B" Unit and/or throughout the San Juan Basin of New Mexico.

WELL LOCATION

Lindrith "B" Unit, Well No. 25
1250' FSL and 1840' FEL Sec 9, T24N, R3W
Rio Arriba County, New Mexico

3.) Injection Details:

Formation and depth: Dakota "E", 7570-7594'
Maximum injection rate: 1100 BWPD
Maximum Injection Pressure: 1000 psi.

4.) Filing of Objections or Requests for Hearing:

Filing Must Be Made to:
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Period for Filing:

15 days from date of this publication.

MOBIL EXPLORATION & PRODUCING U.S. INC.

P. O. Box 5444
Denver, Colorado 80217-5444

October 17, 1988

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

WATER DISPOSAL WELL
LINDRITH B UNIT WELL No. 25
APPLICATION FOR PERMIT
WATER ANALYSES

Gentlemen:

We enclose representative water sample analysis from representative wells on Mobil operated leases from which water will be moved to location by truck for disposal into the Dakota "E" sand of subject well through perforations from 7570 ' to 7594'.

These analyses had not been received from the laboratory when the application was mailed on October 14, 1988. Copy of the first page of the Form 108 is enclosed for convenient reference.

Thank you,



B. R. Maynard
Regulatory Compliance Manager

WEL

cc: Oil Conservation Division - Aztec
BLM - Farmington (Information)
TENNECO OIL E & P
CONOCO, INC.

WELCHEM, INC.
6310 Rothway, Suite 130
Houston, Texas 77040
713-460-0650
910-881-1772 TWX
P.O. Box 920941
Houston, Texas 77292-0941

LAB NO. 17905

CC: M.L.BRIGGS
H.S.CARSON
M.B.FORD

WELCHEM[®]



ANALYTICAL SERVICES REPORT WATER ANALYSIS

=====

Date Received: 10/04/88

By:

Date Out: 10/11/88

=====

Tracking#: T-1857-0

Company: MOBIL OIL CO.

County:

State:

Lease:

Date Sampled: 10/03/88

Salesman: B.D. HENSLEY

Sample Source: WELL

Well: JICAR D-16

N.E. of ito Gallup - Dakota

DISSOLVED SOLIDS CATIONS

	mg/l	me/l
Sodium, Na(calc.)	10,549	459
Calcium, Ca	760	38
Magnesium, Mg	103	8.44
Potassium, K		
Iron, Fe	0.00	0.00
Manganese, Mn	0.00	0.00
Barium, Ba	46	0.67
Strontium, Sr	164	3.74

OTHER PROPERTIES

pH	6.70
Specific Gravity, 60/60 F	1.024
Nomograph Sp. Gr.	1.018 - 1.027
Specific Gravity, Uncorr	1.021
Temperature (F)	73.4
Resistivity, OHMS-CM	22 @ 73.4

ANIONS

	mg/l	me/l
Chloride, Cl	17,756	500
Sulfate, SO4	0.00	0.00
Carbonate, CO3	0.00	0.00
Bicarbonate, HCO3	567	9.30

Total Dissolved Solids (calc.) 29,945 ppm

SCALING TENDENCIES (MG/L):

TEMP (F)	P (PSI)	CO2 (PSI)	PH	CASO4	SCALE INDEX (MG/L)		
					BASO4	SRSO4	CACO3
80	14.7	1.250	6.7	-130	-2	-402	-97
110	14.7	1.250	6.7	-103	-4	-426	31
140	14.7	1.250	6.7	-83	-7	-374	144
170	14.7	1.250	6.7	-67	-9	-223	222
200	14.7	1.250	6.7	-55	-11	-164	286

Remarks & Recommendations:

pH WAS CALCULATED

A BLANK DATA FIELD INDICATES ANALYSIS NOT PERFORMED

WELCHEM Representative

K. L. HINE
Indice

WELCHEM, INC.
6310 Rothway, Suite 130
Houston, Texas 77040
713-460-0650
910-881-1772 TWX
P.O. Box 920641
Houston, Texas 77292-0641

LAB NO. 17906

WELCHEM



ANALYTICAL SERVICES REPORT
WATER ANALYSIS

Date Received: 10/04/88

By:

Date Out: 10/11/88

Tracking#: T-1857-0
Company: MOBIL OIL CO.
County:
State:
Lease:

Date Sampled: 10/03/88
Salesman: B.D. HENSLEY
Sample Source: WELL
Well: JICAR H-6

DISSOLVED SOLIDS
CATIONS

	mg/l	me/l
Sodium, Na(calc.)	1,286	56
Calcium, Ca	10	0.50
Magnesium, Mg	2.00	0.16
Potassium, K		
Iron, Fe	0.00	0.00
Manganese, Mn	0.00	0.00
Barium, Ba	0.00	0.00
Strontium, Sr	1.00	0.02

OTHER PROPERTIES

Blanco Mesa Verde

pH	6.70
Specific Gravity, 60/60 F	1.004
Nomograph Sp. Gr.	1.000- 1.006
Specific Gravity, Uncorr	1.001
Temperature (F)	73.4
Resistivity, OHMS-CM	160 @ 73.4

ANIONS

	mg/l	me/l
Chloride, Cl	1,814	51
Sulfate, SO ₄	0.00	0.00
Carbonate, CO ₃	0.00	0.00
Bicarbonate, HCO ₃	337	5.52

Total Dissolved Solids (calc.) 3,450 ppm

SCALING TENDENCIES (MG/L):

TEMP (F)	P (PSI)	CO ₂ (PSI)	PH	SCALE INDEX (MG/L)			
				CASO ₄	BASO ₄	SRSO ₄	CACO ₃
80	14.7	1.250	6.7	-592	-6	-234	-399
110	14.7	1.250	6.7	-457	-8	-251	-299
140	14.7	1.250	6.7	-357	-10	-213	-218
170	14.7	1.250	6.7	-280	-11	-94	-158
200	14.7	1.250	6.7	-220	-12	-59	-110

Remarks & Recommendations:

pH WAS CALCULATED
A BLANK DATA FIELD INDICATES ANALYSIS NOT PERFORMED

WELCHEM Representative

[Signature]
[Signature]
[Signature]

WELCHEM, INC.
6310 Rothway, Suite 130
Houston, Texas 77040
713-450-0650
910-881-1772 TWX
P.O. Box 920941
Houston, Texas 77292-0941

LAB NO. 17907

WELCHEM



ANALYTICAL SERVICES REPORT
WATER ANALYSIS

Date Received: 10/04/88

By:

Date Out: 10/11/88

Tracking#: T-1857-0

Company: MOBIL OIL CO.

County:

State:

Lease:

Date Sampled: 10/03/88

Salesman: B.D. HENSLEY

Sample Source: WELL

Well: JICAR H-6A

DISSOLVED SOLIDS
CATIONS

	mg/l	me/l
Sodium, Na(calc.)	1,391	61
Calcium, Ca	4.00	0.20
Magnesium, Mg	2.00	0.16
Potassium, K		
Iron, Fe	1.00	0.04
Manganese, Mn	0.00	0.00
Barium, Ba	0.00	0.00
Strontium, Sr	1.00	0.02

OTHER PROPERTIES

Blanco Mesaverde

pH	6.70
Specific Gravity, 60/60 F	1.005
Nomograph Sp. Gr.	1.000- 1.006
Specific Gravity, Uncorr	1.002
Temperature (F)	73.4
Resistivity, OHMS-CM	150 @ 73.4

ANIONS

	mg/l	me/l
Chloride, Cl	1,905	54
Sulfate, SO ₄	0.00	0.00
Carbonate, CO ₃	0.00	0.00
Bicarbonate, HCO ₃	443	7.26

Total Dissolved Solids (calc.) 3,747 ppm

SCALING TENDENCIES(MG/L):

TEMP(F)	P(Psi)	CO ₂ (Psi)	PH	CASO ₄	SCALE INDEX(MG/L)	BASO ₄	SRSO ₄	CACO ₃
80	14.7	1.250	6.7	-991	-7	-263	-418	
110	14.7	1.250	6.7	-759	-9	-272	-311	
140	14.7	1.250	6.7	-590	-10	-230	-236	
170	14.7	1.250	6.7	-462	-11	-104	-171	
200	14.7	1.250	6.7	-361	-12	-65	-126	

Remarks & Recommendations:

pH WAS CALCULATED
A BLANK DATA FIELD INDICATES ANALYSIS NOT PERFORMED

WELCHEM Representative

Ky Kine Indica

WELCHEM, INC.
6310 Rothway, Suite 130
Houston, Texas 77040
713-460-0650
910-881-1772 TWX
P.O. Box 923941
Houston, Texas 77292-0941

LAB NO. 17908

WELCHEM



ANALYTICAL SERVICES REPORT
WATER ANALYSIS

Date Received: 10/04/88

By:

Date Out: 10/11/88

Tracking#: T-1857-0

Company: MOBIL OIL CO.

County:

State:

Lease:

Date Sampled: 10/03/88

Salesman: B.D. HENSLEY

Sample Source: WELL

Well: CULLIN #3

W Lin Smith Gallup-Dakota

DISSOLVED SOLIDS
CATIONS

	mg/l	me/l
Sodium, Na(calc.)	4,849	211
Calcium, Ca	123	6.14
Magnesium, Mg	19	1.56
Potassium, K		
Iron, Fe	2.00	0.07
Manganese, Mn	0.00	0.00
Barium, Ba	0.00	0.00
Strontium, Sr	8.00	0.18

OTHER PROPERTIES

pH	7.70
Specific Gravity, 60/60 F	1.012
Nomograph Sp. Gr.	1.007- 1.016
Specific Gravity, Uncorr	1.009
Temperature (F)	73.4
Resistivity, OHMS-CM	48 @ 73.4

ANIONS

	mg/l	me/l
Chloride, Cl	6,416	181
Sulfate, SO ₄	815	17
Carbonate, CO ₃	0.00	0.00
Bicarbonate, HCO ₃	1,285	21

Total Dissolved Solids (calc.) 13,517 ppm

SCALING TENDENCIES(MG/L):

TEMP(F)	P(Psi)	CO ₂ (Psi)	PH	CASO ₄	SCALE INDEX(MG/L)		
					BASO ₄	SRSO ₄	CACO ₃
80	14.7	0.039	7.7	-2402	-0	-90	147
110	14.7	0.039	7.7	-1758	-0	-96	186
140	14.7	0.039	7.7	-1297	-0	-71	215
170	14.7	0.039	7.7	-947	-0	-16	239
200	14.7	0.039	7.7	-672	-0	-0	257

Remarks & Recommendations:

PH WAS CALCULATED

A BLANK DATA FIELD INDICATES ANALYSIS NOT PERFORMED

WELCHEM Representative

Kay K. R. Indica

3010 Highway, Suite 130
Houston, Texas 77040
713-460-0650
910-881-1772 TWX
P.O. Box 920941
Houston, Texas 77292-0941

LAB NO. 17909

WELCHEM



ANALYTICAL SERVICES REPORT WATER ANALYSIS

Date Received: 10/04/88

By:

Date Out: 10/11/88

Tracking#: T-1857-0

Company: MOBIL OIL CO.

County:

State:

Lease:

Date Sampled: 10/03/88

Salesman: B.D. HENSLEY

Sample Source: WELL

Well: CHENEY #2A

Blanco Mesavie

DISSOLVED SOLIDS CATIONS

	mg/l	me/l
Sodium, Na(calc.)	1,627	71
Calcium, Ca	6.00	0.30
Magnesium, Mg	2.00	0.16
Potassium, K		
Iron, Fe	0.00	0.00
Manganese, Mn	0.00	0.00
Barium, Ba	0.00	0.00
Strontium, Sr	0.00	0.00

OTHER PROPERTIES

pH	7.70
Specific Gravity, 60/60 F	1.005
Nomograph Sp. Gr.	1.000- 1.006
Specific Gravity, Uncorr	1.002
Temperature (F)	73.4
Resistivity, OHMS-CM	150 @ 73.4

ANIONS

	mg/l	me/l
Chloride, Cl	1,438	41
Sulfate, SO ₄	50	1.04
Carbonate, CO ₃	0.00	0.00
Bicarbonate, HCO ₃	1,810	30

Total Dissolved Solids (calc.) 4,933 ppm

SCALING TENDENCIES (MG/L):

TEMP (F)	P (PSI)	CO ₂ (PSI)	PH	CASO ₄	SCALE INDEX (MG/L) BASO ₄	SRSO ₄	CACO ₃
80	14.7	0.039	7.7	-1842	-0	-261	-121
110	14.7	0.039	7.7	-1393	-1	-263	-90
140	14.7	0.039	7.7	-1072	-1	-228	-64
170	14.7	0.039	7.7	-829	-1	-93	-45
200	14.7	0.039	7.7	-642	-1	-50	-29

Remarks & Recommendations:

PH WAS CALCULATED

A BLANK DATA FIELD INDICATES ANALYSIS NOT PERFORMED

WELCHEM Representative

K K B
WINE Indice

WELCHEM, INC.
6310 Rothway, Suite 130
Houston, Texas 77040
713-460-0650
910-881-1772 TWX
P.O. Box 920641
Houston, Texas 77292-0941

LAB NO. 17910

WELCHEM



ANALYTICAL SERVICES REPORT
WATER ANALYSIS

Date Received: 10/04/88

By:

Date Out: 10/11/88

Tracking#: T-1857-0
Company: MOBIL OIL CO.
County:
State:
Lease:

Date Sampled: 10/03/88
Salesman: B.D. HENSLEY
Sample Source: WELL
Well: JILLISON 4

W. Lindrith - Gallup, Dakota

DISSOLVED SOLIDS
CATIONS

	mg/l	me/l
Sodium, Na(calc.)	6,006	261
Calcium, Ca	87	4.34
Magnesium, Mg	18	1.48
Potassium, K		
Iron, Fe	29	1.04
Manganese, Mn	0.00	0.00
Barium, Ba	0.00	0.00
Strontium, Sr	7.00	0.16

OTHER PROPERTIES

pH	7.70
Specific Gravity, 60/60 F	1.014
Nomograph Sp. Gr.	1.008 - 1.017
Specific Gravity, Uncorr	1.011
Temperature (F)	73.4
Resistivity, OHMS-CM	39 @ 73.4

ANIONS

	mg/l	me/l
Chloride, Cl	9,057	255
Sulfate, SO ₄	204	4.25
Carbonate, CO ₃	0.00	0.00
Bicarbonate, HCO ₃	535	8.77

Total Dissolved Solids (calc.) 15,943 ppm

SCALING TENDENCIES (MG/L):

TEMP (F)	P (PSI)	CO ₂ (PSI)	PH	CASO ₄	SCALE INDEX (MG/L)		
					BASO ₄	SRSO ₄	CACO ₃
80	14.7	0.039	7.7	-4848	-0	-315	54
110	14.7	0.039	7.7	-3649	-1	-321	93
140	14.7	0.039	7.7	-2802	-1	-262	123
170	14.7	0.039	7.7	-2166	-1	-118	148
200	14.7	0.039	7.7	-1671	-1	-64	166

Remarks & Recommendations:

pH WAS CALCULATED
A BLANK DATA FIELD INDICATES ANALYSIS NOT PERFORMED

WELCHEM Representative

K K Z
LINE Indica

Houston, Texas 77040
713-460-0650
810-881-1772 TWX
P.O. Box 920941
Houston, Texas 77292-0941

LAB NO. 17911

WELCHEM[®]



ANALYTICAL SERVICES REPORT WATER ANALYSIS

=====

Date Received: 10/04/88

By:

Date Out: 10/11/88

=====

Tracking#: T-1857-0

Company: MOBIL OIL CO.

County:

State:

Lease:

Date Sampled: 10/03/88

Salesman: B.D. HENSLEY

Sample Source: WELL

Well: FEATH FED1

Gavilan, Dietrich et al.
Blanco Mesa Verde

DISSOLVED SOLIDS CATIONS

	mg/l	me/l
Sodium, Na(calc.)	91	3.97
Calcium, Ca	11	0.55
Magnesium, Mg	1.00	0.08
Potassium, K		
Iron, Fe	0.00	0.00
Manganese, Mn	0.00	0.00
Barium, Ba	0.00	0.00
Strontium, Sr	0.00	0.00

OTHER PROPERTIES

pH	6.80
Specific Gravity, 60/60 F	1.002
Nomograph Sp. Gr.	1.000- 1.006
Specific Gravity, Uncorr	0.999
Temperature (F)	73.4
Resistivity, OHMS-CM	1300 @ 73.4

ANIONS

	mg/l	me/l
Chloride, Cl	43	1.21
Sulfate, SO4	0.00	0.00
Carbonate, CO3	0.00	0.00
Bicarbonate, HCO3	207	3.39

Total Dissolved Solids (calc.) 353 ppm

SCALING TENDENCIES(MG/L):

TEMP(F)	P(PSI)	CO2(PSI)	PH	CASO4	SCALE INDEX(MG/L)		
					BASO4	SRSO4	CACO3
80	14.7	0.625	6.8	-375	-4	-143	-247
110	14.7	0.625	6.8	-281	-5	-157	-179
140	14.7	0.625	6.8	-213	-6	-140	-123
170	14.7	0.625	6.8	-162	-6	-96	-85
200	14.7	0.625	6.8	-123	-6	-77	-56

Remarks & Recommendations:

pH WAS CALCULATED

A BLANK DATA FIELD INDICATES ANALYSIS NOT PERFORMED

WELCHEM Representative

K *K* *B*
Indice

WELCHEM, INC.
6310 Rothway, Suite 130
Houston, Texas 77040
713-460-0650
910-881-1772 TWX
P.O. Box 920941
Houston, Texas 77292-0941

LAB NO. 17912

WELCHEM



ANALYTICAL SERVICES REPORT
WATER ANALYSIS

Date Received: 10/04/88

By:

Date Out: 10/11/88

Tracking#: T-1857-0
Company: MOBIL OIL CO.
County:
State:
Lease:

Date Sampled: 10/03/88
Salesman: B.D. HENSLEY
Sample Source: WELL
Well: HUGHES #7

W. Lindrieth Gallup - Dakota

DISSOLVED SOLIDS
CATIONS

OTHER PROPERTIES

	mg/l	me/l
Sodium, Na(calc.)	4,798	209
Calcium, Ca	130	6.49
Magnesium, Mg	23	1.69
Potassium, K		
Iron, Fe	31	1.11
Manganese, Mn	0.00	0.00
Barium, Ba	0.00	0.00
Strontium, Sr	7.00	0.16

pH	6.80
Specific Gravity, 60/60 F	1.013
Nomograph Sp. Gr.	1.007- 1.016
Specific Gravity, Uncorr	1.010
Temperature (F)	73.4
Resistivity, OHMS-CM	46 @ 73.4

ANIONS

	mg/l	me/l
Chloride, Cl	6,421	181
Sulfate, SO ₄	1,376	29
Carbonate, CO ₃	0.00	0.00
Bicarbonate, HCO ₃	533	8.74

Total Dissolved Solids (calc.) 13,319 ppm

SCALING TENDENCIES (MG/L):

TEMP (F)	P (PSI)	CO ₂ (PSI)	PH	CASO ₄	SCALE INDEX (MG/L)		
					BASO ₄	SRSO ₄	CACO ₃
80	14.7	0.625	6.9	-1757	-0	-49	-77
110	14.7	0.625	6.9	-1263	-0	-53	20
140	14.7	0.625	6.9	-906	-0	-38	94
170	14.7	0.625	6.9	-633	-0	-5	154
200	14.7	0.625	6.9	-418	-0	5	199

Remarks & Recommendations:

PH WAS CALCULATED

A BLANK DATA FIELD INDICATES ANALYSIS NOT PERFORMED

WELCHEM Representative

ky kine Indice

AFFIDAVIT OF PUBLICATION

No. 22528

STATE OF NEW MEXICO,
County of San Juan:

Betty Shinn being duly

sworn, says: That he is the National Ad Manager of
THE FARMINGTON 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 FARMINGTON 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 one consecutive (days) (weeks) on the same day as
follows:

First Publication Thursday October 20, 1988

Second Publication _____

Third Publication _____

Fourth Publication _____

and that payment therefor in the amount of \$ 13.35
has been made.

Subscribed and sworn to before me this 20th day
of October, 19 88.

J. Monta
NOTARY PUBLIC, SAN JUAN COUNTY, NEW MEXICO

My Commission expires: June 23, 1990

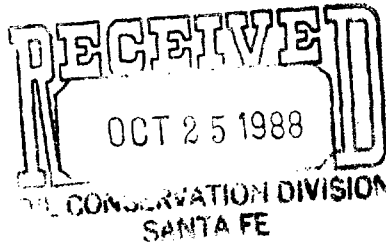
Copy of Publication

LEGAL NOTICE OF
APPLICATION
WATER DISPOSAL WELL
1. Contact Party Applicant:
Craig N. Eggerman
Mobil E & P U. S. Inc.
1225 17th Street
Denver, CO 80201
P. O. Box 5444
Denver, CO 80271-5444
(303) 298-2620
2. Purpose of the Injection Well:
Disposal of produced water
from the wells operated by
Mobil Oil Corporation, or its
Affiliates, in the Lindrith "B"
Unit and/or throughout the
San Juan Basin of New Mexi-
co.
WELL LOCATION
Lindrith "B" Unit, Well No.
25
1250' ESL and 1840' FEL
Sec. 9 T24N R3W
Rio Arriba County, New
Mexico
3. Injection Details:
Formation and depth: Dakota
"E" 7540-7594'
Maximum injection rate: 1100
BWPD
Maximum Injection Pressure:
1000 psi
4. Filing of Objections or Requests
for Hearing:
Filing Must Be Made to:
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico
87501
Period for Filing:
15 days from date of this
publication.
Legal No. 22528 published in
the Farmington Daily Times, Farm-
ington, New Mexico on Thursday,
October 20, 1988.



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

OIL CONSERVATION DIVISION
BOX 2088
SANTA FE, NEW MEXICO 87501



10000 INDIANAZO ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6170

DATE 10-21-88

RE: Proposed HC _____
Proposed DIIC _____
Proposed HSL _____
Proposed SWD X _____
Proposed WFX _____
Proposed PMX _____

Gentlemen:

I have examined the application dated 10-17-88
for the MOBIL PRODUCING TEXAS LANDRITH B#25 J-9-24A-3W
Operator Lease and Well No. Unit, S-T-R

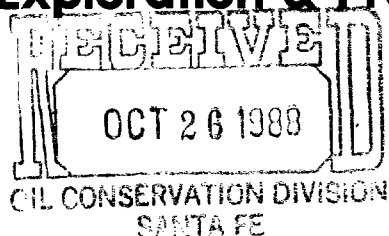
and my recommendations are as follows:

APPROVE

Yours truly,

E. Burch

Mobil Exploration & Producing U.S. Inc.



P.O. BOX 5444
DENVER, COLORADO 80217-5444

October 24, 1988

WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO 25
APPLICATION FOR PERMIT

State of New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
310 Old Santa Fe Trail, Room 206
Santa Fe, New Mexico 87504

Gentlemen:

Enclosed please find corrected letters of notification to working interest, mineral and surface owners regarding subject water disposal well application.

Due to the fact that the error was made in both the transmittal letter and the "Waver of Objection", it has been necessary to replace the original notification and the waver form. We will furnish these to you upon receipt.

Yours truly,

A handwritten signature in dark ink, appearing to read "B. R. Maynard". The signature is fluid and cursive, with a large, sweeping "M" and "N".

B. R. Maynard
Regulatory Compliance Manager

WEL:

cc: N. M. Oil Conservation Division, Aztec

Mobil Exploration & Producing U.S. Inc.

P.O. BOX 5444
DENVER, COLORADO 80217-5444

October 24, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO. 25
APPLICATION FOR PERMIT

CONOCO, Inc.
P. O. Box 460
Hobbs, New Mexico 88240-0460

Gentlemen:

A typographical error was overlooked in the transmittal letter of October 14, 1988 notifying you of Mobil intention to convert the Lindrith B Unit Well No. 25 to produced water disposal service. The well number was accidentally entered as number 75 in the Subject of the letter and in the "Waver of Objection."

Please pardon us for the inconvenience but we would appreciate your executing the corrected "Waver of Objection" and returning it to our office in the enclosed self addressed stamped envelope.

Should you have any questions concerning this request, please contact Craig Eggerman at (303) 298-2346.

Yours truly,



B. R. Maynard
Regulatory Compliance Manager

WEL:

Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec

WAVER OF OBJECTION AND
CONSENT FOR PROPOSED
WATER DISPOSAL WELL

The undersigned, as working interest owner in the operating unit containing:

LINDRITH B UNIT WELL No. 25
Section 9, T24N, R3W
Rio Arriba County
New Mexico

Do hereby acknowledge receipt of the letter from Mobil Exploration & Producing U. S. Inc. requesting approval of the proposed conversion of this well to injection service.

The undersigned hereby waves any objection to this application and voluntarily consents to the proposed initiation of water disposal into above listed well.

SIGNED: _____

NAME: _____

TITLE: _____

CONOCO, INC.

DATE: _____

Mobil Exploration & Producing U.S. Inc.

P.O. BOX 5444
DENVER, COLORADO 80217-5444

October 24, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO. 25
APPLICATION FOR PERMIT

TENNECO OIL E & P
P. O. Box 3249
Englewood, CO 80155-3249
Attn: Joint Interest Manager

Gentlemen:

A typographical error was overlooked in the transmittal letter of October 14, 1988 notifying you of Mobil intention to convert the Lindrith B Unit Well No. 25 to produced water disposal service. The well number was accidentally entered as number 75 in the Subject of the letter and in the "Waver of Objection."

Please pardon us for the inconvenience but we would appreciate your executing the corrected "Waver of Objection" and returning it to our office in the enclosed self addressed stamped envelope.

Should you have any questions concerning this request, please contact Craig Eggerman at (303) 298-2346.

Yours truly,



B. R. Maynard
Regulatory Compliance Manager

WEL:

Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec

WAVER OF OBJECTION AND
CONSENT FOR PROPOSED
WATER DISPOSAL WELL

The undersigned, as working interest owner in the operating unit containing:

LINDRITH B UNIT WELL No. 25
Section 9, T24N, R3W
Rio Arriba County
New Mexico

Do hereby acknowledge receipt of the letter from Mobil Exploration & Producing U. S. Inc. requesting approval of the proposed conversion of this well to injection service.

The undersigned hereby waves any objection to this application and voluntarily consents to the proposed initiation of water disposal into above listed well.

SIGNED: _____

NAME: _____

TITLE: _____

TENNECO OIL E & P

DATE: _____

Mobil Exploration & Producing U.S. Inc.

P.O. BOX 5444
DENVER, COLORADO 80217-5444

October 24, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO. 25
APPLICATION FOR PERMIT

Vera E. Hughes
P. O. Box 1243
Klamath Falls, Oregon 97601

Dear Mrs. Hughes:

A typographical error was overlooked in the transmittal letter of October 14, 1988 notifying you of Mobil intention to convert the Lindrith B Unit Well No. 25 to produced water disposal service. The well number was accidentally entered as number 75 in the Subject of the letter and in the "Waver of Objection."

Please pardon us for the inconvenience but we would appreciate your executing the corrected "Waver of Objection" and returning it to our office in the enclosed self addressed stamped envelope.

Should you have any questions concerning this request, please contact Craig Eggerman at (303) 298-2346.

Yours truly,



B. R. Maynard
Regulatory Compliance Manager

WEL:

Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec

WAVER OF OBJECTION AND
CONSENT FOR PROPOSED
WATER DISPOSAL WELL

The undersigned, as interest owner of the surface and
minerals surrounding the:

LINDRITH B UNIT WELL No. 25
Section 9, T24N, R3W
Rio Arriba County
New Mexico

Do hereby acknowledge receipt of the letter from Mobil
Exploration & Producing U. S. Inc. requesting approval of
the proposed conversion of this well to injection service.

The undersigned hereby wave(s) any objection to this
application and voluntarily consent(s) to the proposed
initiation of water disposal into above listed well.

SIGNED: _____
Vera E. Hughes
DATE: _____

Mobil Exploration & Producing U.S. Inc.

P.O. BOX 5444
DENVER, COLORADO 80217-5444

October 24, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO. 25
APPLICATION FOR PERMIT

Archie F. Hughes
Sylvia B. Hughes
P. O. Box 189
Big Arm, Montana 59910

Dear Mr. and Mrs. Hughes:

A typographical error was overlooked in the transmittal letter of October 14, 1988 notifying you of Mobil intention to convert the Lindrith B Unit Well No. 25 to produced water disposal service. The well number was accidentally entered as number 75 in the Subject of the letter and in the "Waver of Objection."

Please pardon us for the inconvenience but we would appreciate your executing the corrected "Waver of Objection" and returning it to our office in the enclosed self addressed stamped envelope.

Should you have any questions concerning this request, please contact Craig Eggerman at (303) 298-2346.

Yours truly,



B. R. Maynard
Regulatory Compliance Manager

WEL:

Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec

WAVER OF OBJECTION AND
CONSENT FOR PROPOSED
WATER DISPOSAL WELL

The undersigned, as interest owner of the surface and
minerals surrounding the:

LINDRITH B UNIT WELL No. 25
Section 9, T24N, R3W
Rio Arriba County
New Mexico

Do hereby acknowledge receipt of the letter from Mobil
Exploration & Producing U. S. Inc. requesting approval of
the proposed conversion of this well to injection service.

The undersigned hereby wave(s) any objection to this
application and voluntarily consent(s) to the proposed
initiation of water disposal into above listed well.

SIGNED: _____
 Archie F. Hughes
DATE: _____

SIGNED: _____
 Sylvia B. Hughes
DATE: _____

Mobil Exploration & Producing U.S. Inc.

P.O. BOX 5444
DENVER, COLORADO 80217-5444

October 24, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO. 25
APPLICATION FOR PERMIT

Floyd O. Hughes
Lois M. Hughes
P. O. Box 5325
Bend, Oregon 97708

Dear Mr. and Mrs. Hughes:

A typographical error was overlooked in the transmittal letter of October 14, 1988 notifying you of Mobil intention to convert the Lindrith B Unit Well No. 25 to produced water disposal service. The well number was accidentally entered as number 25 in the Subject of the letter and in the "Waver of Objection."

Please pardon us for the inconvenience but we would appreciate your executing the corrected "Waver of Objection" and returning it to our office in the enclosed self addressed stamped envelope.

Should you have any questions concerning this request, please contact Craig Eggerman at (303) 298-2346.

Yours truly,



B. R. Maynard
Regulatory Compliance Manager

WEL:

Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec

WAVER OF OBJECTION AND
CONSENT FOR PROPOSED
WATER DISPOSAL WELL

The undersigned, as interest owner of the surface and
minerals surrounding the:

LINDRITH B UNIT WELL No. 25
Section 9, T24N, R3W
Rio Arriba County
New Mexico

Do hereby acknowledge receipt of the letter from Mobil
Exploration & Producing U. S. Inc. requesting approval of
the proposed conversion of this well to injection service.

The undersigned hereby wave(s) any objection to this
application and voluntarily consent(s) to the proposed
initiation of water disposal into above listed well.

SIGNED: _____
Floyd O. Hughes
DATE: _____

SIGNED: _____
Lois M. Hughes
DATE: _____

Mobil Exploration & Producing U.S. Inc.

P.O. BOX 5444
DENVER, COLORADO 80217-5444

October 24, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO. 25
APPLICATION FOR PERMIT

Billy Wayne Stone
Diana Sylvia Hughes Stone
P. O. Box 558
Polson, Montana 59860

Dear Mr. and Mrs. Stone:

A typographical error was overlooked in the transmittal letter of October 14, 1988 notifying you of Mobil intention to convert the Lindrith B Unit Well No. 25 to produced water disposal service. The well number was accidentally entered as number 75 in the Subject of the letter and in the "Waver of Objection."

Please pardon us for the inconvenience but we would appreciate your executing the corrected "Waver of Objection" and returning it to our office in the enclosed self addressed stamped envelope.

Should you have any questions concerning this request, please contact Craig Eggerman at (303) 298-2346.

Yours truly,



B. R. Maynard
Regulatory Compliance Manager

WEL:

Enclosures

cc: N. M. Oil Conservation Division, Santa Fe
N. M. Oil Conservation Division, Aztec

WAVER OF OBJECTION AND
CONSENT FOR PROPOSED
WATER DISPOSAL WELL

The undersigned, as interest owner of the surface and
minerals surrounding the:

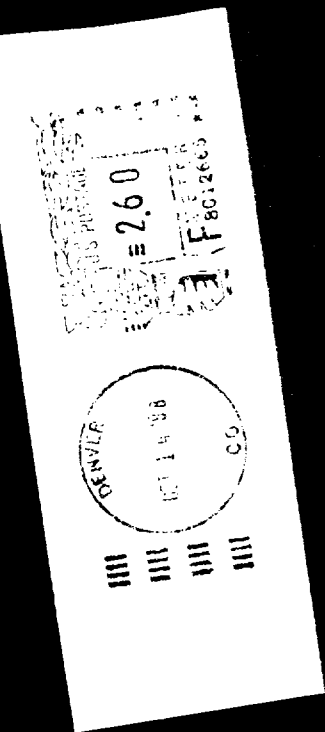
LINDRITH B UNIT WELL No. 25
Section 9, T24N, R3W
Rio Arriba County
New Mexico

Do hereby acknowledge receipt of the letter from Mobil
Exploration & Producing U. S. Inc. requesting approval of
the proposed conversion of this well to injection service.

The undersigned hereby wave(s) any objection to this
application and voluntarily consent(s) to the proposed
initiation of water disposal into above listed well.

SIGNED: _____
Billy Wayne Stone
DATE: _____

SIGNED: _____
Diana Sylvia Hughes Stone
DATE: _____



Fold at line over top of envelope to the right
of the return address.

CERTIFIED

P-564 601 709

MAIL

CLAIM CHECK NO.	245465
<input type="checkbox"/> HOLD	
DATE	OCT 17 1988
1ST NOTICE	
2ND NOTICE	
RETURN	
Detached from PS Form 3848-A Oct. 1980	

Howard A. Hughes
Janet A. Hughes
P. O. Box 6552
Bend, Oregon 97708

HUG 52 991860N1

88

RETURN TO SENDER
NO FORWARDING ORDER ON FILE
UNABLE TO FORWARD

Mobil Exploration & Producing U.S. Inc.

FILE SUB-355

P.O. BOX 5444
DENVER, COLORADO 80217-5444

November 17, 1988

WATER DISPOSAL WELL
LINDRITH B UNIT WELL NO 25
APPLICATION FOR PERMIT

State of New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
310 Old Santa Fe Trail, Room 206
Santa Fe, New Mexico 87504
Attention: Michael E. Stogner

Gentlemen:

Enclosed please find a water analysis of produced water from the Lindrith B Unit Well No. 35, the north offset to the subject water disposal well, the Lindrith B Unit Well No.25.

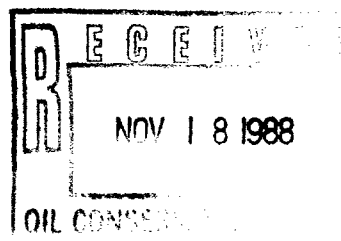
This analysis is submitted in compliance to your telephone request of November 15, 1988 for a such of nearby Basin Dakota produced water. As noted in the well histories of the "Area of Review" this well is perforated in the Dakota formation in the interval 7446-7652.

It is my understanding that this has been approved at this time and should be received within a few days. Thank you.

Yours truly,
R L Brasbin for
B R Maynard 11/16/88
B. R. Maynard
Regulatory Compliance Manager

WEL:enclosure

cc: N. M. Oil Conservation Division, Aztec



Unichem International

707 North Leech

P.O.Box 1499

Hobbs, New Mexico 88240

Company : Mobil Producing Texas & NM

Date : 11-05-1987

Location: Lindreth B Lease - B-35

Specific Gravity:	<u>Sample 1</u>
Total Dissolved Solids:	1.013
pH:	18273
IONIC STRENGTH:	6.75
	0.333

<u>CATIONS:</u>		<u>me/liter</u>	<u>mg/liter</u>
Calcium	(Ca ⁺²)	13.2	264
Magnesium	(Mg ⁺²)	10.4	126
Sodium	(Na ⁺¹)	280	6440
Iron (total)	(Fe ⁺²)	2.57	71.8
Barium	(Ba ⁺²)	0.008	0.570
Manganese	(Mn ⁺²)	0.043	1.17

<u>ANIONS:</u>		<u>me/liter</u>	<u>mg/liter</u>
Bicarbonate	(HCO ₃ ⁻¹)	10.2	622
Carbonate	(CO ₃ ⁻²)	0	0
Hydroxide	(OH ⁻¹)	0	0
Sulfate	(SO ₄ ⁻²)	33.8	1630
Chloride	(Cl ⁻¹)	259	9200

SCALING INDEX (positive value indicates scale)

<u>Temperature</u>		<u>Calcium</u>	<u>Calcium</u>
		<u>Carbonate</u>	<u>Sulfate</u>
86°F	30°C	-0.40	-31
120°F	49°C	0.49	-31