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jamesbruc@aol.com

RECEIVED OCD
2011 MAR 16 P 1:53

March 15, 2011

Case 14620

Florene Davidson
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Dear Florene:

Enclosed for filing, on behalf of Mewbourne Oil Company, are an original and one copy of an application for a salt water disposal well, together with a proposed advertisement. The advertisement has also been e-mailed to the Division. Please set the amended application for the April 14, 2011 Examiner hearing. Thank you.

Very truly yours,

James Bruce

Attorney for Mewbourne Oil Company

Parties Being Notified

Offset Ownership
State B No. 2 Well
Section 33, T19S, R25E
Eddy County, New Mexico

*The State of New Mexico owns the surface around the State B No. 2 Well.

N/2 of Section 33:
Mewbourne Oil Company – Operator
(Mewbourne Oil Company, Nearburg Exploration Company, LLC, Vintage Petroleum, LLC, Langdale Corporation and Ruthea, Inc. are the working interest parties in the N/2 of Section 33; all subject to the N/2 of Section 33 JOA whereby Mewbourne Oil Company is Operator)

Forest Oil Corporation is the working interest owner below 9,551' in the N/2 of Section 33.

S/2 of Section 33:
Nearburg Exploration Company, LLC- Operator

S/2 of Section 28:
Yates Petroleum Corporation – Operator

S/2 of Section 29:
Yates Petroleum Corporation – Operator

E/2 of Section 32:
Yates Petroleum Corporation
Nearburg Exploration Company, LLC

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

RECEIVED OCD
2011 MAR 16 P 1:53

APPLICATION OF MEWBOURNE OIL COMPANY FOR APPROVAL OF A SALT WATER DISPOSAL WELL, EDDY COUNTY, NEW MEXICO.

Case No. 14620

APPLICATION

Mewbourne Oil Company applies for an order approving a salt water disposal well, and in support thereof, states:

1. Applicant proposes to convert to disposal its State B Well No. 2, located 660 feet from the north line and 660 feet from the west line of Section 33, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico.

2. Injection will be into the Upper Pennsylvanian zone (Cisco/Canyon formation) at a depth of 7685-7765 feet subsurface.

3. A Form C-108 for the well is attached hereto as Exhibit A.

4. The granting of this application will prevent waste and protect correlative rights.

WHEREFORE, applicant requests that, after notice and hearing, the Division enter its order approving this application.

Respectfully submitted,

James Bruce
Post Office Box 1056
Santa Fe, New Mexico 87504
(505) 982-2043

Attorney for Mewbourne Oil Company

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 June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance ___X___Disposal _____Storage
Application qualifies for administrative approval? _____Yes ___X___No

II. OPERATOR: Mewbourne Oil Company

ADDRESS: 3901 S. Broadway Tyler, TX 75701

Case 14620

CONTACT PARTY: Bryan Montgomery PHONE: (903) 561-2900

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 ___X___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. **See attached map**

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: Bryan Montgomery _____ TITLE: Manager of Economics and Evaluations

SIGNATURE: _____ DATE: February 9, 2011

E-MAIL ADDRESS: bmontgomery@mewbourne.com

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

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

EXHIBIT A

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 1

INJECTION WELL DATA SHEET

OPERATOR: Mewbourne Oil Company _____

WELL NAME & NUMBER: State B #2 SWD _____

WELL LOCATION: 660 FNL & 660 FWL	D	33	19S	25E
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC (See Attached)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 14 3/4 in — Casing Size: 9 5/8 in set at 1204 feet

Cemented with: 1100 sx. — *or* _____ ft^3

Top of Cement: surface — Method Determined: circulated

Intermediate Casing

Hole Size: _____ — Casing Size: _____

Cemented with: _____ sx. — *or* _____ ft^3

Top of Cement: _____ — Method Determined: _____

Production Casing

Hole Size: 8 3/4 in — Casing Size: 7 in set at 8035 feet

Cemented with: 1275 sx. — *or* _____ ft^3

Top of Cement: surface — Method Determined: circulated

Total Depth: 8035 feet

Injection Interval

7690 feet To 7764 feet

(Perforated)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8 in Lining Material: TK99 plastic

Type of Packer: Arrowset 1X Nickel Plated (10,000#)

Packer Setting Depth: 7600 feet

Other Type of Tubing/Casing Seal (if applicable): None

Additional Data

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

   If no, for what purpose was the well originally drilled? Canyon (Upper Penn) test.
   Currently marginally productive with owners ready to convert to SWD

2. Name of the Injection Formation: Canyon (Upper Penn)

3. Name of Field or Pool (if applicable): North Dagger Draw Upper Penn

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

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

   Overlying producing zone – Yeso at 2530 feet
   The South Boyd 27 #5, located about 1 mile northeast of the proposed injection well, was completed in the Yeso in 2007. It is currently producing from this zone.

   Underlying producing zone – Atoka at 8880 feet
   The State B #1, located 2640' to the east of the proposed injection well, was completed in the Atoka in 1976. The State B #1 subsequently abandoned the Atoka in December of 1994.

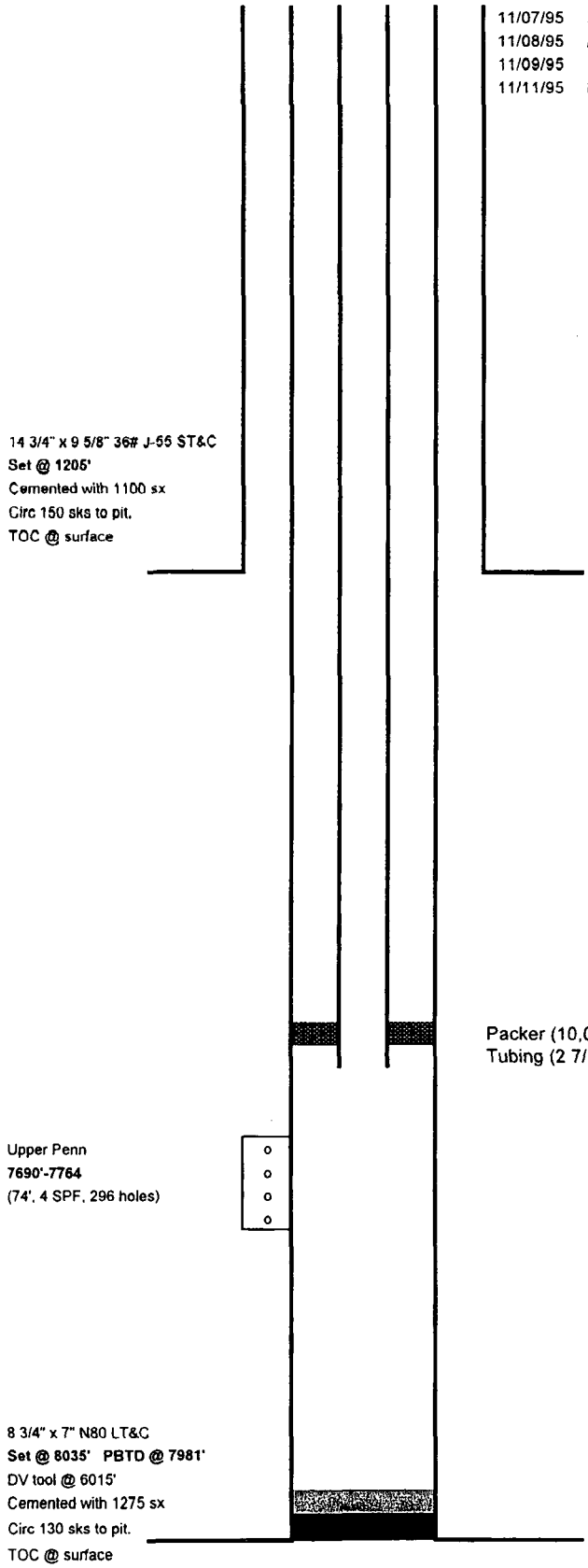
Wellbore Schematic
(Proposed Conditions)

Operator: Mewbourne Oil Company
Well Name: State B #2
API# 30-015-28544
660 FNL & 660 FWL Section 33 T19S-R25E

Updated by: B. Montgomery
Date Updated: 02/02/2011

Spud Date: 10/11/95

11/07/95 Perforate Cisco 7690'-7764' (74', 4spf, 296 holes)
11/08/95 Acidize perfs (7690'-7764') w/ 7000 gal 15% HCL
11/09/95 Frac perfs (7690'-7764') w/ 35,000 gal 20% gelled HCL.
11/11/95 First production (ESP)

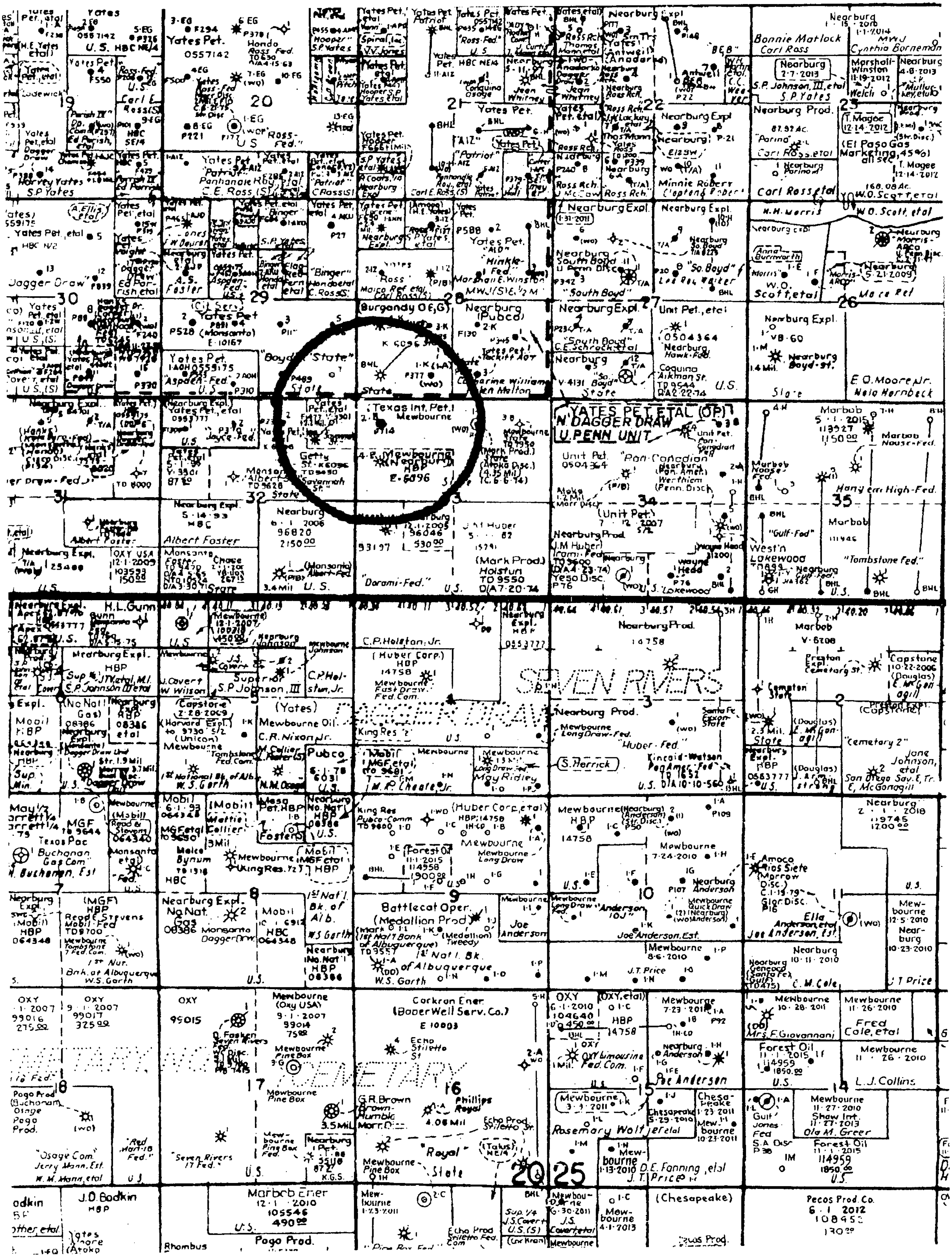


14 3/4" x 9 5/8" 36# J-55 ST&C
Set @ 1205'
Cemented with 1100 sx
Circ 150 sks to pit.
TOC @ surface

Packer (10,000# Nickel-plated Arrowset 1X) set @ 7600'
Tubing (2 7/8" TK99 plastic lined)

Upper Penn
7690'-7764
(74', 4 SPF, 296 holes)

8 3/4" x 7" N80 LT&C
Set @ 8035' PBTD @ 7981'
DV tool @ 6015'
Cemented with 1275 sx
Circ 130 sks to pit.
TOC @ surface



YATES PET. ETAL (OP)
N. DAGGER DRAW
U. PENN UNIT
Burgundy O.E.G.
Texas Int. Pet. I
Mewbourne
SEVEN RIVERS
Nearburg Expl.
Nearburg Prod.
Yates Pet.
Mewbourne
Marbob
Battlecat Oper.
(Medallion Prod)
Cockron Ener.
(BoberWell Serv. Co.)
Marbob Ener
Pogo Prod.
Pecos Prod. Co.
J.D. Bodkin
Rosemary Wolf
Joe Anderson
L. J. Collins
Fred Cole, etal
"South Boyd"
"Tombstone Fed."
"Dorami-Fed."
"Royal"
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Application for Authorization to Inject (C108)
Operator: Mewbourne Oil Company
Well: State B #2 SWD - API# 30-015-28544

Tabulation of Wells Within the Area of Review Penetrating the Injection zone
As of February, 2011

			Surface Location				*Bottom Hole Location*				*Drill*	*Spud*	Measured *Depth*
Well Name	API#	Operator	Footage	Section	TWN	RGE	Footage	Section	TWN	RGE	Type	Date	(feet)
Savannah State #1	3001528519	Yates (prev Conoco Inc)	660 FNL & 660 FEL	32	19s	25E	1100 FNL & 1100 FEL	32	19s	25E	Dir	6/23/1995	9853
Savannah State #2	3001529004	Yates (prev Conoco Inc)	660 FNL & 1980 FEL	32	19s	25E	660 FNL & 1980 FEL	32	19s	25E	Vert	7/26/1996	8098
State B #4	3001529245	Mewbourne Oil Company	1650 FNL & 660 FWL	33	19s	25E	1650 FNL & 660 FWL	33	19s	25E	Vert	8/4/1997	9600
State B #4	3001529245	Mewbourne Oil Company	1650 FNL & 660 FWL	33	19s	25E	1650 FNL & 660 FWL	33	19s	25E	Vert	8/4/1997	9600
Dorami Fed Com #1	3001529899	Nearburg Prod. Co.	1800 FSL & 800 FWL	33	19s	25E	1800 FSL & 800 FWL	33	19s	25E	Vert	11/17/1997	9510
State B #1	3001528103	Mewbourne Oil Company	660 FNL & 1980 FEL	33	19s	25E	660 FNL & 1980 FEL	33	19s	25E	Vert	1/15/1974	9451
State B #1	3001528103	Mewbourne Oil Company	660 FNL & 1980 FEL	33	19s	25E	660 FNL & 1980 FEL	33	19s	25E	Vert	1/15/1974	9451
State B #1	3001528103	Mewbourne Oil Company	660 FNL & 1980 FEL	33	19s	25E	660 FNL & 1980 FEL	33	19s	25E	Vert	1/15/1974	9451
SUBJECT WELL → State B #2	3001528544	Mewbourne Oil Company	660 FNL & 660 FWL	33	19s	25E	660 FNL & 660 FWL	33	19s	25E	Vert	10/11/1995	8035
State K #4	3001528103	Yates Petroleum Corp	1980 FSL & 660 FWL	28	19s	25E	1980 FSL & 660 FWL	28	19s	25E	Vert	8/23/1997	9574
State K #1	3001521478	Yates Petroleum Corp	660 FSL & 1980 FWL	28	19s	25E	660 FSL & 1980 FWL	28	19s	25E	Vert	2/21/1975	9410
NDDUP #138 (St K #1)	3001521478	Yates Petroleum Corp	660 FSL & 1980 FWL	28	19s	25E	660 FSL & 1980 FWL	28	19s	25E	Vert	2/21/1975	9410
NDDUP #119 (St K #3)	3001528053	Yates Petroleum Corp	1980 FSL & 1980 FWL	28	19s	25E	1980 FSL & 1980 FWL	28	19s	25E	Vert	8/14/1994	8220
NDDUP #119 (St K 3H)	3001528053	Yates Petroleum Corp	1980 FSL & 1980 FWL	28	19s	25E	approx 100 ft SW of surf	28	19s	25E	Vert	8/14/1994	8220

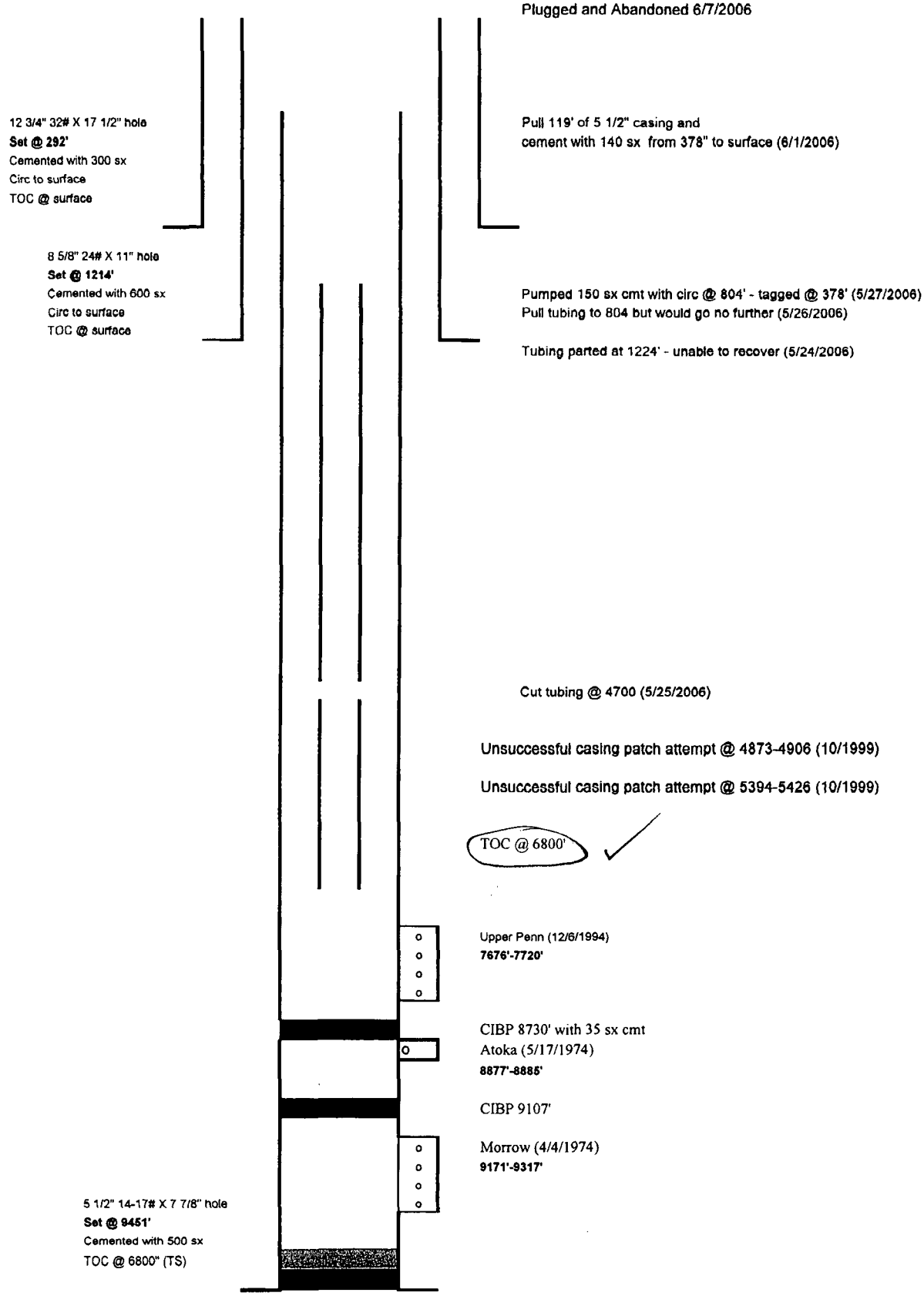
Well Name	Casing Size	Setting Depth (feet)	Cement (sacks)	Casing Size	Setting Depth (feet)	Cement (sacks)	Casing Size	Setting Depth (feet)	Cement (sacks)	Completion Date	Perforations (feet)	Formation	Status
Savannah State #1	9 5/8"	1177	1350	7"	9615	1450				9/9/1995	7760-7772	U Penn	Act Oil Prod
Savannah State #2	9 5/8"	1204	1100	7"	8098	850				9/13/1996	7714-7900	U Penn	P&A
State B #4	9 5/8"	1112	650	7"	9600	1400				10/15/1997	7650-7726	U Penn	Squeezed
State B #4	9 5/8"	1112	650	7"	9600	1400				9/11/2004	9232-9257	Morrow	Act Gas Prod
Dorami Fed Com #1	9 5/8"	1100	860	5 1/2"	9510	1925				4/17/1998	9228-9301	Morrow	Act Gas Prod
State B #1	12 3/4"	294	300	8 5/8"	1214	600	5 1/2"	9451	500	1/1/1976	8877-8885	Atoka	Squeezed
State B #1	12 3/4"	294	300	8 5/8"	1214	600	5 1/2"	9451	500	12/1/1994	8877-8885	U Penn	P&A
State B #1	12 3/4"	294	300	8 5/8"	1214	600	5 1/2"	9451	500	3/1/1975	9272-9317	Morrow	Squeezed
State B #2	9 5/8"	1205	1100	7"	8035	800				11/15/1995	7690-7764	U Penn	Act Oil Prod
State K #4	20"	80	300	9 5/8"	1150	1200	7"	9574	1400	12/12/1997	9203-9227	Morrow	Act Gas Prod
State K #1	13 3/8"	464	685	9 5/8"	1298	480	7"	9409	768	4/19/1975	9257-9332	Morrow	P&A
NDDUP #138 (St K #1)	13 3/8"	464	685	9 5/8"	1298	480	7"	9409	768	12/11/1997	7704-7718	U Penn	P&A
NDDUP #119 (St K #3)	20"	40	surf	9 5/8"	1150	1100	7"	8220	1100	10/3/1994	7636-7758	U Penn	Act Oil Prod
NDDUP #119 (St K 3H)	20"	40	surf	9 5/8"	1150	1100	7"	8220	1100	10/25/2000	7630-7818 OH	U Penn	Act Oil Prod

Wellbore Schematic
(Current Condition P&A)

Operator: Mewbourne Oil Company
Well Name: State B #1
API# 30-015-21063
660 FNL & 1980 FEL Section 33 T19S-R25E

Updated by: B. Montgomery
Date Updated: 02/09/2011

Spud Date: 1/15/1974
Plugged and Abandoned 6/7/2006

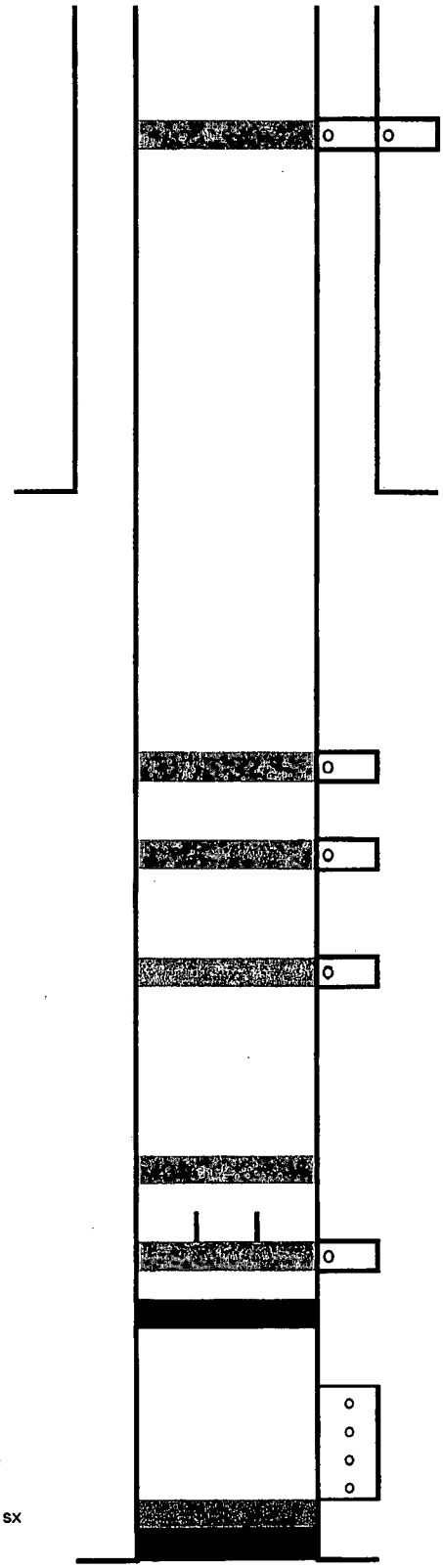


Wellbore Schematic
(Current Condition P&A)

Operator: Yates Petroleum Corporation
Well Name: Savannah State #2
API# 30-015-29004
660 FNL & 1980 FWL Section 32 T19S-R25E

Updated by: B. Montgomery
Date Updated: 02/09/2011

Spud Date: 7/26/1996
Plugged and Abandoned 6/5/2007



Perf and sqz cmt @ 100' with 30 sx circ to surface

9 5/8" 36# X 14 3/4" hole
Set @ 1204'
Cemented with 900 sx
Circ to surface
TOC @ surface

Perf and sqz cmt @ 1254' with 45 sx, tagged @ 1088'

Perf and sqz cmt @ 2275' with 30 sx, tagged @ 2138'

Perf and sqz cmt @ 3908' with 30 sx, tagged @ 3790'

30 sx cmt @ 5670' tagged @ 5030'

(tubing cut @ 6100')
Perf and sqz cmt @ 6396' with 30 sx, tagged @ 6249'

CIBP 7664' + 30 sx cmt

Upper Penn (9/13/1996)
7714'-7731'
Milled on casing between 7805-7900
7850'-7900'

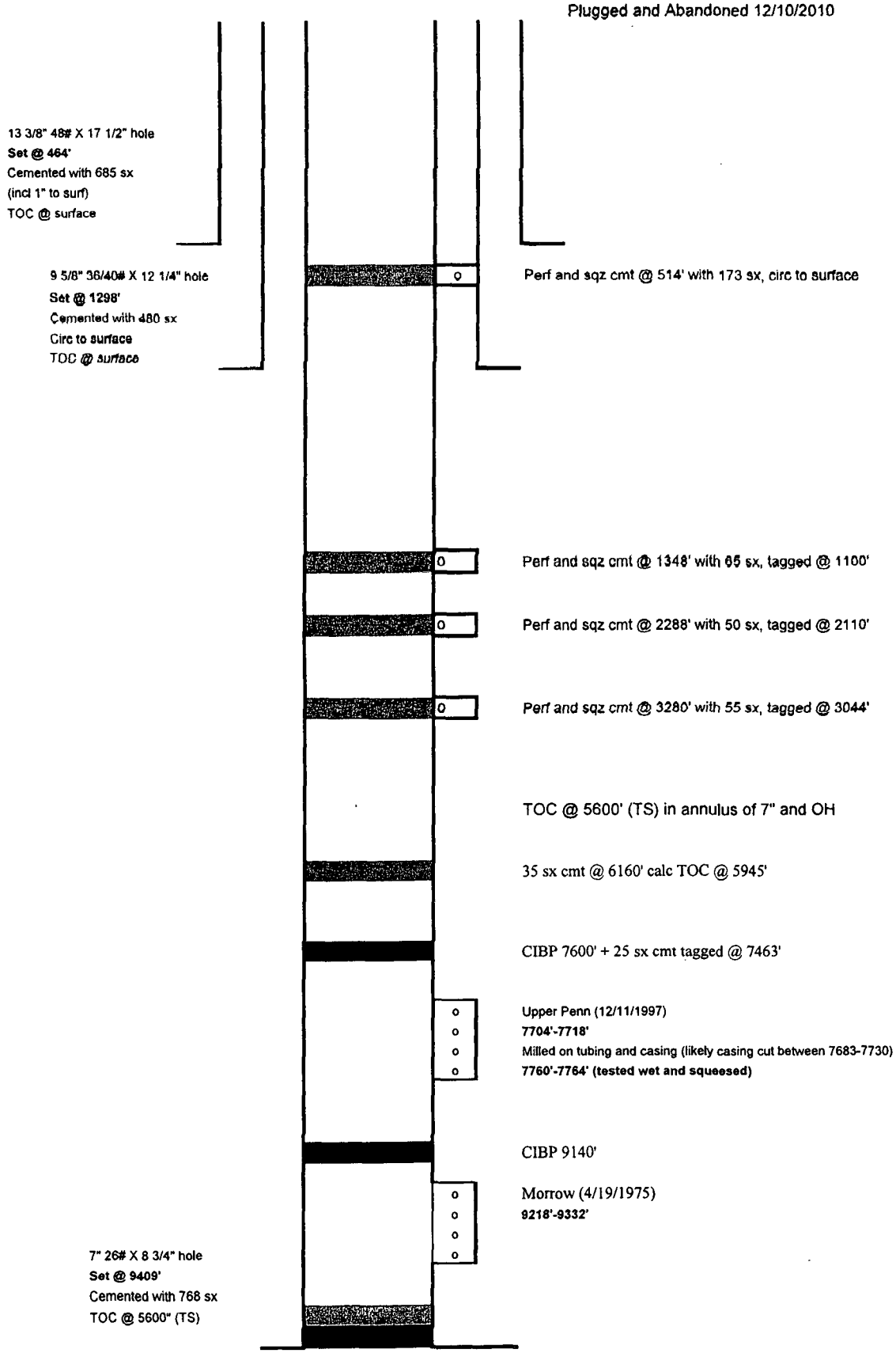
7" 26# X 8 3/4" hole
Set @ 8098'
Cemented with 850 sx

Wellbore Schematic
(Current Condition P&A)

Operator: Yates Petroleum Corporation
Well Name: NDDUP Unit #138
API# 30-015-21478
660 FSL & 1980 FWL Section 28 T19S-R25E

Updated by: B. Montgomery
Date Updated: 02/09/2011

Spud Date: 2/21/1975
Plugged and Abandoned 12/10/2010



State B #2 SWD C-108
Additional Details

VII. 1. Proposed average rate of 5000 bwpd and maximum rate of 10,000 bwpd.

2. Closed system.

3. Proposed average injection pressure is unknown and the maximum injection pressure is 1537 psig (0.2 psi/ft).

4. Injection fluid will be from the Mewbourne Oil Company operated Yeso producing wells in the area. See attached water analysis for both the Yeso and Canyon produced water in this area and the water mixing reports of those waters.

5. Not applicable. Water will be injected into the Upper Penn formation which is productive of oil and gas within one mile. See water analysis from section VII.4.

VIII. 1. The proposed injection interval is in the Canyon (Upper Penn) formation which is a porous dolomite about 80' thick at depths 7685' – 7765'.

2. The underground fresh water aquifers (unnamed) are present at shallow depths down to about 600'. There are no known fresh water intervals underlying the injecting formation.

IX. The proposed stimulation is an ope-hole acid treatment of 5000 gallons of 20% HCL.

X. All logs were filed with the OCD in 1995 when the State B #2 was drilled.

XI. There are no fresh water wells within one mile. The Wilbanks well is approximately 7000 feet away and its water sample is attached.

XII. Mewbourne Oil Company has examined geologic and engineering data and has found that there is no evidence of faulting between the proposed disposal zone and any underground sources of drinking water.

XIII. Proof of Notice

See attached.

State B #2 SWD C-108
Additional Details

Response for Section VII.4

Samples of produced waters were all taken 1/20/2011 on the following wells:

Source Water – Yeso formation

Mewbourne Oil Co - Wyatt Draw 18/19 LD #1H (section 18 T19S R26E)

Mewbourne Oil Co - Wyatt Draw 24/25 LE #1H (section 24 T19S R26E)

Injectioin Zone - Upper Penn formation

Nearburg Producing – B & B #4 (section 22 T19S R25E)

Samples were taken to BJ Services for complete composition analysis and are attached.

Also attached are the results of the compatibility study performed by Baker Hughes Petrolite.

The results concluded that these waters are compatible for mixing in the manner proposed by this water disposal application.

Offset Ownership
State B No. 2 Well
Section 33, T19S, R25E
Eddy County, New Mexico

*The State of New Mexico owns the surface around the State B No. 2 Well. (Jerry Wilbanks appears to have a Grazing Lease (GS-2195))

N/2 of Section 33:
Mewbourne Oil Company – Operator
(Mewbourne Oil Company, Nearburg Exploration Company, LLC, Vintage Petroleum, LLC, Langdale Corporation and Ruthea, Inc. are the working interest parties in the N/2 of Section 33; all subject to the N/2 of Section 33 JOA whereby Mewbourne Oil Company is Operator)

Forest Oil Corporation is the working interest owner below 9,551' in the N/2 of Section 33.

S/2 of Section 33:
Nearburg Exploration Company, LLC- Operator

S/2 of Section 28:
Yates Petroleum Corporation – Operator

S/2 of Section 29:
Yates Petroleum Corporation – Operator

E/2 of Section 32:
Yates Petroleum Corporation
Nearburg Exploration Company, LLC
(SE/4 may be an open Federal tract)

BAKER HUGHES
Baker Petrolite

Mixed Water Analysis Report

Mixes at 120°F and 0 psi

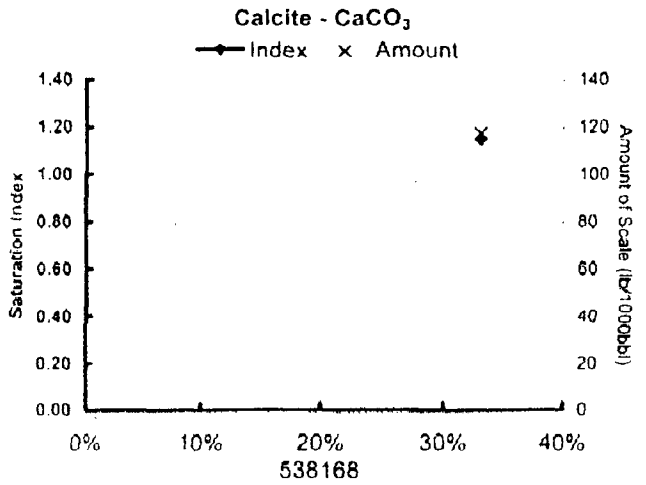
Mixes of 538168 and 538169 with 538170.		Predictions of Saturation Index and Amount of Scale in lb/1000bbl								CO_2 Fugacity
		Calcite $CaCO_3$		Gypsum $CaSO_4 \cdot 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		
538168	538169	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
33%	34%	1.15	117	-0.24		-0.13		-0.18		0.27	0.03	0.86

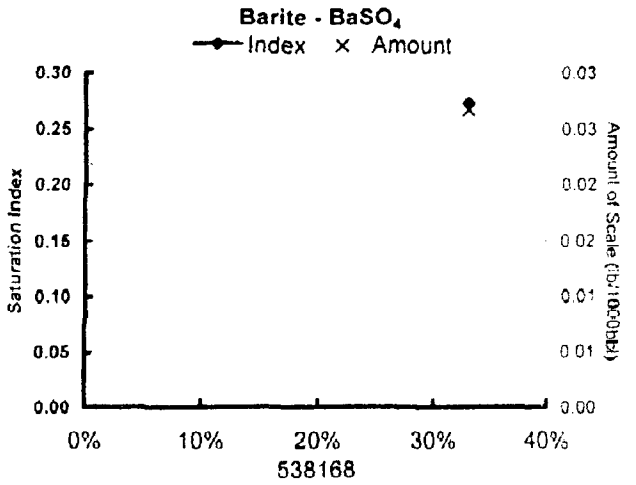
Precipitation of each scale is considered separately; total scale will be less than the sum of the amounts of the five scales
The amount of scale indicates the severity of the problem; the index (equivalent to Stiff Davis SI) indicates how difficult it is to control the problem.
The CO_2 fugacity is calculated. Under usual conditions it is essentially the same as the CO_2 partial pressure.

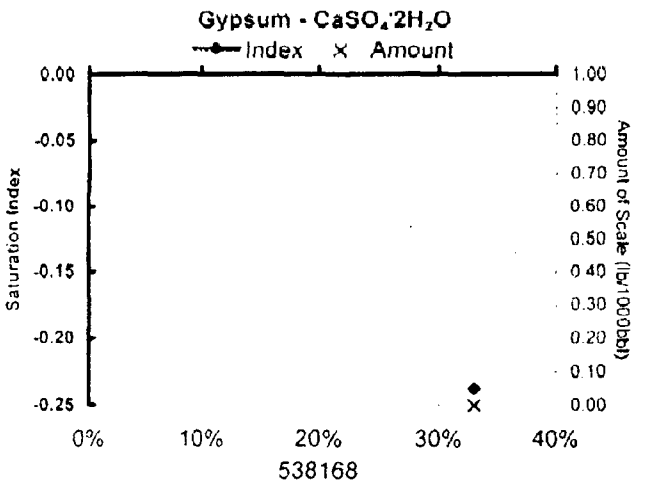
Complete Water Compositions									
538168	538169	538170							
33.0%	34.0%	33.0%							

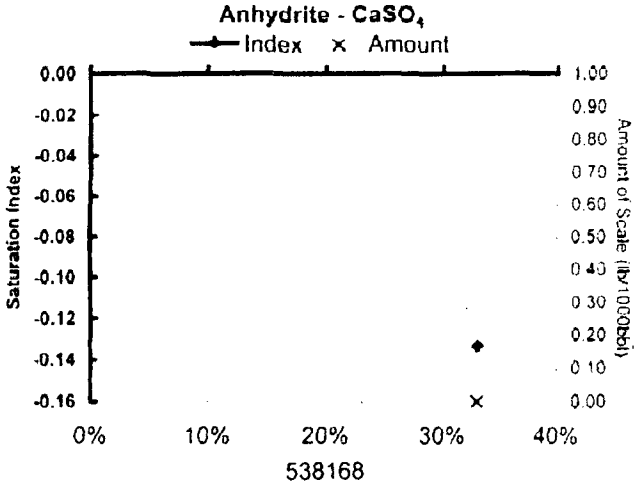
Predictions

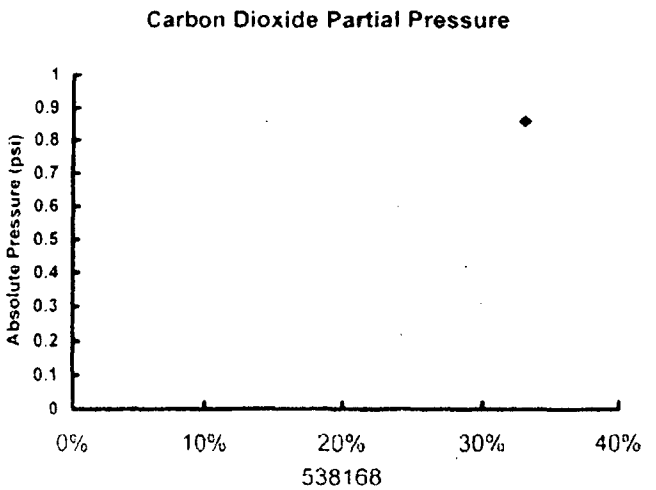
Mixes of 538168 and 538169 with 538170 at 120°F and 0 psi
Baker Petrolite

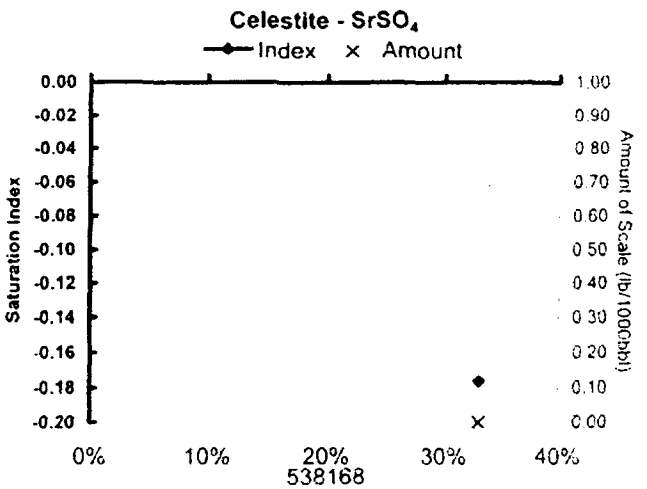












Graphs of Mixes of 538168 and 538169 with 538170 at 120°F and 0 psi from Baker Petrolite

BAKER HUGHES
Baker Petrolite

Mixed Water Analysis Report

Mixes at 140°F and 0 psi

Mixes of 538168 and 538169 with 538170.		Predictions of Saturation Index and Amount of Scale in lb/1000bbl								CO_2 Fugacity
		Calcite $CaCO_3$		Gypsum $CaSO_4 \cdot 2H_2O$		Anhydrite $CaSO_4$	Celestite $SrSO_4$	Barite $BaSO_4$		
538168	538169	Index	Amount	Index	Amount	Index Amount	Index Amount	Index	Amount	psi
33%	34%	1.21	131	-0.25		-0.06	-0.17	0.15	0.02	1.15

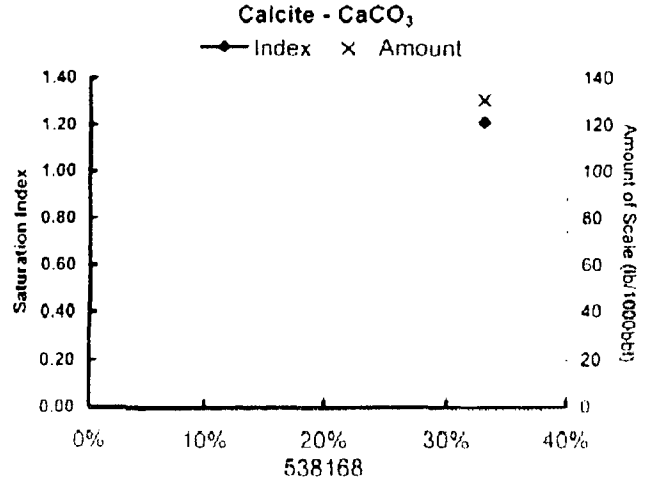
Precipitation of each scale is considered separately; total scale will be less than the sum of the amounts of the five scales.
The amount of scale indicates the severity of the problem; the index (equivalent to Stiff Davis SI) indicates how difficult it is to control the problem.
The CO_2 fugacity is calculated. Under usual conditions it is essentially the same as the CO_2 partial pressure.

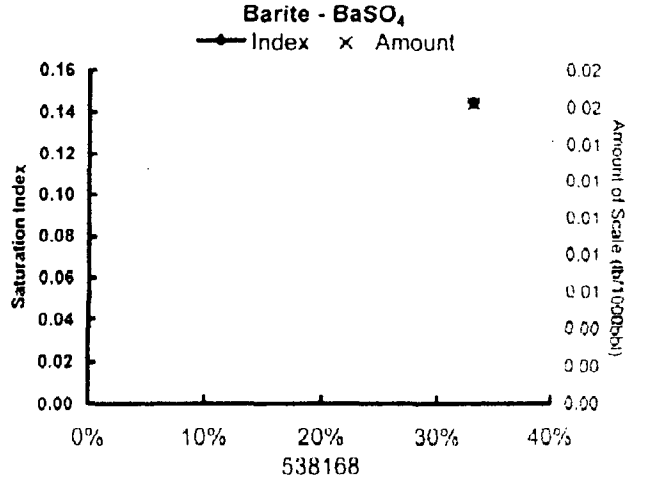
Complete Water Compositions									
538168	538169	538170							
33.0%	34.0%	33.0%							

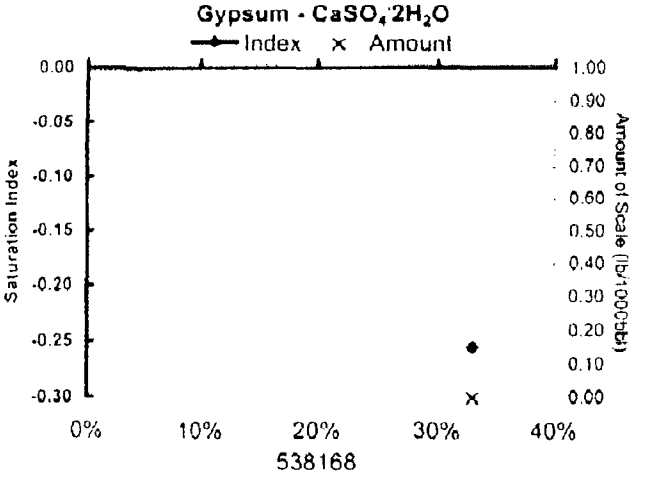
Predictions

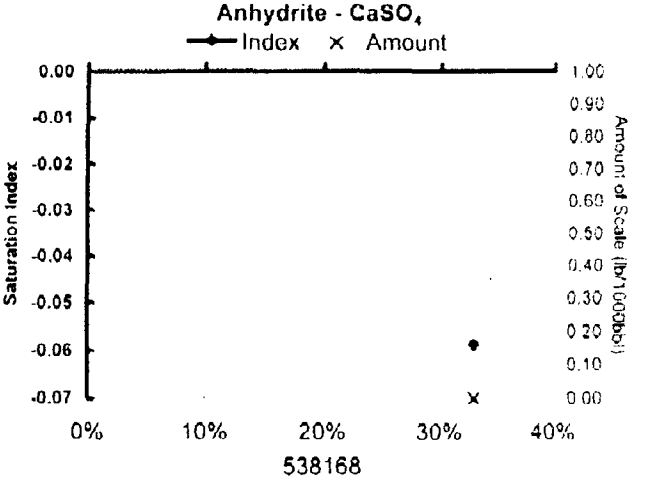
Mixes of 538168 and 538169 with 538170 at 140°F and 0 psi

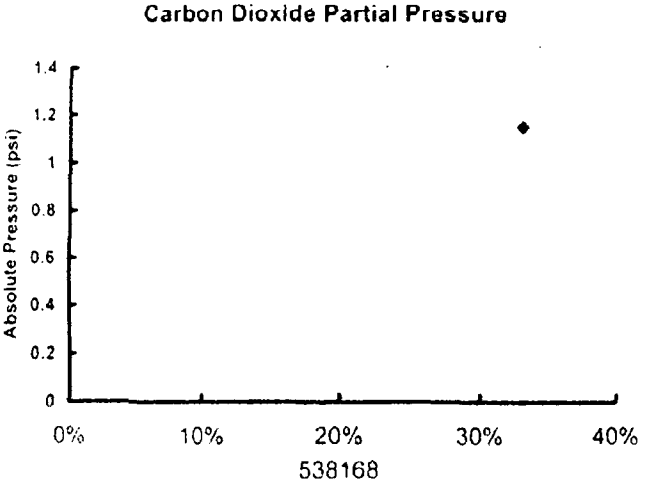
Baker Petrolite

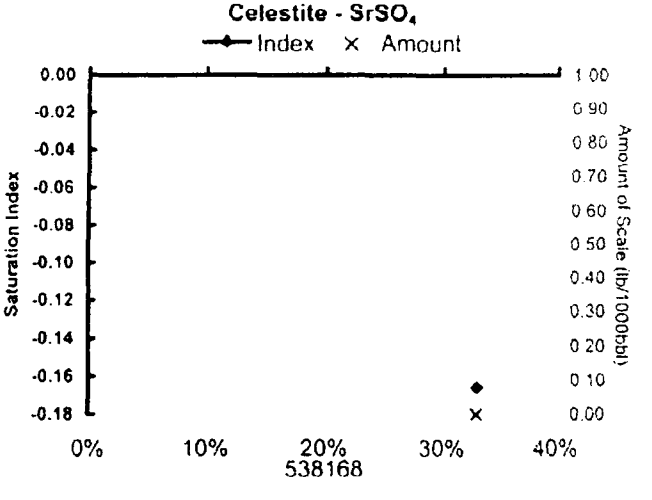












BAKER HUGHES
Baker Petrolite

Individual Water Analyses

Summary of Mixing Waters			
Sample Number	**538168**	**538169**	**538170**
Company	MEWBOURNE OIL CO	MEWBOURNE OIL CO	MEWBOURNE OIL CO
Lease	B & B C SISCO CANYON	WYATT DRAW 24/25	WYATT DRAW 18/19
Well	4	LE 1H	LD 1H
Sample Location	WELLHEAD	WELLHEAD	WELLHEAD
Anions (mg/L)			
Chloride	1,842	89,335	5,432
Bicarbonate	976	988	780
Sulfate	2,330	4,287	2,827
Cations (mg/L)			
Sodium	2,019	55,640	3,896
Magnesium	59.0	640	199
Calcium	444	2,743	762
Strontium	7.50	48.0	11.0
Barium	0.10	0.10	0.10
Iron	21.0	3.50	1.50
Potassium	26.0	560	27.0
Manganese	0.90	0.10	0.06
Anion/Cation Ratio	***1.00***	***1.00***	***1.00***
TDS (mg/L)	7,726	154,244	13,936
Density (g/cm)	1.01	1.10	1.01
Sampling Date	1/19/11	1/19/11	1/19/11
Account Manager	GENE ROGERS	GENE ROGERS	GENE ROGERS
Analyst	STACY SMITH	STACY SMITH	STACY SMITH
Analysis Date	1/21/11	1/21/11	1/21/11
pH at time of sampling	7.50	7.00	7.50
pH used in Calculations	**7.50**	**7.00**	**7.50**

Analysis: 47116

Water Analysis Report

BAKER HUGHES
Baker Petrolite

MEWBOURNE OIL CO
B & B C SISCO CANYON
4
WELLHEAD

Account Manager
GENE ROGERS

Summary of Entered Data		*Sample 538168 @ 75°F*					
Sampling Date	1/19/11	*Anions*	*mg/l*	*meq/l*	*Cations*	*mg/l*	*meq/l*
Analysis Date	1/21/11	**Chloride**	**1,842**	**52.0**	**Sodium**	**2,019**	**87.8**
Analyst	STACY SMITH	**Bicarbonate**	**976**	**16.0**	**Magnesium**	**59.0**	**4.85**
		Carbonate	**0.00**	**0.00**	**Calcium**	**444**	**22.2**
TDS (mg/l or g/m³)	7,726	**Sulfate**	**2,330**	**48.5**	**Strontium**	7.50	0.17
Density (g/cm³ or tonne/m³)	1.0060	Phosphate	N/A	N/A	**Barium**	**0.10**	**0.00**
Anion/Cation Ratio	1.00	Borate	N/A	N/A	**Iron**	**21.0**	**0.75**
		Silicate	N/A	N/A	Potassium	26.0	0.66
Carbon Dioxide	120 PPM				Aluminum	N/A	N/A
		Hydrogen Sulfide		493 PPM	Chromium	N/A	N/A
					Copper	N/A	N/A
		pH at time of sampling		7.50	Lead	N/A	N/A
		pH at time of analysis			Manganese	0.90	0.03
		pH used in Calculations		**7.50**	Nickel	N/A	N/A

Specific ion interactions calculated for ions in bold faced type; other ions contribute to ionic strength.

Conditions		*Values Calculated at the Given Conditions - Amounts of Scale in lb/1000bbl*										
Temp.	*Gauge Press.*	*Calcite* $CaCO_3$		*Gypsum* $CaSO_4 \cdot 2H_2O$		*Anhydrite* $CaSO_4$		*Celestite* $SrSO_4$		*Barite* $BaSO_4$		CO_2 *Fugacity*
°F	*psi*	*Index*	*Amount*	*Index*	*Amount*	*Index*	*Amount*	*Index*	*Amount*	*Index*	*Amount*	*psi*
80	0.00	1.09	96	-0.20		-0.27		-0.30		0.99	0.05	0.36
100	0.00	1.19	109	-0.21		-0.22		-0.29		0.83	0.05	0.50
120	0.00	1.29	123	-0.22		-0.14		-0.27		0.71	0.05	0.66
140	0.00	1.40	138	-0.21		-0.04		-0.25		0.60	0.04	0.85

Precipitation of each scale is considered separately; total scale will be less than the sum of the amounts of the five scales.
The amount of scale indicates the severity of the problem; the index (equivalent to Stiff Davis SI) indicates how difficult it is to control the problem.
The CO_2 fugacity is reported. Under usual conditions it is essentially the same as the CO_2 partial pressure.

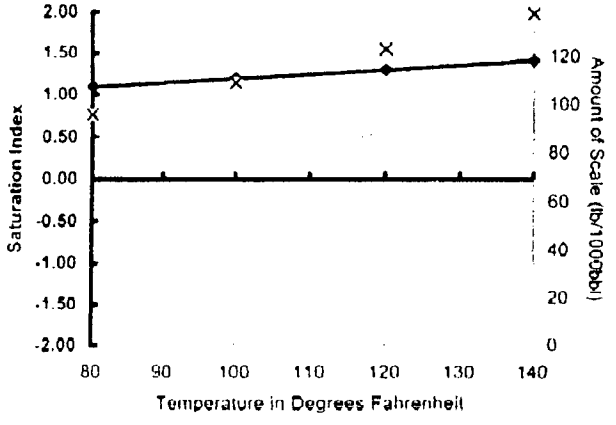
Scale Predictions

BAKER HUGHES

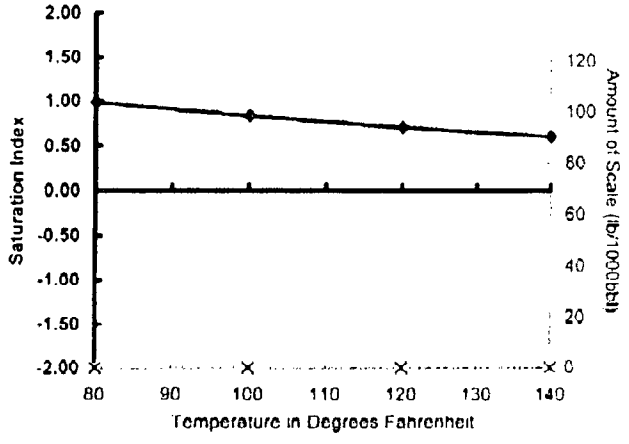
Baker Petrolite

For Sample 538168 @ 75°F from MEWBOURNE OIL CO , B & B C SISCO CANYON , 4 , WELLHEAD , Jan/21/11

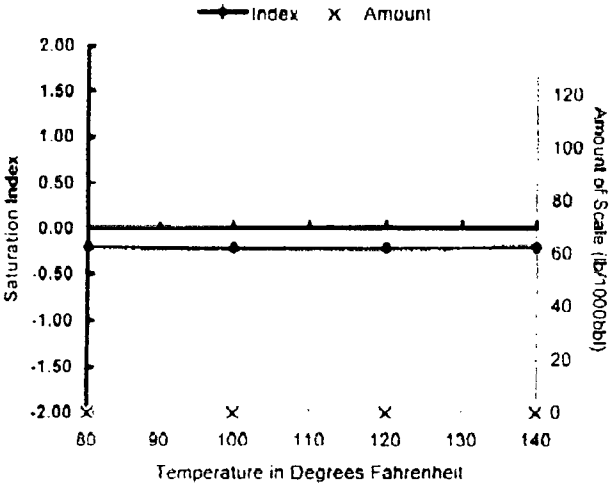
Calcite - $CaCO_3$



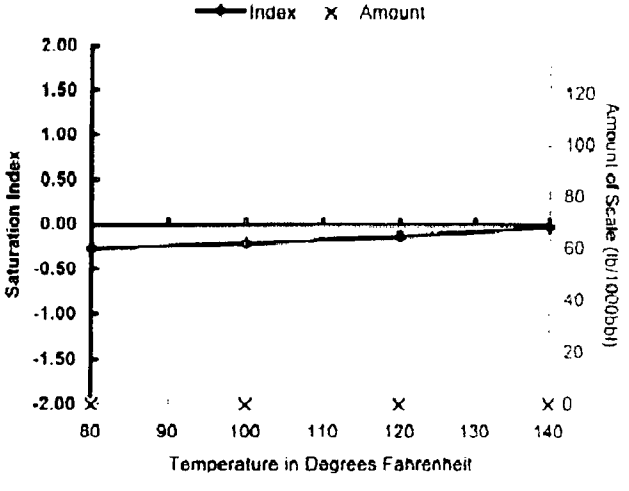
Barite - $BaSO_4$



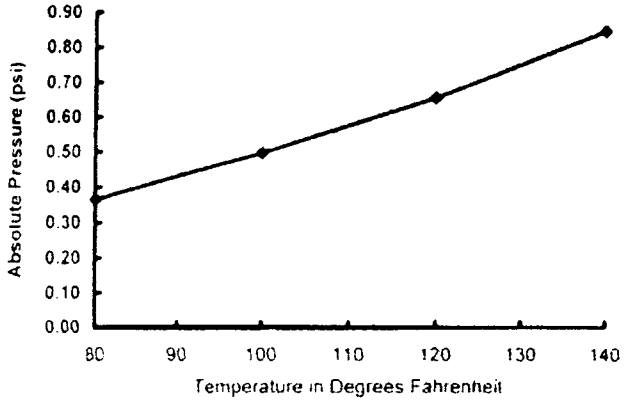
Gypsum - $CaSO_4 \cdot 2H_2O$



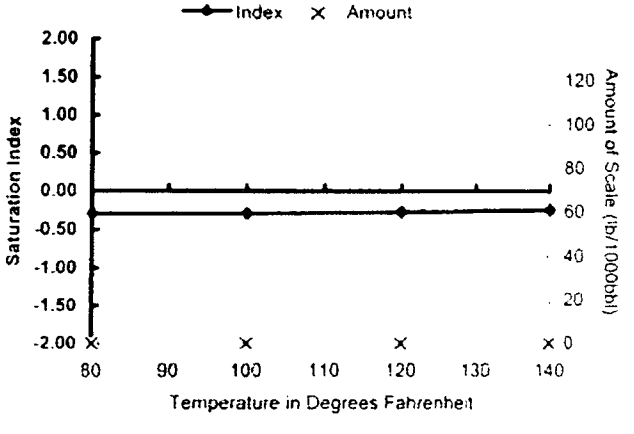
Anhydrite - $CaSO_4$



Carbon Dioxide Partial Pressure



Celestite - $SrSO_4$



BJ Services

WATER ANALYSIS

Artesia District Laboratory
(575) 746-3140

Operator:	Mewbourne Oil Company	**Date:**	012011
Well:	B&B #4	**District:**	Artesia
Formation:	Cisco Canyon	**Requested:**	
Field:		**Technician:**	Dustin
County:		**Source:**	
Depth:	Cisco Canyon	**PFS Test #:**	
		M:Water Analysis	**Customer:**

pH:	6.83	**Temp (F):**	63.8
Specific Gravity:	1.015	**H2S:**	

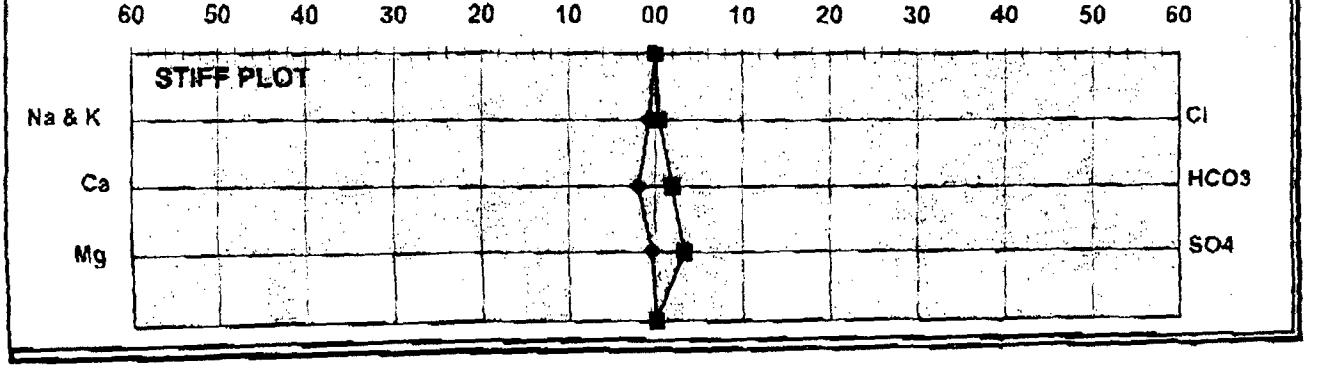
CATIONS	mg/l	me/l	ppm
Sodium (calc.)	1743	75.8	1718
Calcium	385	19.2	379
Magnesium	44	3.6	43
Barium	< 25	---	---
Potassium	< 10	---	---
Iron	0	0.0	0
ANIONS			
Chloride	1600	45.1	1576
Sulfate	1600	33.3	1576
Carbonate	< 1	---	---
Bicarbonate	1232	20.2	1214
Total Dissolved Solids(calc.)	6604		6507
Total Hardness as CaCO3	1141	22.8	1125

COMMENTS:

Resistivity is 1.2(325 gr/gal)

SCALE ANALYSIS:

CaCO3 Factor	474347.712	Calcium Carbonate Scale Probability	Remote
CaSO4 Factor	615936	Calcium Sulfate Scale Probability:	Possible



BAKER HUGHES
Baker Petrolite

Analysis: 47116

Water Analysis Report

BAKER HUGHES
Baker Petrolite

MEWBOURNE OIL CO
WYATT DRAW 18/19
LD 1H
WELLHEAD

Account Manager
GENE ROGERS

Summary of Entered Data		Sample 538170 @ 75°F					
Sampling Date	1/19/11	*Anions*	*mg/l*	*meq/l*	*Cations*	*mg/l*	*meq/l*
Analysis Date	1/21/11	**Chloride**	**5,432**	**153**	**Sodium**	**3,896**	**169**
Analyst	STACY SMITH	**Bicarbonate**	**780**	**12.8**	**Magnesium**	**199**	**16.4**
		Carbonate	**0.00**	**0.00**	**Calcium**	**762**	**38.0**
TDS (mg/l or g/m³)	13,936	**Sulfate**	**2,827**	**58.9**	**Strontium**	**11.0**	**0.25**
Density (g/cm³ or tonne/m³)	1.0110	Phosphate	N/A	N/A	**Barium**	**0.10**	**0.00**
Anion/Cation Ratio	1.00	Borate	N/A	N/A	**Iron**	**1.50**	**0.05**
		Silicate	N/A	N/A	Potassium	27.0	0.69
Carbon Dioxide	280 PPM				Aluminum	N/A	N/A
		Hydrogen Sulfide		850 PPM	Chromium	N/A	N/A
					Copper	N/A	N/A
		pH at time of sampling		7.50	Lead	N/A	N/A
		pH at time of analysis			Manganese	0.06	0.00
		pH used in Calculations		**7.50**	Nickel	N/A	N/A

Specific ion interactions calculated for ions in bold faced type; other ions contribute to ionic strength

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000bbl										
Temp.	*Gauge Press.*	*Calcite* $CaCO_3$		*Gypsum* $CaSO_4 \cdot 2H_2O$		*Anhydrite* $CaSO_4$		*Celestite* $SrSO_4$		*Barite* $BaSO_4$		CO_2 *Fugacity*
°F	*psi*	*Index*	*Amount*	*Index*	*Amount*	*Index*	*Amount*	*Index*	*Amount*	*Index*	*Amount*	*psi*
80	0.00	1.13	84	-0.06		-0.13		-0.20		0.91	0.05	0.27
100	0.00	1.22	95	-0.08		-0.08		-0.20		0.75	0.05	0.37
120	0.00	1.31	107	-0.08		0.00	0	-0.18		0.62	0.04	0.50
140	0.00	1.40	119	-0.07		0.10	142	-0.15		0.52	0.04	0.66

Precipitation of each scale is considered separately; total scale will be less than the sum of the amounts of the five scales.
The amount of scale indicates the severity of the problem; the index (equivalent to Stiff Davis SI) indicates how difficult it is to control the problem.
The CO_2 fugacity is reported. Under usual conditions it is essentially the same as the CO_2 partial pressure

Analysis: 47116

BAKER HUGHES

Scale Predictions

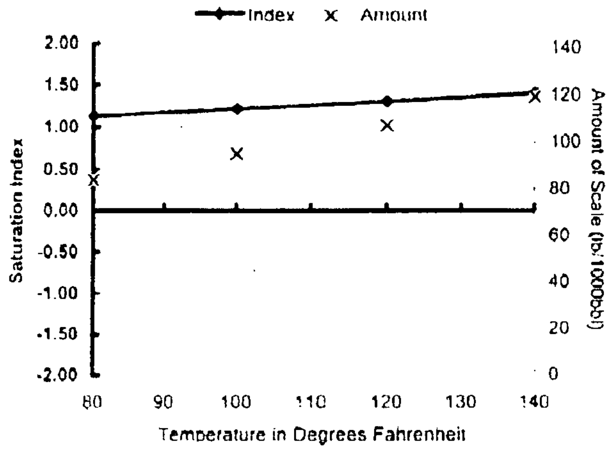
Baker Petrolite

For Sample: [illegible] @ 75°F from MEWBOURNE OIL CO . WYATT DRAW 18/19 . LD 1H . WELLHEAD . Jan/21/11

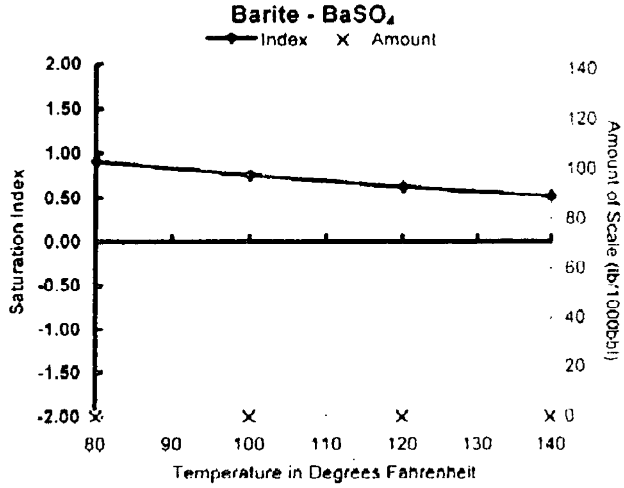
BAKER HUGHES

Baker Petrolite

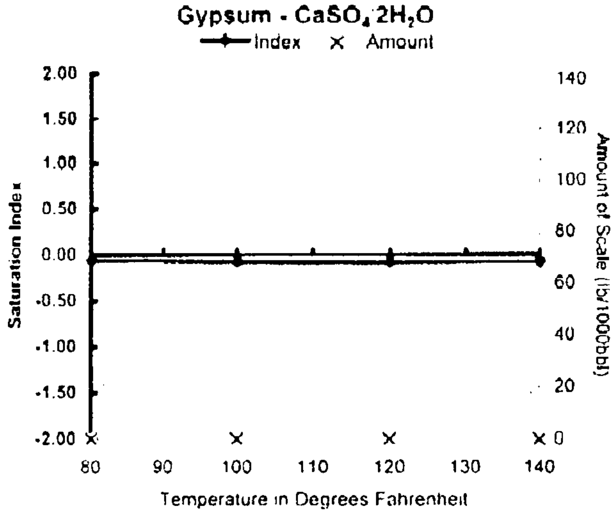
Calcite - $CaCO_3$



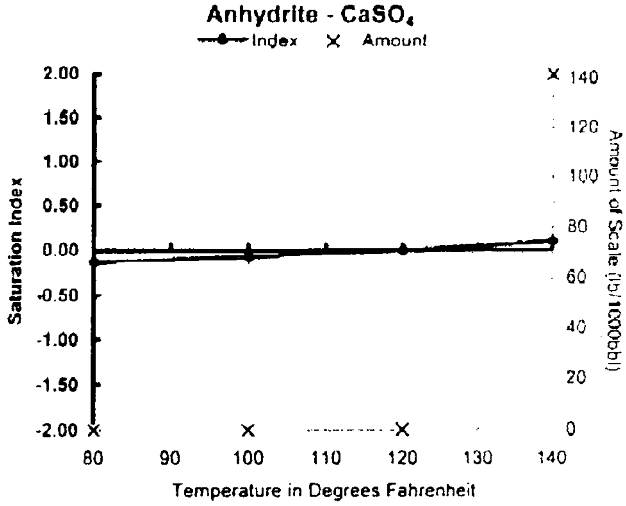
Barite - $BaSO_4$



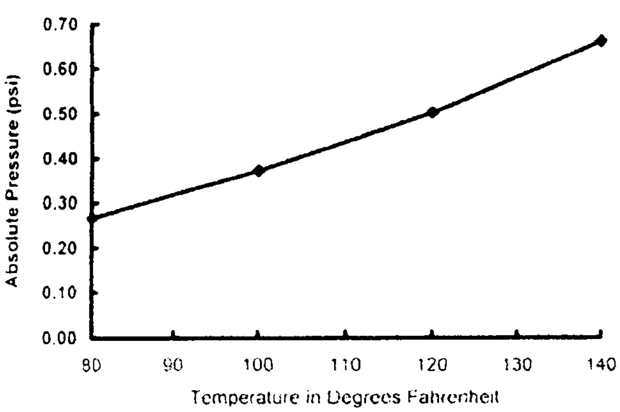
Gypsum - $CaSO_4 \cdot 2H_2O$



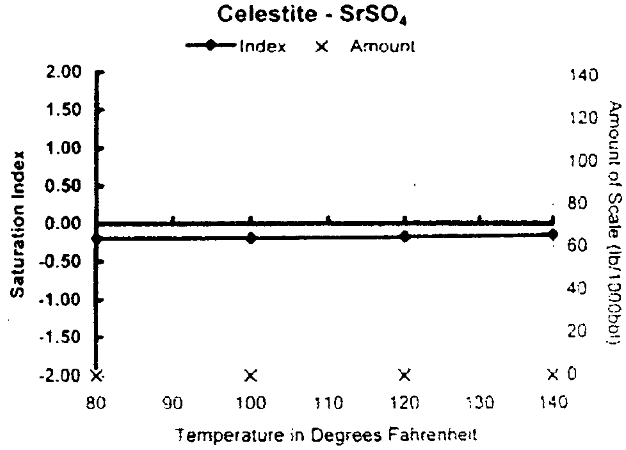
Anhydrite - $CaSO_4$



Carbon Dioxide Partial Pressure



Celestite - $SrSO_4$



BJ Services

WATER ANALYSIS

Artesia District Laboratory
(575) 746-3140

Operator:	Mewbourne Oil Company	Date:	012011
Well:	Wyatt Draw 14/19	District:	Artesia
Formation:	Yeso	Requested:	
Field:		Technician:	Dustin
County:		Source:	
Depth:	Yeso	PFS Test #:	
		M:Water Analysis\	Customer:

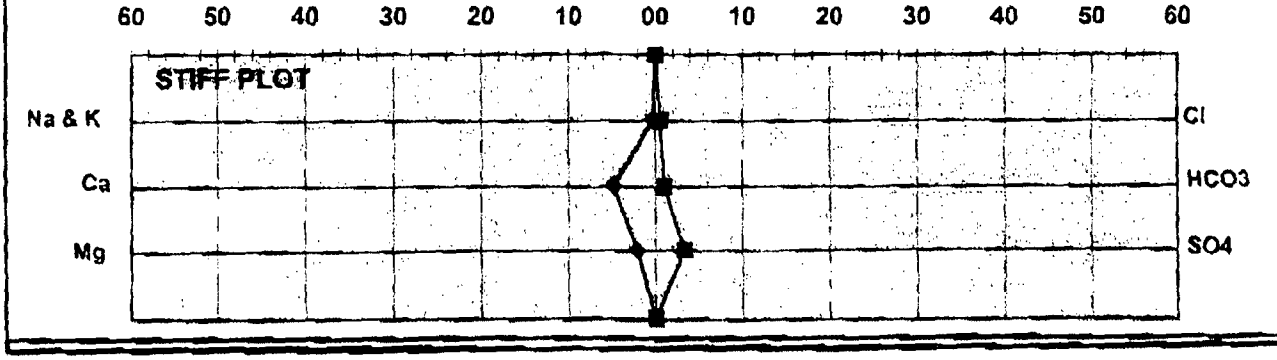
pH:	6.8	Temp (F):	68.3
Specific Gravity:	1.015	H2S:	

CATIONS	mg/l	me/l	ppm
Sodium (calc.)	683	29.7	673
Calcium	978	48.8	964
Magnesium	262	21.6	259
Barium	< 25	----	----
Potassium	< 10	----	----
Iron	0	0.0	0
ANIONS			
Chloride	2000	56.4	1970
Sulfate	1600	33.3	1576
Carbonate	< 1	----	----
Bicarbonate	634	10.4	625
Total Dissolved Solids(calc.)	6158		6067
Total Hardness as CaCO3	3524	70.4	3472

COMMENTS:
Resistivity is .65(650 gr/gal)

SCALE ANALYSIS:

CaCO3 Factor	620722.336	Calcium Carbonate Scale Probability	Possible
CaSO4 Factor	1565504	Calcium Sulfate Scale Probability:	Possible



BAKER HUGHES
Baker Petrolite

Analysis: 47116

Water Analysis Report

BAKER HUGHES
Baker Petrolite

MEWBOURNE OIL CO
WYATT DRAW 24/25
LE 1H
WELLHEAD

Account Manager
GENE ROGERS

Summary of Entered Data		*Sample 538169 @ 75°F*					
Sampling Date	1/19/11	*Anions*	*mg/l*	*meq/l*	*Cations*	*mg/l*	*meq/l*
Analysis Date	1/21/11	**Chloride**	**89,335**	**2,520**	**Sodium**	**55,640**	**2,420**
Analyst	STACY SMITH	**Bicarbonate**	**988**	**16.2**	**Magnesium**	**640**	**52.7**
		Carbonate	**0.00**	**0.00**	**Calcium**	**2,743**	**137**
TDS (mg/l or g/m³)	154,244	**Sulfate**	**4,287**	**89.3**	**Strontium**	**48.0**	**1.10**
Density (g/cm³ or tonne/m³)	1.1030	Phosphate	N/A	N/A	**Barium**	**0.10**	**0.00**
Anion/Cation Ratio	1.00	Borate	N/A	N/A	**Iron**	**3.50**	**0.13**
		Silicate	N/A	N/A	Potassium	560	14.3
Carbon Dioxide	600 PPM				Aluminum	N/A	N/A
		Hydrogen Sulfide		340 PPM	Chromium	N/A	N/A
					Copper	N/A	N/A
		pH at time of sampling		7.00	Lead	N/A	N/A
		pH at time of analysis			Manganese	0.10	0.00
		pH used in Calculations		**7.00**	Nickel	N/A	N/A

Specific ion interactions calculated for ions in bold faced type; other ions contribute to ionic strength

Conditions		*Values Calculated at the Given Conditions - Amounts of Scale in lb/1000bbl*										
Temp.	*Gauge Press.*	*Calcite* $CaCO_3$		*Gypsum* $CaSO_4 \cdot 2H_2O$		*Anhydrite* $CaSO_4$		*Celestite* $SrSO_4$		*Barite* $BaSO_4$		CO_2 *Fugacity*
°F	*psi*	*Index*	*Amount*	*Index*	*Amount*	*Index*	*Amount*	*Index*	*Amount*	*Index*	*Amount*	*psi*
80	0.00	1.13	112	0.04	132	0.04	116	-0.00		0.43	0.03	0.76
100	0.00	1.18	123	-0.03		0.04	110	-0.03		0.23	0.02	1.03
120	0.00	1.22	134	-0.09		0.06	170	-0.05		0.06	0.01	1.37
140	0.00	1.26	145	-0.13		0.11	283	-0.05		-0.09		1.80

Precipitation of each scale is considered separately; total scale will be less than the sum of the amounts of the five scales.
The amount of scale indicates the severity of the problem; the index (equivalent to Stiff Davis SI) indicates how difficult it is to control the problem.
The CO_2 fugacity is reported. Under usual conditions it is essentially the same as the CO_2 partial pressure.

Analysis: 47116

BAKER HUGHES

Scale Predictions

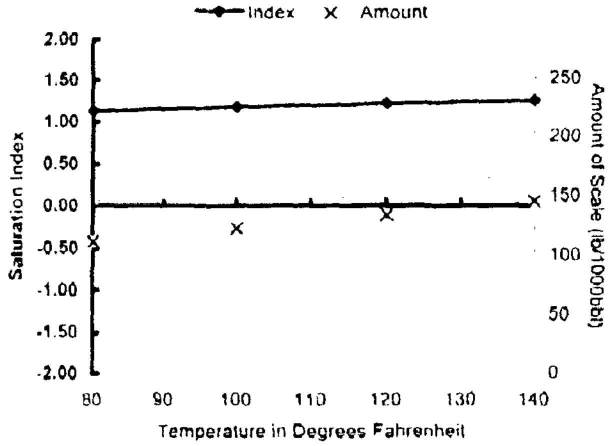
Baker Petrolite

For Sample 528169 @ 75°F from MEWBOURNE OIL CO , WYATT DRAW 24/25 , LE 1H , WELLHEAD , Jan/21/11

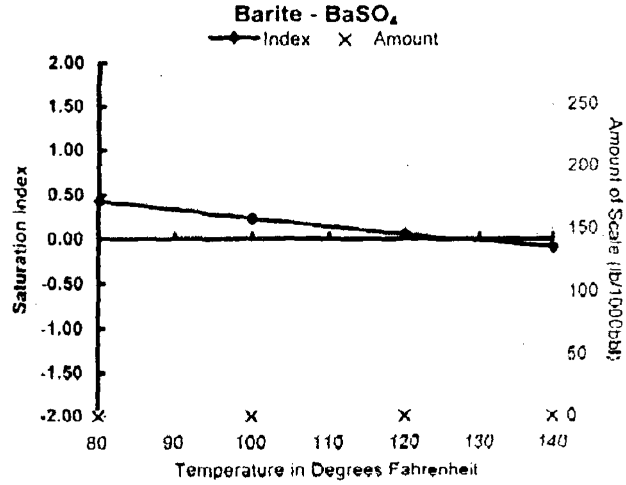
BAKER HUGHES

Baker Petrolite

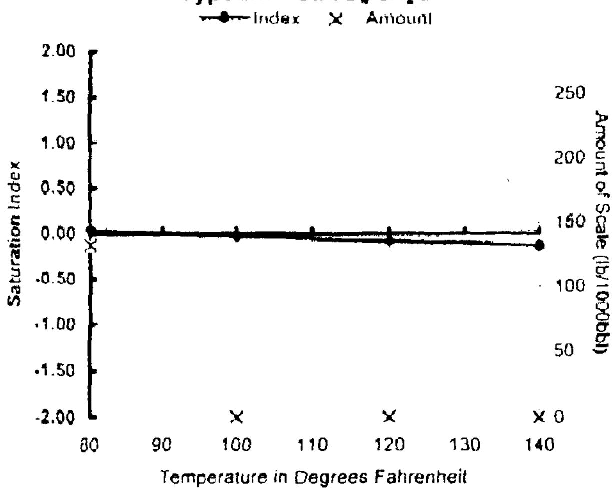
Calcite - $CaCO_3$



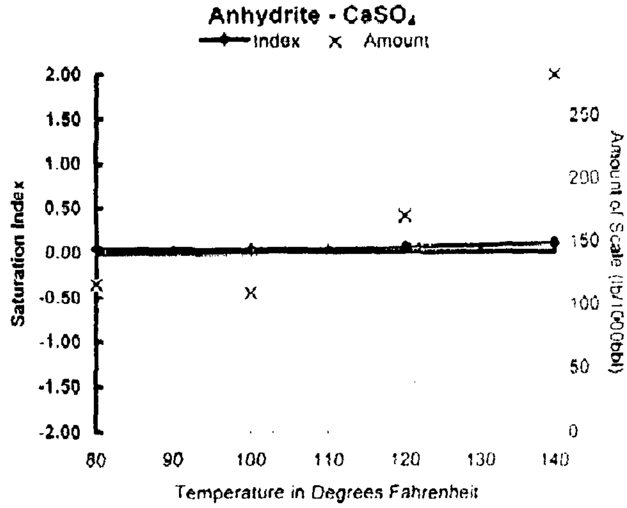
Barite - $BaSO_4$



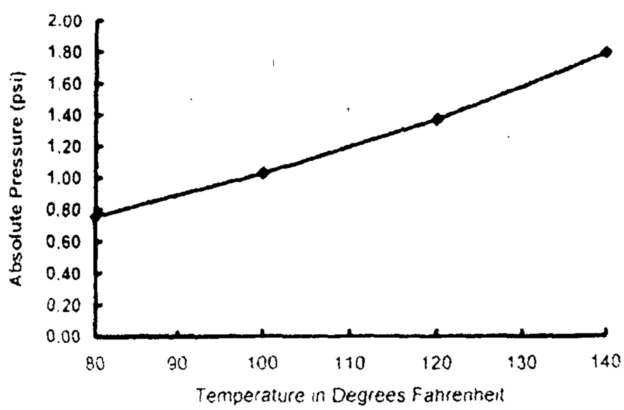
Gypsum - $CaSO_4 \cdot 2H_2O$



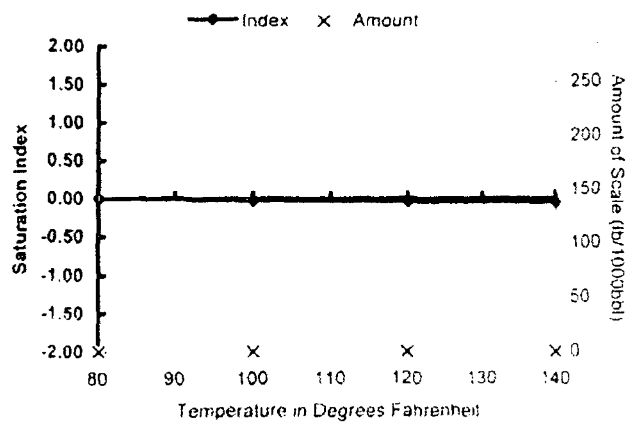
Anhydrite - $CaSO_4$



Carbon Dioxide Partial Pressure



Celestite - $SrSO_4$



BJ Services

WATER ANALYSIS

Artesia District Laboratory
(575) 746-3140

Operator:	Mewbourne Oil Company	**Date:**	012011
Well:	Wyatt Draw #2 4/25	**District:**	Artesia
Formation:	Yeso	**Requested:**	
Field:		**Technician:**	Dustin
County:		**Source:**	
Depth:	Yeso	**PFS Test #:**	
		M:Water Analysis	**Customer:**

pH:	6.68	**Temp (F):**	68
Specific Gravity:	1.105	**H2S:**	

CATIONS	**mg/l**	**me/l**	**ppm**
Sodium (calc.)	128455	5587.4	116249
Calcium	3609	180.1	3266
Magnesium	486	40.0	440
Barium	< 25	----	----
Potassium	< 10	----	----
Iron	0	0.0	0

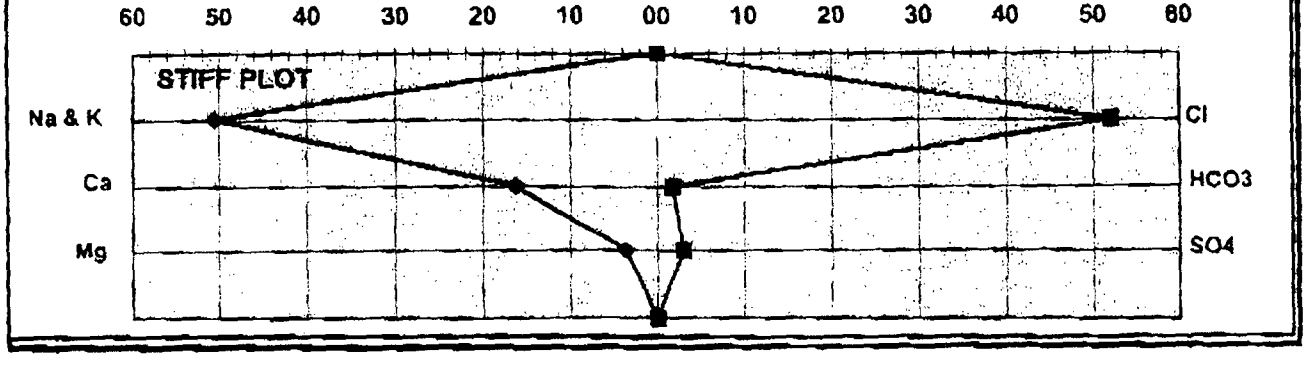
ANIONS			
Chloride	204000	5754.6	184615
Sulfate	1600	33.3	1448
Carbonate	< 1	----	----
Bicarbonate	1196	19.6	1082
Total Dissolved Solids(calc.)	339345		307100
Total Hardness as CaCO3	11014	220.1	9967

COMMENTS:

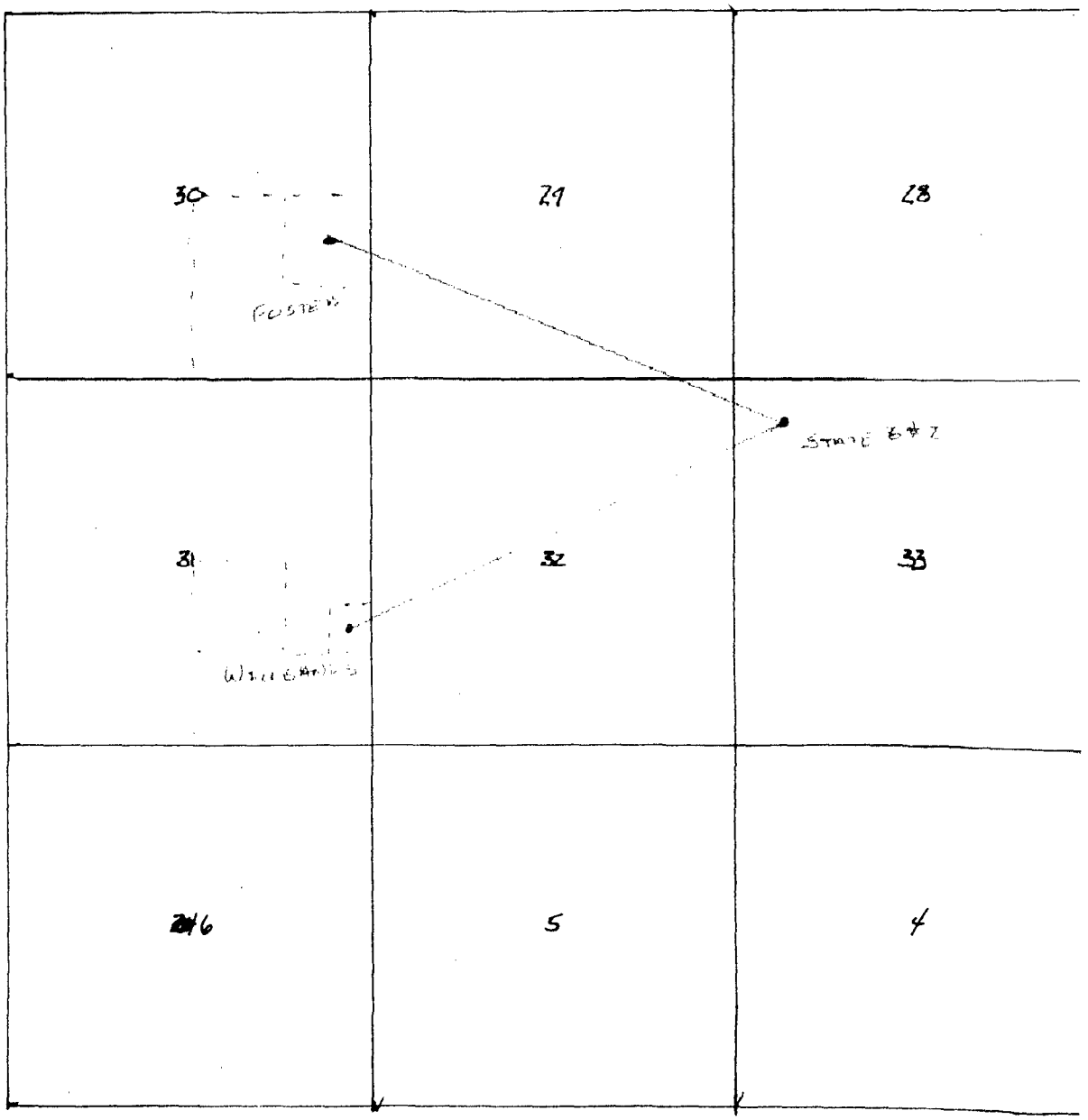
Resistivity is .1(5,000 gr/gal)

SCALE ANALYSIS:

CaCO3 Factor	4314920.4	**Calcium Carbonate Scale Probability**	Probable
CaSO4 Factor	5774400	**Calcium Sulfate Scale Probability:**	Possible



XI Fresh Water Well



FOSTER IS 7110' NNW OF STATE B #2. No sample

WILLIAMS IS 6940' SO OF STATE B #2 (proposed swd)

Chevron

www.chevron.com

BJ Services

WATER ANALYSIS

Permian Region Laboratory
(915) 530-2667

Operator:	Mewbourne Oil Company	Date:	2/2/11
Well:	Wilbanks FW	District:	Artesia
Formation:	Unknown	Requested:	Robin Terrell
Field:		Technician:	Michael Dechant
County:	Fresh Water Well	Source:	Unknown
Depth:		PFS Test #:	
		M:Water Analysis\	Customer:

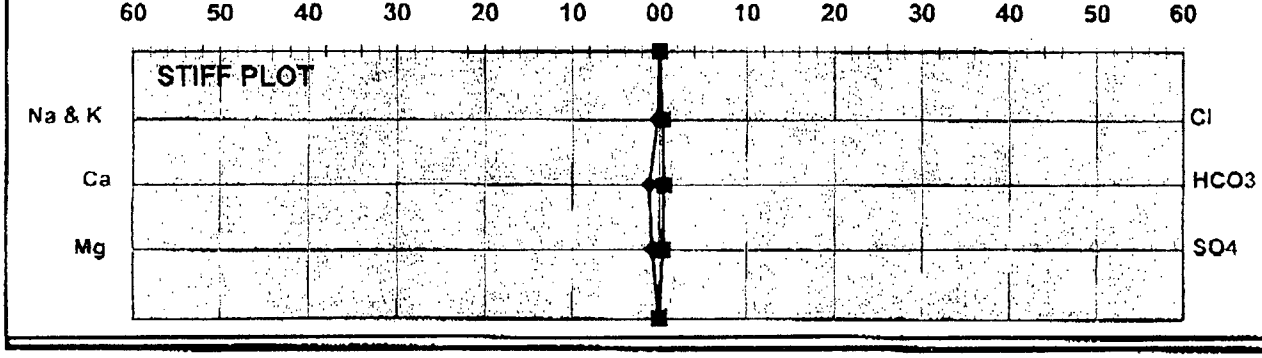
pH:	8.05	Temp (F):	69.7
Specific Gravity:	1	H2S:	

CATIONS	mg/l	me/l	ppm
Sodium (calc.)	534	23.2	534
Calcium	233	11.6	233
Magnesium	102	8.4	102
Barium	< 25	----	----
Potassium	< 10	----	----
Iron	0	0.0	0
ANIONS			
Chloride	1200	33.9	1200
Sulfate	200	4.2	200
Carbonate	< 1	----	----
Bicarbonate	317	5.2	317
Total Dissolved Solids(calc.)	2585		2585
Total Hardness as CaCO3	1001	20.0	1001

COMMENTS: Resistivity=7.2 Ohm-m (45 gr/gal)

SCALE ANALYSIS:

CaCO3 Factor	73774.376	Calcium Carbonate Scale Probability	Remote
CaSO4 Factor	46516	Calcium Sulfate Scale Probability:	Remote



PROPOSED ADVERTISEMENT

Case No. 14620 :

Application of Mewbourne Oil Company for approval of a water disposal well, Eddy County, New Mexico. Applicant seeks an order approving water disposal into the Upper Pennsylvanian zone (Cisco/Canyon formation) at a depth of 7685-7765 feet subsurface in the State B Well No. 2, located 660 feet from the north line and 660 feet from the west line of Section 33, Township 19 South, Range 25 East, NMPM. The well is located approximately 4-1/2 miles west-northwest of Seven Rivers, New Mexico.