

DATE IN 3/14/08	SUSPENSE	ENGINEER 10 Jones	LOGGED IN 3/18/08	TYPE WFX	APP NO. PKVR0807826256
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

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

Application Acronyms:

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

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication

☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☒ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify CONVERSION OF PRODUCTION WELL TO INJECTION

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

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☒ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

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

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

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

JIM SKURNER

Print or Type Name

Signature

MANAGER RESERVOIR ENGINEERING 3-2-08

Title


Date

JSKURNER@enhancedoilres.com
e-mail Address

2008 MAR 14 PM 1 59

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APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ Yes ☐ No
- II. OPERATOR: EOR Operating Company
ADDRESS: One Riverway Suite 610, Houston, TX 77056
CONTACT PARTY: Jim Skurner, P.E. PHONE: (832) 485-8500 x505
- 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. – (See Attachment A)
- 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. (See Attachment B)
- VII. Attach data on the proposed operation, including:
- Proposed average and maximum daily rate and volume of fluids to be injected;
375 MCFPD - 600 MCFPD CO2
100 BWPD – 300 BWPD
 - Whether the system is open or closed; - Closed (see Attachment D)
 - Proposed average and maximum injection pressure;
1500 psi average (2000 psi max)
 - Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, -- 3rd party trucked liquid CO2 (guaranteed 99.9% pure) / produced water / produced gas (see Attachment C)
 - 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.). – N/A
- *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. N/A
- *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: James A. Skurner TITLE: Manager Reservoir Engineering
SIGNATURE:  DATE: 3-2-2008
E-MAIL ADDRESS: jskurner@enhancedoilres.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: Original permit to drill API# 30041002550000

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.

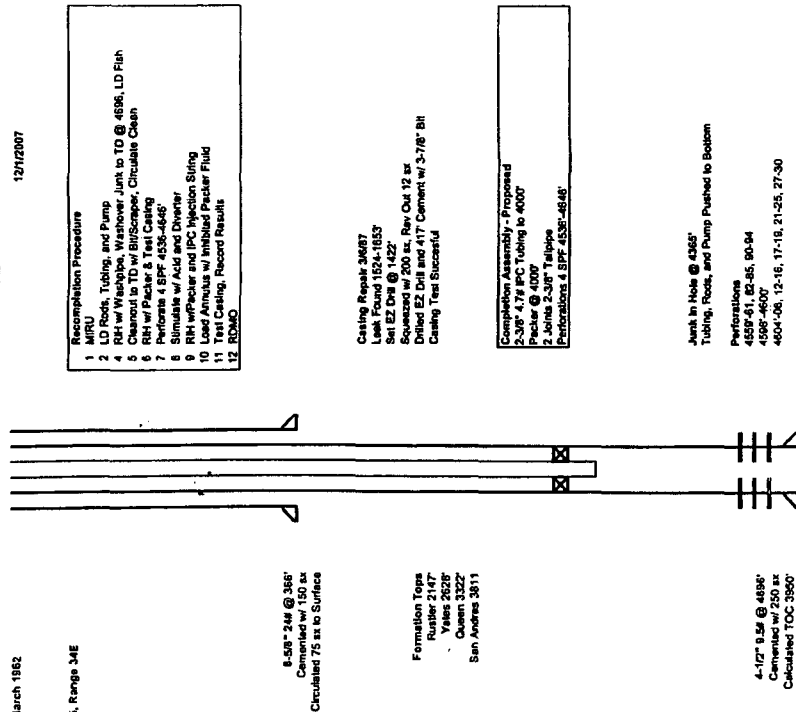
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

AS of May 1, 2008

EOR Operating Company, Milnesand Unit, Injection Wells, Roosevelt County																	
API WELL #	Well #	Type	Stat	S	UL	Sec	Twp	N/S	Rng	W/E	Feet	NS	Ft	EW	Last Insp	Order_No	Pressure Limit
30-041-10149-00-00	026	I	T	F	P	19	8 S	35 E	660 S	660 S	660 S	660 S	660 E	660 E	8/14/2007	R-3770	None
30-041-00087-00-00	036	I	A	F	N	18	8 S	35 E	660 S	660 S	660 S	660 S	1980 W	660 W	6/14/2007	R-3770	None
30-041-00251-00-00	054	I	A	F	H	13	8 S	34 E	2050 N	660 E	2050 N	660 E	660 E	660 E	8/14/2007	R-3770	None
30-041-00253-00-00	056	I	A	F	F	13	8 S	34 E	1980 N	660 W	1980 N	660 W	1980 W	660 W	6/14/2007	R-3770	None
30-041-00029-00-00	122	I	A	P	N	7	8 S	35 E	660 S	660 S	660 S	660 S	1980 W	660 W	8/14/2007	R-3770	None
30-041-10017-00-00	127	I	A	P	F	7	8 S	35 E	1975 N	660 E	1975 N	660 E	1901 W	660 W	8/14/2007	R-3770	None
30-041-00243-00-00	162	I	A	P	P	12	8 S	34 E	660 S	660 S	660 S	660 S	660 E	660 E	6/14/2007	R-3770	None
30-041-00136-00-00	183	I	A	P	F	18	8 S	35 E	1980 N	660 W	1980 N	660 W	1980 W	660 W	9/26/2007	R-3770	None
30-041-00137-00-00	195	I	A	P	P	13	8 S	34 E	660 S	660 E	660 S	660 S	660 E	660 E	8/14/2007	R-3770	None
30-041-10059-00-00	310	I	A	F	F	19	8 S	35 E	1980 N	660 W	1980 N	660 W	1909 W	660 W	8/14/2007	R-3770	None
30-041-10195-00-00	317	I	A	F	H	19	8 S	35 E	2310 N	660 E	2310 N	660 E	990 E	660 E	8/14/2007	R-3770	None
30-041-10158-00-00	517	I	E	F	P	24	8 S	34 E	660 S	660 E	660 S	660 S	660 E	660 E	8/14/2007	R-3770	None
30-041-00141-00-00	031	I	A	F	L	18	8 S	35 E	1986 S	660 W	1986 S	660 W	660 W	660 W	8/14/2007	WFX-440	None
30-041-00143-00-00	033	I	A	F	J	18	8 S	35 E	1981 S	660 E	1981 S	660 E	1980 E	660 E	6/14/2007	WFX-440	None
30-041-00142-00-00	035	I	A	F	D	19	8 S	35 E	660 N	660 W	660 N	660 W	660 W	660 W	8/14/2007	WFX-440	None
30-041-00131-00-00	182	I	A	P	D	18	8 S	35 E	660 N	660 W	660 N	660 W	660 W	660 W	8/14/2007	WFX-440	None
30-041-00138-00-00	192	I	A	P	J	13	8 S	34 E	1980 S	660 E	1980 S	660 E	1980 E	660 E	8/14/2007	WFX-440	None
30-041-10057-00-00	187	I	A	P	B	18	8 S	35 E	660 N	660 E	660 N	660 E	1980 E	660 E	11/1/2007	WFX-464	None
30-041-00256-00-00	059	I	A	F	B	13	8 S	34 E	660 N	660 E	660 N	660 E	1980 E	660 E	8/14/2007	WFX-519	916
30-041-10147-00-00	024	I	A	F	J	19	8 S	35 E	1980 S	660 E	1980 S	660 E	1980 E	660 E	8/14/2007	WFX-574	931
30-041-10060-00-00	311	I	A	F	B	19	8 S	35 E	660 N	660 E	660 N	660 E	1980 E	660 E	8/14/2007	WFX-574	930
30-041-00261-00-00	514	O	E	F	J	24	8 S	34 E	1980 S	660 E	1980 S	660 E	1980 E	660 E	8/14/2007	WFX-574	913
30-041-00255-00-00	058	O	A	F	A	13	8 S	34 E	660 N	660 E	660 N	660 E	660 E	660 E	8/14/2007	WFX-837	2,000/CO2

W/1300 H₂O

INJECTION WELL DATA SHEET

OPERATOR: EOR Operating CompanyWELL NAME & NUMBER: Milnesand Unit 58WELL LOCATION: 660 FNL & 660 FEL A 13 8S 34E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATA
Surface CasingHole Size: 12 3/4" Casing Size: 8 5/8"
Cemented with: 150 sx. or ft³
Top of Cement: surface Method Determined: returns 75sxIntermediate Casing - n/aHole Size: Casing Size:
Cemented with: sx. or ft³Top of Cement: Method Determined: Production CasingHole Size: 7 7/8" Casing Size: 4 1/2" 9.5#
Cemented with: 250 sx. or ft³Top of Cement: 3950' Method Determined: calculatedTotal Depth: 4696'Injection Interval4536 feet to 4646(Perforated or ; indicate which)Milnesand Unit Well #58 - Recompletion

INJECTION WELL DATA SHEET

Tubing Size: 2 3/8" Lining Material: Corvell IPC

Type of Packer: Halliburton G-4 4 1/2", 9.5# - 13.5#, 2 3/8" API-EU, B-P

Packer Setting Depth: 4000' 4 436 min

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

Additional Data

1. Is this a new well drilled for injection? Yes X No
 If no, for what purpose was the well originally drilled? Oil Producer
2. Name of the Injection Formation: San Andres
3. Name of Field or Pool (if applicable): Milnesand San Andres Unit
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:

<u>Rustler 2147'</u>	<u></u>
<u>Yates 2628'</u>	<u></u>
<u>Queen 3322'</u>	<u></u>

Attachment C



Airborne Labs International Inc.

22C World's Fair Drive, Somerset, NJ 08873
E-Mail: airbornelabs@aol.com

Tel: 732-302-1950

Fax: 732-302-3035

Website: www.airbornelabs.com

Carbon Dioxide (CO₂) Analysis ISBT Beverage-Grade Program[®]

Reliant Processing
3700 Kermit Highway
Odessa, TX 79764

Phone: Tel: 806-925-6654 (Fax: 806-925-6659)

Attn.: Mr. Chris Kennemer, Mr. Joshua Jones, and Mr. Heath Babcock

E-Mail: chris@flococo2.com, dherrera@flococo2.com, joshua@flococo2.com, heath@flococo2.com

Sample ID.: Liquid CO₂, "Muleshoe Plant M122307S1"

Sample ID.: Received in a 1L passivated ALI cylinder #1L-Sulf-D-08

ALI Track No.: 5184

Received On: 12/08/07

Report Date: 01/04/08

Payment Mode: per Heath

Sampled On: 12/23/07

Process Stage: Final

Test Description/Units

CO₂ Purity (% v/v, ISBT 2.0 [GC/DID]):

Comments:

Water Vapor (H₂O, ppm v/v, ISBT 3.0 [CH]):

Oxygen (O₂, ppm v/v, ISBT 4.0 [GC/DID]):

Comments: H₂ = nd 1 ppm, Ar = nd 1 ppm v/v

Nitrogen (N₂, ppm v/v, ISBT 4.0 [GC/DID]):

Carbon Monoxide (CO, ppm v/v, ISBT 5.0 [GC/DID]):

Ammonia (NH₃, ppm v/v, ISBT 6.0 [DT]):

Oxides of Nitrogen (NO_x, ppm v/v, ISBT 7.0 [DT]):

Nitric Oxide (NO, ppm v/v, ISBT 7.1 [DT]):

Nitrogen Dioxide (NO₂, ppm v/v, ISBT 7.2 [DT]):

Non-Volatile Residue (NVR, ppm w/w, ISBT 8.0 [Grav]):

Comments:

Non-Volatile Organic Residue (NVOR, ppm w/w, ISBT 8.0 [Grav]):

Comments:

Phosphine (PH₃, ppm v/v, ISBT 9.0 [DT]):

Total Hydrocarbons (THC, ppm v/v as Methane, ISBT 10.0):

Vapor Phase:

Liquid Phase:

Total Non-Methane Hydrocarbons (TNMHC, ppm v/v as Methane, ISBT 10.1):

Methane (CH₄, ppm v/v, ISBT 10.1 [GC]):

Acetaldehyde (AA, ppm v/v, ISBT 11.0 [GC]):

Total Other Volatile Oxygenates (TOVO, ppm v/v, ISBT 11.0 [GC]):

Comments: Obtained by summation of all specified VOX target impurities less AA, MeOH & EtOH.

Aromatic Hydrocarbon Content (ppb v/v as Benzene, ISBT 12.0 [GC]):

Comments: No Target AHC's detected.

Total Sulfur Content* (TSC* ppm v/v as S, ISBT 14.0):

Comments: Obtained by summation of all specified VSC target impurities less SO₂

Sulfur Dioxide (SO₂, ppm v/v, ISBT 14.0 [GC]):

Sensory Tests

Odor of Snow (Pass/Fail, ISBT 15.0):

Appearance in Water (Pass/Fail, ISBT 16.0):

Odor & Taste in Water (Pass/Fail, ISBT 16.0):

Comments: ** Odor of snow test requires a 20 lb. tank sample

Supplemental Tests

Hydrogen Cyanide (HCN, ppm v/v by ISBT SM-1.0, [GC]):

Vinyl Chloride (ppm v/v by ISBT SM-2.0 [GC]):

Ethylene Oxide (ETO, ppm v/v by ISBT 11.0 [GC]):

Comments:

Result	M.D.L.
99.99+	99.00
nd	1
3.6	1
38	1
nd	1
nd	0.5
nd	0.5
nd	0.5
nd	0.5
nd	2
nd	2
nd	0.25
0.7	0.1
0.5	0.1
0.1	0.1
0.4	0.1
nd	0.05
nd	0.1
nd	2
nd	0.01
nd	0.05
**	na
pass	na
pass	na
nd	0.2
nd	0.1
nd	0.1

Sample ID: Reliant Processing

ALI Track No.: 5184

Speciated Volatile Hydrocarbons (VHC, ppm v/v by ISBT 10.1)

	Result	M.D.L.
Ethane:	trace	0.1
Ethylene:	nd	0.1
Propane:	trace	0.1
Propylene:	nd	0.1
Isobutane:	nd	0.1
n-Butane:	nd	0.1
Butene:	nd	0.1
Isopentane:	nd	0.1
n-Pentane:	nd	0.1
Hexanes +:	trace	0.1

Comments: Peak ID based upon t_r match against target analyte standards. Note: Methane results reported on pg 1.**Speciated Volatile Sulfur Compounds (VSC, ppm v/v by ISBT 14.0)**

	Result	M.D.L.
Hydrogen Sulfide (H ₂ S):	nd	0.01
Carbonyl Sulfide (COS):	nd	0.01
Methyl Mercaptan:	nd	0.01
Ethyl Mercaptan:	nd	0.01
Dimethyl Sulfide:	nd	0.01
Carbon Disulfide:	nd	0.01
t-Butyl Mercaptan:	nd	0.01
Isopropyl Mercaptan:	nd	0.01
n-Propyl Mercaptan:	nd	0.01
Methyl Ethyl Sulfide:	nd	0.01
2-Butyl Mercaptan:	nd	0.01
i-Butyl Mercaptan:	nd	0.01
Diethyl Sulfide:	nd	0.01
n-Butyl Mercaptan:	nd	0.01
Dimethyl Disulfide:	nd	0.01
Unknown VSC:	nd	0.01

Comments: Peak ID based upon t_r match against target analyte standards. Note: SO₂ + TSC* results reported on pg 1.**Speciated Volatile Oxygenates (VOX, ppm v/v, by ISBT 11.0)**

Dimethyl Ether:	nd	0.1
Diethyl Ether:	nd	0.1
Propanal:	nd	0.1
Acetone:	nd	0.1
Methanol:	nd	0.1
t-Butanol:	nd	0.1
Ethanol:	nd	0.1
Isopropanol:	nd	0.1
Ethyl Acetate:	nd	0.1
Methyl Ethyl Ketone:	nd	0.1
2-Butanol:	nd	0.1
n-Propanol:	nd	0.1
Isobutanol:	nd	0.1
n-Butanol:	nd	0.1
Isoamyl Acetate:	nd	0.1
Unknown VOX:	nd	0.1

Comments: Peak ID based upon t_r match against target analyte standards. Acetaldehyde & Ethylene Oxide results reported on pg. 1.

M.D.L. = report detection limit (for quantitation). tr = Trace amount less than the report detection limit was observed. nd = indicates the impurity was not detectable and below the report detection limit. -- = test not performed. na = not available. L.T. = less than the amount specified. G.T. = greater than the amount specified. % = percent. ppm = parts per million. ppb = parts per billion. v/v = volume analyte/volume sample. w/w = weight analyte/weight sample. (result) indicates the result was obtained by the method listed within brackets. TSC* = ISBT total sulfur content excluding SO₂. Unit Conversions: 1 ppm v/v = 1 μ L/L = 1,000 ppb = 0.0001% v/v.

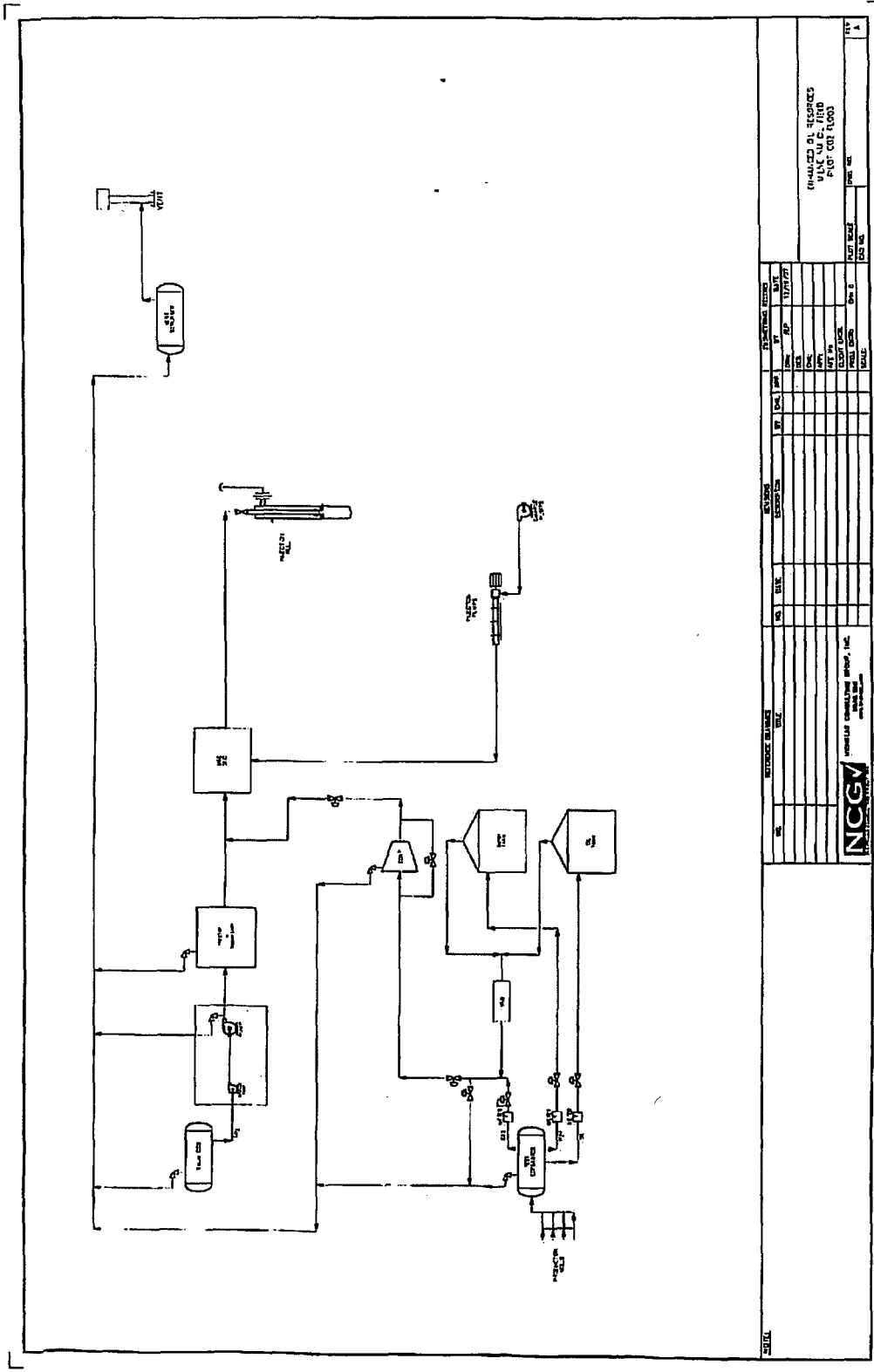
Report Summary: Customer request for full ISBT LCO₂ test program. This sample meets ISBT purity guidelines for beverage-grade LCO₂.

Reviewed By,

Joseph Angeloni

Joseph Angeloni-Laboratory Director.

Attachment D



Printer:
1625 N. French Dr., Hobbs, NM 88240
Phone: (505) 393-6161 Fax: (505) 393-0720

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-145
Permit 70145

Change of Operator

Previous Operator Information

OGRID: 11181
Name: J CLEO THOMPSON
Address: 325 N ST PAUL STE 4300
Address:
City, State, Zip: DALLAS, TX 75201

New Operator Information

Effective Date: 1/1/2008
OGRID: 257420
Name: EOR OPERATING COMPANY
Address: One Riverway, Suite 610
Address:
City, State, Zip: Houston, TX 77056

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information on this form and the certified list of wells is true to the best of my knowledge and belief.

Previous Operator

Signature: Vonda Freeman
Printed Name: Vonda Freeman
Title: Agent
Date: 2/22/08 Phone: (432) 550-8887

New Operator

Signature: [Signature]
Printed Name: W. Kyle Willis
Title: Vice President
Date: 2/22/2008 Phone: 832-485-8502

NMOCD Approval

Electronic Signature: Chris Williams, District 1
Date: February 22, 2008

May 27, 2004

Office

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Ave., Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

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Minerals and Natural Resources

OIL CONSERVATION DIVISION

APR 07 2008 1220 South St. Francis Dr.

Santa Fe, NM 87505

HOBBS OGD

WELL API NO.

30-041-00255

5. Indicate Type of Lease

STATE ☐ FEE ☒

6. State Oil & Gas Lease No.

257420

7. Lease Name or Unit Agreement Name

MILNESAND UNIT

8. Well Number

MSU # 58

9. OGRID Number

257420

10. Pool name or Wildcat

MILNESAND (SAN ANDRES)

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☐ Other INJECTION

2. Name of Operator

EOR OPERATING COMPANY

3. Address of Operator

ONE RIVERWAY, SUITE 610, HOUSTON, TX 77056

4. Well Location

Unit Letter A : 660 feet from the NORTH line and 660 feet from the EAST line

Section 13

Township 8S

Range 34E

NMPM

County ROOSEVELT

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

4254' GL

Pit or Below-grade Tank Application ☐ or Closure ☐

Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____

Pit Liner Thickness:

mil

Below-Grade Tank: Volume

bbls; Construction Material

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐TEMPORARILY ABANDON ☐ CHANGE PLANS ☐PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐OTHER: ADD PERFS, STIMULATE INJECTION WELL ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐COMMENCE DRILLING OPNS. ☐ P AND A ☐CASING/CEMENT JOB ☐OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

START DATE: 4/10/08

- 1.) RU, POOH W/TBG & EXISTING PKR. RIH W/ BIT & SCRAPER TO BOTTOM & CLEAN OUT FILL.
- 2.) RIH W/PKR & PLUG, TEST CSG. IF CSG NEEDS REPAIR. LOCATE HOLE & CEMENT SQZ. DRILL OUT CEMENT.
- 3.) ADD PERFORATION 4536'-4646' 4JSPF.
- 4.) STIMULATE PERFORATIONS W/ 12,000 GALS OF 15% HCL ACID.
- 5.) RIH W/ NEW 2 3/8" IPC TBG & NEW 4 1/2" HES G6 PKR. SET PKR @ APPROXIMATELY 4000'.
- 6.) CIRCULATE PACKER FLUID. SET PKR & TEST ANNULUS TO 500' DCI
- 7.) NIPPLE UP WELL HEAD. RD, MOVE OFF PULLING.
- 8.) (4 1/2", 9.5# CGS @ 4696', PERFS 4536'-4646')

"CONDITION FOR APPROVAL" Approval for Drilling only. CANNOT Inject into the wellbore without an Injection order approved by the Santa Fe OCD Office

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOC guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

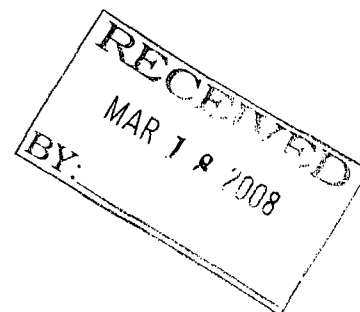
SIGNATURE MS TITLE Sr. Well Operations Supervisor DATE 4/4/08Type or print name: Lawrence A. Spittler, Jr. E-mail address: lspittler@enhancedoilres.com Telephone No.: 432-687-0303

For State Use Only

APPROVED BY: Chris Williams TITLE OC DISTRICT SUPERVISOR/GENERAL MANAGER DATE APR 16 2008

Conditions of Approval (if any):

FREEDOM NEWSPAPERS OF NEW MEXICO
PORTALES NEWS-TRIBUNE
P.O. BOX 848
PORTALES, NM 88130
(505) 356-4481
March 12, 2008



ENHANCED OIL RESOURCES, INC.
ONE RIVERWAY, SUITE 610
HOUSTON, TX 77056

ACCT NO 861017

LEGAL # 6734 PO

LEGAL NOTICE

DATES RUN:	# OF LINES	RATE	CHARGE
March 12, 2008	33	1.100	36.30
	0	1.100	0.00
	0	1.100	0.00
	0	1.100	0.00
	0	1.100	0.00
	0	1.100	0.00
	0	1.100	0.00
	0	1.100	0.00
AFFIDAVIT FEE	1	21.00	21.00
TEAR SHEET FEE	0	1.00	0.00
SALES TAX			4.26
TOTAL		TOTAL	<u>61.56</u>

ADVERTISING DUE AND PAYABLE 15 DAYS AFTER BILLING DATE.
A 1 1/2% FINANCE CHARGE WILL BE ADDED ON ALL BALANCES OVER
30 DAYS.

AFFIDAVIT OF LEGAL PUBLICATION

LEGAL # 6734

STATE OF NEW MEXICO
COUNTY OF CURRY:

Terri Ann Gutierrez, being duly sworn, says:
That she is the Legal Clerk of
The Portales New-Tribune, a daily
Newspaper of general circulation,
published in English at Clovis,
said county and state, and that the
hereto attached

LEGAL NOTICE

was published in said Portales New-Tribune,
a daily newspaper duly
qualified for that purpose within
the meaning of Chapter 167 of the
1937 Session Laws of the State of
New Mexico for 1 consecutive
days/weeks on the same days as follows:

First Publication: March 12, 2008
Second Publication:
Third Publication:
Fourth Publication:

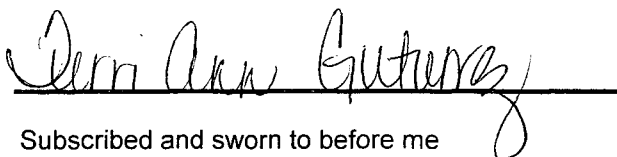
Legal 6734
March 12, 2008

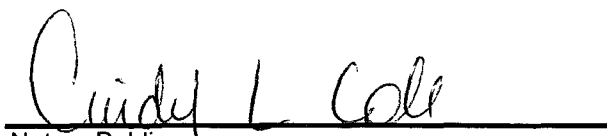
LEGAL NOTICE

EOR Operating Company
200 N. Loraine
Suite 1440
Midland, TX 79701
(Contact: Jim Skurner
(832) 485-8500)

Permit Application
CO₂ Water Injection Well
Milnesand Unit #58, 660
FNL & 660 FEL T8S
R34E S13 Roosevelt
County San Andres
Formation 4536-4646 ft.
600 MCFD/300 BWPD
maximum injection rate
2000 psi maximum injection
pressure.

Interested parties must
file objections or requests
for hearing within 15 days
to the Oil Conservation
Division, 1220 South St.
Francis Dr. Santa Fe
New Mexico 87505.


Subscribed and sworn to before me
March 12, 2008


Notary Public
My Commission Expires: NOVEMBER 7, 2009



OFFICIAL SEAL
CINDY L. COLE
NOTARY PUBLIC - STATE OF NEW MEXICO

My commission expires _____

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

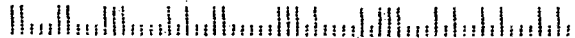
• Sender: Please print your name, address, and ZIP+4 in this box

Enhanced Oil Resources
Jim Skurner
One Riverway Ste. 610
Houston, TX 77056

MAR 07 2008

USPS

CO27



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Orbrie Luman
P.O. BOX 100
Milnesand, NM 88125

COMPLETE THIS SECTION ON DELIVERY

A. Signature

x *Orbrie Luman*

☐ Agent

☐ Addressee

B. Received by (Printed Name)

C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes

If YES, enter delivery address below: ☐ No

3. Service Type

☒ Certified Mail

☐ Express Mail

☒ Registered

☐ Return Receipt for Merchandise

☐ Insured Mail

☐ C.O.D.

4. Restricted Delivery? (Extra Fee)

☐ Yes

2. Article Number

(Transfer from service label)

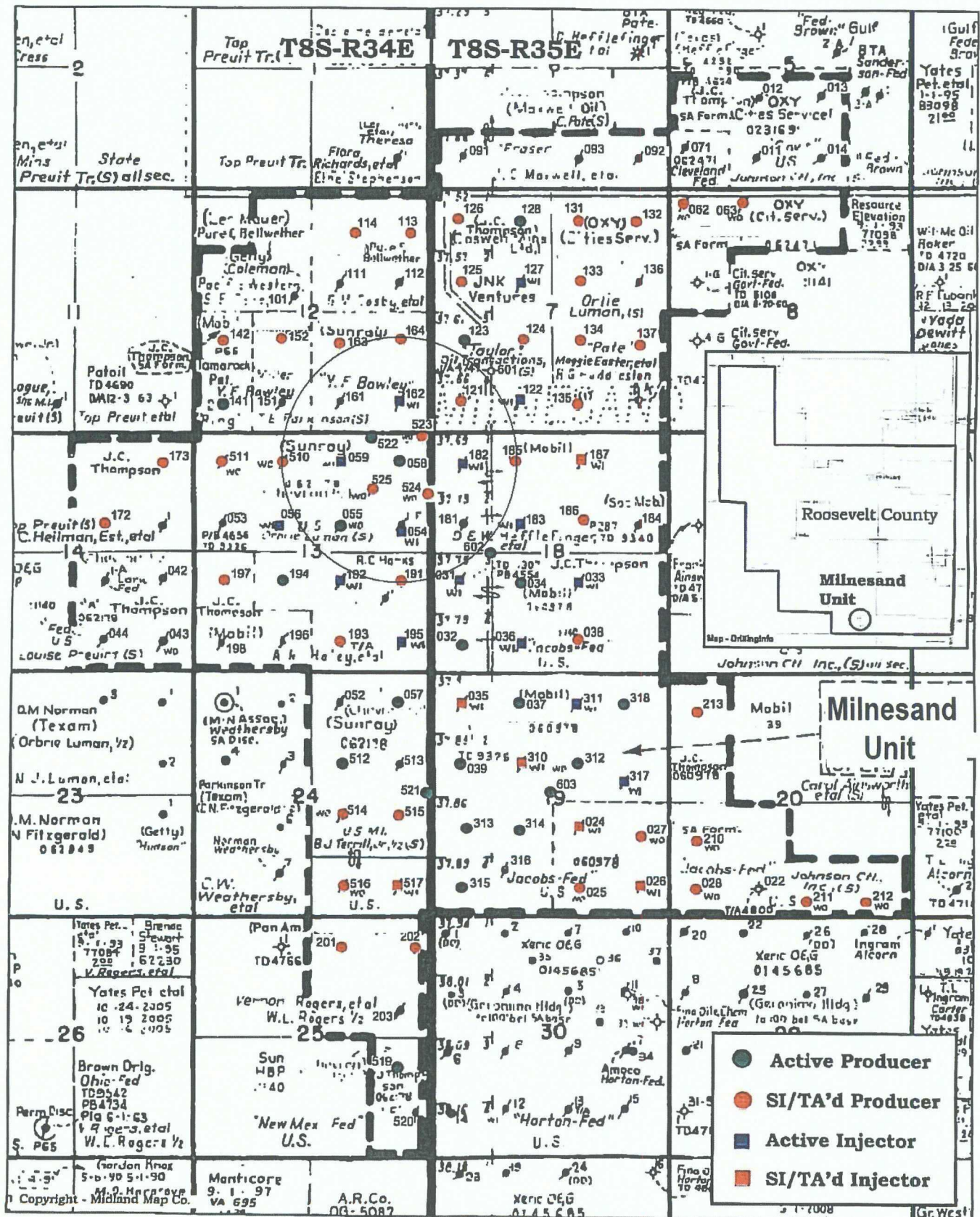
7006 0810 0002 5883 0307

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

Area Map



4

EOR Operating Company														
Area of Review Wells														
Source	Entity Type	Lease Name	Well Number	API	Type	Depth	PBTO	Perforation Upper	Perforation Lower	Status	Surface Latitude	Surface Longitude	Date Completion	Date Abandonment
P1	WELL	MILNESAND UNIT	162	30041002430000	Injector	4760		4533	4826	ACTIVE	33.63018	-103.41072	11/28/1982	
P1	WELL	MILNESAND UNIT	184	30041002450000	Producer	4780		4578	4838	INACTIVE - TA	33.63381	-103.41073	12/17/1982	
P1	WELL	MILNESAND UNIT	54	30041002610000	Injector	4693		4582	4830	ACTIVE	33.62273	-103.41082	12/6/1981	
P1	WELL	MILNESAND UNIT	55	30041002830001	Producer	4697		4555	4825	ACTIVE	33.62294	-103.41458	12/5/1982	
P1	WELL	MILNESAND UNIT	56	30041002850000	Injector	4697		4580	4823	ACTIVE	33.62857	-103.41502	4/11/1982	
P1	WELL	MILNESAND UNIT	510	30041002950000	Producer	4688		4577	4820	INACTIVE - TA	33.62859	-103.41637	4/23/1982	
P1	WELL	MILNESAND UNIT	58	30041002650000	Producer	4700		4559	4830	ACTIVE	33.62855	-103.41098	3/31/1982	
P1	WELL	MILNESAND UNIT	121	30041002690000	Producer	4870		4502	4838	INACTIVE - TA	33.63018	-103.40638	6/18/1982	
P1	WELL	MILNESAND UNIT	181	30041000130000	Producer	4885		4674	4830	INACTIVE - TA	33.61634	-103.41057	8/20/1981	
P1	WELL	MILNESAND UNIT	182	30041001310001	Injector	9310	4769	4543	4812	ACTIVE	33.62855	-103.40034	6/10/1982	
P1	WELL	MILNESAND UNIT	181	30041000890000	Producer	4719		4828	4854	INACTIVE - PA	33.62282	-103.40829	7/27/1981	7/1/2001
P1	WELL	MILNESAND UNIT	522	30041206470000	Producer	4750		4529	4825	ACTIVE	33.62813	-103.4113	7/21/1982	
P1	WELL	MILNESAND UNIT	523	30041206480000	Producer	4716		4544	4819	ACTIVE	33.62811	-103.40883	7/22/1982	
P1	WELL	MILNESAND UNIT	524	30041206490000	Producer	4760		4553	4826	INACTIVE - TA	33.62462	-103.40878	7/8/1982	
P1	WELL	MILNESAND UNIT	825	30041206490000	Producer	4750		4548	4822	INACTIVE - TA	33.62491	-103.41278	7/29/1982	
P1	WELL	MILNESAND UNIT	185	30041100590000	Producer	4883		4573	4822	INACTIVE - TA	33.62856	-103.41228	5/8/1983	
P1	WELL	MILNESAND UNIT	181	30041002420000	Producer	4701		4545	4832	INACTIVE - PA	33.63074	-103.40500	10/18/1982	4/1/1990

Proposed Completion

KB: 4252'

GL: 4241'

Datum: KB, 11' above GL

Spud: 11-6-61

Milnesand Unit
Well # 162 WTW

Andy Chalker/12/7/2007

660' FSL & 660' FEL

SEC 12 - T8S - R34E Unit-P

Roosevelt County, NM

TOC @ surface

8-5/8" 24# J-55 STC @ 371'

4-1/2" 9.5# J-55 STC @ 4700'

TOC-4 1/2 @ 3906'

2-7/8" 6.5# J-55 @ 4461' - 199 SX

Permanent Pkr. @ - 4494"

Tubing

139 jts. - 2-1/16", 3.25#, J-55

Hydrill PT, IPC Tbg.

Chang over -

OD-2.33" X ID-1.59" X 12.0"

Packer-

National Oilwell Inj. Pkr.

OD-2.25" X ID - 1.0" X 22.5"

TOC @ (calc)

DV Tool @

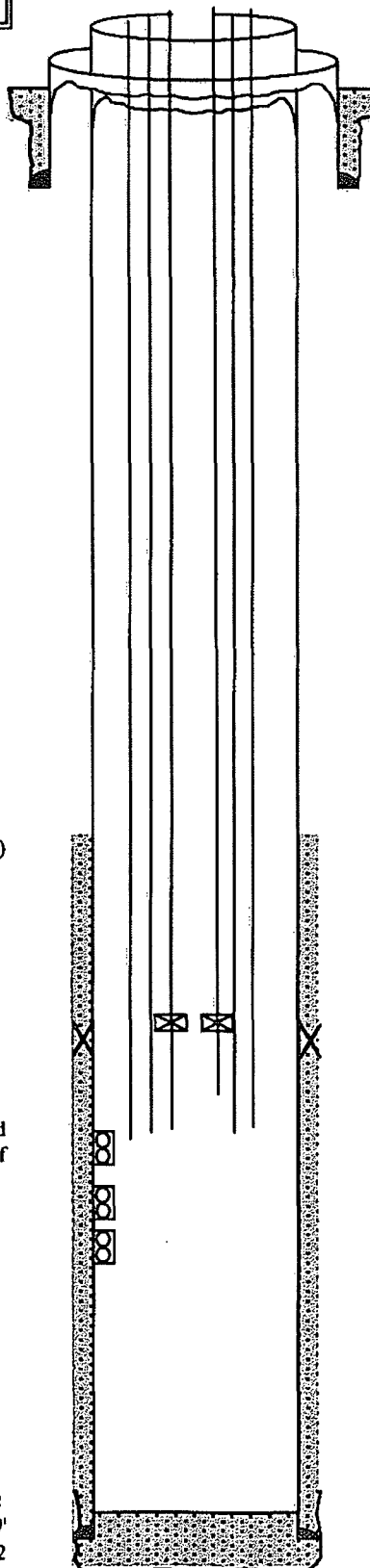
San Andras Perfs - 2 sof. 90° phased
4566' - 4628', 2spf

FC @
PBTD - 4669'
TD - 4702

2-1/16 Tbg. @ 4459.71'

XOVR @ 4460.71'

packer @ 4463'



Milnesand Unit
Well # 164

Location

1980' FSL & 660' FNL
SEC 12 - T8S - R34E
Roosevelt County, NM
Date: 12/1/1962

Elevation

KB: 4255 ft

TA'd CIBP@4495' 6/73

Casing Detail

TOC @ surface
8 5/8", 24# @ 353' 225sks
4-1/2", 9.5# @ 4700' 225sks

Tubing

2" tbg @ 4602'

Stimulation

2000 gals acid
20000 gals refined oil
20000# sand

Perforation Data

4576-4578'
4594-4596'
4602-4605'
4612-4613'
4620-4624'
4632-4636'

PBTD: 4670 ft
TD: 4700 ft

Proposed Completion

KB: 4247'
GL: 4236'
Datum: KB, 9' above GL
Spud: 11-6-61

Milnesand Unit
Well # 54 WTW

Andy Chalker/12/7/2007

2050' FNL & 660' FEL
SEC 13 - T8S - R34E Unit-H
Roosevelt County, NM

TOC @ surface

8-5/8" 24# J-55 STC @ 366'

4-1/2" 9.5# J-55 STC @ 4662'

TOC-4-1/2 @ 3950'

2-7/8" 6.5# J-55 @ 4465' - 300 SX

Permanent Pkr. @ - 4669"

Tubing

2-1/16", 3.25#, J-55

ERW, 2R, 10R, 1J, IPC Tbg.

Chang over -

OD-2.33" X ID-1.0" X 12.0"

Packer

Model AD-1

OD-2.25" X ID - 1.0" X 22.5"

TOC @ (calc)

DV Tool @

San Andras Perfs - 2 spf, 90° phased

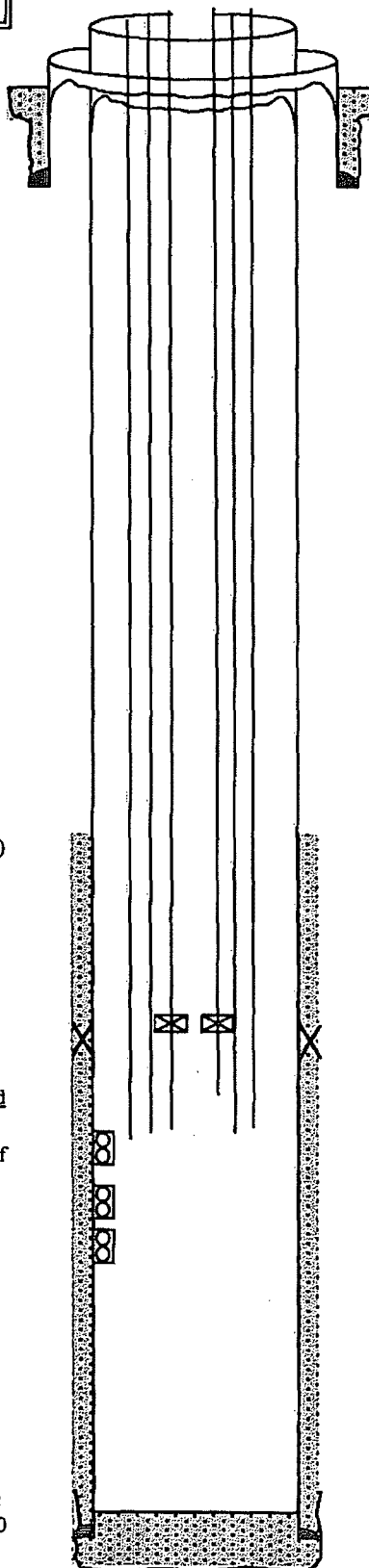
4552' - 4630', 2spf

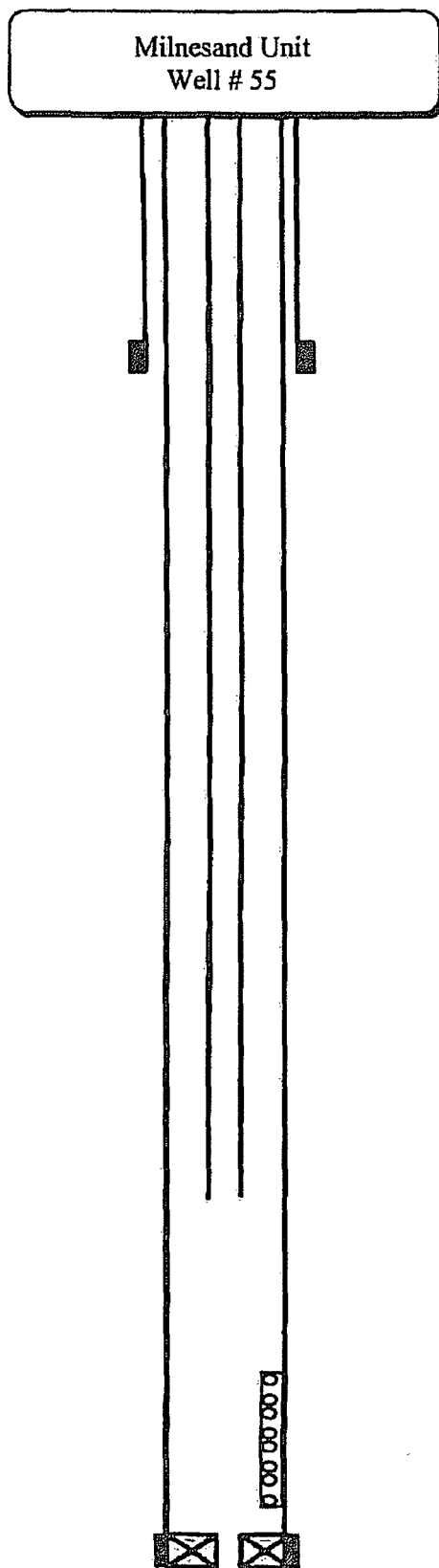
FC @
TD - 4670

2-1/16 Tbg. @ 4463.71'

XOVR @ 4464.71'

packer @ 4466.58'





Location

1980' FNL & 1980' FEL
SEC 13 - T8S - R34E
Roosevelt County, NM
Date: 2/7/1962

Elevation

KB: 4253 ft

Casing Detail

TOC @ surface
8 5/8", 24# @ 372' 225sks
4-1/2", 9.5# @ 4697' 200 sks

Tubing

2-1/16", 3.25# @ 4554'

Packer-

Baker "K" Model @ 4626'

Perforation Data

4555-4625'
4626-4654' - squeezed off

Stimulation

2000 gals acid
20000 gals refined oil
20000# sand

PBTD: 4626 ft
TD: 4648 ft

Proposed Completion

KB: 4260'

GL: 4250'

Datum: KB, 10' above GL

Spud: 3-25-62

Milnesand Unit
Well # 59 WTW

Andy Chalker/12/9/2007

660' FNL & 1980' FEL
SEC 13 - T8S - R34E Unit-B
Roosevelt County, NM

TOC @ surface

8-5/8" STC @ 363 w/360SX'

4-1/2" STC @ 4697' W/200 SX

Permanent Pkr.@4489'

2-7/8", 6.5#, J-55 @ 4485'

2-1/16, 10R, IJ, IPC @ 4454'

Tubing

137 jts. - 2-1/16", 10R, IJ, IPC

Packer-

2-1/16 X 2-7/8 Arrow Set

TOC @ (calc)

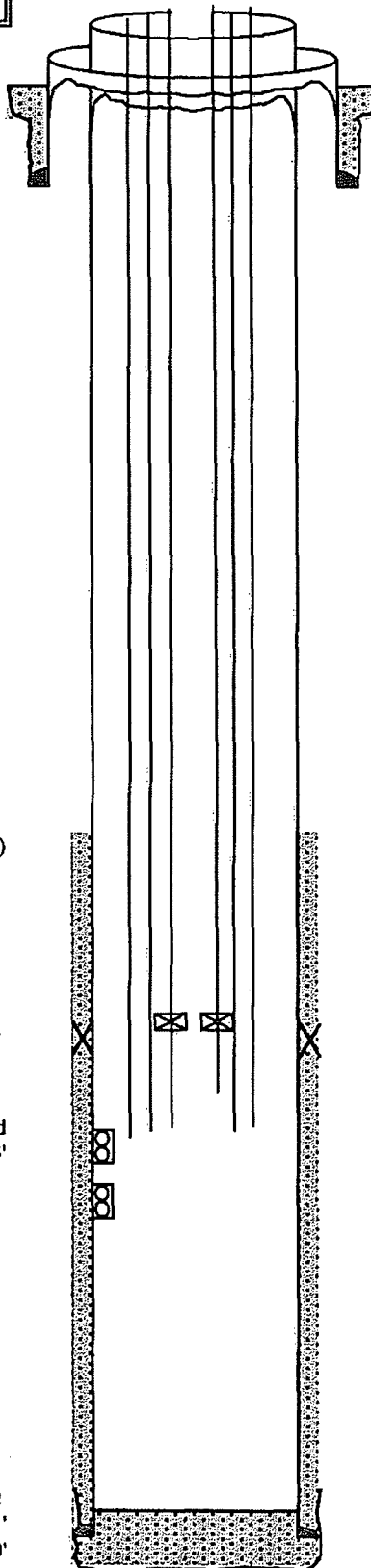
DV Tool @

San Andras Perfs - 2 sof. 90° phased
4580' - 4623'

FC @
PBSD - 4661'
TD - 4700'

2-1/16" Tbg. IPC @ 4454'

Arrow Set Pkr. @ 4457'



UNION TEXAS PETROLEUM

FIELD: Milnes and
 LEASE: Milnes and Unit WELL NO. 5-10
 DATE: 9/24/80 SPUDDED: 4-6-62 COMP 4-23-62
 ELEV: _____
 LOCATION: 660 ENL E 1980 FWL Sec. 13,
T-8-S, R-34-E, Roosevelt
County, New Mexico
 Logg. & R/N Inside csg.

24 # 8 5/8" CSG. of 371 W 1250 SX. Reg. 272 Cc Pls
12 1/2" HOLE TOC Cin. to Surf.

2 3/8" EVE 4.7# J-55 8rd.

Baker Tubing Anchor @ 4542

Perf. 4577-80, 4583-87, 4591-93, 4602-05, 4614-20
w/ 2 LSPF A/2000 gal. 15% & F/20,000 gal
+ 20,000#
1 PF 325 BOPD No wtr. GOR 4610

9.5 # 4 1/2" CSG. of 4699 W 1200 SX. Incr. Pp.
6 3/4" HOLE TOC 3690 T.S.
7 7/8" hole to 3909

TD 4700
 PBTD CO To 4666

Pulling Report of 9-12-80. Not yet received

WELL NAME: M-S-U 121 Meter #9869NMB
LOCATION: FSL & FWL, Sec 7-T8S-R35E
DATE: 5/29/93 FIELD: MSU CURRENT PROD: ---
DATE SPUDED: 5/30/62 DATE COMPLETED 6/11/62

POLISH ROD

1 1/2 x 18'

LINER

1 1/4 x

1 1/2 x 12'

ROD SUBS

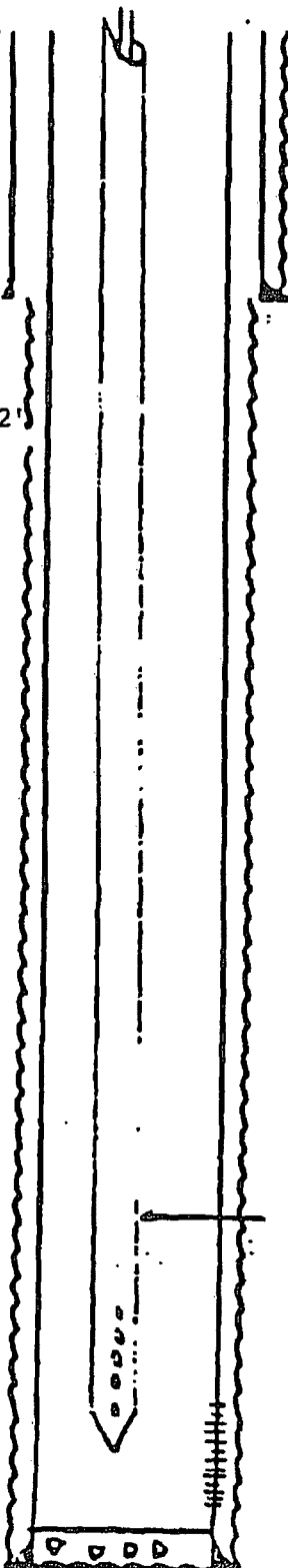
1-3/4" x 8'

3-3/4" x 4'

RODS

180-3/4"

2 x 1 1/2 x 12'
pump



PERMANENT DATUM 4241' LOG MEASUREMENTS
FROM KB 4250', DF 4249' ABOVE PERMANENT DATUM

WELLHEAD: 900 Flange

8 5/8" 24 # CSG. SET AT 360' CMT. / 250' S

HOLE SIZE 11" TOP OF CMT. AT surface

PUMPING UNIT

114 Bethlehem 15 HP motor 54" stroke

TUBING

145 jts 2 3/8"

TA @ 4469'

3 jts tubing

SN @ 4562'

4' x 2 3/8" perf sub

31' MA @ 4597'

4 1/2" 11.6 # CSG. SET AT 4760' CMT. / 250' SX

HOLE SIZE 7 7/8" TOP OF CMT AT 2765'

NEW PERFS: 4608'- 10', 4622'- 25', 4628'- 38', 4554'- 64',
4588'- 93', 4598'- 4608', 4502'- 08', 4536'- 44',
4544'- 54'. 273 holes, 4 spf.

OLD PERFS: 4586'- 4614'; 4 spf.

TD

PBTD 4655'

WELL NAME: MILNESAND (S.A.) UNIT WELL # 191
LOCATION: 660' F.E.L. + 1980' F.S.L. SEC 13, T. 8. S., R. 34. E., ROOSEVELT N.M.
DATE: 6/3/77 FIELD: MILNESAND CURRENT PROD: _____
DATE SPUDDED: 7/15/61 DATE COMPLETED 8/1/61

PERMANENT DATUM 4238' LOG MEASUREMENTS
FROM _____, _____ ABOVE PERMANENT DATUM

8 5/8" 24 # CSG. SET AT 428' CMT. / 300 SX.

HOLE SIZE 12 1/4" TOP OF CMT. AT SURFACE

'PERF: 4524-66'; 4580-4600'

TREAT: 1000 GAL. MCA + 250 GAL GEL. ACID +
4000 GAL NE ACID

(7/63) FRAC W/ 20,000 GAL. LEASE OIL + 20,000 #
20/40 SN. AIR = 22.4 BPM @ 3400 #

O.P.T. 156 B.O. + 0 B.O. ON 32/64" CC.

2" EVE PROD. TUB. W/ ROD PUMP

4 1/2" 11.6 # CSG. SET AT 4718' CMT. / 200 SX.

HOLE SIZE 7 7/8" TOP OF CMT AT _____

PAY ZONE: 4524 ' TO 4600 '

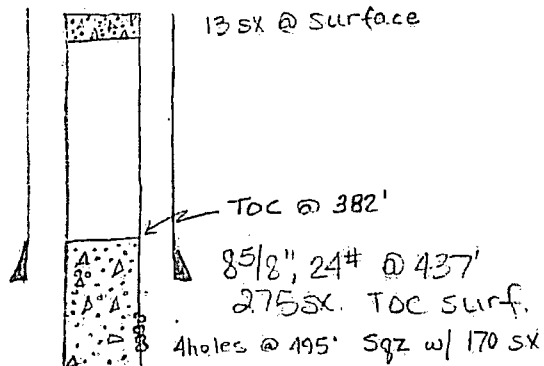
TD 4720' PB 4698'

EL CHORRO EXP. INC
HALEY #1

MILNESAND UNIT #181
 1980' FNL & 660' FWL
 "E" Sec. 18 T8S R34E
 Roosevelt Co., N M

7/02
 CKS

22-141 50 SHEETS
 22-142 100 SHEETS
 22-144 200 SHEETS



TD 4720'
 Comp 7/61 PA'd 7/01
 Elev 4236'

10 SX cement
 1646' cmt Retainer
 84 SX cement

4526-64
 79-84
 88-91
 4595-4600
 4602-08
 4613-54
 4 1/2", 9.5# @ 4719'
 TD 4720' 200 SX TOC 3850 (TS)

Proposed Completion

KB: 4252'

GL: 4241'

Datum: KB, 11' above GL

Spud: 3-58

Milnesand Unit
Well # 182 WTW

Andy Chalker/12/7/2007

660' FNL & 660' FWL
SEC 18 - T8S - R35E Unit-d
Roosevelt County, NM

TOC @ surface

10-3/4" STC @ 436'

7-5/8" STC @ 4950'

5-1/2" Liner @ 4782'-9303'

4-1/2" 11.6#-J-55 @ 4500'

2-3/8" IPC-J-55 @ 4496'

Tubing

141 jts. - 2-3/8", J-55

Packer-

4-1/2" X 2-3/8" AD-1

TOC @ (calc)

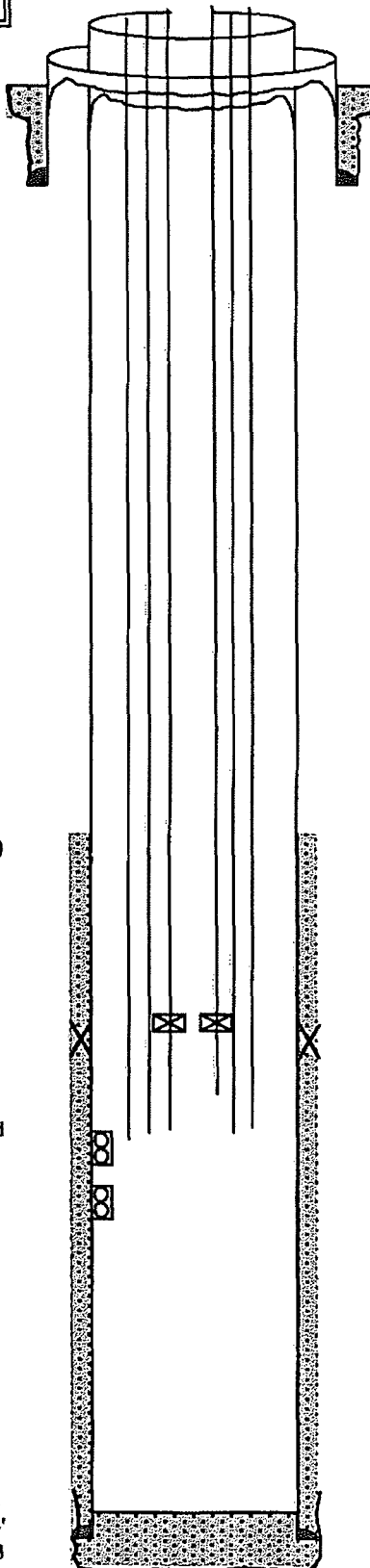
DV Tool @

San Andras Perfs - 2 sof. 90° phased
4543' - 4578' and 4594' - 4612'

FC @
PBTD - 4744'
TD - 9303

2-3/8" Tbg. @ 4496'

AD-1 Pkr. @ 4500'





Current Well bore Diagram

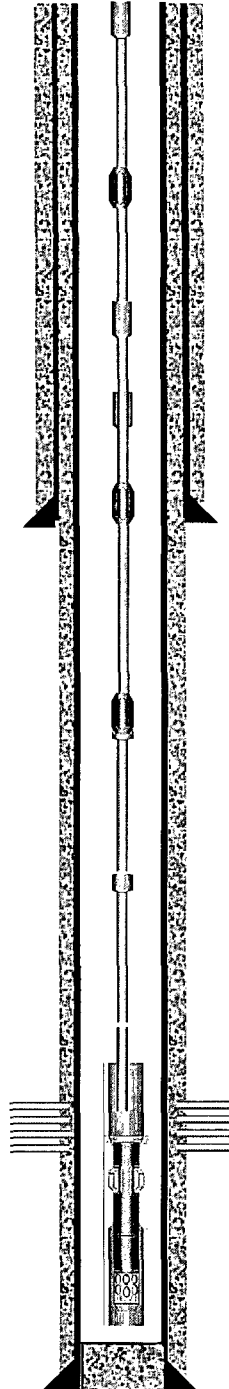
MILNESAND #522
30-041-20647
90' FNL & 1360' FEL
SEC. 13, T8S R34E
ROOSEVELT Co., NM
Completion date: 5/82

5/82: 4525'-4529' acidized w/5700 gals 15% NEFE acid

8 5/8", 24#, K-55 csg @ 378'
300 sxs "C" TOC SURFACE
Hole size 12 1/4"

Perforations: (1JSPF)
4529'-4531'
4538'-4540'
4547'-4556'
4581'-4584'
4509'-4599'
4603'-4605'
4603'-4625'

TD 4750'
51/2", 14#, K-55 csg @ 4750'.
1290 sxs "C" TOC 2110'(TS)
Hole size 7 7/8"



ELEV: 4247 G.L.

2 7/8" tbg @ 4519'

Well Name & Number:	522	Lease:	MILNESAND	
County or Parish:	ROOSEVELT	State/Prov.	NM	Country:
Prepared By:	L.A.SPITTLER, JR.	Last Revision Date:	1/16/2008	



Current Well Bore Diagram

MILNESAND #525
30-041-20650
1260' FNL & 1300' FEL
SEC. 13, T8S R34E
ROOSEVELT Co., NM
Spud date 5/23/82

6/82: Treated perms w/ 5100 gals 15% NEFE acid
7/82: Treated perms w/ 20,000 gals & 50,000 gals # 20/40

Hole in weld below bell nipple.

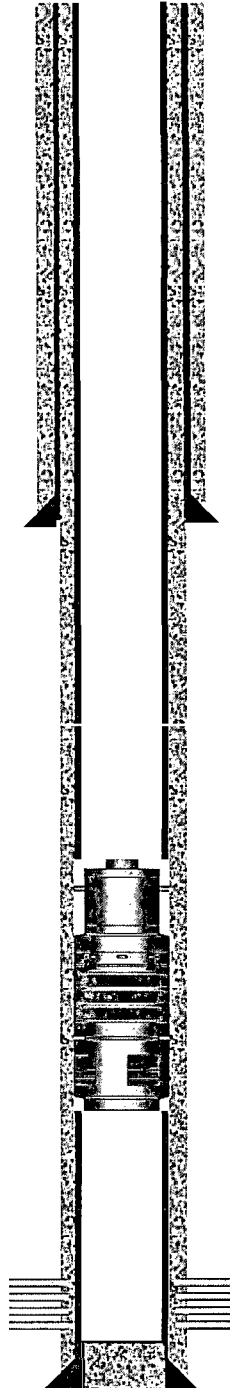
ELEV: 4244.5' G.R.

8 5/8", 24# csg @ 408'
220 sxs "C" TOC SURFACE
Hole size 12 1/4"

5 1/2" 14#, CIBP @ 4500'.

Perforations: (1JSPF)
4549'-4552'
4555'-4562'
4579'-4580'
4582'-4584'
4587'-4592'
4595'-4604'
4620'-4622'

TD 4750'
5 1/2", 14# csg @ 4750'.
700 sxs "H" TOC 2750'
Hole size 7 7/8"



Well Name & Number:	525	Lease:	MILNESAND	
County or Parish:	ROOSEVELT	State/Prov.	NM	Country:
Prepared By:	L.A. SPITTLER, JR.	Last Revision Date:	1/9/2008	



Current Well Bore Diagram

MILNESAND #524
 30-041-20649
 1360' FNL & 90' FEL
 SEC. 13, T8S R34E
 ROOSEVELT Co., NM
 Spud date 5/14/82

ELEV: 4239.7' G.R.

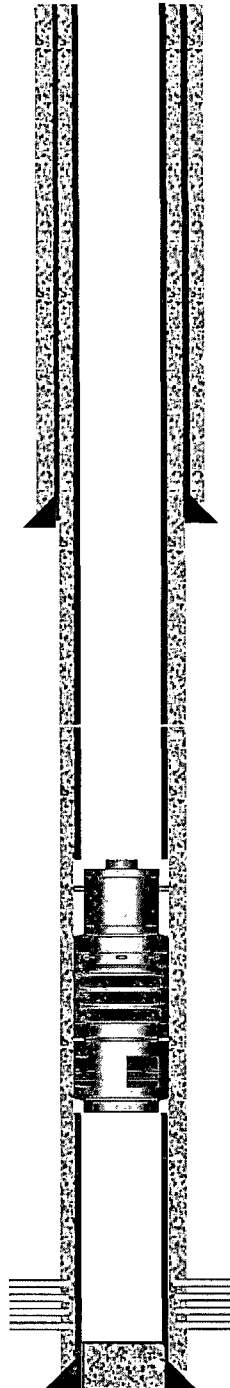
5/82: Treated perms w/ 4000 gals of acid

8 5/8", 24# csg @ 407'
 300 sxs "C" TOC SURFACE

5 1/2" 14#, CIBP @ 4525'.

Perforations: (1JSPF)
 4553'-4561'
 4580'-4586'
 4593'-4608'
 4624'-4626'

PBTD 4740'
 TD 4750'
 5 1/2", 14# csg @ 4750'.
 700 sxs "H" TOC 2176



Well Name & Number:	524	Lease:	MILNESAND	
County or Parish:	ROOSEVELT	State/Prov.	NM	Country:
Prepared By:	L.A.SPITTLER, JR.	Last Revision Date:	1/9/2008	



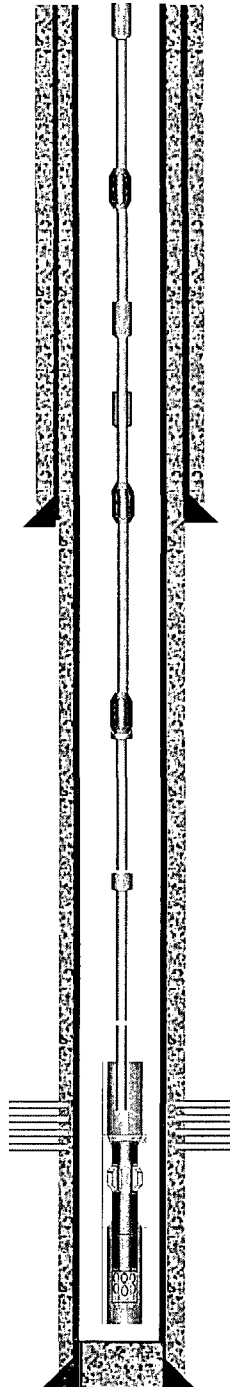
Current Well Bore Diagram

MILNESAND #523
 30-041-20648
 90' FNL & 90' FEL
 SEC. 13, T8S R34E
 ROOSEVELT Co., NM
 Completion date: 7/82

ELEV: 4238.6' G.R.

5/82: 4544'-4619' 4100 gals 15% NEFE acid
 7/82: 4544'-4619' 20,000 gals acid & 50,000 # 20/40 sand
 1/94: 4240'-4286' 3000 gals 15% NEFE acid

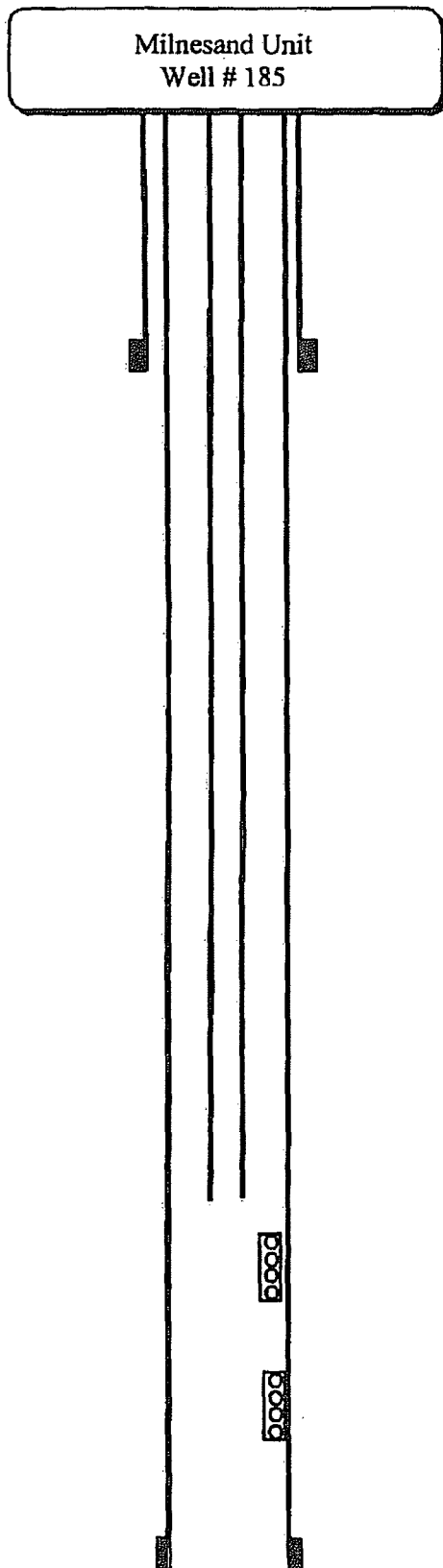
8 5/8", 24# csg @ 395'
 300 sxs "C" TOC SURFACE
 Hole size 12 1/4"



Perforations: (1JSPF)
 4240'-4286' (1/1994)
 4544'-4545'
 4553'-4558'
 4578'-4579'
 4583'-4586'
 4591'-4593'
 4598'-4599'
 4613'-4614'
 4618'-4619'

PBTD 4702'
 TD 4750'
 5 1/2", 14# csg @ 4750'.
 700 sxs "H" TOC 2330'(TS)
 Hole size 7 7/8"

Well Name & Number:	523	Lease:	MILNESAND	
County or Parish:	ROOSEVELT	State/Prov.	NM	Country:
Prepared By:	L.A.SPITTLER, JR.	Last Revision Date:	1/16/2008	



Location

660' FNL & 1903' FWL
SEC 18 - T8S - R35E
Roosevelt County, NM
Date: 4/16/1963

Elevation

KB: 4249 ft

Casing Detail

TOC @ surface
8 5/8", 24# @ 356' 225sks
4-1/2", 10.5# @ 4699' 200sks

Tubing

2 3/8" tbg @ 4673'

Stimulation

1000 gals 15% acid
20000 gals refined oil
20000# 20-40 sand

Perforation Data

4573-4586'
4604-4622'

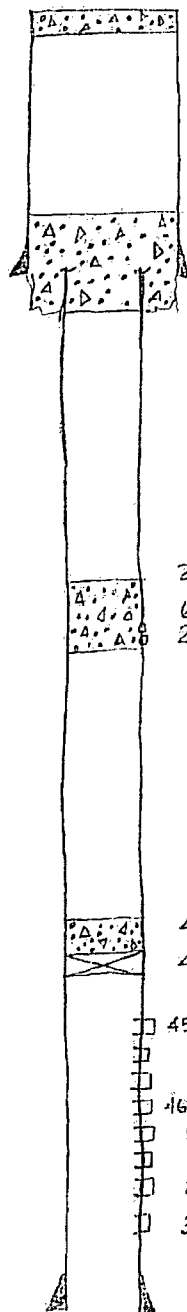
PBTD: 4632 ft
TD: 4700 ft

MILNESAND UNIT #161

660' FSL & 1980' FEL
 0" Sec 12 T8S R34E
 Roosevelt Co., NM

7/02
 CKS

22-141 50 SHEETS
 22-142 100 SHEETS
 22-144 200 SHEETS



10 SX @ Surface

TD 4700'
 Comp 10/62 PA'd 4/90
 Elev

8 5/8" 24# @ 355'
 225 SX

355' Cut and Pull 4 1/2" CSG
 Spot 35 SX cmt 409'-tagged @ 295'

2050' tag cement
 6 holes @
 2150' sqz 35 SX

4465-4500 cement
 4500' CIBP

4585-87
 93-95
 98-1600
 1606-08
 16-18
 20-22
 25-27
 30-32

4 1/2" 9.5# @ 4691'
 TD 4700'
 200 SX

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Wednesday, April 30, 2008 12:00 PM
To: 'Jim Skurner'
Cc: Ezeanyim, Richard, EMNRD; Warnell, Terry G, EMNRD; Brooks, David K., EMNRD
Subject: RE: SWD_CO2 injection application from EOR Operating Company: Milnesand Unit #58 API No. 30-041-00255

Hey Jim:

Thanks for this. It looks like every concern was covered - we will set some pressure limits for water injection and for CO2 injection on this permit and you guys can run some more representative Step Rate Tests spaced around this Unit before coming in for the CO2 flood certification hearing. (don't want to limit your injection pressure too much because it might damage your injection test results?).

As I understand it, this CO2 will not be anthropogenic and EOR is not considering this to be any type of carbon sequestration project?

No word from Chris or Wayne (figured they would not comment), so I will release this permit - probably Friday or Monday, I am the hearing person tomorrow.

Let me know any other concerns you have as I write this permit - we want the test to go well also.

Good luck with this.

William V. Jones PE
 New Mexico Oil Conservation Division
 1220 South St. Francis
 Santa Fe, NM 87505
 505-476-3448

From: Jim Skurner [mailto:jskurner@enhancedoilres.com]
Sent: Wednesday, April 30, 2008 11:23 AM
To: Jones, William V., EMNRD; Williams, Chris, EMNRD; Price, Wayne, EMNRD; Ezeanyim, Richard, EMNRD; Brooks, David K., EMNRD; Warnell, Terry G, EMNRD
Cc: rlongmire@enhancedoilres.com
Subject: RE: SWD_CO2 injection application from EOR Operating Company: Milnesand Unit #58 API No. 30-041-00255

Hello Mr. Jones,

Sorry for the slow reply but wanted to include our new Land Manager, Russell Longmire, on the e-mail who started this week. My answers are below to the questions. If I've missed one please advise. Thanks.

1. Yes, the person we noticed was Orbrie Luman the land owner of the proposed injection well site. We did not provide any additional literature on dangers of CO2 release in the area but can send that via registered mail if required.
2. The proposed injection well site is private land, federal minerals. Per contact with Gary Gourley in the Roswell, NM BLM office, the conversion to injection of an existing well is a sundry notice. He would prefer to have the notice filed once there is a signed & approved copy from the State OCD to make "it easier to track and prevent repetitive work" versus putting it into their system early under "pending"
3. The nearest residence is 1.25 miles from the proposed well and is the land owner noticed above.
4. Well injection pressure max was estimated using an approximate CO2 density of 43 lbm/ft³ which corresponds to roughly 120 deg. F. This represents a high-end temperature operating condition for the proposed location. The attached spreadsheet contains the rate projections graphs for the "low, expected &

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high" cases based off of the KinderMorgan scoping model which uses a San Andres Type curve response. On the second tab, in the spreadsheet is step-rate test data from the Milnesand Unit #182 well taken this winter which is 1320' from the proposed well. The test estimated a fracture gradient of 0.74 psi/ft. Please advise if I need to break out water injection versus CO2 injection wellhead limits on the application to further insure we stay below the fracture gradient until we can run a step-rate test on the proposed well.

5. Also attached is the printable version of the surface diagram. The diagram is not to scale and contains a good portion of the existing infrastructure in the field. Parts A-F represent the proposed CO2 injection, parts G&H are existing facilities and how they relate to the proposed well.
6. We will set the packer no more than 100' above the injection zone and have made changes to our well procedure
7. We will have the proposed well casing tested to State specifications prior to any injection and understand if it fails this test we cannot use it in the proposed project.

Best Regards,

Jim Skurner, P.E.

Manager Reservoir Engineering

Enhanced Oil Resources, Inc.

Bus. - (832) 485-8500 x505

Mob. - (713) 299-0267

Fax - (832) 485-8506

www.EnhancedOilRes.com

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]

Sent: Wednesday, April 23, 2008 12:30 PM

To: jskurner@enhancedoilres.com

Cc: Williams, Chris, EMNRD; Price, Wayne, EMNRD; Ezeanyim, Richard, EMNRD; Brooks, David K., EMNRD; Warnell, Terry G, EMNRD

Subject: SWD_CO2 injection application from EOR Operating Company: Milnesand Unit #58 API No. 30-041-00255

Hello Mr. Jim Skurner, P.E.:

This is my first formal reply to your application:

I have looked over your application for your proposed one well pilot CO2 injection project in the Milnesand San Andres Unit and have a few questions below.

Also, am copying Chris Williams and Wayne Price to make sure all bases are covered from their angles such as safety etc. Hopefully they will let me know ASAP if they see any problems - I will hold this a few days for their feedback and for your answers. EOR Operating will be continually working with Chris and Wayne or their personnel as the project gets started. I see that you noticed only one party in this application - can we assume that is the surface owner? So the State Land Office or the US BLM is not involved here at all? Is this surface owner aware of any dangers of possible CO2 releases in this area? Where is the nearest residence to this proposed injection well?

Background I found on this Project:

The Unit was approved in Case 4139 with R-3766 on May 28, 1969. The waterflood was approved by the Commission in Case No. 4140 with R-3770 on May 28, 1969. The Commission in Case No. 4433 with Order R-3770-A prohibited the use of Fresh Water as makeup fluid - apparently this area has or had LOTS of Devonian water available. If EOR will need fresh makeup water for any CO2 injection project - you will need to ask for R-3770-A to be rescinded.

Order R-3770 approved the use of 28 wells for injection. Apparently all but 12 of those original injection wells have been plugged. Administrative Orders No. WFX-440, 464, 519, and 574 approved a total of another 10 wells for injection. I am attaching a list of wells operated by EOR Operating Company in this Unit, showing the production wells and the wells that are approved for injection and have listed the maximum pressure allowable in the right hand column. The older orders did not limit injection pressure - the Division decided years ago that these older injection permits are grandfathered as to pressure limits. However, if and when EOR Operating comes to hearing to certify this Unit as a bigger scale CO2 injection project, then pressure limits would be imposed in any resulting order. Please let me know if any info on this attachment is inconsistent with what you understand.

As you know, our policy is to first impose a surface injection pressure limit for water injection of 0.2 psi per (foot - to the top of the injection zone). The operators then run step rate tests sometimes accompanied with injection profiles to justify increased pressure limits. CO2 density is

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obviously less than water and other CO2/Water/Produced gas injection projects impose different pressure limits depending on what Fluid is being injected.

Your application asks for 2000 psi as the maximum surface pressure needed for CO2 injection into this well. Please expound on why this pressure is needed and whether that much pressure poses a risk for fracturing. Also, what maximum surface injection pressure is needed under only water injection into this well and why? What is the expected schedule of injection of CO2 alternating with Water?

The CO2 facility diagram with the application is so small it is difficult to read - would you please send by email or mail a bigger version and send a written explanation of what is happening with this little plant?

The OCD policy is to require the injection packer to be set within 100 feet of the top of the injection interval and the rathole below the injection interval to be limited in length also. The goal is to ensure isolation of injection into only the permitted injection interval and to enable a maximum length of tubing-casing annulus to monitor for competence or "integrity". Your application shows the injection packer to be set approximately 500 feet above the injection interval - the order will specify only 100 feet maximum unless you have some valid reason otherwise?

This Unit is full of very old wellbores - but cement tops appear to be above the San Andres injection interval in all wells. This well picked for injection of CO2 seems to have had casing repairs in the past. All injection wells must have casing that can withstand 500 psi over a column of water for 30 minutes or as the district inspectors direct. I am sure you are aware that if this casing cannot hold pressure, another well will be required for this trial injection project - and that would require another C-108 form and application to inject.

Congratulations on being the operator of many old wells and also being in compliance with the Division's Rule 40 - must have took some work.

Can't think of anything else - let me know answers to the above concerns as soon as is practical.

Regards,

William V. Jones PE
New Mexico Oil Conservation Division
1220 South St. Francis
Santa Fe, NM 87505
505-476-3448

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4/30/2008

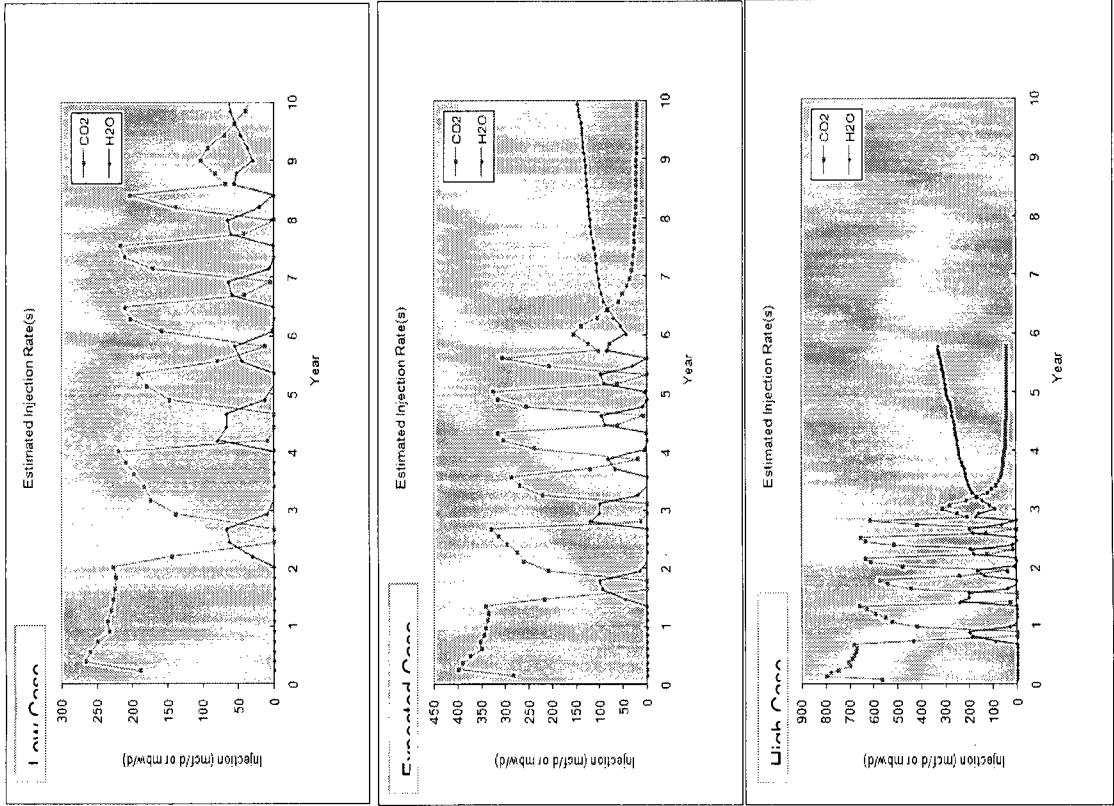
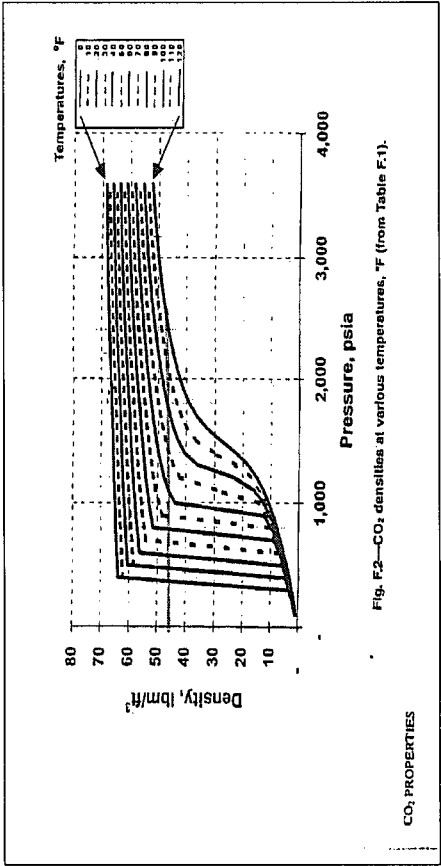
Additional Attachments

EOR Operating Company
Milnesand Unit #58 Injection Permit Forecast

Expected CO2 Inj. Rate =	375 MCFPD
Max. CO2 Inj. Rate =	800 MCFPD
Expected H2O Inj. Rate=	100 BW/PD
Max. H2O Inj. Rate=	300 BW/PD
Max. Total CO2 Inj. =	561 MMCF

Average Inj. Pressure=	1500 psi
Max. Inj. Pressure=	2000 psi

Depth=	4600 ft
Temperature=	120 F
CO2 Density(Low)=	43 lbm/ft3



GRAY

WIRELINE

MONTY.HOLMES@GRAYWIRELINE.COM

Pressure/Temperature Gradients

RATE BPD	Date	Time	BH Press	Surf Press	Comments
0	12/31/2007	12:00 PM	2645	360	
100	12/31/2007	12:35 PM	2813	600	
200	12/31/2007	1:05 PM	2958	840	
300	12/31/2007	1:35 PM	3110	1100	
400	12/31/2007	2:05 PM	3312	1360	FRACTURE POINT
500	12/31/2007	2:35 AM	3425	1470	AT 3380 PSI
600	12/31/2007	3:05 AM	3521	1575	
700	12/31/2007	3:35 AM	3603	1660	

Company:	ENHANCED OIL RESOURCES	Recorded By:	M. HOLMES
Well:	MILNESAND UNIT #182	Witnessed By:	JOHN MOHON
Field:	MILNESAND	Truck Number:	42
County:	ROOSEVELT	District:	ODESSA
State:	NEW MEXICO	Tool Number:	SPARTEK 1 3/8"
Injector:	WATER	Test Type:	STEP RATE TEST
Shut In Time:	NO INFO		
Tool Depth:	4600'		
Tubing Size:	2 3/8		
Seat Nipple Depth:	4503'		
Perfs:	4543'-4612'		
Plug Back Depth:	GWS TD 4658'		

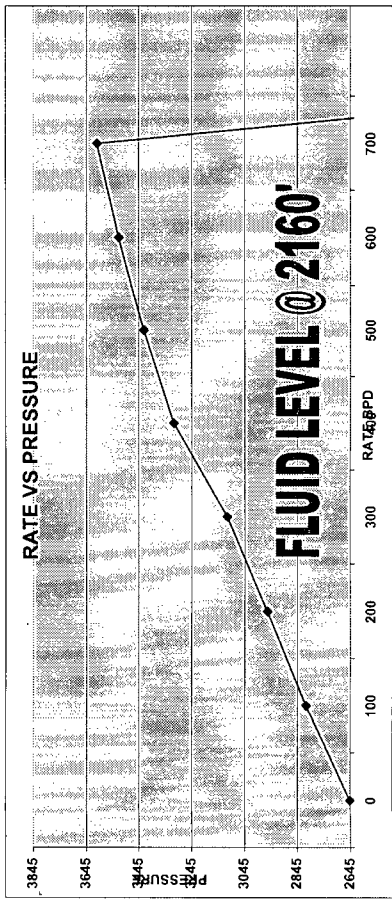
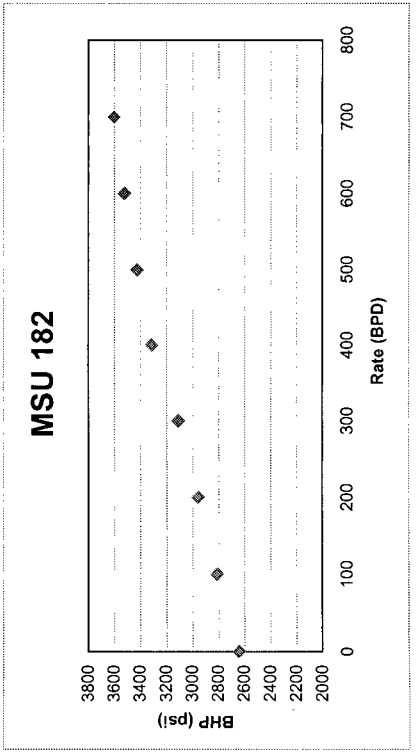
GWS

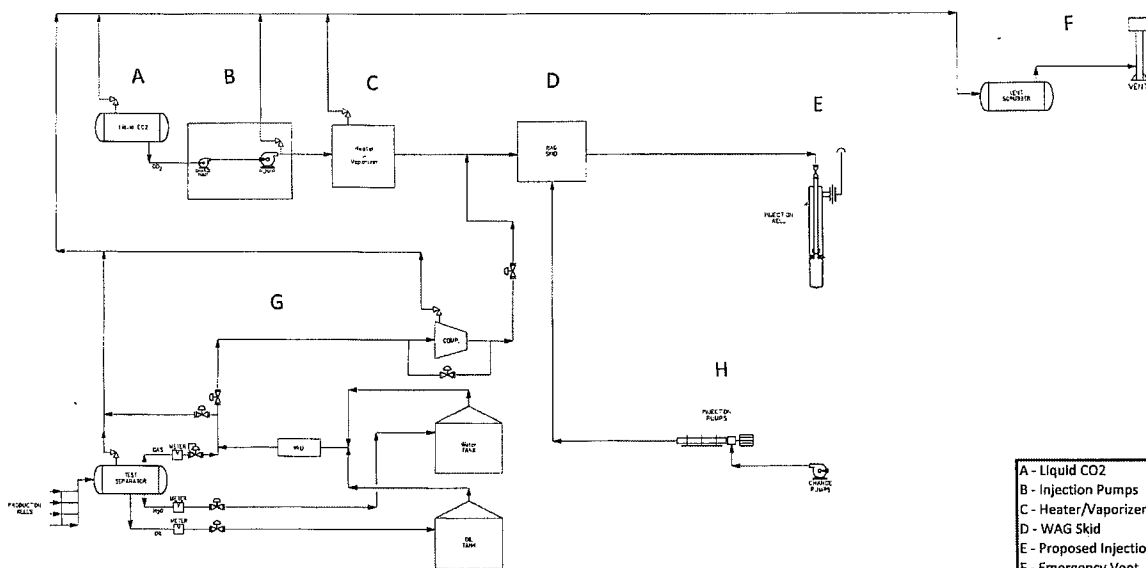
Reservoir Estimation Spreadsheet
Gray Wireline Data - MSU #182

Reservoir Estimation Spreadsheet
Gray Wireline - MSU #182

Fracture Pressure
Step-Rate Test Fracture Pressure=
Depth=
Frac Gradient=
Bottomhole Injection Pressure - Water
Max Surface Pressure=FracPressure-HydrostaticPressure
where:
Hydrostatic Gradient=
Depth=
Max. Inj. Surf. Pressure=
Bottomhole Injection Pressure - CO2
Max Surface Pressure=FracPressure-CO2Pressure
where:
CO2 Gradient=
Depth=
Max. Inj. Surf. Pressure=

BHP (psi)	Rate (BPD)
2645	0
2813	100
2958	200
3110	300
3312	400
3425	500
3521	600
3603	700





- A - Liquid CO2
- B - Injection Pumps
- C - Heater/Vaporizer
- D - WAG Skid
- E - Proposed Injection Well
- F - Emergency Vent
- G - Existing Production Tank Battery
- H - Water Injection feed to WAG Skid

REFERENCE DRAWINGS			REVISIONS				ENGINEERING RECORD			
NO.	TITLE	NO.	DATE	DESCRIPTION	BY	CHK.	APP.	BY	DATE	
								DES.	12/18/01	
								CHK.		
								APP.		
								APP. A		
								CLIENT ENGR.		
								PROJ. ENGR.	DP: E	
								SCHLD.		
NCCG NICHOLAS CONSULTING GROUP, INC. 3000 E. 10th Ave. Suite 100 Denver, CO 80202								PLAT. SCALE	DRG. NO.	REV. A

ALLIED CHEMICAL MILWESAND WATERFLOOD PROJECT

Injection Permit Checklist 2/8/07

WFX

SWD Order Number

837

Dates: Division Approved

District Approved

Well Name/Num: MILWESAND UNIT #58

Date Spudded: 3/6/02

OGRIID=257420

API Num: (30-) 041-00255

County: Ross

EOR OPERATING COMPANY

Footages: 666 FUL/666 FEL

Sec 13 Tsp 8S Rge 34E

Operator Name: Enbridge Oil Resources Inc.

Contact: JIM SKURNER, P.E.

200 N. LORRAINE, SUITE 1440, MIDLAND, TX, 79701

Operator Address: One Riverway, Suite 610, Houston, TX, 77056 OK

Current Status of Well:

Planned Work: CO2/water inj well

Inj. Tubing Size: 2 3/8" CD 400'

	Hole/Pipe Sizes	Depths	Cement	Top/Method
Surface	12 1/4 8 5/8	386	150	CIRC
Intermediate				
Production	4 1/2	4696	250	3950 CALC.
Last DV Tool				
Open Hole/Liner				
Plug Back Depth				

Diagrams Included (Y/N): Before Conversion

After Conversion

Checks (Y/N): Well File Reviewed

ELogs in Imaging

Intervals:	Depths	Formation	Producing (Yes/No)
Salt/Potash	2220		
Capitan Reef	2220-2220		
Cliff House, Etc:			
Formation Above	3811	SA	
Top Inj Interval	4536	SA	
Bottom Inj Interval	4696	SA	
Formation Below			

LOOKS LIKE ROR CASING in THIS well

1300 w/water
2000 w/CO2
PSI Max. WHIP

Open Hole (Y/N)

Deviated Hole (Y/N)

COMMISSION
R-3770
Case 4440
5/28/69

UNIT OPERATE = Core 4139/R-3766 5/28/69

Fresh Water: Depths:

Wells (Y/N)

Analysis Included (Y/N):

Affirmative Statement

Salt Water Analysis: Injection Zone (Y/N/NA)

DispWaters (Y/N/NA)

Types:

Notice: Newspaper (Y/N)

Surface Owner

Orbia Luman

Mineral Owner(s)

#59 -> WFX-519 10/28/83

Other Affected Parties:

(#31, 182, 192, 33, 35) -> WFX-440 8/30/76

AOR/Repairs: NumActiveWells

15

Repairs?

Producing in Injection Interval in AOR

#187 -> WFX-464 6/26/78

AOR Num of P&A Wells

2

Repairs?

Diagrams Included?

#24, 311, 514

RBDMS Updated (Y/N)

#574 -> WFX-574 9/21/88

Well Table Adequate (Y/N)

AOR STRs: Sec

Tsp

Rge

UIC Form Completed (Y/N)

New AOR Table Filename

Sec

Tsp

Rge

This Form completed

Conditions of Approval:

Sec

Tsp

Rge

Data Request Sent

Will require PKR within 100'

MILWESAND SA UNIT

AOR Required Work:

MILWESAND (San Antonio) UNIT

Required Work to this Well: