DATE IN 04/18/03	SUSPENSE	ENGINEER RE	LOGGED IN 04/19/2013	TYPE SWD	APP NO. pPRG1310951390

ABOVE THIS LINE FOR DIVISION USE ONLY

-1420

30-025-26976
NBR #1
OXY USA

RECEIVED OCD
2013 APR 18 P 2:47

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]

SWD: Delaware Mtn; Upper Bell & Cherry

[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 _____

[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.~~

David Stewart		Sr. Regulatory Advisor	4/15/13
Print or Type Name	Signature	Title	Date

david_stewart@oxy.com
e-mail Address

NBR #1 - 30-025-26976

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? ____X____Yes _____No

II. OPERATOR: _____OXY USA Inc _____ NBR #1 – 30-025-26976_____

ADDRESS: _____P.O. Box 50250 Midland, TX 79710_____

CONTACT PARTY: David Stewart_____PHONE: 432-685-5717__

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. Attached

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. Attached

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected; Avg-2500BWPD – Max-4000BWPD ✓
2. Whether the system is open or closed; Closed
3. Proposed average and maximum injection pressure; Avg-900psi – Max-990 psi ✓
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, Delaware and Bone Spring from OXY operated leases, see attached.
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.). Attached

*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. Attached

IX. Describe the proposed stimulation program, if any. To Be Determined

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). Logs already on file at the NMOCD..

*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. None within one mile per the NMSEO. ✓
Per the field production tech, no windmills were found within one mile of this well. ✓

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. Attached

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form. Attached

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: _____David Stewart_____TITLE: ____Sr. Regulatory Advisor_____

SIGNATURE: _____DATE: 4/15/13

E-MAIL ADDRESS: _____david_stewart@oxy.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 District Office

Side 2

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.

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

Proposed injection zone: 4952' -5998'
Geologic Formation: Delaware Mtn. Group; Upper Bell Canyon , Cherry Canyon
Bell Canyon Zone thickness: 930'
Bell Canyon Top Depth: 4852'
Lithologic description (Bell Canyon): Interbedded arkosic to subarkosic sandstone, siltstone and limestone with occasional shale beds, average porosity about 18%
Cherry Canyon Zone thickness: 930'
Cherry Canyon Top Depth: 5782'
Lithologic description (Cherry Canyon): Primarily arkosic to subarkosic sandstone and siltstone interbedded with occasional limestone and shale beds, average porosity about 16%

Our data sources indicate that neither the Upper Bell Canyon, nor the Upper Cherry canyon intervals which we are targeting in this proposed SWD well, are productive in the area.

Mark Boehm
Senior Geological Advisor

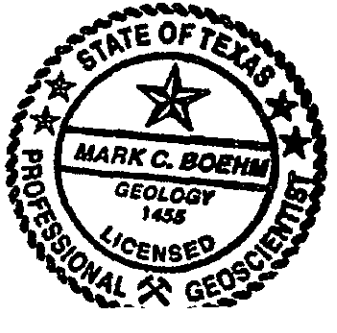
IX. Describe the proposed stimulation program, if any.

Two stage sand fracture treatment in the Bell / Cherry Canyon in the interval 4952' -5998'

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.

I have examined the available geologic and engineering data for the NBR#1 well and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

Mark Boehm, Sr. Geological Advisor



Side 1

INJECTION WELL DATA SHEET

OPERATOR: OXY USA Inc.

WELL NAME & NUMBER: NBR #1

WELL LOCATION: 1980 FSL 1980 FEL | J | 18 | 22S | 33E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

Liner:
6/1/4" Hole @ 15372'
5" liner @ 11768-15120'
Cmt w/ 580sx (609cuft), TOC-11768'-Circ

PROPOSED WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17-1/2" Casing Size: 13-3/8" @ 762'

Cemented with: 870 sx. *or* 1148 ft^3

Top of Cement: Surface Method Determined: Circ

Intermediate Casing

Hole Size: 12-1/4" Casing Size: 10-3/4" @ 5006'

Cemented with: 3135 sx. *or* 4138 ft^3

Top of Cement: Surface Method Determined: Circ

Production Casing

Hole Size: 9-1/2" Casing Size: 7-5/8" @ 12066'

Cemented with: 2040 sx. *or* 2142 ft^3

Top of Cement: 5240' Method Determined: CBL

Total Depth: 15372'

Injection Interval

4952 feet to 5998 feet

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" 6.5# J55 Lining Material: composite

Type of Packer: Nickel Plated Arrow Set

Packer Setting Depth: 4902'

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? Gas Producer

2. Name of the Injection Formation: Delaware – Bell/Cherry Canyon

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

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. Yes

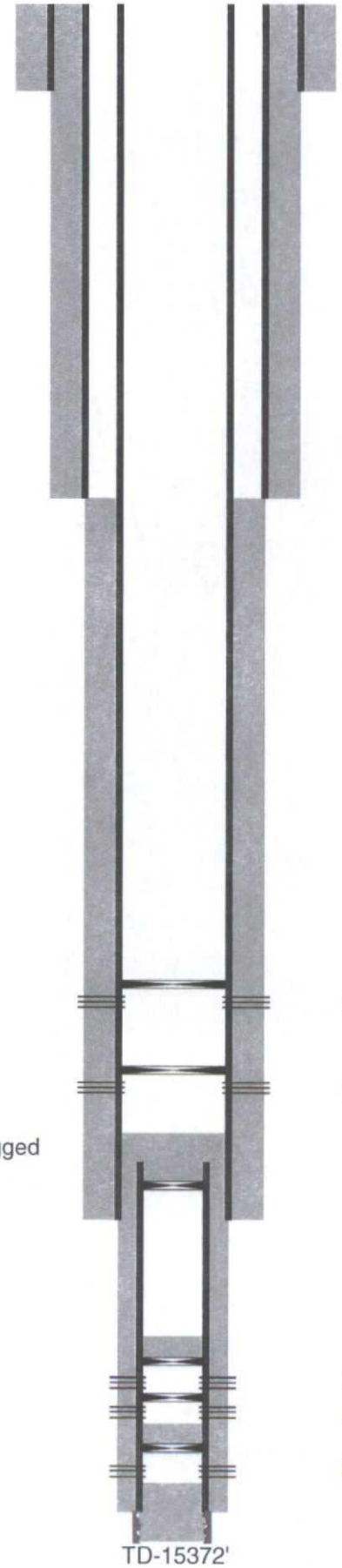
   14739-14956'-7/91 CIBP @ 14725' w/ 50'cmt – 13921-13927'-12/96 CIBP @ 13910' –

   13756-13895'-2/03 CIBP @ 13720' w/ 50' cmt - 2/03 CIBP @ 11868' w/ 60sx cmt to11540' –

   11160-11184'-2/03 CIBP @ 11100' - 9898-9920'-9/07 CIBP @ 9823'

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Delaware/Bone Springs/Wolfcamp/Strawn/Atoka/Morrow

OXY USA Inc. - Current
NBR #1
API No. 30-025-26976



17-1/2" hole @ 762'
13-3/8" csg @ 762'
w/ 870sx-TOC-Surf-Circ

12-1/4" hole @ 5006'
10-3/4" csg @ 5006'
w/ 3135sx-TOC-Surf-Circ

9/07-CIBP @ 9823'

2/03-CIBP @ 11100'

2/03-CIBP @ 11868' w/ 60sx cmt 11540'-Tagged

2/03-CIBP @ 13720' w/ 50' cmt

12/96-CIBP @ 13910'
7/91-CIBP @ 14725' w/ 50' cmt

Perf @ 9898-9920'

Perf @ 11160-11184'

9-1/2" hole @ 12066'
7-5/8" csg @ 12066'
w/ 2040sx-TOC-5240'-CBL

6-1/4" hole @ 15372'
5" liner @ 11768-15120'
w/ 580sx-TOC-11768'-Circ

Perfs @ 13756-13895'
Perfs @ 13921-13927'

Perfs @ 14739-14956'

TD-15372'

OXY USA Inc. - Current
NBR #1
API No. 30-025-26976

17-1/2" hole @ 762'
13-3/8" csg @ 762'
w/ 870sx-TOC-Surf-Circ

5006

TOC 5240'

12-1/4" hole @ 5006'
10-3/4" csg @ 5006'
w/ 3135sx-TOC-Surf-Circ

9/07-CIBP @ 9823' ✓

2/03-CIBP @ 11100' ✓

2/03-CIBP @ 11868' ✓ w/ 60sx cmt 11540'-Tagged
300'

2/03-CIBP @ 13720' w/ 50' cmt ✓

12/96-CIBP @ 13910'
7/91-CIBP @ 14725' w/ 50' cmt

Perf @ 9898-9920' ✓

Perf @ 11160-11184' ✓

9-1/2" hole @ 12066'
7-5/8" csg @ 12066'
w/ 2040sx-TOC-5240'-CBL

Drilled out w/ 6½ mil bit
Cmt 11,759'-11768'

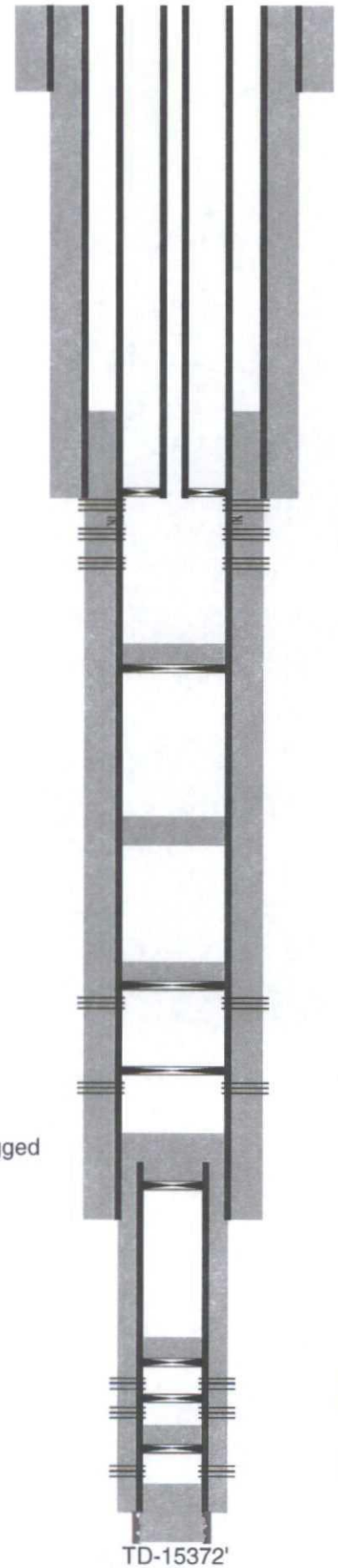
6-1/4" hole @ 15372'
5" liner @ 11768-15120'
w/ 580sx-TOC-11768'-Circ

Perfs @ 13756-13895'
Perfs @ 13921-13927'

Perfs @ 14739-14956'

TD-15372'

OXY USA Inc. - Proposed
NBR #1
API No. 30-025-26976



17-1/2" hole @ 762'
13-3/8" csg @ 762'
w/ 870sx-TOC-Surf-Circ

12-1/4" hole @ 5006'
10-3/4" csg @ 5006'
w/ 3135sx-TOC-Surf-Circ

2-7/8" 6.5# J55 compsite tbg & nickel plated Arrow Set pkr @ 4902'

Perf @ 5220' sqz 180sx cmt to 4500'
Perfs @ 4952-5998'

CIBP @ 6863' w/ 30sx to 6763' WOC-Tag

30sx @ 8670-8570' WOC-Tag

30sx @ 9823-9723'
9/07-CIBP @ 9823'

Perf @ 9898-9920'

2/03-CIBP @ 11100'

Perf @ 11160-11184'

2/03-CIBP @ 11868' w/ 60sx cmt 11540'-Tagged

9-1/2" hole @ 12066'
7-5/8" csg @ 12066'
w/ 2040sx-TOC-5240'-CBL

6-1/4" hole @ 15372'
5" liner @ 11768-15120'
w/ 580sx-TOC-11768'-Circ

2/03-CIBP @ 13720' w/ 50' cmt

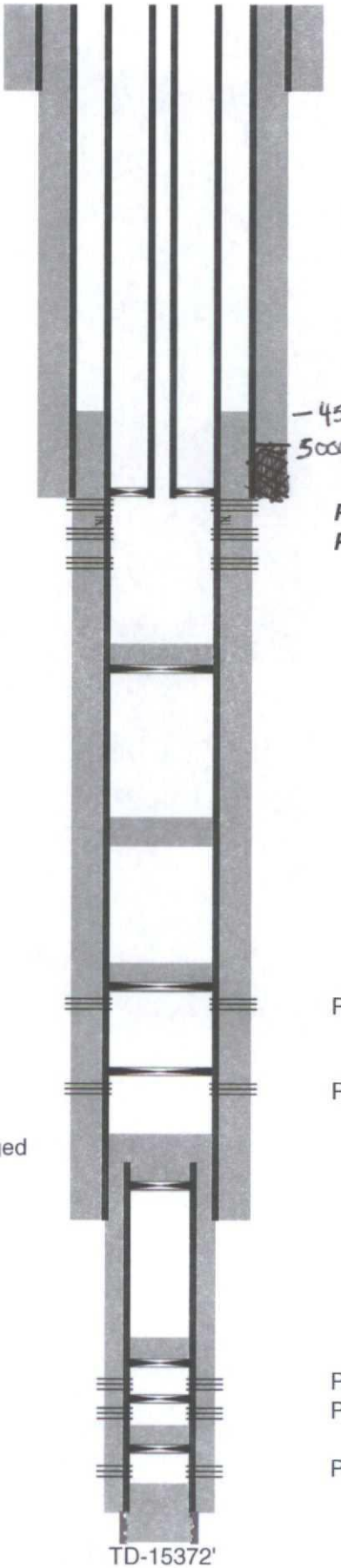
Perfs @ 13756-13895'
Perfs @ 13921-13927'

12/96-CIBP @ 13910'
7/91-CIBP @ 14725' w/ 50' cmt

Perfs @ 14739-14956'

TD-15372'

OXY USA Inc. - Proposed
NBR #1
API No. 30-025-26976



17-1/2" hole @ 762'
13-3/8" csg @ 762'
w/ 870sx-TOC-Surf-Circ

Condition: CBL after squeeze
4500
5006

12-1/4" hole @ 5006'
10-3/4" csg @ 5006'
w/ 3135sx-TOC-Surf-Circ

2-7/8" 6.5# J55 compsite tbg & nickel plated Arrow Set pkr @ 4902'

Perf @ 5220' sqz 180sx cmt to 4500'
Perfs @ 4952-5998'

CIBP @ 6863' w/ 30sx to 6763' WOC-Tag

30sx @ 8670-8570' WOC-Tag

30sx @ 9823-9723' } Add cmt to CIBP in place
9/07-CIBP @ 9823'

Perf @ 9898-9920'

2/03-CIBP @ 11100'

Perf @ 11160-11184'

9-1/2" hole @ 12066'
7-5/8" csg @ 12066'
w/ 2040sx-TOC-5240'-CBL

2/03-CIBP @ 11868' w/ 60sx cmt 11540'-Tagged

6-1/4" hole @ 15372'
5" liner @ 11768-15120'
w/ 580sx-TOC-11768'-Circ

2/03-CIBP @ 13720' w/ 50' cmt

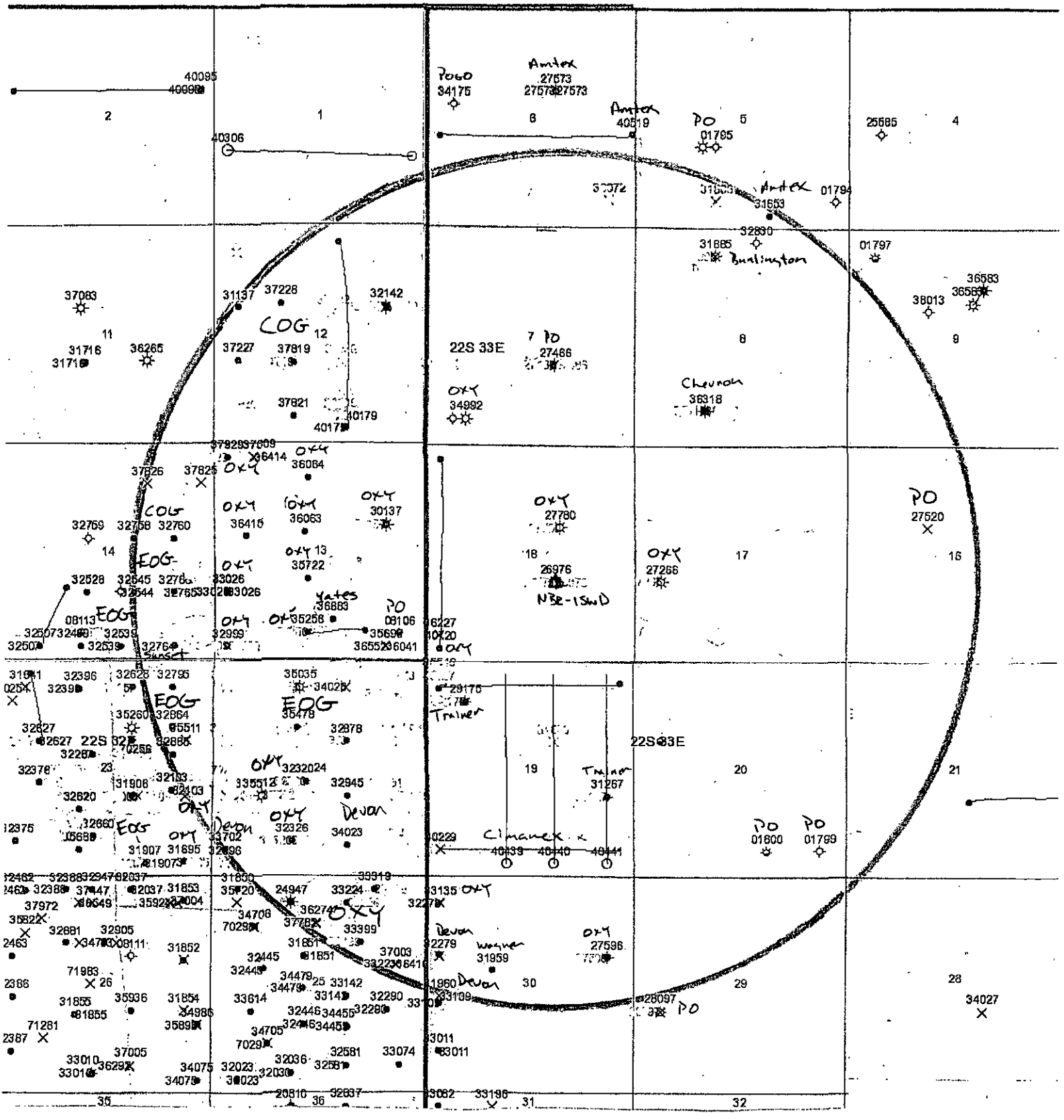
Perfs @ 13756-13895'
Perfs @ 13921-13927'

12/96-CIBP @ 13910'
7/91-CIBP @ 14725' w/ 50' cmt

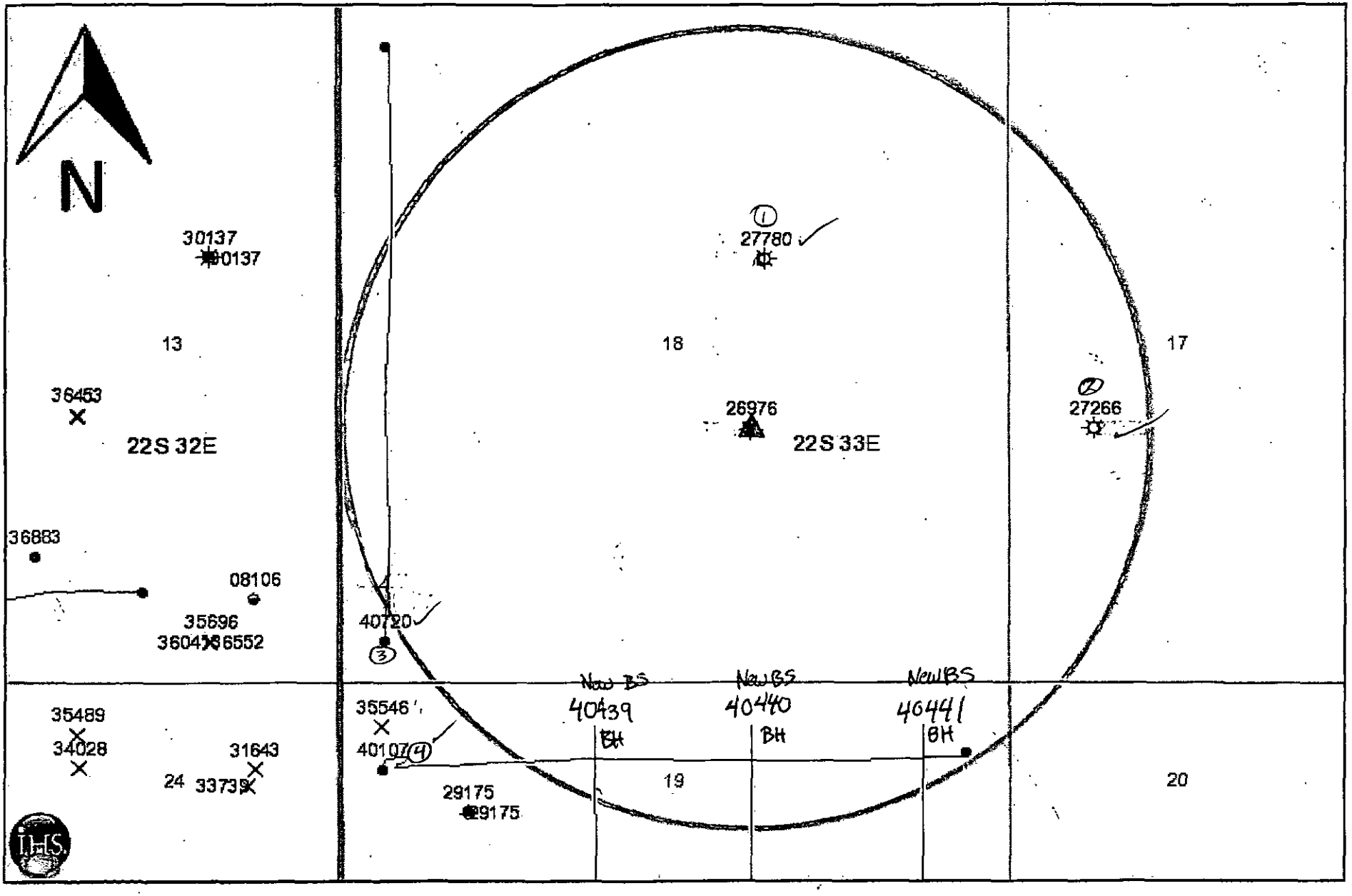
Perfs @ 14739-14956'

TD-15372'

NBR #1 - 2 Mile AOR



NBR #1 - 1/2 Mile AOR



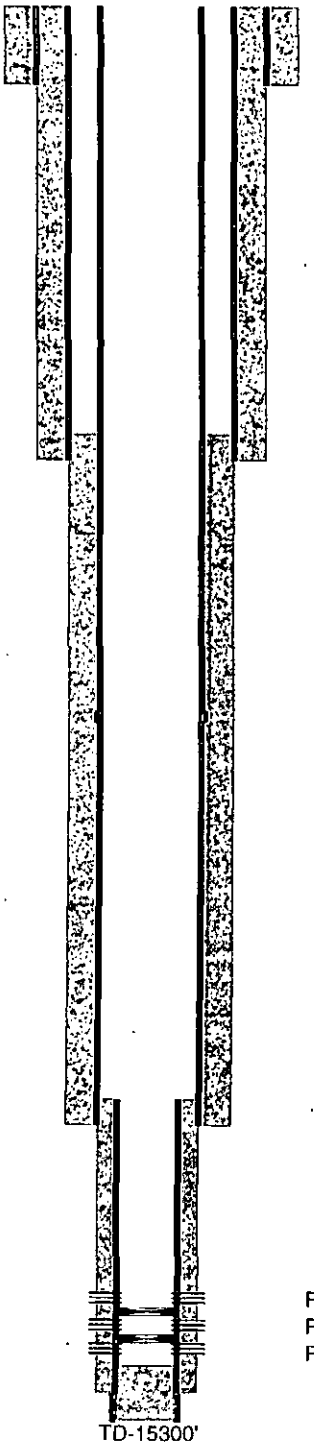
C-108 - Item VI

NBR #1

AREA OF REVIEW

OPERATOR	LEASE	WELL NO.	API NO. 30-	PLAT	LOCATION	DATE DRILLED	TD	PERFS	CASING-CEMENT	STATUS
OXY USA Inc.	NBR	2	025-27780	1	1980 FNL 1864 FWL	4/22/82	15300'	14702-14941'	13-3/8" @ 768' w/ 500sx - TOC-Surf-Circ	East Red Tank
					F-18-22S-33E		PB-9950'	9860-9890'	10-3/4" @ 4751' w/ 1650sx - TOC-Surf-Circ	Bone Spring
									7-5/8" @ 12201' w/ 2000sx - TOC-4810'-TS	Act Oil
									5" @ 11788-15040' w/ 625sx - TOC-11788'-Circ	
OXY USA Inc.	Federal EBR	1	025-27266	2	1980 FSL 660 FWL	3/25/81	15270'	14039-14740'	13-3/8" @ 740' w/ 730sx - TOC-Surf-Circ	Bootleg Ridge
					L-17-22S-33E				10-3/4" @ 4976' w/ 2200sx - TOC-Surf-Circ	Morrow
									7-5/8" @ 12114' w/ 1050sx - TOC-6280'-Calc 2,230-Calc	SI-Pending RC
									5" @ 11737-14813' w/ 700sx - TOC-11737'-Circ	
OXY USA Inc.	NBR	3H	025-40720	3	S-340 FSL 350 FWL (M)	8/29/12	14229'M	10364-14044'	13-3/8" @ 1015' w/ 1160sx - TOC-Surf-Circ	East Red Tank
					B-342 FNL 333 FWL (D)		9905'V		9-5/8" @ 4970' w/ 2255sx - TOC-240'-TS	Bone Spring
					18-22S-33E				5-1/2" @ 14207' w/ 2440sx - TOC-600'CBL	Act Oil
Cimarex Energy Co.	Merchant Livestock	1H	025-40107	4	S-660 FNL 330 FWL (D)	5/15/11	15230'M	10801-15178'	13-3/8" @ 1204' w/ 920sx - TOC-Surf-Circ	East Red Tank
					B-536 FNL 4836 FWL (A)		10978'V		9-5/8" @ 4860' w/ 1819sx - TOC-Surf-Circ	Bone Spring
					19-22S-33E				5-1/2" @ 15230' w/ 2800sx - TOC-4145'-Calc	Act Oil

OXY USA Inc. - Current
NBR #2
API No. 30-025-27780



17-1/2" hole @ 770'
13-3/8" csg @ 768'
w/ 800sx-TOC-Surf-Circ

12-1/4" hole @ 4851'
10-3/4" csg @ 4851'
w/ 1650sx-TOC-Surf-Circ

9-1/2" hole @ 12201'
7-5/8" csg @ 12201'
DVT @ 7979'
1st w/ 800sx-TOC-7975'-Circ
2nd w/ 1200sx-TOC-4810'-TS

6-1/2" hole @ 15300'
5" liner @ 11788-15040'
w/ 625sx-TOC-11788'-15040'

Perfs @ 14422-14426'
Perfs @ 14560-14568'
Perfs @ 14702-14941'

2/97-CIBP @ 14525'
2/97-CIBP @ 14675'

PB-14996'

TD-15300'

MITCHELL ANALYTICAL LABORATORY

2638 Faudree
Odessa, Texas 79765-8538
561-5579

Company: ***Nalco Company***

Well Number:	Red Tank 34 #2 - Delaware	Sample Temp:	70
Lease:	OXY	Date Sampled:	10/5/2012
Location:		Sampled by:	Leo Sandmann
Date Run:	10/10/2012	Employee #:	
Lab Ref #:	12-oct-n67147	Analyzed by:	GR

			Mg/L	Eq. Wt.	MEq/L
		Dissolved Gases			
Hydrogen Sulfide	(H2S)		.00	16.00	.00
Carbon Dioxide	(CO2)	**NOT ANALYZED**			
Dissolved Oxygen	(O2)	**NOT ANALYZED**			
		Cations			
Calcium	(Ca++)		21,941.16	20.10	1,091.60
Magnesium	(Mg++)		3,923.52	12.20	321.60
Sodium	(Na+)		60,922.26	23.00	2,648.79
Barium	(Ba++)	**NOT ANALYZED**			
Manganese	(Mn+)		4.73	27.50	.17
		Anions			
Hydroxyl	(OH-)		.00	17.00	.00
Carbonate	(CO3=)		.00	30.00	.00
BiCarbonate	(HCO3-)		24.44	61.10	.40
Sulfate	(SO4=)		200.00	48.80	4.10
Chloride	(Cl-)		144,058.29	35.50	4,057.98
Total Iron	(Fe)		5.81	18.60	.31
Total Dissolved Solids			231,080.21		
Total Hardness as CaCO3			70,939.33		
Conductivity MICROMHOS/CM			238,000		

pH 6.140 Specific Gravity 60/60 F. 1.161

CaSO4 Solubility @ 80 F. 8.68MEq/L, CaSO4 scale is unlikely

CaCO3 Scale Index

70.0	.732	100.0	1.482	130.0	2.482
80.0	.882	110.0	2.102	140.0	2.482
90.0	1.482	120.0	2.102	150.0	2.482

MITCHELL ANALYTICAL LABORATORY

2638 Faudree
Odessa, Texas 79765-8538
561-5579

Company: ***Nalco Company***

Well Number:	Cypress 28-1 – Bone Spring	Sample Temp:	70
Lease:	OXY	Date Sampled:	4/29/2011
Location:		Sampled by:	Casey Summers
Date Run:	5/3/2011	Employee #:	
Lab Ref #:	11-may-n59280	Analyzed by:	GR

Dissolved Gases

			Mg/L	Eq. Wt.	MEq/L
Hydrogen Sulfide	(H2S)		.00	16.00	.00
Carbon Dioxide	(CO2)	**NOT ANALYZED**			
Dissolved Oxygen	(O2)	**NOT ANALYZED**			

Cations

Calcium	(Ca++)		1,390.92	20.10	69.20
Magnesium	(Mg++)		697.84	12.20	57.20
Sodium	(Na+)		62,308.23	23.00	2,709.05
Barium	(Ba++)	**NOT ANALYZED**			
Manganese	(Mn+)		1.66	27.50	.06

Anions

Hydroxyl	(OH-)		.00	17.00	.00
Carbonate	(CO3=)		.00	30.00	.00
BiCarbonate	(HCO3-)		391.04	61.10	6.40
Sulfate	(SO4=)		450.00	48.80	9.22
Chloride	(Cl-)		100,110.00	35.50	2,820.00
Total Iron	(Fe)		2	18.60	.11
Total Dissolved Solids			165,351.69		
Total Hardness as CaCO3			6,338.44		
Conductivity MICROMHOS/CM			216,200		

pH 6.480 Specific Gravity 60/60 F. 1.115

CaSO4 Solubility @ 80 F. 84.91MEq/L, CaSO4 scale is unlikely

CaCO3 Scale Index

70.0	-.152	100.0	.188	130.0	.778
80.0	-.052	110.0	.488	140.0	.778
90.0	.188	120.0	.488	150.0	1.128

FORM C-108
ITEM VII(5)

Endura Products (

P.O. Box 3394, Midland,
Phone (432) 684-4233 Fa

ANALYSIS -- Injection Zone
Produced Water

POGO PRODUCING COMPANY
Cedar Canyon "21" Federal No. 3
Section 21, T-24S, R-29E
Eddy County, New Mexico

WATER ANAI

Date 10/10/2006 Endura Rep Norman Smil
Sampling Point/Date Wellhead 10/4/2006
Company Pogo Producing Co.
Formation Up. Delaware Lease COYOTE 21

State New Mexico
County Eddy
Well #1

DISSOLVED SOLIDS

CATIONS	mg/l	me/l
Sodium, Na+ (Calc.)	45,011	1,957
Total Hardness as Ca++	12,992	0
Calcium Ca++	10,856	543
Magnesium, Mg+	1,302	109
Barium, Ba++	0	0
Iron (Total) Fe+++*	0	0
ANIONS		
Chlorides, Cl-	92,500	2,606
Sulfate, SO4-	100	2
Carbonate, CO3-	0	0
Bicarbonates, HCO3-	73	1
Sulfide, S-*	0	0
Total Dissolved Solid	149,842	

OTHER PROPERTIES

pH*	6.490
Specific Gravity,60/60 F.	1.109
Turbidity	35

SCALING INDICIES

TEMP. F	CA CO3	CASO4*2H2O	CA SO4	BA SO4
80	-0.0677	-1.0097	-1.2523	-29.2957
120	0.2990	-1.0209	-1.0831	-29.4961
160	0.8653	-1.0396	-0.9292	-29.7255

PERFORATIONS

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

PLSS Search:

Section(s): 7, 8, 17, 18, 19, 20 **Township:** 22S **Range:** 33E

3/20/13 1:29 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Page 1 of 1

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

PLSS Search:

Section(s): 12, 13, 24 **Township:** 22S **Range:** 32E

3/20/13 1:30 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Affidavit of Publication

State of New Mexico,
County of Eddy, ss.

Kathy McCarroll, being first duly sworn, on oath says:

That she is the Classified Supervisor of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

March 22 2013

That the cost of publication is **$50.08** and that payment thereof has been made and will be assessed as court costs.

Kathy McCarroll

Subscribed and sworn to before me this

28 day of March, 2013

Cynthia Arredondo

My commission Expires on 2/13/17

Notary Public

OFFICIAL SEAL
Cynthia Arredondo
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 2/13/17

March 22, 2013

Notice Of Application For Fluid Disposal

Applicant:
OXY USA Inc.
P.O. Box 50250
Midland, TX 79710
ATTN: David Stewart
432-685-5717

Purpose - Well:

Disposal of Produced Water Into A Zone Non Productive of Oil & Gas
NBR #1
1980 FSL 1980 FEL
NWSE(J) Sec 18 T22S R33E
Lea County, NM

Formation:
Delaware : Bell-Cherry Canyon
4952-5998'

Maximum Injection Rate - 4000 BWPD
Maximum Injection Pressure - 990 psi

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 of this application.

OFFICIAL SEAL
Cynthia Arredondo
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires _____

C-108 Service List
OXY USA Inc
NBR #1

New Mexico Oil Conservation Division
1625 N. French Dr.
Hobbs, NM 88240

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

Surface Owner

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

Offset Operators within 1/2 mile

Cimarex Energy Co.
600 N. Marienfeld ST. Ste. 600
Midland, TX 79701

OXY USA Inc.
P.O. Box 50250
Midland, TX 79710

Potash Lessee(s) within 1 mile

None

Copies of this application were mailed to the following individuals, companies and organiztions on or before 4/15/13.

David Stewart
OXY USA Inc.

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:

NMOCD
1220 South St. Francis Dr.
Santa Fe, NM 87505

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) Leilani Vigil C. Date of Delivery 04/18/13

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

APR 18 2013

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) 7011 3500 0002 4988 3779

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

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:

NMOCD
1625 N. French Dr.
Hobbs, NM 88240

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery 4/18/13

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) 7011 3500 0002 4988 3786

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

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:

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

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ 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

APR 19 2013

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) 7011 3500 0002 4988 3793

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

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:

Cimarex Energy Co.
600 N. Marienfeld St.
Ste. 600
Midland, TX 79701

COMPLETE THIS SECTION ON DELIVERY

A. Signature
X [signature] ☐ Agent ☐ Addressee

B. Received by (Printed Name) C. Date of Delivery 4/17/13

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) 7011 3500 0002 4988 3809

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

Form C-101
Revised November 14, 2012

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
OXY USA Inc. P.O. Box 50250 Midland, TX 79710	16696
	3. API Number: 30-025-26976

4. Property Code	5. Property Name	6. Well No.
	NBR	1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
J	18	22S	33E		1980	South	1980	east	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

9. Pool Information

Pool Name	Pool Code
Undesignated Delaware	

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
P	S	—	S	3631'
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
No	6000'	Delaware	TBD	After Approval

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
	17 1/2"	13 3/8"	54.5 #	762'	870	Surf-Circ
	12 1/4"	10 3/4"	40.5-51 #	5006'	3135	Surf-Circ
	9 1/2"	7 5/8"	26.4-29.7 #	12066'	2040	5240'-CBL

Casing/Cement Program: Additional Comments

5" liner @ 11768-15120' w/ 580 sx, 6 1/4" hole. TOC-11768' - Circ.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	
Annular	3000	3000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC ☑ and/or 19.15.14.9 (B) NMAC ☑, if applicable. Signature:	OIL CONSERVATION DIVISION Approved By:
Printed name: David Stewart	Title:
Title: Sr. Regulatory Advisor	Approved Date: / Expiration Date:
E-mail Address: david_stewart@oxy.com	
Date: 4/15/13 Phone: 432-685-5717	Conditions of Approval Attached

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☑ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-26976		Undesignated Delaware

[4] Property Code	[5] Property Name	[6] Well Number
	NBR	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
16696	OXY USA Inc.	3631'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	18	22S	33E		1980	South	1980	East	Lea

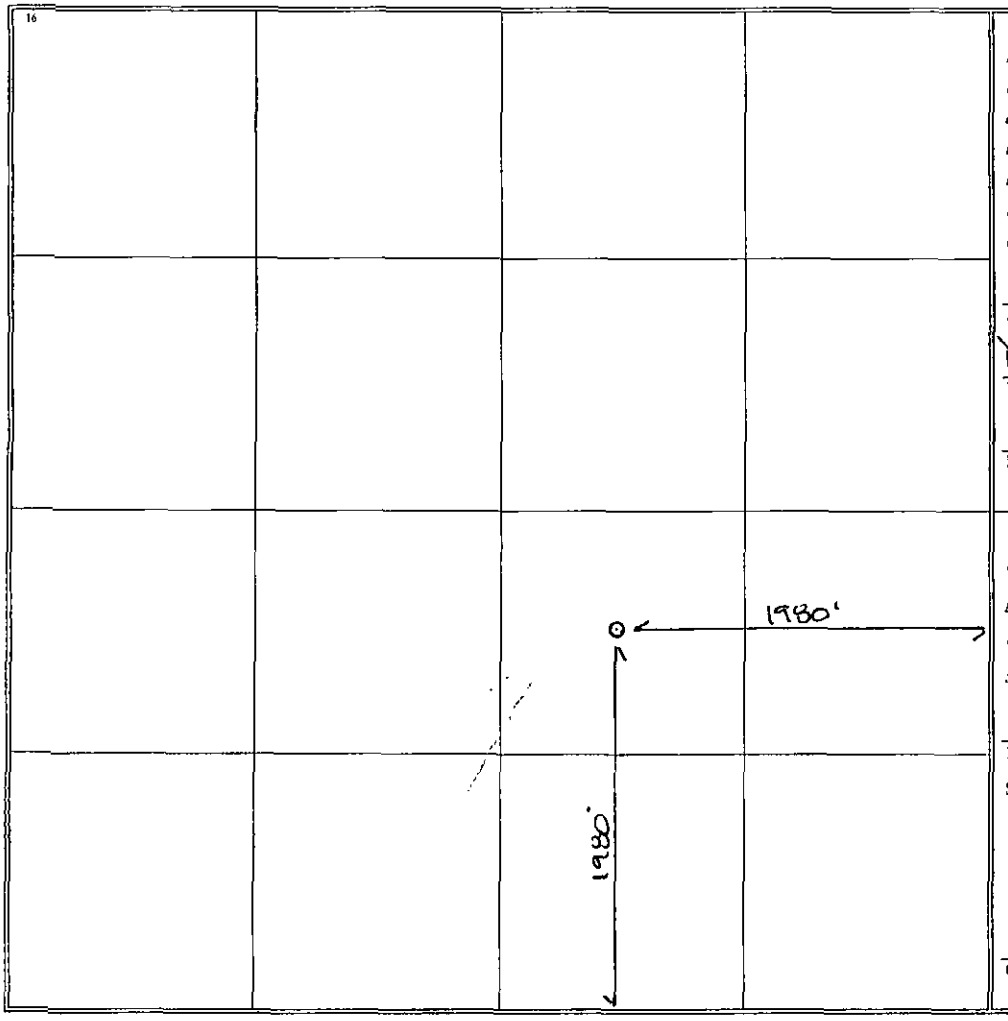
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
N	—		

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

[16]



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 4/15/13

David Stewart SR. Reg. Adv.
Printed Name

david_stewart@oxy.com
E-mail Address

[18] SURVEYOR CERTIFICATION

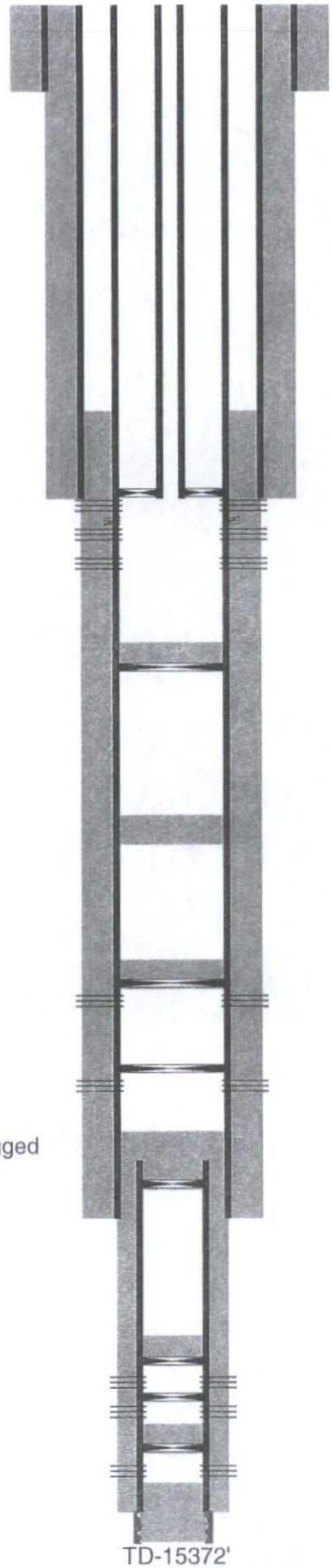
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number

OXY USA Inc. - Proposed
NBR #1
API No. 30-025-26976



17-1/2" hole @ 762'
13-3/8" csg @ 762'
w/ 870sx-TOC-Surf-Circ

12-1/4" hole @ 5006'
10-3/4" csg @ 5006'
w/ 3135sx-TOC-Surf-Circ

2-7/8" 6.5# J55 compsite tbg & nickel plated Arrow Set pkr @ 4902'

Perf @ 5220' sqz 180sx cmt to 4500'
Perfs @ 4952-5998'

CIBP @ 6863' w/ 30sx to 6763' WOC-Tag

30sx @ 8670-8570' WOC-Tag

30sx @ 9823-9723'
9/07-CIBP @ 9823'

Perf @ 9898-9920'

2/03-CIBP @ 11100'

Perf @ 11160-11184'

9-1/2" hole @ 12066'
7-5/8" csg @ 12066'
w/ 2040sx-TOC-5240'-CBL

2/03-CIBP @ 11868' w/ 60sx cmt 11540'-Tagged

6-1/4" hole @ 15372'
5" liner @ 11768-15120'
w/ 580sx-TOC-11768'-Circ

2/03-CIBP @ 13720' w/ 50' cmt

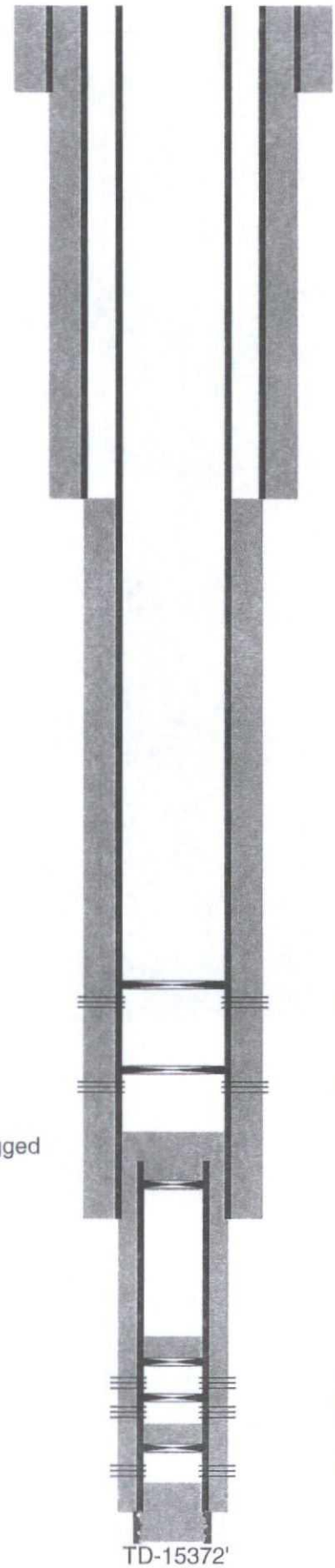
Perfs @ 13756-13895'
Perfs @ 13921-13927'

12/96-CIBP @ 13910'
7/91-CIBP @ 14725' w/ 50' cmt

Perfs @ 14739-14956'

TD-15372'

OXY USA Inc. - Current
NBR #1
API No. 30-025-26976



17-1/2" hole @ 762'
13-3/8" csg @ 762'
w/ 870sx-TOC-Surf-Circ

12-1/4" hole @ 5006'
10-3/4" csg @ 5006'
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9/07-CIBP @ 9823'

Perf @ 9898-9920'

2/03-CIBP @ 11100'

Perf @ 11160-11184'

9-1/2" hole @ 12066'
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2/03-CIBP @ 11868' w/ 60sx cmt 11540'-Tagged

6-1/4" hole @ 15372'
5" liner @ 11768-15120'
w/ 580sx-TOC-11768'-Circ

2/03-CIBP @ 13720' w/ 50' cmt

Perfs @ 13756-13895'
Perfs @ 13921-13927'

12/96-CIBP @ 13910'
7/91-CIBP @ 14725' w/ 50' cmt

Perfs @ 14739-14956'

TD-15372'

NBR #1 – 30-025-26976

13/3/8" 54.5 csg @ 762' w/ 870sx, 17-1/2" hole, TOC-Surf-Circ
10-3/4" 40.5-51# csg @ 5006' w/ 3135sx, 12-1/4" hole. TOC-Surf-Circ
7-5/8" 26.4-29.7 csg @ 12066' w/ 2040sx, 9-1/2" hole, TOC-5240'-CBL
5" liner @ 11768-15120' w/ 580sx, 6-1/4" hole, TOC-11768'-Circ

1. MI & RU Rig. ND WH and NU BOP.
2. PU work string, RIH, and cap existing CIBP @ 9823' w/ 30 sx cmt.
3. Pull up WS and pump 30 sx cmt @ 8670' – 8570'. WOC and Tag. POOH.
4. RU WL. RIH and set CIBP @ 6863'. POOH. RD WL.
5. RIH w/ WS and spot 30 sx cmt on CIBP @ 6863'. POOH w/ WS.
6. RU WL. RIH w/ WL and set CBP @ 5250'. POOH.
7. PU and RIH w/ perf guns and perforate for cmt squeeze @ 5220'. RD WL.
8. PU cmt retainer and RIH w/ WS. Set retainer above squeeze perfs @ approximately 5200'.
9. RU cementers.
10. Maintain 500 psi pressure in WS x 7 5/8" casing annulus to prevent casing collapse.
11. Establish circulation in 10 ¾" x 7 5/8" casing annulus through bradenhead by pumping 500 gals 15% HCl down work string followed by 300 bbls freshwater. ***Do not exceed a 2400 psi (70% of collapse pressure) bottomhole pressure.***
12. After establishing circulation, pump 180 sx cmt down WS. ***Do not exceed a 2400 psi bottomhole pressure.***
13. Displace cement out of WS.
14. POO retainer and POOH w/ WS.
15. With rig, DO cmt retainer @ 5200' and CBP @ 5250' and CO to PBTD @ approximately 6760'.
16. RU WLU and run CBL from PBTD to surface. RD WL.
17. **Obtain engineering approval before continuing.**
18. Pressure test casing to 4200 psi (~70% of burst – 26.4# N80). RD Rig. NU Frac valve.
19. RU WL. PU perf guns and perforate Stage 1 @ 5641-5954'. POOH.
20. RU Frac crew and frac stage 1 per Halliburton frac program. ***Do not exceed 4200 psi in casing.***
21. RIH w/ WL and set CBP @ 5400'. POOH.
22. PU perf guns, RIH, and perforate Stage 2 @ 5030-5270'. POOH. RD WL.
23. Frac Stage 2 per Halliburton frac program. RD Frac. ***Do not exceed 4200 psi in casing.***
24. RU Rig, PU WS. Mill out CBP @ 5400' and clean out frac to PBTD. RD Rig.
25. Flow back well to frac tanks to clean up all perforation debris. Truck water from site for disposal at a commercial facility.
26. RU WL and re-perforate the entire injection interval @ 4952-5998'. POOH.
27. PU injection pkr and RIH w/ WL. Set injection pkr @ 4900' w/ plug in profile nipple. POOH. RD WL.
28. RU Rig. RIH w/ injection tubing and BHA and circulate pkr fluid.
29. Run an MIT pressure test on the well with a witness from the OCD. RD Rig. NU WH.
30. Place well on injection and report results to engineer.

WARNING: A POISONOUS GAS - HYDROGEN SULFIDE (H2S) - A HIGHLY TOXIC COLORLESS GAS THAT IS HEAVIER THAN AIR MAY BE PRESENT AT THIS LOCATION AND/OR PRESENT IN THE GAS AND LIQUIDS INJECTED OR PRODUCED FROM THIS WELL. PLANS MUST BE REVIEWED DEALING WITH H2S SAFETY PRIOR TO WORKING ON THIS WELL. CHECK WITH FOREMAN CONCERNING LOCAL CONDITIONS.

Injection Permit Checklist: Received 04/18/03 First Email Date: _____ Final Reply Date: 05/23/13 Suspended?: —

Issued Permit: Type: WFX / PMX / (SWD) Number: 1420 Permit Date: 05/23/13 Legacy Permits or Orders: None

Well No. 1 Well Name(s): NBR

API : 30-0 25-26976 Spud Date: 08/18/80 New/Old: (Old) (UIC Cl II Primacy March 7, 1982)

Footages 1980 FSL / 1980 FEL Lot ✓ Unit J Sec 18 Tsp 22S Rge 33E County Lea (51683)

General Location: East of WIPP / in San Simon Swale NW of Sal (Red Tank/BS-last) Pool: Inject: Cherry & Bell Pool No.: _____

Operator: OXY USA Inc. OGRID: 16696 Contact: David Stewart

COMPLIANCE RULE 5.9: Inactive Wells: 3 TotalWells: 1836 Fincl Assur: Yes Compl. Order? No **IS 5.9 OK?** Yes

Well File Reviewed: ✓ Current Status: Well is SI with all perfs PB to 9823 (CIBP installed 2007);

Planned Rehab Work to Well: Cement top of shallowest CIBP, squeeze cement over injection interval; perf add two more PB intervals latest well production was Bone Spring

Well Diagrams: Proposed ____ Before Conversion ✓ After Conversion ✓ Are Elogs in Imaging?: Yes inject. interval

Well Construction Details:	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
Planned __ or Existing __ Cond	—	—	—	—	—
Planned __ or Existing ✓ Surface	17½ / 13⅜	0-762	—	870	Circulate to surf
Planned __ or Existing ✓ Interm	12¼ / 10¾	0-5006	—	3135	Circulate to surf
Planned __ or Existing ✓ LongSt	9½ / 7⅝	0-12066	—	2040	CBL / Cmt at 5240
Planned __ or Existing ✓ Liner	6½ / 5	11,768-15,120	—	580	Drilling log / milling
Planned X or Existing __ OH PERF	—	4952-5998			

Existing Perfs 9098 to 9920 / 11160 to 11184 / 13756 to 14956 / All PB with CIBP

Injection Formation(s):	Depths (ft)	Formation	Tops?
Above Top of Inject Formation	~3950	Dewey Lake	760
Above Top of Inject Formation	±1	Rustler (4853)	898
Proposed Interval TOP:	4952	Bell Canyon	4852
Proposed Interval BOTTOM:	5998	Cherry Canyon	5782
Below Bottom of Inject Formation	—	Bone Spring	8661
Below Bottom of Inject Formation	—	3rd BS sand	11852

Completion/Ops Details:

Drilled TD 15,372 PBTD 15,060

Open Hole ___ or Perfs X

Tubing Size 2⅞ Inter Coated? ✓

Proposed Packer Depth 4902

Max Packer Depth 4852 (100-ft limit)

Proposed Max. Surface Press 990

Calc. Injt Press 990 (0.2 psi per ft)

Calc. FPP _____ (0.65 psi per ft)

AOR: Hydrologic and Geologic Information

POTASH: R-111-P No Noticed? No **BLM Sec Ord** No **WIPP** No Noticed? No **SALADO** T: 898 B: — **CLIFF HOUSE** N/A

Fresh Water: Max Depth: ~480 Adjacent to sec ord FW Formation Alluvial + Ogallala Wells? 0 Analysis? No HydrologicAffirmStatement Yes

Disposal Fluid: Formation Source(s) Delaware Group & BS On Lease ___ Only from Operator X or Commercial ___

Injection Rate: 2500/4000 BWPD **Disposal Interval:** Protectable Waters? No **CAPITAN REEF:** in No thru No outside of Yes - south

H/C Potential: Producing Interval? N Formerly Producing? N Method: E Log /Mudlog/DST/Depleted/Other Data

AOR Wells: 1/2-M Radius Map? 4 Well List? 4 Total No. Wells Penetrating Interval: 4 + 3 proposed BS wells along strike

Penetrating Wells: No. Active Wells 1 Num Repairs? 0 on which well(s)? Proposed BS wells are below interval Diagrams? N

Penetrating Wells: No. P&A Wells 0 Num Repairs? 0 on which well(s)? _____ Diagrams? N

NOTICE: Newspaper Date 03/23/13 Mineral Owner SLO Surface Owner SLO N. Date 04/15/13

RULE 26.7(A): Identified Tracts? ✓ Affected Persons: Amarex / Oxy N. Date 04/15/13

Permit Conditions: Added CBL requirement for squeezed interval

Issues: