

Resume after lost  
review  
Hearing 7/26/07

ABOVE THIS LINE FOR DIVISION USE ONLY

- Engineering Bureau -

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

**[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]**

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

- Check One Only for [B] or [C]

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

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

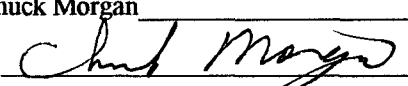
- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☒ Offset Operators, Leaseholders or Surface Owner
- [C] ☒ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM  
U.S. Bureau of Land Management
- [E] ☒ Notification and/or Concurrent Approval by SLO  
Commissioner of Public Lands, State Land Office
- [F] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [G] ☐ Waivers are Attached

- [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.**

e-mail Address

**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: ☒ Secondary Recovery 2007 APR 18 PM 1 00 Pressure Maintenance ☐ Disposal ☐ Storage  
Application qualifies for administrative approval? ☐ Yes ☐ No
- II. OPERATOR: SDX Resources, Inc.  
ADDRESS: PO Box 5061, Midland, TX 79704  
CONTACT PARTY: Chuck Morgan PHONE: 432-685-1761
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☐ Yes ☒ No  
If yes, give the Division order number authorizing the project: \_\_\_\_\_
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- \*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: Chuck Morgan TITLE: Engineer  
SIGNATURE:  DATE: 4/16/07  
E-MAIL ADDRESS: cmorgan@sdxresources.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: \_\_\_\_\_

### 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.

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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.

SDX Resources, Inc.  
New Mexico Oil Conservation Division  
Form C-108 "Application for Authorization to Inject"

RE: NW State #8, 1090' FSL, 2126' FWL, Sec 32, T17S, R28E  
Eddy Co., New Mexico

- I. SDX plans to convert the above referenced well to an injection well in the Artesia, Queen/Grayburg/San Andres pool.
- II. Operator: SDX Resources, Inc., PO Box 5061, Midland, TX 79704
- III. Well Data: Please see "Well Data Sheet" attached.
- IV. This is not an expansion of an existing project.
- V. Map attached designating: ½ mile radius of review and 2 mile radius.
- VI. There are <sup>35</sup>~~twenty-one~~ wells within the area of review which penetrate the proposed injection zone, ½ mile review area "Well Tabulation" attached.
- VII. Proposed average daily injection volume: 500 bbls per day. This will be a closed system. Proposed average injection pressure is estimated @ 300 psi. The proposed maximum injection pressure is 500 psi (to be increased by step rate at a later date). Formation water analysis is attached.
- VIII. The Queen/Grayburg/San Andres formation(s) consist of dolomite and sandstones with alternating beds of silty to sandy dolomite and gray arkosic sandstones. Generally the gross thickness of the Grayburg ranges from 300 to 400' thick and the San Andres ranges from 350 - 400' thick. Both of these zones are actively flooded in the area with positive response. There are no known sources of drinking water underlying the proposed injection interval. Limited fresh water zones overlie the proposed injection zone at approximately 150'.
- IX. The proposed injection interval may be acidized with 15% HCL acid.
- X. Well logs are on file with the Oil Conservation Division.
- XI. No fresh water wells are within a ½ mile radius.
- XII. Geologic and engineering data have been examined and no evidence of open faults or any other hydrological connection between the injection zone and any fresh water aquifer has been found.
- XIII. Copies of the Oil Conservation Division Form C-108, the Well Data Sheet and map have been sent to the offset operators, surface owner(s) as per the listing attached.

A copy of the Legal Notice as published in the Artesia Daily News is attached to this filing.

“Well Data Sheet”  
SDX Resources, Inc.  
Form C-108 “Application for Authorization to Inject”

NW State #8

- A. (1) Unit Letter N, Section 32, T17S, R28E, 1090' FSL, 2126' FWL  
Eddy County, New Mexico
- (2) Casing: 8-5/8" @ 461' w/350 sx Cl C – circulated to surface  
5-1/2" @ 3302' w/600 sx Lite & Cl C – circulated to surface  
2-3/8" tubing & packer to be set within 100' of top perforation  
Status of well is producing
- B. (1) Injection Formation: San Andres
- (2) Injection interval will be through perforations @ 2523' – 2859'
- (3) Well was drilled and completed as a producer in the Artesia  
(Queen/Grayburg/San Andres) pool
- (4) Initial perforations – same as above
- (5) Next shallow oil or gas zone: Queen  
Next deeper oil or gas zone: Abo

1/9

No. #	Well Name	Legals	API # 30-015-	Operator	Status	Compl Date	TD	Perfs	Hole Size	Casing Size	Depth Set	Sxs. Cmt.	TOC	Method	Comments
1	NW St. #8	Sec 32, T17S R28E 1080 FSL 2126 FWL, K	30815	SDX	Active	1/4/2000	3310	2523-2859	12 1/4 7 7/8	8 5/8 5 1/2	461 3302	350 600	Surf Surf	Circ Circ	See Diagram
2	NW St. #5	1900 FSL 2146 FWL, K	30781	SDX	Active	12/7/1999	3190	2464-2674 2802-56	12 1/4 7 7/8	8 5/8 5 1/2	520 3181	350 600	Surf Surf	Circ Circ	
3	Empire Abo Unit #25 B	2280 FNL 978 FWL, E	01671	BP	TA	9/60	6013	5830-5920 5830 - 80 5611 - 5805	11 7 7/8	8 5/8 5 1/2	990 6012	425 850	Surf 1156	1" w/75 sx Calc 75% 5830 sqzd 5830 sqzd w/250 sx CIBP @ 5580 & 6550	
4	Empire Abo Unit #26	2280 FNL 1980 FWL, F	01657	BP	TA	8/60	6171	5844 - 92 5926- 82		8 5/8 4 1/2	1007 6171	550 1000	Surf 920	Circ Temp Surv	CIBP @ 5822 w/35' cmt
5	NW State #18	2272 FNL 2273 FEL, G	31934	SDX	Active	5/02	3215	2472 - 2752	12 1/4 7 7/8	8 5/8 5 1/2	485 3208	375 800	Surf Surf	Circ Circ	
6	NWAU #5	1980 FNL 1650 FEL, G	02312	SDX	Active	4/62	1955	1911 - 17	*11 7 7/8	8 5/8 4 1/2	507 1955	50 75	312 1629	C 75% C 75%	*Assumed 14 yrs Vary Shallow
7	Empire Abo Unit #27	2310 FNL 1650 FEL, G	01663	BP	TA	9/60	6100	5980 - 90 6041 - 68		8 5/8 5 1/2	1003 6108	450 170 units 150 sx	Surf Surf	Circ Reported	Shallow
8	NWAU #7	2310 FSL 660 FEL, I	01672	SDX	TA	12/78	2250	1933 - 63 CIBP 1890	*10	7 4 1/2	478 2206	25 725	389 Surf	Calc 75% Circ	
9	Empire Abo Unit #28C	1650 FSL 660 FEL, I	01668	BP	Active	6/60	6250	6032 - 72 5753 - 5837	11	8 5/8 4 1/2	1304 6250	600 850	Surf Surf	Circ Circ	CIBP 5970
10	Jeffers State #1	2141 FSL 1665 FEL, J	30887	SDX	Active	3/2000	3220	2747 - 2852 2312 - 2632	12 1/4 7 7/8	8 5/8 5 1/2	512 3212	350 650	Surf Surf	Circ Circ	CRT 2710 Sqzd 75 sx
11	State 32 #1	1350 FSL 1650 FEL, J	01655	Hanson Energy	Active	4/58	*2100	1919 - 2039	10 3/4 8	8 5/8 5 1/2	516 2074	50 150	295 1267	Calc 75% Calc 75%	
12	State 32 #2	1980 FSL 1980 FEL, J	01656	Hanson Energy	Active	8/59	2038		10 8	8 5/8 7	490 1704	50 200	350 Surf	Calc 75% Circ	Pulled from 350 PBTD 1940 OH 1940 - 1704
13	Empire Abo Unit #27B	1650 FSL 1961 FEL, J	01670	BP	Active	6/60	6163	6036 - 6112 5810 - 82	11 7 7/8	8 5/8 4 1/2	860 6165	450 850	Surf Surf	Circ	CIBP 6020 Sqzd TOC 1610 - surf w/425 sx
14	Aspen 32 State Com #1	1370 FSL 1609 FEL, J	34148	Mewbourne	PA	10/19/2005	10400	17 1/2 12 1/4 8 3/4	13 3/8 9 5/8 P&A	428 2660	400 1100	S S	C C		See Diagram
15	NWAU #8	2310 FSL 2105 FWL, K	10818	SDX	PA	5/66	2003	1898 - 1908		8 5/8 4 1/2	462 2002	125 175	Surf 1241	Calc 75% Calc 75%	See Diagram

inf Service  
Tnx-60  
9/5/75  
R-4548  
R-4549, etc  
1975-1995  
Gaining well

? check Frn TopS

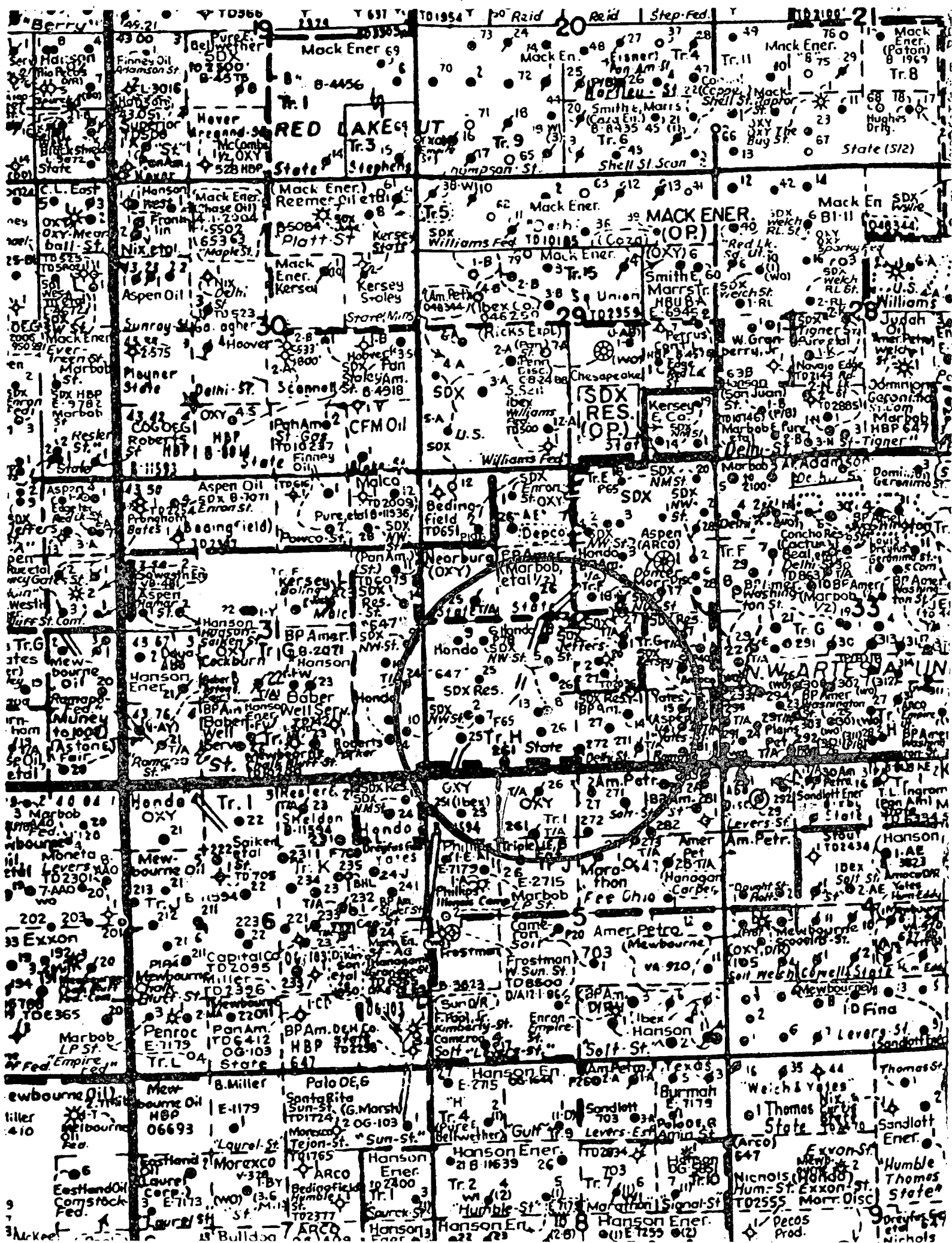
SA ISOLATED

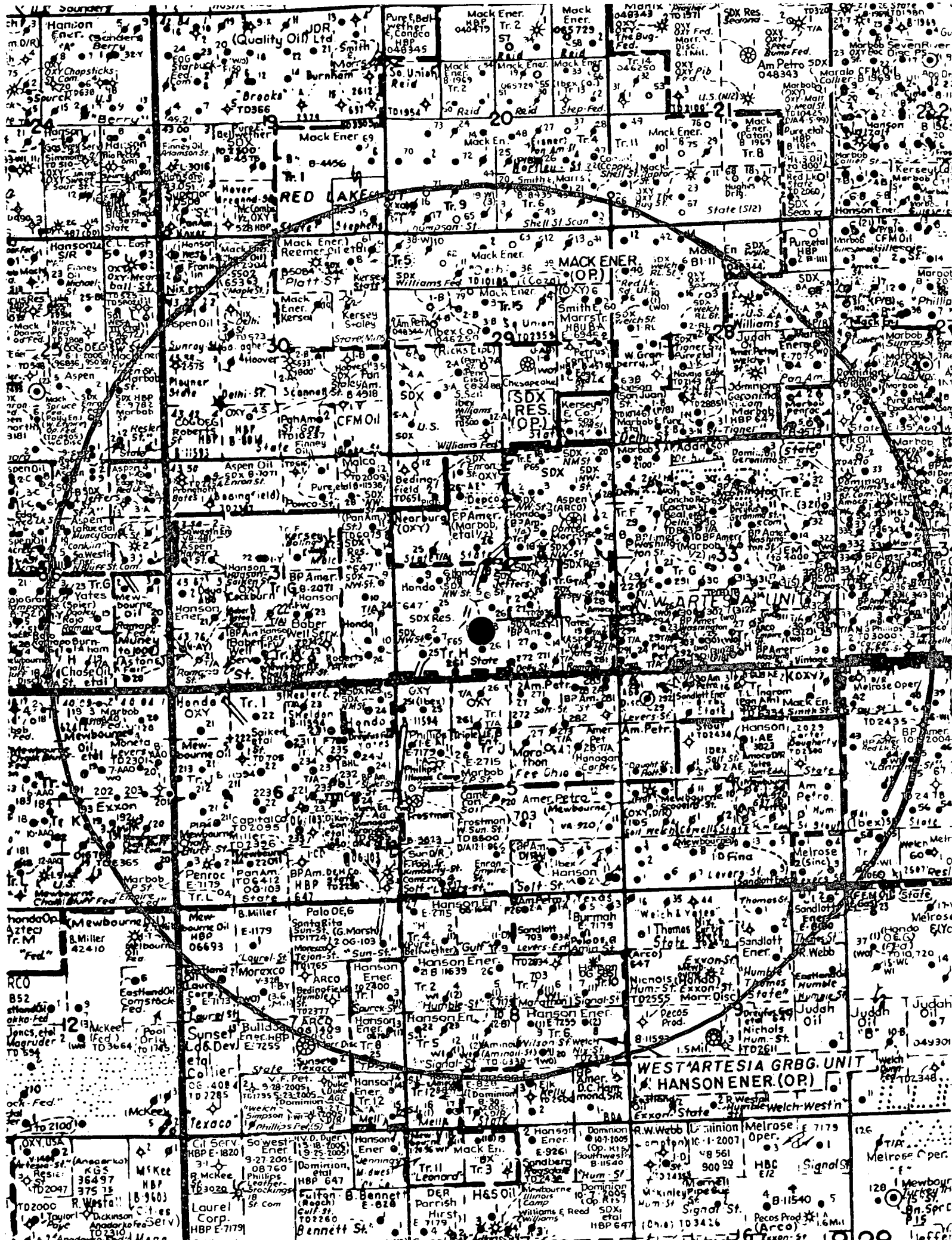
No. #	Well Name	Legals	API #	Operator	Status	Compl Date	TD	Perfs	Hole Size	Casing Size	Depth Set	Sxs. Cmt.	TOC	Method	Comments
			30-015-												
16	Empire Abo Unit #26B	Sec 32, T17s R28E 1650 FSL 2310 FWL, K	01661	BP	Active	3/60	6083	5806 - 6088		8 5/8 5 1/2	748 6099	225 450	Surf Surf	Circ	Sqzd 2504 - surf w/800 sx
17	NW State #6	2310 FSL 990 FWL, L	30777	SDX	Active	11/99	3204	2434 - 2572	12 1/4 7 7/8	8 5/8 5 1/2	515 3200	350 650	Surf Surf	Circ Circ	
18	NWAU #9	2310 FSL 660 FWL, L	10795	SDX	TA	5/66	1980	1898 - 1927	11 7 7/8	8 5/8 4 1/2	489 1980	100 175	100 1219	Calc 75% Calc 75%	
19	Empire Abo Unit #25A	1650 FSL 990 FWL, L	01662	BP	Active	4/60	6123	5800 - 6080		8 5/8 5 1/2	728 6125	225 450	Surf Surf	Circ	Sqzd 2492 - surf w/850 sx
20	NW State #7	990 FSL 990 FWL, M	30685	SDX	Active	9/99	3220	2472 - 2762	12 1/4 7 7/8	8 5/8 5 1/2	490 3215	450 650	Surf Surf	Calc 75% Calc 75%	
21	NWAU #12	990 FSL 760 FWL, M	20043	SDX	TA	5/67	1997	1922 - 49		8 5/8 4 1/2	485 1995	100 150	106 1343	Calc 75% Calc 75%	
22	Empire Abo Unit #25	660 FSL 660 FWL, M	01660	BP	Active	3/60	6187	5897 - 6087		8 5/8 5 1/2	770 6187	450 450	Surf Surf	Circ	Sqzd 2622 - surf w/800 sx
23	NWAU #13	990 FSL 2030 FWL, N	10834	SDX	P&A	6/66	2006	1921 - 54	11 7 7/8	8 5/8 4 1/2	493 2003	125 175	Surf 1242	Calc 75% Calc 75%	See Diagram
24	Empire Abo Unit #26A	660 FSL 1980 FWL, N	01659	BP	Active	2/60	6172	5851 - 6118	11 7 7/8	8 5/8 5 1/2	779 6172	280 400	Surf Surf	Circ	Sqzd w/825 sx to surf
25	Empire Abo Unit #261	150 FSL 1400 FWL, N	21539	BP	Active	7/75	6220	5890 - 6064	11 7 7/8	8 5/8 5 1/2	1000 6222	250	90	Temp Surv	Redmix to surf DV @ 4018: Stg 1 680 Stg 2 875 circ to surf
26	NWAU #14	940 FSL 1650 FEL, O	01665	SDX	Active	3/55	2099		*11 *7 7/8	8 5/8 5 1/2	485 1802	50 25	290 1650	Calc 75% Calc 75%	*Assumed
27	Empire Abo Unit #27A	630 FSL 1951 FEL, O	01667	BP	Active	1/60	6215	6134 - 56 5714 - 5920	11 7 7/8	8 5/8 4 1/2	985 6215	800 850	Surf 75	Circ Reported	CIBP 5980
28	Empire Abo Unit #271	330 FSL 1450 FEL, O	21540	BP	TA	6/75	6221	5705 - 6116	12 1/4 7 7/8	8 5/8 5 1/2	1007 6255	550	Surf Surf	Circ Circ	CIBP @ 5665 w/35' cmt DV @ 4050 Stg 1 450 sx Stg 2 600 sx TOC Surf - C
29	Empire Abo Unit #272	330 FSL 2481 FEL, O	22009	BP	Active	7/77	6261	5714 - 6166	11 7 7/8	8 5/8 5 1/2	600 6370	275	Surf Surf	Circ Circ	DV @ 4382 Stg 1 475 sx Stg 2 1080 sx TOC Surf - C
30	NWAU #15	990 FSL 660 FEL, P	01666	SDX	TA	4/54	2102	1968 - 2002	11	8 5/8 4 1/2	750 2100	50 335	555 Surf	Calc 75% Circ	(osg run & cmt 1974)
31	Kersey State #2	844 FSL 330 FEL, P	30889	SDX	Active	7/2000	4104	3643 - 3819 2514 - 2718	12 1/4 7 7/8	8 5/8 5 1/2	511 4096	350 850	Surf Surf	Calc 75% Circ	CIBP 3570
32	Empire Abo Unit #281	200 FSL 660 FEL, P	22597	BP	Active	9/78	6330	6169 - 6252	11 7 7/8	8 5/8 5 1/2	600 6330	450	Surf Surf	Circ Circ	DV @ 2988 Stg 1 635 sx Stg 2 700 sx TOC - Surf - C

PRY ACS  
0/13

No. #	Well Name	Legals	API #	Operator	Status	Compl Date	TD	Perfs	Hole Size	Casing Size	Depth Set	Sxs. Cmt.	TOC	Method	Comments
		Sec 32, T17S R28E	30-015-												
33	Empire Abo Unit #28B Aspen?	660 FSL 660 FEL, P	01668	BP	TA	6/60	6319	5784 - 6140	11	8 5/8	1247	550	Surf	Circ	CIBP 6200
									7 7/8	4 1/2	6319	850	150	Reported	CIBP 5734 w/35' cmt
34	Empire Abo Unit #28E	Sec 5, T18S R28E 330 FNL 970 FEL, A	02604	BP	Active	2/60	6290	6230 - 85	11	8 5/8	1190	500	Surf	Circ	CIBP 6180
								5850 - 6050	7 7/8	4 1/2	6290	750	400	Temp Surv	
35	Empire Abo Unit #27E	330 FNL 2271 FEL, B	02605	BP	Active	4/60	6261	6140 - 97	11	8 5/8	1227	750	Surf	Circ	CIBP 6100
								5658 - 5630	7 7/8	4 1-1/2	6261	900	60	Reported	See Diagram
36	Empire Abo Unit #271A	670 FNL 1700 FEL, B	21736	BP	Active	4/76	6350	5772 - 6260	11	8 5/8	535	200	50		Redmix @ surf
									7 7/8	5 1/2	6350		Surf	Circ	DV @ 4012, Sig 1 400 sx
37	Empire Abo Unit #273	1300 FNL 1595 FEL, B	22488	BP	TA	8/78	6357	6200 - 10	11	8 5/8	550	350	Surf	Circ	Sig 2 830 sx, TOC Surf - C
									7 7/8	5 1/2	6351		Surf	Circ	CIBP 6170
38	Empire Abo Unit #272A	1300 FNL 2345 FEL, B	22526	BP	Active	7/78	6350	6130 - 70	11	8 5/8	550	375	Surf	Circ	DV @ 3034 Sig 1 625 sx
									7 7/8	5 1/2	6350		Surf	Circ	Sig 2 775 sx TOC - Surf - C
39	EAU 261 A	1080 FNL 1914 FWL, C	22697	BP	TA	1/79	6350	6174 - 6204	11	8 5/8	550	400	Surf	Circ	CIBP 6150
									7 7/8	5 1/2	6345		Surf	Circ	DV @ 3007 Sig 1 700 sx
40	EAU 26 E	330 FNL 1941 FWL, C	02606	BP	Active	7/60	6254	5662 - 6096	11	8 5/8	755	450	Surf	Circ	Sig 2 800 sx TOC Surf - C
									7 7/8	5 1/2	6254	850	895	Reported	
41	EAU 251	660 FNL 150 FWL, D	22750	BP	Active	1/79	6250	5664 - 6152	11	8 5/8	745	400	Surf	Circ	DV @ 3018 Sig 1 650 sx
									7 7/8	5 1/2	6245		Surf	Circ	Sig 2 900 sx TOC Surf - C
42	EAU 25C	660 FNL 660 FWL, D	02607	BP	Active	3/60	6273	6122 - 68	11	8 5/8	1198	750	Surf	Circ	
								5822 - 5938	7 7/8	5 1/2	6273	850	1275	Reported	
43	Empire Abo Unit #26D		01657	BP	Active	12/59	6265	6220 - 45		8 5/8	959	370	Surf	Circ	Sqzd w/1500 sx TOC Surf - Circ
										5 1/2	6265	150	Surf		
44	EAU #24	Sec 31, T17S R28E 1650 FSL 330 FEL, I	01644	BP	TA	4/60	6106	5806 - 50	11	8 5/8	738	250	Surf	Circ	Pkr @ 5783'
								6024 - 50	7 7/8	5 1/2	6104	450	Surf	Circ	Perfs 6024 - 50 sqzd
															Sqzd 650 sx @ 2900
45	NW #10	735 FSL 330 FEL, P	30760	SDX	Active	11/99	3210	2482 - 2602	12 1/2	8 5/8	495	350	Surf	Calc	TOC Surf - Circ
									7 7/8	5 1/2	3192	650	Surf	Calc	











#14

19 sk. surface plug 0-60'  
 17 1/2" hole  
 428' 13 3/8" 48#  
 Cmt. w/ 400 sks. & circulated.  
 428' 19 sk. plug 450'-390'  
 12 1/4" hole  
 2660' 9 5/8" 40#  
 Cmt. w/ 1100 sks. & circulated  
 2660' 41 sk. plug 2713'-2613'  
 8 1/4" hole  
 4 sks. 3412'-3314'  
 42 sks. 5568'-5468'  
 42 sks. 7049'-6949'  
 51 sks. 8338'-8238'  
 42 sks. 10041'-9941'  
 T.D. 10,400

PA 10/18/2005

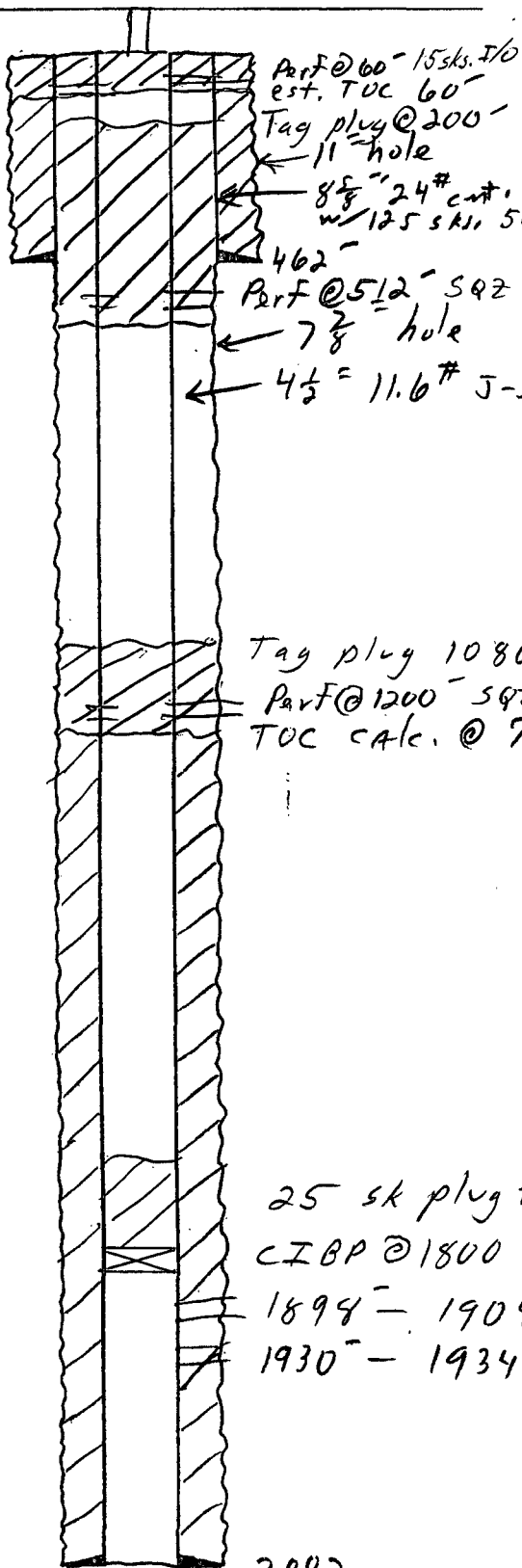
REVISÉD:

WELL NAME: North West Artesia Unit #8 FIELD AREA: Artesia - Qn-Gb-SA  
 LOCATION: Unit "K" 2310' FSL + 2105' FWL sec. 32 T17S R28E Eddy Co.  
 IL: \_\_\_\_\_ ZERO: \_\_\_\_\_ AGL: \_\_\_\_\_  
 ID: 3678 ORIG. DRLG./COMPL. DATE: \_\_\_\_\_  
 COMMENTS: \_\_\_\_\_

#15

CASING PROGRAM:

SIZE/WT./GR./CONN.	DEPTH SET



Perf @ 60' - 15 sks. TO TO surface  
 est. TOC 60'  
 Tag plug @ 200'  
 11" hole  
 8 5/8" 24# cnt.  
 w/ 125 sks, 50-50 P02 TOC calc. surface @ 75% i)  
 report states cement did not cure.  
 462'  
 Perf @ 512' - SQZ 70 sk. plug est. TOC @ 60'  
 7 7/8" hole  
 4 1/2" = 11.6# J-55 cnt. w/ 175 sks, 50/50 P02

PA 11/2006

Tag plug 1080'  
 Perf @ 1200' - SQZ 35 sk plug  
 TOC calc. @ 75% 1241'

Tops:

Yates - 346'  
 7-A - 612'  
 Qn - 1190'  
 Gb - 1625'  
 SA - 1938'

25 sk plug From 1800'  
 CIBP @ 1800'  
 1898' - 1908' Perfs acidized & frac'd  
 1930' - 1934'

2002

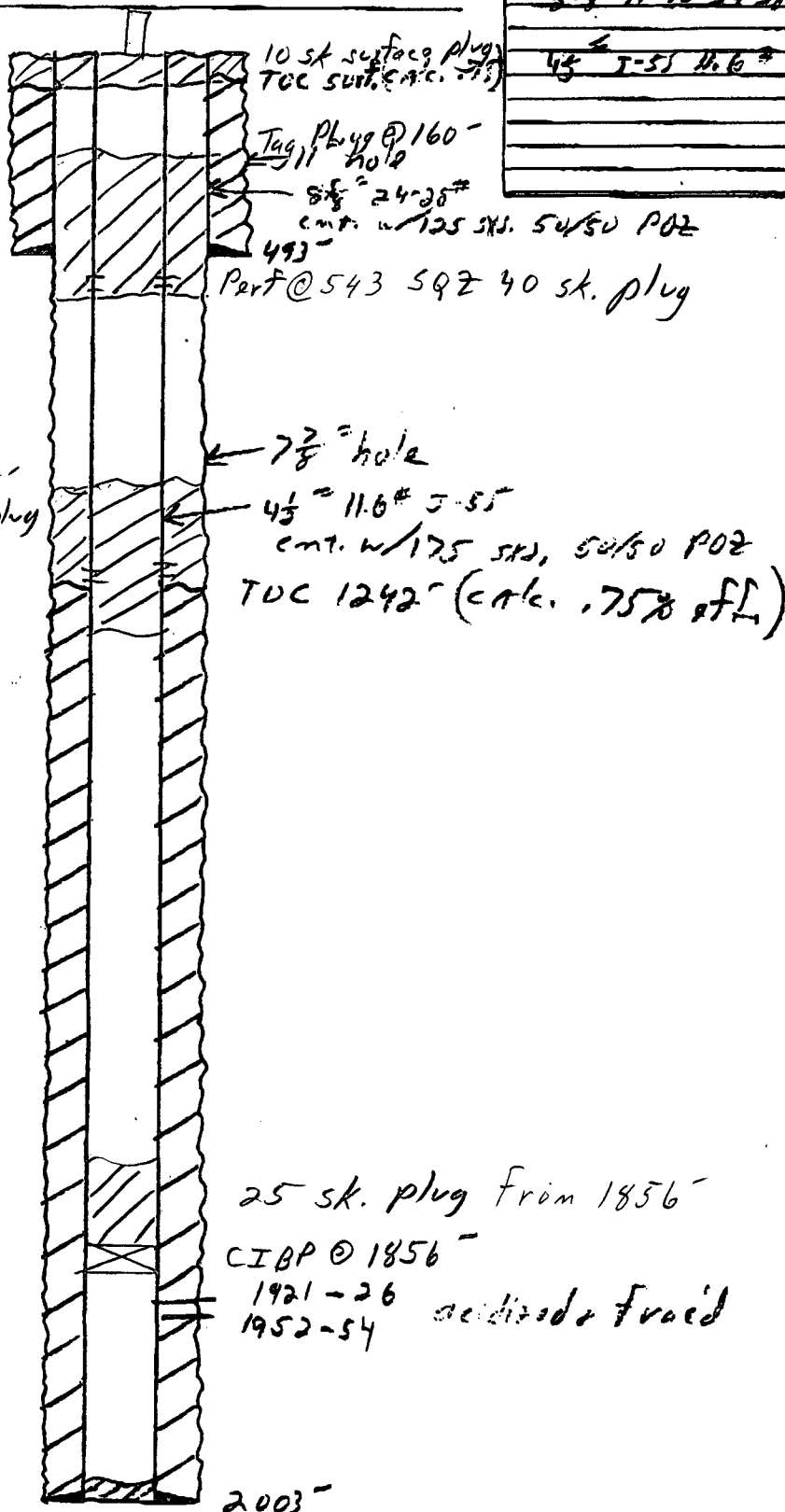
- SKETCH NOT TO SCALE -

REVISED: 4/2007

WELL NAME: Northwest Artesia Unit #13 FIELD AREA: Artesia  
 LOCATION: SEC. 32 T17S R28E 990' FSL & 2030' FWL  
 GL: \_\_\_\_\_ ZERO: \_\_\_\_\_ AGL: \_\_\_\_\_  
 KB: 3687 ORIG. DRLG./COMPL. DATE: \_\_\_\_\_  
 COMMENTS: API # 30-015-10834

## CASING PROGRAM:

SIZE/WT./GR./CONN.	DEPTH SET
8 5/8" H-40 24.25# (1966)	497
4 1/2" J-55 11.6# (1966)	543



P.A 10/2006

Tops :  
 Yates 346  
 7-A1 607  
 QN 1193  
 Gb 1640  
 SA 1958





# SAMPLE

## Pro-Kem, Inc. WATER ANALYSIS REPORT

JUL 14 1999

Oil Co. : SDX Resources

Lease : N.W. St.

Well No. : # 1

Lab No. : F:\ANALYSES\Jul0999.001

Sample Loc. :

Date Analyzed: 09-July-1999

Date Sampled : 01-July-1999

## ANALYSIS

1. pH 5.950
2. Specific Gravity 60/60 F. 1.118
3. CaCO<sub>3</sub> Saturation Index @ 80 F. -0.029  
@ 140 F. +0.871

### Dissolved Gasses

	MG/L	EQ. WT.	*MEQ/L
4. Hydrogen Sulfide	10		
5. Carbon Dioxide	160		
6. Dissolved Oxygen	Not Determined		

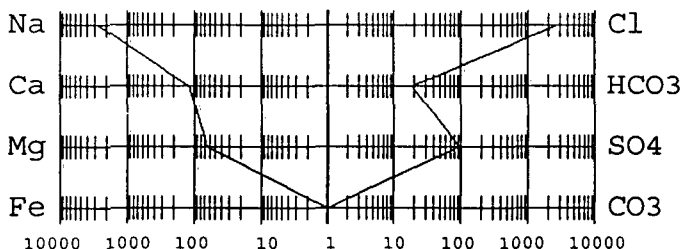
### Cations

7. Calcium (Ca++)	2,341	/ 20.1 =	116.47
8. Magnesium (Mg++)	741	/ 12.2 =	60.74
9. Sodium (Na+) (Calculated)	60,071	/ 23.0 =	2,611.78
10. Barium (Ba++)	Not Determined		

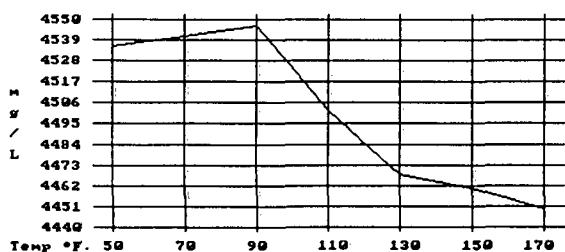
### Anions

11. Hydroxyl (OH <sup>-</sup> )	0	/ 17.0 =	0.00
12. Carbonate (CO <sub>3</sub> <sup>=</sup> )	0	/ 30.0 =	0.00
13. Bicarbonate (HCO <sub>3</sub> <sup>-</sup> )	1,098	/ 61.1 =	17.97
14. Sulfate (SO <sub>4</sub> <sup>=</sup> )	4,500	/ 48.8 =	92.21
15. Chloride (Cl <sup>-</sup> )	94,979	/ 35.5 =	2,675.46
16. Total Dissolved Solids	163,730		
17. Total Iron (Fe)	7	/ 18.2 =	0.38
18. Total Hardness As CaCO <sub>3</sub>	8,898		
19. Resistivity @ 75 F. (Calculated)	0.028 /cm.		

### LOGARITHMIC WATER PATTERN \*meq/L.



### Calcium Sulfate Solubility Profile



### PROBABLE MINERAL COMPOSITION COMPOUND EQ. WT. X \*meq/L = mg/L.

Ca(HCO <sub>3</sub> ) <sub>2</sub>	81.04	17.97	1,456
CaSO <sub>4</sub>	68.07	92.21	6,277
CaCl <sub>2</sub>	55.50	6.28	349
Mg(HCO <sub>3</sub> ) <sub>2</sub>	73.17	0.00	0
MgSO <sub>4</sub>	60.19	0.00	0
MgCl <sub>2</sub>	47.62	60.74	2,892
NaHCO <sub>3</sub>	84.00	0.00	0
NaSO <sub>4</sub>	71.03	0.00	0
NaCl	58.46	2,608.44	152,490

\*Milli Equivalents per Liter

This water is somewhat corrosive due to the pH observed on analysis. The corrosivity is increased by the content of mineral salts, and the presence of H<sub>2</sub>S, CO<sub>2</sub> in solution.

# Pro-Kem, Inc.

## WATER ANALYSIS REPORT

### SAMPLE

Oil Co. : SDX Resources  
 Lease : N.W. St.  
 Well No.: Injection Plant  
 Lab No. : F:\ANALYSES\Oct1601.001

Sample Loc. :  
 Date Analyzed: 16-October-2001  
 Date Sampled : 26-September-2001

### ANALYSIS

1. pH 7.600
2. Specific Gravity 60/60 F. 1.128
3. CaCO<sub>3</sub> Saturation Index @ 80 F. +1.737  
 @ 140 F. +2.697

#### Dissolved Gasses

- |                     | MG/L           | EQ. WT. | *MEQ/L |
|---------------------|----------------|---------|--------|
| 4. Hydrogen Sulfide | 10             |         |        |
| 5. Carbon Dioxide   | Not Determined |         |        |
| 6. Dissolved Oxygen | Not Determined |         |        |

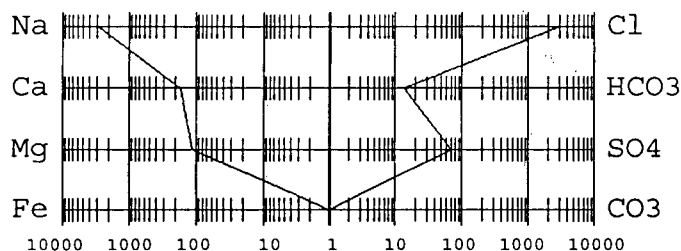
#### Cations

- |   |                |          |          |
|---|----------------|----------|----------|
| 7. Calcium (Ca <sup>++</sup> )            | 3,339          | / 20.1 = | 166.12   |
| 8. Magnesium (Mg <sup>++</sup> )          | 1,331          | / 12.2 = | 109.10   |
| 9. Sodium (Na <sup>+</sup> ) (Calculated) | 63,599         | / 23.0 = | 2,765.17 |
| 10. Barium (Ba <sup>++</sup> )            | Not Determined |          |          |

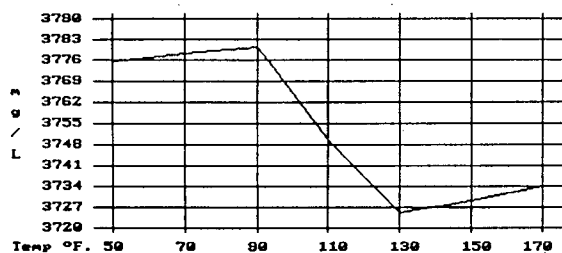
#### Anions

- |  |            |          |          |
|--|------------|----------|----------|
| 11. Hydroxyl (OH <sup>-</sup> )                  | 0          | / 17.0 = | 0.00     |
| 12. Carbonate (CO <sub>3</sub> <sup>=</sup> )    | 0          | / 30.0 = | 0.00     |
| 13. Bicarbonate (HCO <sub>3</sub> <sup>-</sup> ) | 781        | / 61.1 = | 12.78    |
| 14. Sulfate (SO <sub>4</sub> <sup>=</sup> )      | 3,300      | / 48.8 = | 67.62    |
| 15. Chloride (Cl <sup>-</sup> )                  | 104,976    | / 35.5 = | 2,957.07 |
| 16. Total Dissolved Solids                       | 177,326    |          |          |
| 17. Total Iron (Fe)                              | 9          | / 18.2 = | 0.49     |
| 18. Total Hardness As CaCO <sub>3</sub>          | 13,816     |          |          |
| 19. Resistivity @ 75 F. (Calculated)             | 0.016 /cm. |          |          |

#### LOGARITHMIC WATER PATTERN \*meq/L.



#### Calcium Sulfate Solubility Profile



#### PROBABLE MINERAL COMPOSITION COMPOUND EQ. WT. X \*meq/L = mg/L.

Ca(HCO <sub>3</sub> ) <sub>2</sub>	81.04	12.78	1,036
CaSO <sub>4</sub>	68.07	67.62	4,603
CaCl <sub>2</sub>	55.50	85.71	4,757
Mg(HCO <sub>3</sub> ) <sub>2</sub>	73.17	0.00	0
MgSO <sub>4</sub>	60.19	0.00	0
MgCL <sub>2</sub>	47.62	109.10	5,195
NaHCO <sub>3</sub>	84.00	0.00	0
NaSO <sub>4</sub>	71.03	0.00	0
NaCl	58.46	2,762.26	161,482

\*Milli Equivalents per Liter

This water is mildly corrosive due to the pH observed on analysis.  
 The corrosivity is increased by the content of mineral salts, and the presence  
 of H<sub>2</sub>S in solution.

SDX Resources, Inc.  
NW State #8  
1090' FSL 2126' FWL  
Sec 32, T17S, R28E  
Eddy Co., NM

**½ Mile Radius of Review – Offsetting Operators:**

BP Amoco (Altura/Arco Permian)  
200 N Loraine, Ste 1220  
Midland, TX 79701

Marbob Energy  
PO Box 227  
Artesia, NM 88211

Hanson Energy  
PO Box 1348  
Artesia, NM 88210

Mewbourne Oil Co  
PO Box 5270  
Hobbs, NM 88241

**Surface Owner:**

Marbob Energy  
PO Box 227  
Artesia, NM 88211

Copies of the Oil Conservation Division Form C-108 "Application for Authorization to Inject", Well Data Sheet and map have been sent by certified mail to the above stated parties on this the 16<sup>th</sup> day of April, 2007.

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


7002 3150 0005 0542 0879

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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$



Sent To

**Hanson Energy**  
**PO Box 1348**  
**Artesia, NM 88210**

PS Form 3800

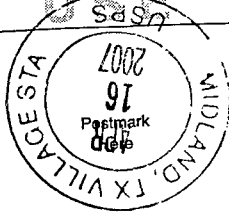
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Return Receipt Fee (Endorsement Required)	1.85
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.60



Sent To

**Mewbourne Oil Co**  
**PO Box 5270**  
**Hobbs, NM 88241**

PS Form 3800

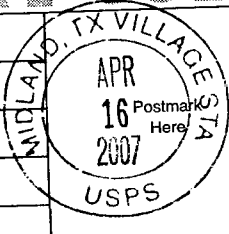
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Total Postage & Fees	\$



Sent To

**BP Amoco**  
**200 N Loraine, Ste 1220**  
**Midland, TX 79701**

PS Form 3800

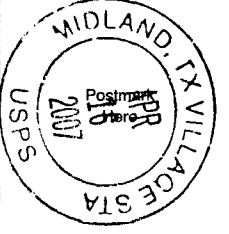
7002 3150 0005 0542 0862

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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$



Sent To

**Marbob Energy**  
**PO Box 227**  
**Artesia, NM 88211**

PS Form 3800


7002 3150 0005 0542 0893

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Certified Fee	
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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$



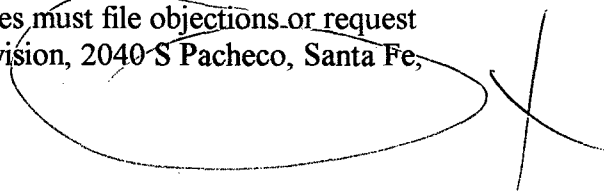
Sent To

**Marbob Energy**  
**PO Box 227**  
**Artesia, NM 88211**

PS Form 3800

Legal Notice Publication  
Artesia Daily Press

SDX Resources, Inc., 511 W. Ohio, Ste 601, PO Box 5061, Midland, TX 79704, contact: Chuck Morgan (432)685-1761 is seeking administrative approval from the New Mexico Oil Conservation Division to complete the following well for fluid injection: NW State #8 located in Sec 32, T17S, R28E, 1090' FSL 2126' FWL, Eddy County. Proposed injection interval is the San Andres formation with perforations from 2523' – 2859' with a maximum daily injection volume of produced formation water at 500 bbls per day with a maximum injection pressure of 500#. Interested parties must file objections or request for hearing with the New Mexico Oil Conservation Division, 2040 S Pacheco, Santa Fe, New Mexico 87505 within 15 days of this notice.

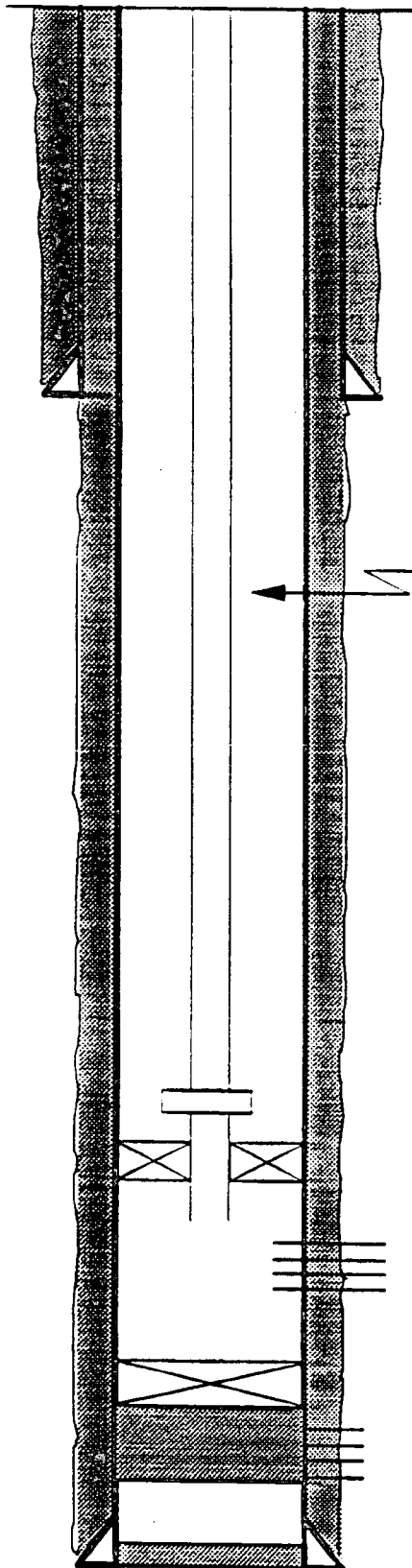


Empire Abo Unit F-27 GI.

SUBJECT: PRESENT STATUS

BY: D.C. BRETCHES

AOR  
Well



DATUM: RKB(11')



8-5/8" 28# J55 Surf CSG  
set @ 1003'. CMTD w/ 450 sx.  
TOC: SURF

184 jts 2-3/8" 4.7# 8RDEUE  
J55 IPC TBG Btm'd @ 5790'

ER Receptacle w/ 1.81" R Profile  
Baker 5-1/2" Lok Set PKR @ 5790'  
1 jt 2-3/8" 4.7# 8RDEUE J55 IPC TBG

Open Abo Perfs 5884, 86, 88, 93, 95,  
5905, 07, 09, 11, 13, 18, & 20 (12 holes)

CR set @ 5941'

Squeezed Abo Perfs  
5980-90' (20 holes) & 6041-68' (15 holes)  
Squeezed w/ 150 sx cmt

5-1/2" 15.5# J55 Prod CSG  
set @ 6108'. CMTD w/ 170 units &  
150 sx. TOC: Surf

PHD: 5941'  
TD: 6108'

**SDX Resources, Inc.**  
P.O. Box 5061  
MIDLAND, TX 79704  
TEL: (432) 685-1761 FAX: (432) 685-0533  
TOLL FREE: (800) 344-1761

2007 APR 23 AM 11 50

April 19, 2007


OCD  
1220 S St Francis Dr  
Santa Fe, NM 87505

Re: C-108  
NW State #8  
API #30-015-30815

Enclosed is the original "Affidavit of Publication" to be attached to the subject C-108.

Also enclosed is the corrected address on BP Amoco and "Proof of Notice" to the new address.

Thank you,



Bonnie Atwater  
Regulatory Tech

REC'D APR 19 2007

## Affidavit of Publication

NO. 19677

STATE OF NEW MEXICO

County of Eddy:

Gary D. Scott being duly

sworn, says: That he is the Publisher of The

Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and county and state, and that the here to attached

### Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, 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 week/days on the same day as follows:

First Publication April 13 2007

Second Publication

Third Publication

Fourth Publication

Fifth Publication

Subscribed and sworn to before me this

17th Day April 2007

Amanda K. Lamb  
Notary Public, Eddy County, New Mexico

My Commission expires April 5, 2011

## Copy of Publication:

### LEGAL NOTICE

SDX Resources, Inc., 511 W Ohio, Ste 601, Midland, TX 79704, contact: Chuck Morgan (432)685-1761 is seeking administrative approval from the New Mexico Oil Conservation Division to complete the following well for fluid injection: NW State #8 located in Sec 32, T17S, R28E, 1090' FSL 2126' FWL, Eddy County. Proposed injection interval is the San Andres formation with perforations from 2523' - 2859' with a maximum daily injection volume of produced formation water at 500 bbls per day with a maximum injection pressure of 500#. Interested parties must file objections or request for hearing with the New Mexico Oil Conservation Division, 2040 S. Pacheco, Santa Fe, New Mexico 87505 within 15 days of this notice. Published in the Artesia Daily Press, Artesia, N.M. April 13, 2007. Legal 19677.

*[Handwritten signature]*



BP Resources, Inc.  
PO Box 5061  
Midland, TX 79704

7002 3150 0005 0542 0930

7002 3150 0005 0542 0930

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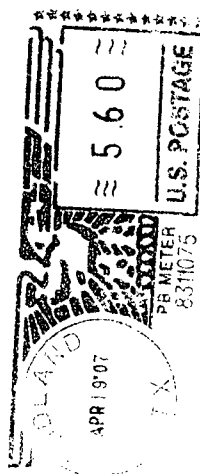
Sent To

Street, Ap  
or PO Box  
City, State

**BP Amoco**  
**600 N Marienfeld**  
**Midland, TX 79701**

PS Form 3849

Instructions



## **Jones, William V., EMNRD**

---

**From:** Jones, William V., EMNRD  
**Sent:** Tuesday, May 29, 2007 9:24 AM  
**To:** 'Chuck Morgan'; 'Ocean Munds-Dry'  
**Cc:** Ezeanyim, Richard, EMNRD; Brooks, David K., EMNRD  
**Subject:** SWD Application: NW State #8 additional notice

Hello Ocean and Chuck Morgan:

This SWD application is still pending and I'm sure you would like to get it processed:

As was briefly talked about in the past week's hearing: Would you or your Landman examine the ownership of all tracts partially or wholly included in the 1/2 mile AOR of this well and provide notice as in Rule 701B.(2), and let me know the date(s) you send these notice(s). Please style any notice of this pending injection well to affected parties as an "SWD" well in the Middle San Andres Formation.

I will release this permit as a SWD well after the 15 day suspense period.

The well's status as an "SWD" well inlieu of "injector in a waterflood" should not prejudice any pending waterflood application.

Thank You,

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

-----Original Message-----

**From:** Chuck Morgan [mailto:cmorgan@sdxresources.com]  
**Sent:** Friday, May 04, 2007 7:08 AM  
**To:** Jones, William V., EMNRD  
**Subject:** Re: NW Waterflood

Bonnie will send out re-notice on Monday

Jones, William V., EMNRD wrote:

>Chuck:

>I was thinking of the one well SWD application: NW State #8

>

>If you can have Bonnie re-notice this in the Newspaper, I can release  
>the order on May 18 so you can begin injection. This notice would be  
>specific to that particular well and complete our file on its  
>application.

>

>Thanks,

>

>

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

>

>

>-----Original Message-----

>From: Chuck Morgan [mailto:cmorgan@sdxresources.com]  
>Sent: Thursday, May 03, 2007 9:55 AM  
>To: Jones, William V., EMNRD  
>Subject: NW Waterflood

>  
>Spoke with Ocean Munds-Dry with Holland and Hart. She said that they  
>would re-notice the application in reference to the hearing. I  
>cancelled Bonnie in our office from doing it again.

>  
>  
>This inbound email has been scanned by the MessageLabs Email Security  
>System.

>  
>  
>Confidentiality Notice: This e-mail, including all attachments is for the sole use of the  
intended recipient(s) and may contain confidential and privileged information. Any  
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provided under the New Mexico Inspection of Public Records Act. If you are not the  
intended recipient, please contact the sender and destroy all copies of this message. --  
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This inbound email has been scanned by the MessageLabs Email Security System.

**Tracking:**

**Recipient**

**Read**

'Chuck Morgan'

'Ocean Munds-Dry'

Ezeanyim, Richard, EMNRD

Brooks, David K., EMNRD

Read: 5/31/2007 4:20 PM

Read: 5/29/2007 9:53 AM

# RAMSEY PETROLEUM, LP

511 WEST OHIO, SUITE 610  
MIDLAND, TEXAS 79701  
432-682-7408

## MINERAL AND LEASEHOLD TAKEOFF

Date: June 15, 2007  
Prospect: Redlake Area  
Description: Section 32, Township 17 South, Range 28 East, Eddy County, New Mexico

### SW/4 NW/4

MINERAL OWNER	INTEREST	NET ACRES	STATUS
State of New Mexico	8/8	40.000000	HBP OGL E-6945-2 Dated: 2-10-53

LEASEHOLD OWNER	W. I.	N. R. I.
Occidental Petroleum, LP P. O. Box 4294 Rm. 17.166 Houston, Texas 77210-4294	Record Title	

### SE/4 NW/4

MINERAL OWNER	INTEREST	NET ACRES	STATUS
State of New Mexico	8/8	40.000000	HBP OGL E-949-1 Dated: 8/10/46

LEASEHOLD OWNER	W. I.	N. R. I.
BP America Production Company P. O. Box 3092 Houston, Texas 77253-3092	Record Title	
Marbob Energy Corporation P. O. Box 227 Artesia, New Mexico 88211-0227		

*NW/4 Sec 32 ✓  
N/2 N/2 Sec 5 ✓*

# RAMSEY PETROLEUM, LP

511 WEST OHIO, SUITE 610  
MIDLAND, TEXAS 79701  
432-682-7408

## MINERAL AND LEASEHOLD TAKEOFF

**Date:** June 15, 2007

**Prospect:** Redlake Area

**Description:** Section 5, Township 18 South, Range 28 East, Eddy County, New Mexico

### Lot 3, (NE/4 NW/4)

MINERAL OWNER	INTEREST	NET ACRES	STATUS
State of New Mexico	8/8	40.000000	HBP OGL 647-361 Dated: 11-14-22

LEASEHOLD OWNER	W. I.	N. R. I.
-----------------	-------	----------

Occidental Petroleum, LP  
P. O. Box 4294  
Rm. 17.166  
Houston, Texas 77210-4294

Record Title

Ricks Exploration II, L. P.  
223 West Jane Jayroe Boulevard,  
Laverne, OK 73848

### Lot 4, (NW/4 NW/4)

MINERAL OWNER	INTEREST	NET ACRES	STATUS
State of New Mexico	8/8	40.000000	HBP OGL 11594-4 Dated: 11/10/44

LEASEHOLD OWNER	W. I.	N. R. I.
-----------------	-------	----------

Occidental Petroleum, LP  
P. O. Box 4294  
Rm. 17.166  
Houston, Texas 77210-4294

Record Title

Ricks Exploration II, L. P.  
3000 Oklahoma Tower  
210 Park Avenue  
Oklahoma City, Oklahoma 73102

Chaparral Energy, LLC  
701 Cedar Lake Boulevard,  
Oklahoma City, OK 73114

**Lots 1, 2, (N/2 NE/4)**

MINERAL OWNER	INTEREST	NET ACRES	STATUS
State of New Mexico	8/8	80.000000	HBP OGL B-3823-10 Dated: 2/11/35

LEASEHOLD OWNER	W. I.	N. R. I.
Occidental Petroleum, LP P. O. Box 4294 Rm. 17.166 Houston, Texas 77210-4294	Record Title	
Ricks Exploration II, L. P. 3000 Oklahoma Tower 210 Park Avenue Oklahoma City, Oklahoma 73102		

**SW/4 NW/4**

MINERAL OWNER	INTEREST	NET ACRES	STATUS
State of New Mexico	8/8	40.000000	HBP OGL E-7179-1 Dated: 6/10/53

LEASEHOLD OWNER	W. I.	N. R. I.
ConocoPhillips Company P. O. Box 7500 Bartlesville, Oklahoma 74005	Record Title	

**SE/4 NW/4**

MINERAL OWNER	INTEREST	NET ACRES	STATUS
State of New Mexico	8/8	40.000000	HBP OGL E-2715-6 Dated: 6/10/49

LEASEHOLD OWNER	W. I.	N. R. I.
Chaparral Energy, LLC 701 Cedar Lake Boulevard, Oklahoma City, OK 73114		

**SW/4 NE/4**

MINERAL OWNER	INTEREST	NET ACRES	STATUS
State of New Mexico	8/8	40.000000	HBP OGL 647-154 Dated: 11/14/22

LEASEHOLD OWNER	W. I.	N. R. I.
Marathon Oil Company P. O. Box 2069 Houston, Texas 77252-2069		

**BEFORE THE  
OIL CONSERVATION DIVISION  
NEW MEXICO ENERGY, MINERALS AND  
NATURAL RESOURCES DEPARTMENT**

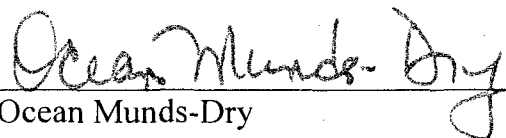
**IN THE MATTER OF THE APPLICATION  
OF SDX RESOURCES, INC. FOR  
APPROVAL OF A WATERFLOOD  
PROJECT, EDDY COUNTY, NEW MEXICO.**

**CASE NO. 13923**

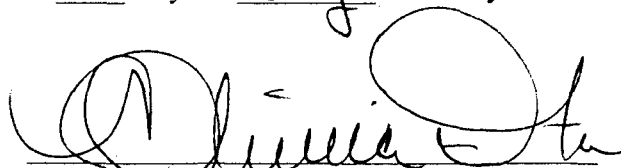
**AFFIDAVIT**

STATE OF NEW MEXICO       )  
  ) ss.  
COUNTY OF SANTA FE       )

Ocean Munds-Dry, attorney in fact and authorized representative of SDX Resources, Inc., the Applicant herein, states that notice of the above-referenced Application was mailed to the interested parties shown on Exhibit "A" attached hereto in accordance with Oil Conservation Division Rules, and that true and correct copies of the notice letter and proof of notice are attached hereto.

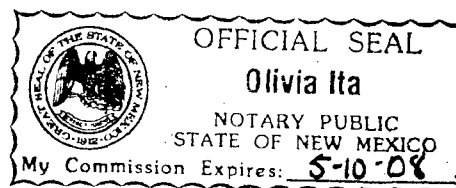
  
Ocean Munds-Dry

SUBSCRIBED AND SWORN to before me this 25<sup>th</sup> day of July 2007 by Ocean Munds-Dry.

  
Notary Public

My Commission Expires: 5-10-08

BEFORE THE OIL CONSERVATION DIVISION  
Santa Fe, New Mexico  
Case No. 13923...Exhibit No. 12  
Submitted by:  
SDX Resources, Inc.  
Hearing Date: July 26, 2007







June 25, 2007

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED****AFFECTED INTEREST OWNERS**

Re: Application of SDX Resources Inc. for Approval of a Waterflood Project, Eddy County, New Mexico.

Ladies and Gentlemen:

This letter is to advise you that SDX Resources, Inc. has filed the enclosed application with the New Mexico Oil Conservation Division seeking authority to implement secondary recovery operations in its proposed project waterflood area. A copy of this application with attached Oil Conservation Division Form C-108 is enclosed for your information.

This application has been set for hearing before a Division Examiner at 8:15 a.m. on July 26, 2007. The hearing will be held in Porter Hall in the Oil Conservation Division's Santa Fe Offices located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505. You are not required to attend this hearing, but as an owner of an interest that may be affected by this application, you may appear and present testimony. Failure to appear at that time and become a party of record will preclude you from challenging the matter at a later date.

Parties appearing in cases are required by Division Rule 1208.B to file a Pre-hearing Statement four days in advance of a scheduled hearing. This statement must be filed at the Division's Santa Fe office at the above specified address and should include: the names of the parties and their attorneys; a concise statement of the case; the names of all witnesses the party will call to testify at the hearing; the approximate time the party will need to present its case; and identification of any procedural matters that are to be resolved prior to the hearing.

Very truly yours,

*Ocean Munds-Dry*  
Ocean Munds-Dry

ATTORNEY FOR SDX RESOURCES, INC.

Enclosures

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION  
OF SDX RESOURCES, INC.  
FOR APPROVAL OF A  
WATERFLOOD PROJECT  
EDDY COUNTY, NEW MEXICO.

CASE NO. \_\_\_\_\_

2007 APR 24 PM 3 23

APPLICATION

SDX Resources, Inc. ("SDX") through its attorneys, Holland & Hart, LLP, hereby makes application for an order approving a secondary recovery project for the injection of water into the Queen, Grayburg, San Andres formations, Artesia Queen-Grayburg-San Andres Pool, and in support thereof states:

1. SDX seeks approval of a waterflood project and authorization to implement secondary recovery operations in this area by the injection of water into the Queen, Grayburg, San Andres formation, Artesia Queen-Grayburg-San Andres Pool. A copy of SDX's Application for Authorization to Inject (Division Form C-108) through one injection well in the proposed waterflood project area is attached hereto as Exhibit A.

2. The boundaries of the proposed waterflood project area coincide with the boundaries of the leases and include the following acreage in Lea County, New Mexico:

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM

Section 32:	NE/ 4, SW/4
Section 29:	SE/4 SE/4
Section 31:	E/2 E/2

TOWNSHIP 18 SOUTH, RANGE 28 EAST, NMPM

Section 6:

NE/4 NE/4

3. Applicant requests that the Division establish a procedure for the administrative approval of additional injection wells within the project area without the necessity for further hearings.

4. Notice of this application has been provided to the owner of the surface of the land on which each proposed injection well is to be located and to each leasehold operator within one-half mile of each injection well location and these owners are identified on the Notice List attached to this application as Exhibit B.

6. Approval of this application will afford SDX the opportunity to produce its just and equitable share of the remaining reserves in the Artesia Queen-Grayburg-San Andres Pool and will otherwise be in the best interest of the conservation, the protection of correlative rights and the prevention of waste.

WHEREFORE, SDX Resources, Inc. requests that this matter be set for hearing before a duly appointed Examiner of the Oil Conservation Division on May 24, 2007 and after notice and hearing as required by law, the Division enter its Order granting this application.

Respectfully submitted,

HOLLAND & HART LLP

By: Ocean Munds-Dry

WILLIAM F. CARR  
OCEAN MUNDS-DRY  
Post Office Box 2208  
Santa Fe, New Mexico 87504  
Telephone: (505) 988-4421

ATTORNEYS FOR SDX RESOURCES, INC.

**EXHIBIT B**

**SDX RESOURCES, INC.**  
**WATERFLOOD PROJECT**  
**EDDY COUNTY, NEW MEXICO**

**SURFACE OWNERS**

Marbob Energy Corporation  
P.O. Box 227  
Artesia, New Mexico 88211

**OFFSET OPERATORS**

BP Amoco (Altura/Arco Permian)  
200 N. Lorraine Suite 1220  
Midland, Texas 79701

Marbob Energy Corporation  
P.O. Box 227  
Artesia, New Mexico 88211

Hanson Energy  
P.O. Box 1348  
Artesia, New Mexico 88210

Mewbourne oil Co.  
P.O. Box 5270  
Hobbs, New Mexico 88241

## Jones, William V., EMNRD

---

**From:** Jones, William V., EMNRD  
**Sent:** Friday, April 27, 2007 1:19 PM  
**To:** 'Chuck Morgan'  
**Cc:** Ezeanyim, Richard, EMNRD; Arrant, Bryan, EMNRD  
**Subject:** SWD Application: NW State #8 API No. 30-015-30815

Hello Mr. Morgan:

After reviewing your application we have the following questions and requests:

- 1) Please re-notice this in the Newspaper with the correct and latest Oil Conservation Address: 1220 South St. Francis Dr. Santa Fe NM 87505. The address used on Pacheco street is about 7 years old.
- 2) Apparently this location has Marbob as the surface owner, with the subsurface owned by the State Land Office, and SDX as the mineral lessee. For our records, please send a production plot with all history of oil/gas/water production from this well from these existing perforations and put the final cumulatives on the plot somewhere.
- 3) Please make a statement for our files as to why this well is worth more as an SWD well than a producing well. Last reported production we have records for is approx. (daily) 2 oil 10 gas 7 water. What do you estimate as the current remaining oil saturation (percent of OOIP) in this reservoir near this well?

Thank You,

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

REC'D MAY 14 2007

# Affidavit of Publication

NO. 19730

STATE OF NEW MEXICO

County of Eddy:

Gary D. Scott being duly

sworn, says: That he is the Publisher of The

Artesia Daily Press, a daily newspaper of general  
circulation, published in English at Artesia, said county  
and county and state, and that the here to attached

## Legal Notice

was published in a regular and entire issue of the said  
Artesia Daily Press, 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 week/days on the same  
day as follows:

First Publication May 8 2007

Second Publication \_\_\_\_\_

Third Publication \_\_\_\_\_

Fourth Publication \_\_\_\_\_

Fifth Publication \_\_\_\_\_

Subscribed and sworn to before me this

11th Day May 2007

Amanda K. Lamb  
Notary Public, Eddy County, New Mexico

My Commission expires April 5, 2011

## Copy of Publication:

SDX Resources, Inc.,  
511 W Ohio, Ste 601,  
Midland, TX 79701, con-  
tact: Chuck Morgan  
(432)685-1761 is  
seeking approval from  
the New Mexico Oil  
Conservation Division to  
complete the following  
well for fluid injection:  
NW State #8 located in  
Sec 32, T17S, R28E,  
1090' FSL 2126' FWL,  
Eddy County. Proposed  
injection interval is the  
San Andres information  
with perforations from  
2523' - 2859' with a max-  
imum daily injection vol-  
ume of produced forma-  
tion water at 500 bbls per  
day with a maximum in-  
jection pressure of 500#.  
Interested parties must  
file objection or request  
for hearing with the New  
Mexico Oil Conservation  
Division, 1220 S St Fran-  
cis, Santa Fe, NM 87505  
within 15 days of this  
notice.

Published in the Artesia  
Daily Press, Artesia,  
N.M. May 8, 2007.

Legal 19730

2007 MAY 7 AM 11 50

**SDX Resources, Inc.**

P.O. Box 5061

MIDLAND, TX 79704

TEL: (432) 685-1761 FAX: (432) 685-0533

TOLL FREE: (800) 344-1761

NMOCD  
1220 S. St. Francis Drive  
Santa Fe, NM 87504

May 3, 2007

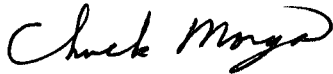
Attention: Mr. Jones

RE: Waterflood Application  
NW State Lease  
Sec. 32 T17S R28E  
Eddy County, New Mexico

Dear Mr. Jones,

SDX Resources, Inc. has applied for approval of a waterflood project on their NW State Lease in Eddy County. The first well to be converted to injection is the NW State #8 (API 30-015-30815). Enclosed for your review are production plots, well cumulative production history, and reserve calculations for this well. Reserve estimations indicate that this well will recover about 10% of the Original Oil In Place on primary production. The well is nearing its economic limit and the remaining oil in place is estimated to be 90%. Secondary Recovery from waterflooding is estimated to equal Primary Recovery (a one to one ratio: secondary to primary). Drainage factors and new well cost indicate that a secondary recovery project is the most economical way to recovery additional reserves that would otherwise be lost. Thanks for your assistance on this matter.

Sincerely,



Chuck Morgan

# Annual CashFlow Report

Project: H:\Program Files\IHS Energy\PowerTools v8.0\NW State Wells.mdb

Lease Name: NW STATE (8)

Operator: SDX RESOURCES INCORPORATED

County, ST: EDDY, NM

Field Name: ARTESIA

Location: 32N 17S 28E NE SE SW

Reserve Type/Class: Proved/Developed, Producing

Date	Well Count	Gross Production		Net Production		Average Prices		Sales Total (\$)
		Oil (Bbl)	Gas (Mcf)	Oil (Bbl)	Gas (Mcf)	Oil (\$/Bbl)	Gas (\$/Mcf)	
12/2007	1	598	3,202	448	2,401	50.00	6.00	36,815
12/2008	1	610	3,326	457	2,495	50.00	6.00	37,837
12/2009	1	574	3,181	430	2,385	50.00	6.00	35,831
12/2010	1	544	3,056	408	2,292	50.00	6.00	34,142
12/2011	1	518	2,948	389	2,211	50.00	6.00	32,694
12/2012	1	496	2,853	372	2,140	50.00	6.00	31,433
12/2013	1	476	2,769	357	2,077	50.00	6.00	30,322
12/2014	1	459	2,693	344	2,020	50.00	6.00	29,333
12/2015	1	444	2,624	333	1,968	50.00	6.00	28,444
12/2016	1	430	2,562	322	1,922	50.00	6.00	27,640
12/2017	1	417	2,505	313	1,879	50.00	6.00	26,908
12/2018	1	405	2,452	304	1,839	50.00	6.00	26,237
12/2019	1	395	2,403	296	1,802	50.00	6.00	25,619
12/2020	1	385	2,358	289	1,768	50.00	6.00	25,048
12/2021	1	376	2,316	282	1,737	50.00	6.00	24,517
Remainder:		548	3,400	411	2,550	50.00	6.00	35,858
Grand Total:		7,674	44,648	5,755	33,486	50.00	6.00	488,679

Date	Operating Expenses (\$)	Taxes (\$)	Operating Income (\$)	Other Costs (\$)	Periodic Cash Flow (\$)	Cumulative Cash Flow (\$)	10% Cash Flow (\$)
12/2007	11,000	2,733	23,083	0	23,083	23,083	22,030
12/2008	12,000	2,810	23,027	0	23,027	46,110	20,061
12/2009	12,000	2,662	21,168	0	21,168	67,278	16,764
12/2010	12,000	2,538	19,604	0	19,604	86,882	14,113
12/2011	12,000	2,431	18,263	0	18,263	105,145	11,951
12/2012	12,000	2,338	17,095	0	17,095	122,240	10,170
12/2013	12,000	2,256	16,066	0	16,066	138,307	8,689
12/2014	12,000	2,183	15,150	0	15,150	153,457	7,448
12/2015	12,000	2,117	14,327	0	14,327	167,784	6,403
12/2016	12,000	2,058	13,583	0	13,583	181,367	5,519
12/2017	12,000	2,004	12,905	0	12,905	194,272	4,766
12/2018	12,000	1,954	12,283	0	12,283	206,555	4,124
12/2019	12,000	1,908	11,711	0	11,711	218,266	3,575
12/2020	12,000	1,866	11,182	0	11,182	229,447	3,103
12/2021	12,000	1,827	10,690	0	10,690	240,138	2,697
Remainder:	18,000	2,672	15,186	0	15,186	255,324	3,404
Grand Total:	197,000	36,355	255,324	0	255,324	255,324	144,815

**Discount Present Worth:**

0.00 %	255,324
10.00 %	144,815
20.00 %	98,908
30.00 %	75,537
40.00 %	61,749
50.00 %	52,721
60.00 %	46,357
70.00 %	41,624
80.00 %	37,960
90.00 %	35,034
100.00 %	32,641

**Economic Dates:**

Effective Date	02/2007
Entered Limit	06/2023
Economic Life	197 Months
	16 Years 5 Months

**Economics Information:**

Net Payout Date:	02/2007
Rate of Return:	>100 %
Return on Investment:	0.00
Disc Return on Invest:	0.00
Initial Division of Interest:	

**Economics Summary:**

	Bbl Oil	Mcf Gas
Ultimate Gross	32,257	99,733
Historic Gross	24,527	54,786
Gross at Eff Date	24,583	55,085
Remaining Gross	7,674	44,648
Remaining Net	5,755	33,486

BTU Content: 1.000 mmbtu/mcf  
Gravity: Oil: 28.00 Gas: 0.800

NRI

ORI

Oil: 75.000000  
Gas: 75.000000

Reversion Date: None Injection: 0.000000 0.000000



# Rate/Time Graph

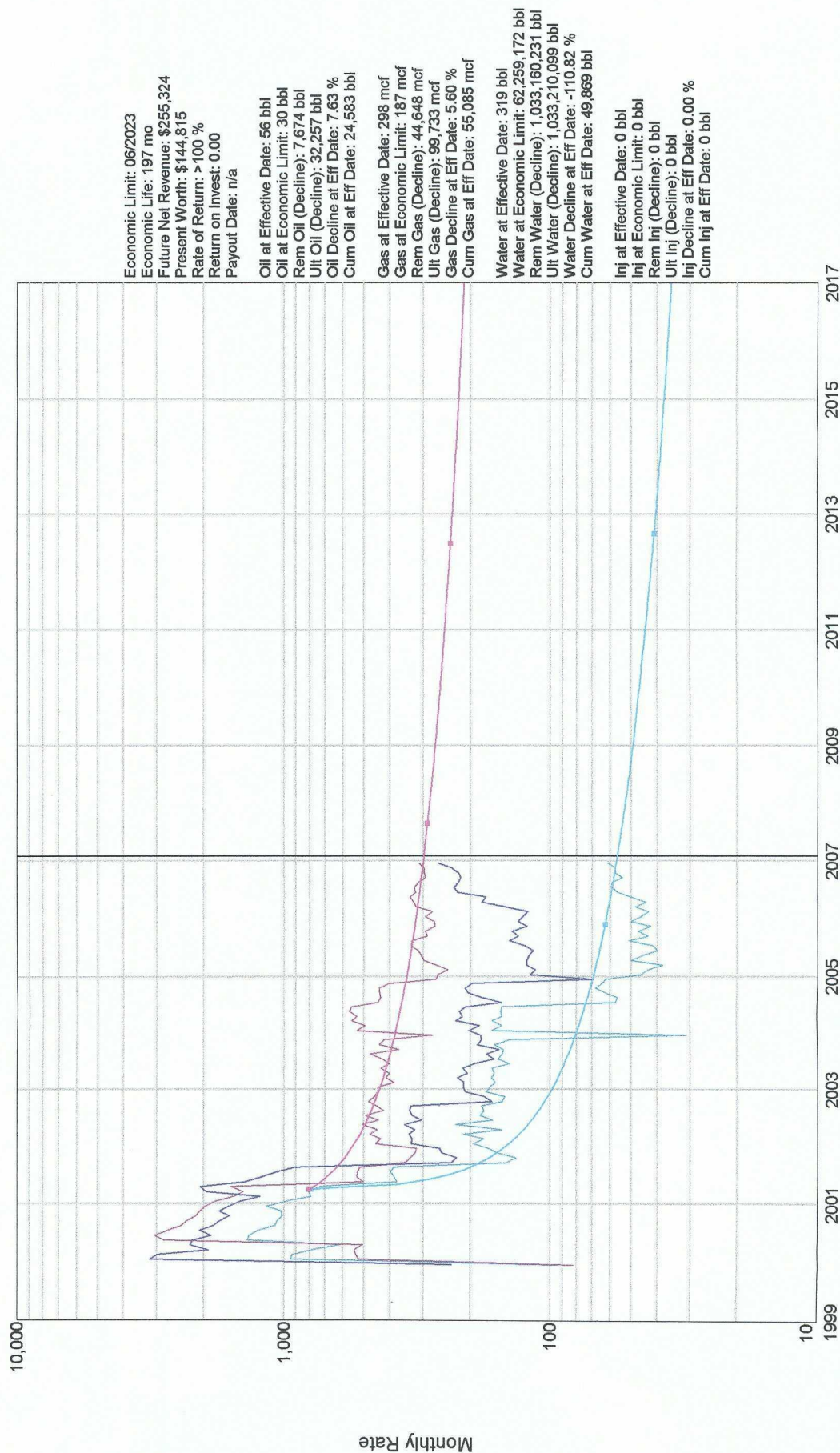
Lease Name: NW STATE (8)  
County, ST: EDDY, NM  
Location: 32N 17S 28E NE SE SW

Project: H:\Program Files\IHS Energy\PowerTools v8.0\NW State Wells.mdb

Date: 5/3/2007  
Time: 9:36 AM

Operator: SDX RESOURCES INCORPORATED  
Field Name: ARTESIA

## NW STATE #8- ARTESIA



# Rate/Time Graph

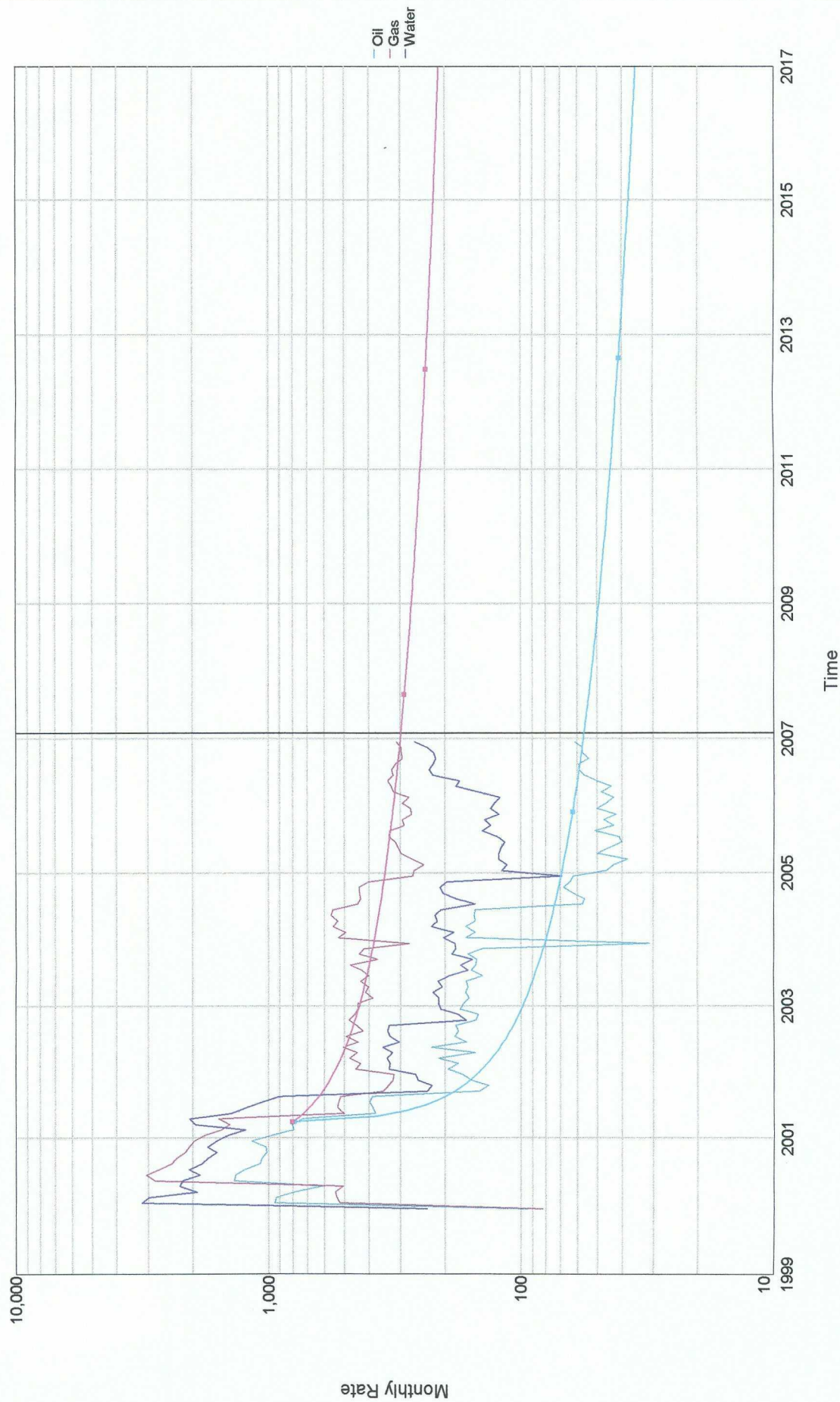
Lease Name: NW STATE (8)  
County, ST: EDDY, NM  
Location: 32N 17S 28E NE SE SW

Project: H:\Program Files\IHS Energy\PowerTools v8.0\NW State Wells.mdb

Date: 5/3/2007  
Time: 9:39 AM

Operator: SDX RESOURCES INCORPORATED  
Field Name: ARTESIA

## NW STATE #8- ARTESIA



## Inactive Well List

Total Well Count: 141 Inactive Well Count: 1 Since: 7/10/2006

Printed On: Wednesday, October 03 2007

District	API	Well	ULSTR	OCD Unit	OGRID	Operator	Lease Type	Well Type	Last Production	Formation/Notes	Status	TA Exp Date
2	30-015-22402	EXXON B STATE COM #001	G-29-19S-28E	G	20451	SDX RESOURCES INC	S	G	03/1992		T	10/12/2005

WHERE Ogrid:20451, County:All, District:All, Township:All, Range:All, Section:All, Production(months):15, Excludes Wells Under ACOI, Excludes Wells in Approved TA Period

SWD Order Number \_\_\_\_\_ Dates: Division Approved \_\_\_\_\_ District Approved \_\_\_\_\_

Well Name/Num: NW STATE #8 Date Spudded: 1999API Num: (30-) 015-30815 County: EDDYFootages 1090 FSL/2126 FWL Sec 32 Tsp MS Rge 28EOperator Name: SDX RESOURCES, INC. Contact CHUCK MORGANOperator Address: PO BOX 5061, MIDLAND TX 79704Current Status of Well: was producer since 12/31/99 Planned Work: Convert w/same perf Inj. Tubing Size: 2 3/8"

	Hole/Pipe Sizes	Depths	Cement	Top/Method
Surface	8 5/8	461	350	CIRC
Intermediate				
Production	5 1/2	3302	600	CIRC
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)
<del>Salt/Reef</del>	<del>2200-3400</del>	<del>SA</del>	<del></del>
<del>ABO</del>	<del>5860-5994</del>	<del>SA</del>	<del></del>
<del>Cliff House, Etc</del>			
Formation Above		Queen	
Top Inj Interval	2523	SA	
Bottom Inj Interval	2859	SA	
Formation Below	3420	SA	

Water = 340'  
 TRRS = 610'  
 Powers = 960'  
 Queen = 1180'  
 GBS = 1528'  
 SA = 1952'  
 504 PSI Max. WHIP  
 No Open Hole (Y/N)  
 Deviated Hole (Y/N)

Fresh Water: Depths: 0-150 Wells(Y/N) NOPE Analysis Included (Y/N): ☒ Affirmative Statement ☒Salt Water Analysis: Injection Zone (Y/N/NA) \_\_\_\_\_ Disp Waters (Y/N/NA) \_\_\_\_\_ Types: SameNotice: Newspaper(Y/N) Ab Surface Owner: Marble Mineral Owner(s): S.L.O.Other Affected Parties: Melburn, Hansen E, BP-Altura/ArcorAOR/Repairs: NumActiveWells 34 Repairs? \_\_\_\_\_ Producing in Injection Interval in AOR ☒AOR Num of P&A Wells 1 Repairs? \_\_\_\_\_ Diagrams Included? ☒ RBDMS Updated (Y/N) \_\_\_\_\_Well Table Adequate (Y/N) ☒ AOR STRs: Sec \_\_\_\_\_ Tsp \_\_\_\_\_ Rge \_\_\_\_\_ UIC Form Completed (Y/N) 5/17/07New AOR Table Filename \_\_\_\_\_ Sec \_\_\_\_\_ Tsp \_\_\_\_\_ Rge \_\_\_\_\_ This Form completed 4/27/07Conditions of Approval: Sec \_\_\_\_\_ Tsp \_\_\_\_\_ Rge \_\_\_\_\_ Data Request Sent 4/27/07

RE-NOTICE Newspaper

Prod Curve w/ CML's on it.

AOR Required Work: \_\_\_\_\_

Required Work to this Well: \_\_\_\_\_

GBS & SA are waterflooded  
 in this area.  
 (Rule 40 = OK)