11/24/2015 DATE IN	SUSPENSE	PRG ENGINEER	12/02/2015 LOGGED IN	SWD TYPE	PMAM1533637710 APP NO.

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

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

Application Acronyms:

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

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

-SWD
-Gramma Ridge Disposal LLC
370997

[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 _____

RECEIVED OCD
2015 NOV 25 P 2:41

[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

-well
-Packer 18 State #1
30-025-35108
Pool
-SWD; Delaware
96100

[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.

Eddie W. Seay	Eddie W. Seay	Agent	11/15/15
Print or Type Name	Signature	Title	Date

Seay o & g lease . net
e-mail Address

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: Grama Ridge Disposal, LLC

ADDRESS: 120 North Canyon, Carlsbad, NM 88220

CONTACT PARTY: Tommy Pearson PHONE: 575-370-3162

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.

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.

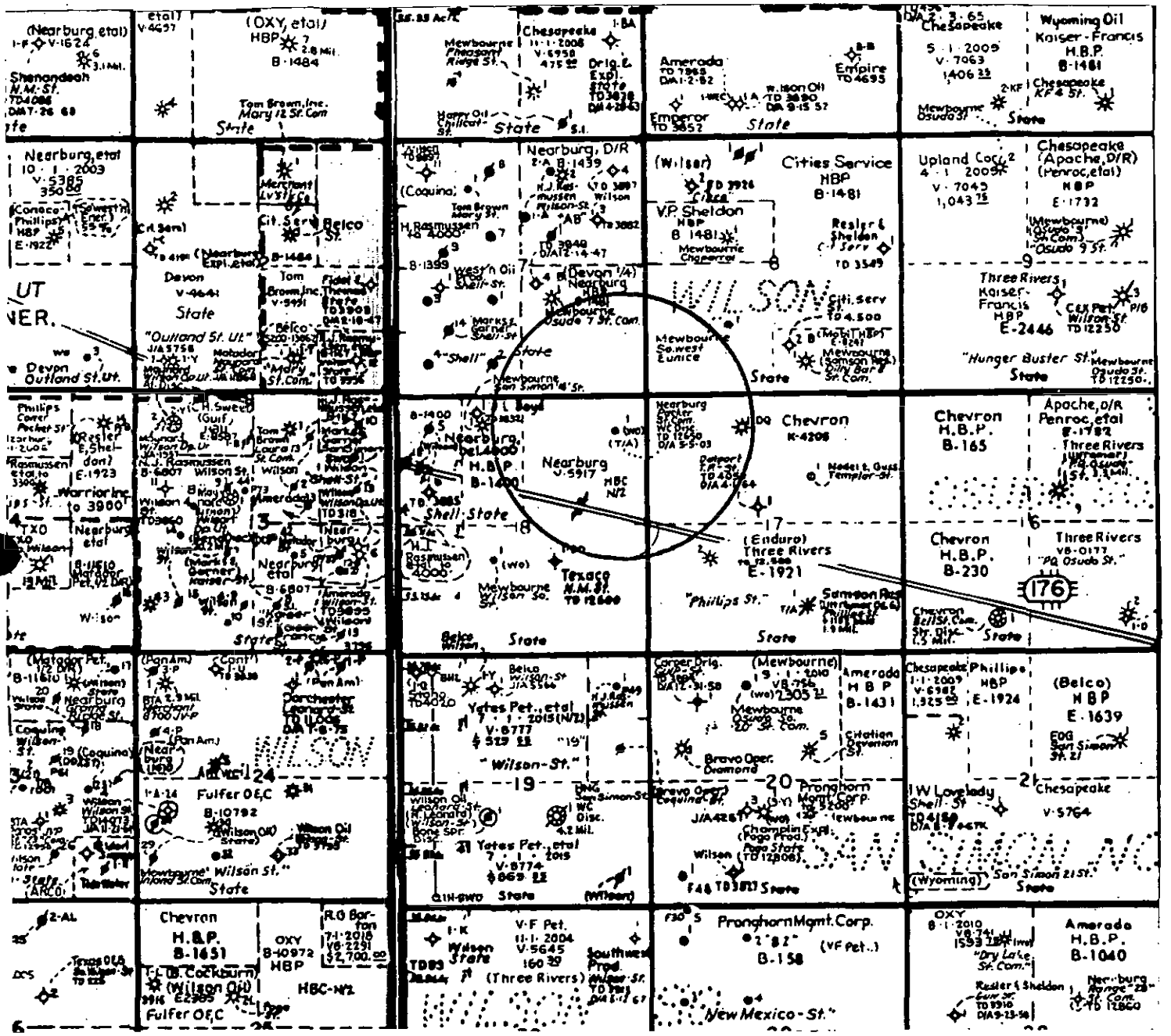
NAME: Tommy Pearson TITLE: Owner/Operator

SIGNATURE: Tommy Pearson DATE: 11/15/15

E-MAIL ADDRESS: tsp@leaco.net

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: logs filed when drilled.

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


(Nearburg, etal)
Shenandoah
(OXY, etal)
HBP
B-1484
Tom Brown, Inc.
Mary 12 St. Com
State
Chesapeake
Drlg. & Expl.
State
Amerada
Empire
Emperor
Wyoming Oil
Kaiser-Francis
H.B.P.
B-1481
Chesapeake
Nearburg, etal
Nearburg, D/R
Cities Service
HBP
B-1481
V.P. Sheldon
Upland Corp.
Chesapeake
(Apache, D/R)
(Penroc, etal)
Three Rivers
Kaiser-Francis
HBP
E-2446
"Hunger Buster St."
Devon
Outland St. Ut.
Nearburg
Chevron
K-4208
Chevron
H.B.P.
B-165
Apache, D/R
Penroc, etal
E-1782
Three Rivers
Chevron
H.B.P.
B-230
Three Rivers
"PQ Osudo St."
(Enduro)
Three Rivers
E-1921
"Phillips St."
176
(Matador Pet.)
(Pan Am)
Yates Pet., etal
"Wilson St."
(Mewbourne)
Amerada
H B P
B-1431
Chesapeake Phillips
HBP
E-1924
(Belco)
H B P
E-1639
Fulfer OE,C
B-10792
Chevron
H.B.P.
B-1651
OXY
B-10972
HBP
HBC-N/2
Pronghorn Mgmt. Corp.
B-158
"New Mexico-St."
OXY
Amerada
H.B.P.
B-1040
"Dry Lake St. Com."
WILSON

ATTACHMENT TO APPLICATION C-108

Packer 18 State #1 (API 30-025-35108)
Unit A, Sect. 18, Tws. 21 S., Rng. 35 E.
Lea Co., NM

III. WELL DATA

A. 1) See injection well data sheets and attached schematics.
2) See injection well data sheets and attached schematics.
3) 4 1/2" coated tubing.
4) Baker lock set or the equivalent.

B. 1) Injection formation is the Delaware Sand.
2) Injection interval 5630' to 6290'.
3) This is a plugged and abandoned well converted to SWD.
4) The next higher producing zone is the base of the Yates at 3695'.
The next lower producing zone is the Bone Springs at approximately 7658'.

IV. NO.

V. MAP ATTACHED.

VI. LIST OF WELLS AND DATA ATTACHED.

VII. Grama Ridge plans to re-enter the plugged Packer 18 State well and convert to a commercial Delaware Disposal. Plan to drill out all plugs down to 7" casing stub at 6300', run 7" casing from surface to stub, and circulate cement to surface. Test casing. Selectively perforate 7" casing from 5630' to 6290', acidize as needed. Run 4 ½" plastic coated tubing and 7" packer and set within 100 ft. of upper most perfs. Notify OCD, load backside and test as required. Put in service.

1) Plan to inject approximately 10,000 bpd of produced water.
2) Commercial SWD.
3) Average injection pressure should be approximately 1100# or whatever limit OCD allows.
4) Produced water from various operators and formations.

VIII. The proposed disposal formation is interbedded sand and limestone. The primary geologic formation is the Lower Delaware from 5630' to 6290'.

The fresh water formation for this area would be the Santa Rosa which would be between 300′ to 400′ below surface. See attached water analysis.

IX. ACID AS NEEDED. 2 wells from SR

X. PREVIOUSLY SUBMITTED TO OCD.

XI. ATTACHED.

XII. I, Eddie W. Seay, have examined all available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zones and any underground source of drinking water pertaining to this well.

XIII. ATTACHED.

Side 1

INJECTION WELL DATA SHEET

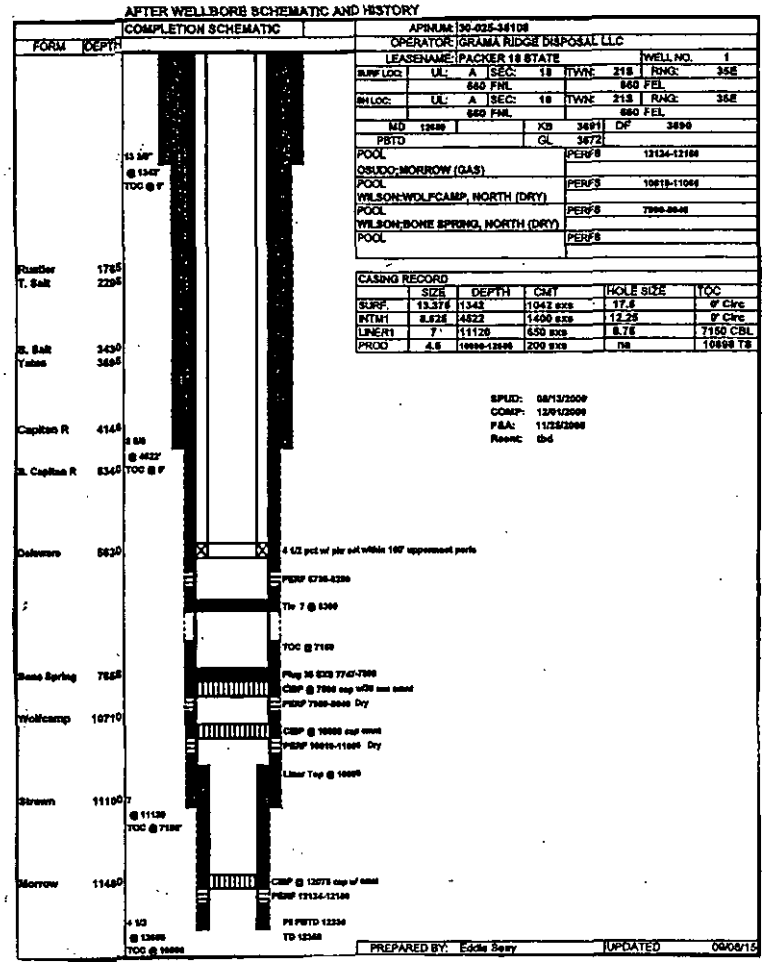
OPERATOR: Grama Ridge Disposal LLC

WELL NAME & NUMBER: Packer 18 State # 1 (API 30-025-35108)

WELL LOCATION: 660/N 660/E A 18 21 35E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17.5 Casing Size: 13.375

Cemented with: 1042 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circ

Intermediate Casing

Hole Size: 12.25 Casing Size: 8.625

Cemented with: 1400 sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Circ.

Production Casing

Hole Size: 8 Casing Size: 7

Cemented with: App. 700 sx. *or* _____ ft³

Top of Cement: Tie t Strat 6300 and Circ. Method Determined: Calc DV Back t 6300.

Total Depth: 12650

Injection Interval

5630 feet to 6290

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 4 1/2 Lining Material: IPC

Type of Packer: Baker loc set or the equivalent

Packer Setting Depth: Appx 5530 or within 100 ft of top perfs.

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

Additional Data

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

   If no, for what purpose was the well originally drilled? oil & gas in Morrow

2. Name of the Injection Formation: Delaware

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

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. Tested in Morrow, Wolfcamp, Bone Spring / Plugs listed on schematic

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

   the zone overlying is the Yates at 3695

   the zone underlying is the Bone Spring 7658

DISPOSAL WELL

30-025-35108	PACKER 18 STATE	1	GRAM RIDGE DISPOSAL LLC	12650	O	P	Lea	S	A	18	21	S	35	E	660	N	660	E

Wells wihin 1/2 mile of proposed disposal well.

API #	PROPERTY NAME	#	OPERATOR	TD	TYPE	STATUS	CO	LAND	U/L	SEC	TWN		RNG		N/S		E/W		Dist
30-025-24755	NEW MEXICO DQ STATE	1	CHEVRON U S A INC	12350	G	A	Lea	S	C	17	21	S	35	E	660	N	1980	W	2640

30-025-37272 - outside of ½ mile - cmt is adequate.

San Simon 18 State Com #1
Newbourne - Active - Morrow

C-18-21S-35E

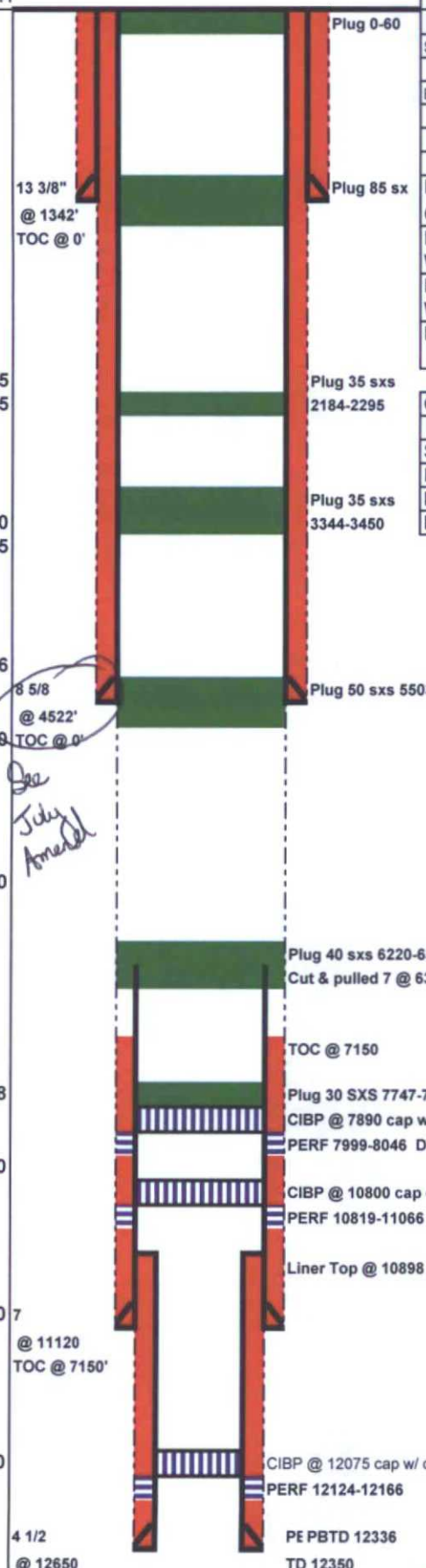
660 FNL 1838 FWL

[13⅜" @ 1455'; cmt to surface/ 9⅝" @ 5454'; DV at 3755'; 2 stage + 3 trimmie (cmt circ) (up into 13⅜") & surface
5½" @ 12500'; 800 sx - TOC 8866']

BEFORE WELLBORE SCHEMATIC AND HISTORY

COMPLETION SCHEMATIC

FORM	DEPTH
Rustler	1765
T. Salt	2295
B. Salt	3430
Yates	3695
Capitan R	4146
B. Capitan R	5349
Delaware	5630
Bone Spring	7658
Wolfcamp	10710
Strawn	11100
Morrow	11480



APINUM:	30-025-35108
OPERATOR:	NEARBURG PRODUCING CO
LEASENAME:	PACKER 18 STATE
WELL NO.	1
SURF LOC:	UL: A SEC: 18 TWN: 21S RNG: 35E
	660 FNL 660 FEL
BH LOC:	UL: A SEC: 18 TWN: 21S RNG: 35E
	660 FNL 660 FEL
MD 12650	KB 3691 DF 3690
PBTD	GL 3672

POOL	PERFS
OSUDO;MORROW (GAS)	12124-12166
WILSON:WOLFCAMP, NORTH (DRY)	10819-11066
WILSON;BONE SPRING, NORTH (DRY)	7990-8046

CASING RECORD

	SIZE	DEPTH	CMT	HOLE SIZE	TOC
SURF.	13.375	1342	1042 sxs	17.5	0' Circ
INTM1	8.625	4522	1400 sxs	12.25	0' Circ
LINER1	7	6300-11120	650 sxs	8.75	7150 CBL
PROD	4.5	10898-12650	200 sxs	na	10898 TS

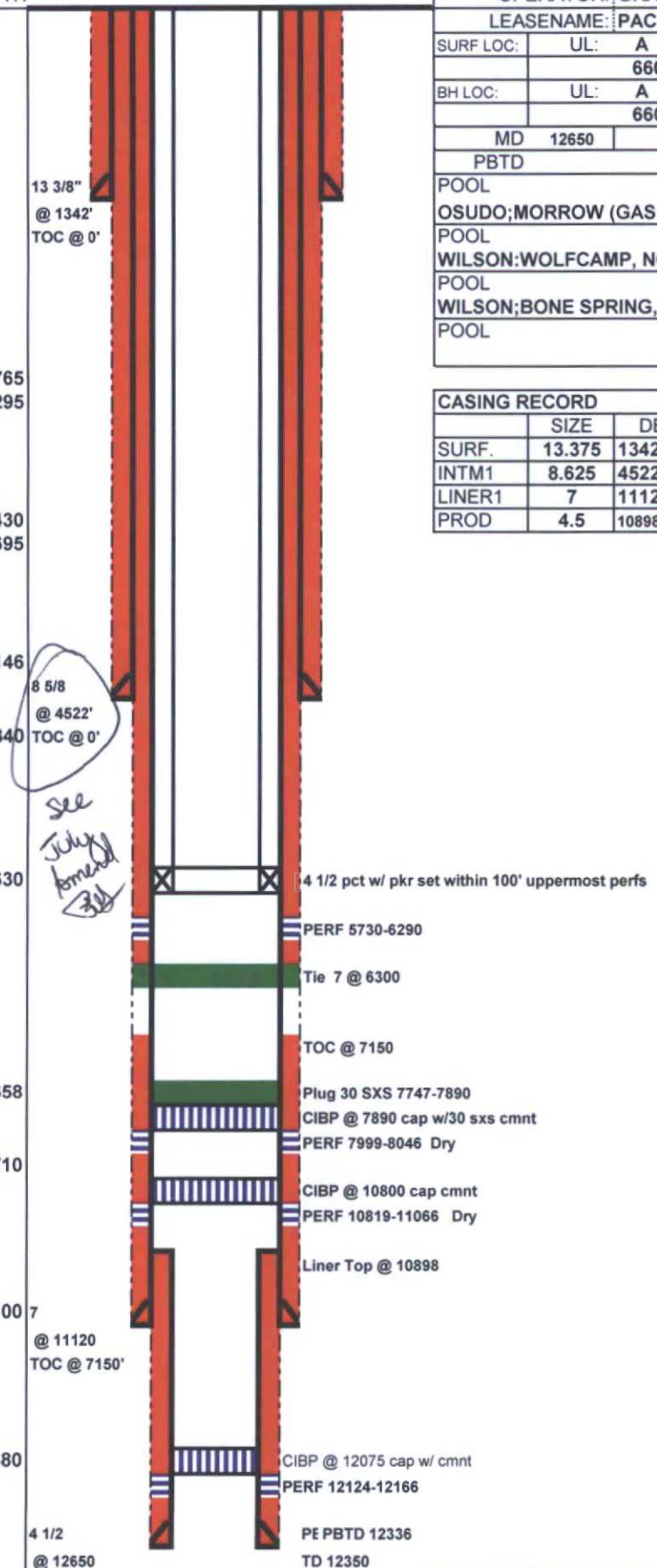
SPUD: 08/13/2000
COMP: 12/01/2000
P&A: 11/25/2008

PREPARED BY: Eddie Seay | UPDATED 09/08/15

AFTER WELLBORE SCHEMATIC AND HISTORY

COMPLETION SCHEMATIC

FORM	DEPTH
Rustler	1765
T. Salt	2295
B. Salt	3430
Yates	3695
Capitan R	4146
B. Capitan R	5340
Delaware	5630
Bone Spring	7658
Wolfcamp	10710
Strawn	11100
Morrow	11480



APINUM:	30-025-35108				
OPERATOR:	GRAMA RIDGE DISPOSAL LLC				
LEASENAME:	PACKER 18 STATE			WELL NO.	1
SURF LOC:	UL: A	SEC: 18	TWN: 21S	RNG:	35E
	660 FNL		660 FEL		
BH LOC:	UL: A	SEC: 18	TWN: 21S	RNG:	35E
	660 FNL		660 FEL		
MD	12650	KB	3691	DF	3690
PBTD		GL	3672		

POOL	PERFS 12124-12166
OSUDO;MORROW (GAS)	
POOL	PERFS 10819-11066
WILSON:WOLFCAMP, NORTH (DRY)	
POOL	PERFS 7990-8046
WILSON;BONE SPRING, NORTH (DRY)	
POOL	PERFS

CASING RECORD

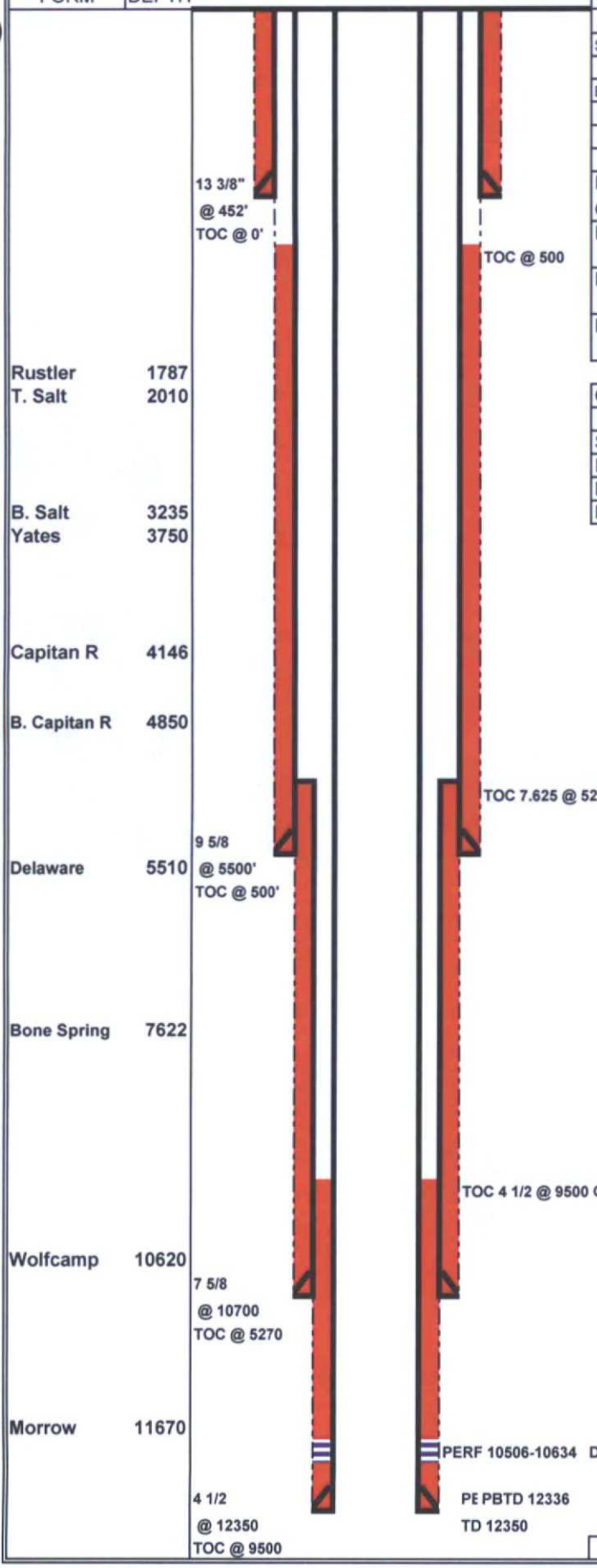
	SIZE	DEPTH	CMT	HOLE SIZE	TOC
SURF.	13.375	1342	1042 sxs	17.5	0' Circ
INTM1	8.625	4522	1400 sxs	12.25	0' Circ
LINER1	7	11120	650 sxs	8.75	7150 CBL
PROD	4.5	10898-12650	200 sxs	na	10898 TS

SPUD: 08/13/2000
COMP: 12/01/2000
P&A: 11/25/2008
Reent: tbd

PREPARED BY: Eddie Seay | UPDATED 09/08/15

WELLBORE SCHEMATIC AND HISTORY

COMPLETION SCHEMATIC



APINUM:	30-025-24755						
OPERATOR:	CHEVRON U S A INC						
LEASENAME:	NEW MEXICO DQ STATE					WELL NO.	1
SURF LOC:	UL: C	SEC: 17		TWN: 21S		RNG:	35E
	660 FNL			1980 FWL			
BH LOC:	UL: C	SEC: 17		TWN: 21S		RNG:	35E
	660 FNL			1980 FWL			
MD	12350		KB	3656	DF	3655	
PBTD			GL	3638			
POOL				PERFS	11980-11994		
OSUDO;MORROW (GAS)					11753-11994		
POOL				PERFS			
POOL				PERFS			
POOL				PERFS			

CASING RECORD

	SIZE	DEPTH	CMT	HOLE SIZE	TOC
SURF.	13.375	452	880 sxs	20	0' Circ
INTM1	9.625	5500	2900 sxs	13.375	500 TS
LINER1	7.625	5277-10700	550 sxs	9.625	5277
PROD	4.5	12350	400 sxs	6.5	9500 Cal

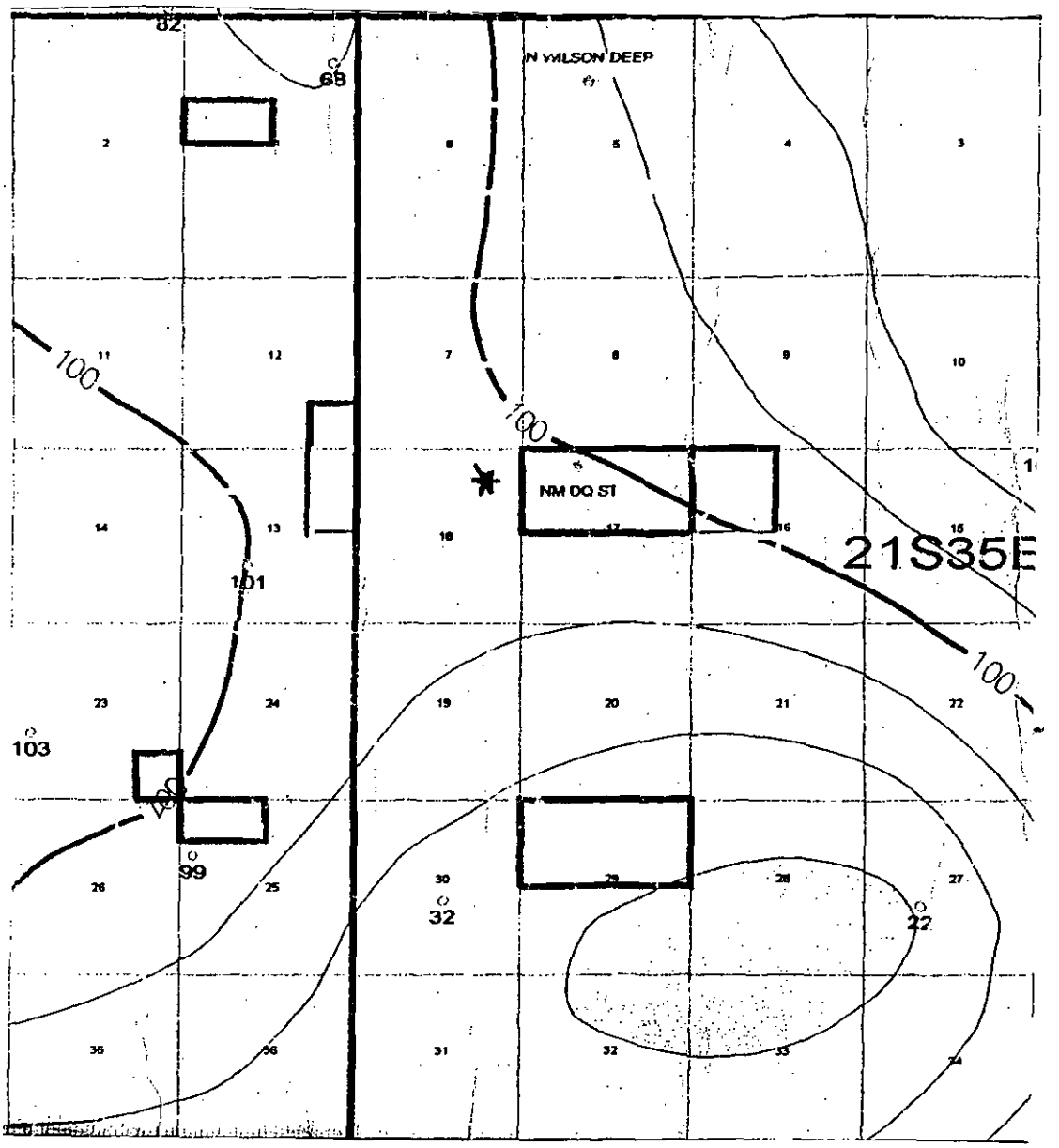
9 5/8 DV Tool @ 4006 Stg1 500 sxs; Stg2 2400 sxs TOC @ 500 TS

SPUD: 05/26/1974
COMP: 09/26/1974

PREPARED BY: Eddie Seay | UPDATED 09/08/15

Water Sample Analysis

Pool	Location Section	Township	Range	Chlorides
North Justis Montoya	2	25S	37E	45440
North Justis McKee	2	25S	37E	58220
North Justis Fusselman	2	25S	37E	68533
North Justis Ellenburger	2	25S	37E	34151
Fowler Blinebry	22	24S	37E	116085
Skaggs Grayburg	18	20S	38E	84845
Warren McKee	18	20S	38E	85910
Warren Abo	19	20S	39E	91600
DK Drinkard	30	20S	39E	106855
Littman San Andres	8	21S	38E	38695
East Hobbs grayburg	29	18S	39E	6461
Halfway Yates	16	20S	32E	14768
Arkansas Junction San Andres	12	18S	36E	7171
Pearl Queen	28	19S	35E	114310
Midway Abo	17	17S	37E	38494
Lovinton Abo	31	16S	37E	22933
Lovington San Andres	3	18S	37E	4899
Lovington Paddock	31	16S	37E	93720
Mesa Queen	17	18S	32E	172530
Kemnitz Wolfcamp	27	16S	34E	49345
Hume Queen	9	16S	34E	124960
Anderson Ranch Wolfcamp	2	16S	32E	11040
Anderson Ranch Devonian	11	16S	32E	25702
Anderson Ranch Unit	11	16S	32E	23788
Caudill Devonian	9	15S	36E	20874
Townsend Wolfcamp	6	16S	36E	38695
Dean Permo Penn	5	16S	37E	44730
Dean Devonian	35	15S	36E	19525
South Denton Wolfcamp	26	15S	37E	54315
South Denton Devonian	36	15S	37E	34060
Medicine Rock Devonian	15	15S	38E	39760
Little Lucky Lake Devonian	29	15S	30E	29288
Wantz Abo	26	21S	37E	132770
Crosby Devonian	18	25S	37E	58220
Scarborough Yates Seven Rivers	7	26S	37E	3443(Reef)
Teague Simpson	34	23S	37E	114665
Teague Ellenburger	34	23S	37E	120345
Rhodes Yates 7 Rivers	27	26S	37E	144485
House SA	11	20S	38E	93365
House Drinkard	12	20S	38E	49700
South Leonard Queen	24	26S	37E	115375
Elliot Abo	2	21S	38E	55380
Scharb Bone Springs	5	19S	35E	30601
EK Queen	13	18S	34E	41890
East EK Queen	22	18S	34E	179630
Maljamar Grayburg SA	22	17S	32E	46079
Maljamar Paddock	27	17S	32E	115375
Maljamar Devonian	22	17S	32E	25418



Groundwater Map

MITCHELL ANALYTICAL LABORATORY

2638 Faudree
Odessa, Texas 79765-8538
561-5579

Company: ***X-Chem***

Well Number:	Water Well #1 (?)	Sample Temp:	70
Lease:	Battle	Date Sampled:	6/25/2015
Location:		Sampled by:	Robert Halsell
Date Run:	6/29/2015	Employee #:	
Lab Ref #:	15-jun-w70820	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++)		28.06	20.10	1.40
Magnesium	(Mg++)		25.13	12.20	2.06
Sodium	(Na+)		408.04	23.00	17.74
Barium	(Ba++)	**NOT ANALYZED**			
Manganese	(Mn+)		.35	27.50	.01
Strontium	(Sr++)	**NOT ANALYZED**			
Anions					
Hydroxyl	(OH-)		.00	17.00	.00
Carbonate	(CO3=)		.00	30.00	.00
BiCarbonate	(HCO3-)		317.72	61.10	5.20
Sulfate	(SO4=)		360.00	48.80	7.38
Chloride	(Cl-)		330.36	35.50	9.31
Total Iron	(Fe)		12.53	18.60	.67
Total Dissolved Solids			1,482.19		
Total Hardness as CaCO3			173.18		
Conductivity MICROMHOS/CM			2,318		

pH 9.030 Specific Gravity 60/60 F. 1.001

CaSO4 Solubility @ 80 F. 17.19MEq/L, CaSO4 scale is unlikely

CaCO3 Scale Index

70.0	.803	100.0	1.153	130.0	1.663
80.0	.933	110.0	1.393	140.0	1.663
90.0	1.153	120.0	1.393	150.0	1.893

X-Chem

MITCHELL ANALYTICAL LABORATORY

2638 Faudree
Odessa, Texas 79765-8538
561-5579

Company: ***X-Chem***

Well Number:	Water Well #2	Sample Temp:	70
Lease:	Battle	Date Sampled:	6/25/2015
Location:		Sampled by:	Robert Halsell
Date Run:	6/29/2015	Employee #:	
Lab Ref #:	15-jun-w70821	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++)		20.42	20.10	1.02
Magnesium	(Mg++)		8.49	12.20	.70
Sodium	(Na+)		115.34	23.00	5.01
Barium	(Ba++)	**NOT ANALYZED**			
Manganese	(Mn+)		.27	27.50	.01
Strontium	(Sr++)	**NOT ANALYZED**			

Anions

Hydroxyl	(OH-)		.00	17.00	.00
Carbonate	(CO3=)		.00	30.00	.00
BiCarbonate	(HCO3-)		244.40	61.10	4.00
Sulfate	(SO4=)		69.00	48.80	1.41
Chloride	(Cl-)		53.06	35.50	1.49

Total Iron	(Fe)		3.2	18.60	.17
Total Dissolved Solids			514.18		
Total Hardness as CaCO3			85.86		
Conductivity MICROMHOS/CM			743		

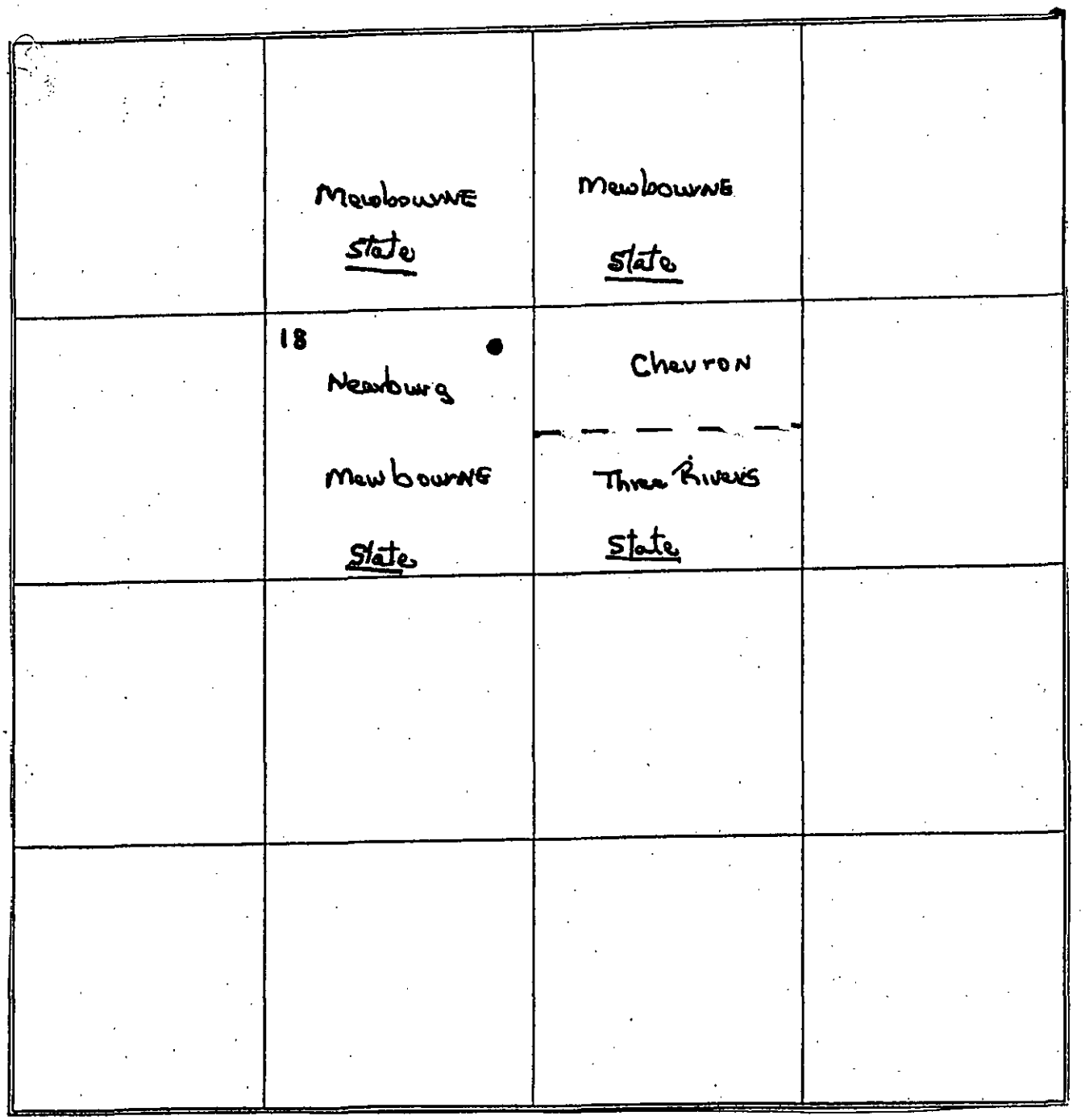
pH 8.980 Specific Gravity 60/60 F. 1.000

CaSO4 Solubility @ 80 F. 19.79MEq/L, CaSO4 scale is unlikely

CaCO3 Scale Index

70.0	.501	100.0	.851	130.0	1.361
80.0	.631	110.0	1.091	140.0	1.361
90.0	.851	120.0	1.091	150.0	1.591

Packer 18 State



● Proposed SWD

GRAMA RIDGE DISPOSAL, LLC
(OGRID # 370997)

November 2015

RE: Packer 18 State #1 (API 30-025-35108)
Unit A, Sect. 18, T. 21 S., R. 35 E.

Dear Sir:

In accordance with the Rules and Regulations of the Oil Conservation Division of the State of New Mexico, you are being provided a copy of the C-108, Application for Authorization to Inject into the above captioned well to be drilled.

Any questions about the permit can be directed to Eddie W. Seay, (575)392-2236. Any objections or request for hearing must be filed with the Oil Conservation Division within fifteen (15) days from the date received. The OCD address is 1220 S. Saint Francis Drive, Santa Fe, NM 87504, (505)476-3440.

Thank you,

Eddie W. Seay, Agent
Eddie Seay Consulting
601 W. Illinois
Hobbs, NM 88242
(575)392-2236
seay04@leaco.net

LANDOWNERS AND OFFSET NOTICES

State of New Mexico, Landowner and Mineral Owner
New Mexico State Land Office
310 Old Santa Fe Trail
Box 1148
Santa Fe, NM 87504

Chevron USA
1500 Louisiana St.
Box 4791
Houston, TX 77210

Nearburg Production Co.
Box 823085
Dallas, TX 75382

Mewbourne Oil Co.
Box 5270
Hobbs, NM 88241

Three Rivers Operating Co.
1122 S. Capital of Texas Hwy. Ste. 325
Austin, TX 78746

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Seay

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Postage	$ 1.64
Certified Fee	3.45
Return Receipt Fee (Endorsement Required)	2.80
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 7.89

Postmark Here
HOBBS, NM 88240
NOV 17 2015
USPS

Sent To: New Mexico State Land Office
Street & Apt. No., or PO Box No.: 310 Old Santa Fe Trail
City, State, ZIP+4: Box 1148 Santa Fe, NM 87504

PS Form 3800, July 2014 — See Reverse for Instructions

7014 3490 0002 2315 6951

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Certified Fee	3.45
Return Receipt Fee (Endorsement Required)	2.80
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 7.89

Postmark Here
HOBBS, NM 88240
NOV 17 2015
USPS

Sent To: Nearburg Production Co
Street & Apt. No., or PO Box No.: Box 823085
City, State, ZIP+4: Dallas, TX 75382

PS Form 3800, July 2014 — See Reverse for Instructions

7014 3490 0002 2315 6937

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Certified Fee	3.45
Return Receipt Fee (Endorsement Required)	2.80
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 7.89

Postmark Here
HOBBS, NM 88240
NOV 17 2015
USPS

Sent To: Chevron USA
Street & Apt. No., or PO Box No.: 1500 Louisiana St Box 4791
City, State, ZIP+4: Houston, TX 77210

PS Form 3800, July 2014 — See Reverse for Instructions

7014 3490 0002 2315 6944

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Certified Fee	3.45
Return Receipt Fee (Endorsement Required)	2.80
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 7.89

Postmark Here
HOBBS, NM 88240
NOV 17 2015
USPS

Sent To: Three Rivers Operating Co
Street & Apt. No., or PO Box No.: 1122 S. Capital of Texas Hwy, Ste. 325
City, State, ZIP+4: Austin, TX 78746

PS Form 3800, July 2014 — See Reverse for Instructions

7014 3490 0002 2315 6913

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Certified Fee	3.45
Return Receipt Fee (Endorsement Required)	2.80
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 7.89

Postmark Here
HOBBS, NM 88240
NOV 17 2015
USPS

Sent To: Mewbourne Oil Co
Street & Apt. No., or PO Box No.: Box 5270
City, State, ZIP+4: Hobbs, NM 88241

PS Form 3800, July 2014 — See Reverse for Instructions

7014 3490 0002 2315 6920

LEGAL NOTICE

Pursuant to the rules and regulations of the Oil Conservation Division of the State of New Mexico, Grama Ridge Disposal, LLC, 120 North Canyon, Carlsbad, NM 88220, is filing a C-108 to convert a plugged well to a Salt Water Disposal. The well being applied for is the Packer 18 State #1, located in Unit A, 660/N 660/E Section 18, Township 21 South, Range 35 East, Lea Co., NM. The injection formation is the Delaware Sand from 5630′ to 6290′ below surface. Expected maximum injection rate is 10,000 bpd., and the expected maximum injection pressure is 1100 psi or what the OCD allows. Any questions about the application can be directed to Eddie W. Seay, (575)392-2236, or any objection or request for hearing must be directed to the Oil Conservation Division, (505)476-3440, 1220 South Saint Francis Drive, Santa Fe, NM 87504, within fifteen (15) days.

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

Joyce Clemens being first duly sworn on oath deposes and says that she is Advertising Manager of THE LOVINGTON LEADER, a thrice a week newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled Legal Notice was published in a regular and entire issue of THE LOVINGTON LEADER and not in any supplement thereof, for one (1) day(s), beginning with the issue of November 17 , 2015 and ending with the issue of November 17 , 2015.

And that the cost of publishing said notice is the sum of $ 27.03 which sum has been (Paid) as Court Costs.

Joyce Clemens

Joyce Clemens, Advertising Manager
Subscribed and sworn to before me this 17th day of November , 2015.

Gina Fort

Gina Fort
Notary Public, Lea County, New Mexico
My Commission Expires June 30, 2018

OFFICIAL SEAL
GINA FORT
Notary Public
State of New Mexico
My Comm. Expires 6/30/18

LEGAL NOTICE

Pursuant to the rules and regulations of the Oil Conservation Division of the State of New Mexico, Grama Ridge Disposal, LLC, 120 North Canyon, Carlsbad, NM 88220, is filing a C-108 to convert a plugged well to a Salt Water Disposal. The well being applied for is the Packer 18 State #1, located in Unit A, 660/N 660/E Section 18, Township 21 South, Range 35 East, Lea Co., NM. The injection formation is the Delaware Sand from 5630' to 6290' below surface. Expected maximum injection rate is 10,000 bpd., and the expected maximum injection pressure is 1100 psi or what the OCD allows. Any questions about the application can be directed to Eddie W. Seay, (575)392-2236, or any objection or request for hearing must be directed to the Oil Conservation Division, (505)476-3440, 1220 South Saint Francis Drive, Santa Fe, NM 87504, within fifteen (15) days.

Published in the Lovington Leader November 17, 2015.

LAW OFFICES

HEIDEL, SAMBERSON, COX & McMAHON

C. GENE SAMBERSON
LEWIS C. COX, III
PATRICK B. McMAHON

311 NORTH FIRST STREET
POST OFFICE DRAWER 1599
LOVINGTON, NM 88260
TELEPHONE (575) 396-5303
FAX (575) 396-5305

F.L. HEIDEL
(1913-1985)

July 21, 2016

Phillip R. Goetze, PG
Engineering and Geological Service Bureau
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resource Department
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: C-108 Application/Packer 18 State No. 1

Dear Mr. Goetze:

I am in receipt of your May 5, 2016 email to Mr. Will Jones regarding the above referenced matter. A copy of your email is attached hereto for your convenience.

Also attached hereto is Mr. Eddie Seay's response, on behalf of Grama Ridge Disposal, LLC, to the five (5) items that you indicated needed to be addressed. Of note, Mr. Seay wanted me to indicate to you that there is no Bone Spring production in the AOR, only one deep Morrow gas well. Additionally, would you please reflect the correct mailing address for Grama Ridge Disposal, LLC as being P.O. Box 1105, Eunice, New Mexico 88231.

Lastly, please find attached Mr. Will Jones' email of May 5, 2016 regarding the above referenced matter. Mr. Jones states that "There has been waste and correlative rights issues with large Commercial Disposal wells in the Delaware Mountain Group such as this is proposed."

Through this letter I am requesting that you provide Mr. Seay and Grama Ridge Disposal, LLC with articulable facts that supports Mr. Jones' position that the swd application for the Packer 18 State No. 1 will not be handled administratively and will require this matter be set for hearing.

I look forward to your response.

HEIDEL, SAMBERSON, COX & MCMAHON

By: Patrick B. McMahon

Patrick B. McMahon

PBM:st
Enclosures

cc: Grama Ridge Disposal, LLC
Eddie Seay
Keith Herrmann
Will Jones

June 2016

NMOCD Engineering
ATTN: Phillip Goetze
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Grama Ridge Disposal, LLC
Packer 18 State (API 30-025-35108)
C-108 Application
Response to OCD Review

Mr. Goetze:

I appreciate your response and review of the above listed application. Listed is response to your review. Find attached to this report is revised schematic showing correct setting of pipe, the originals submitted were wrong.

In my application, we stated we would selectively perforate the Delaware from within the confines of the Delaware Group, which is from 5630′ to 6290′ and we never intended to perforate both strings of casing, only the 7 in.. ← Reduced per NMSLO request

Within the Delaware Group is the Cherry Canyon, Bell Canyon and Brushy Canyon formations. In this area, the Brushy Canyon is the zone which most likely would show hydrocarbon production, the top of the Brushy Canyon, according to logs, would occur at approximately 6500′. Our proposed injection interval would encompass portions of the Cherry Canyon and Bell Canyon. We plan to put a cement plug from 6500′ to 6300′ to isolate the Brushy Canyon.

When well is approved and after perforating, a swab test will be run on the injection interval to determine any production potential. The results of the swab test will be given to OCD District in Hobbs to review prior to commencing injection. } Addresses HC potential

Also, within two years of commencing injection or when well is pulled, we will run an injection survey consisting of a temperature log or the equivalent over the entire injection area using representative disposal rate. The results of survey will be provided to OCD District and Santa Fe OCD Engineering. ✓

The Capital Reef top and bottom was taken from logs and the ~~Bureau of Mines~~ NMBGMR information. We will have both 9.5 in casing and 7 in. casing as protection, along with the above listed test. Also, the OCD may wish to set a lesser rate and pressure.

In response to water well formation, attached are records taken from State Engineer files for every section within a mile of the proposed SWD. Each and every section shows "No Record Found". I further researched the two POD's in your letter and found CP-755 in section 17 is plugged. Well CP-939 was not plugged but not in operation, no sample could be obtained.

→ Showed 165' DTW (1939) in 400' TD well

Once you have time to further review and have additional comments or questions, please let me know.

Thanks for your help and consideration.

Sincerely,

Eddie W Seay

Eddie W. Seay
Eddie Seay Consulting
601 W. Illinois
Hobbs, NM 88242
575-392-2236
seay04@leaco.net

cc: Patrick McMahon - Attorney for Grama Ridge

Search of Wells Supplemented as Requested

→ Is P&A'd but showed DTW either Shallow (24' to 83' Sand - no show) or greater than 200' BGS (111' of clay).

Rena Seay

From: "Patrick" <hsncpbm@leaco.net>
To: "'Rena Seay'" <seay04@leaco.net>
Sent: Thursday, May 05, 2016 3:54 PM
Attach: Packer 18 State Com 1 well const.pdf; C-108 well diagram.pdf
Subject: FW: C-108 Application: Packer 18 State No. 1

From: Jones, William V, EMNRD [mailto:WilliamV.Jones@state.nm.us]
Sent: Thursday, May 5, 2016 1:32 PM
To: hsncst@leaco.net; hsncpbm@leaco.net
Cc: Brooks, David K, EMNRD <DavidK.Brooks@state.nm.us>; Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Subject: FW: C-108 Application: Packer 18 State No. 1

From: Goetze, Phillip, EMNRD
Sent: Thursday, May 05, 2016 1:10 PM
To: Jones, William V, EMNRD
Cc: McMillan, Michael, EMNRD; Lowe, Leonard, EMNRD; Holm, Anchor E.
Subject: C-108 Application: Packer 18 State No. 1

RE: Packer 18 State No. 1 (API 30-025-35108; Application no. pMAM15336337710)

Will:

At your request, I revisited the referenced application. Currently, the items in the application that need to be addressed, based on a cursory review, are the following:

1. Submitted C-108 application identifies (in text and diagram; see attachment) that the intermediate casing string is 8 ¾-inch set at 4522 feet. The C-105 provided by Nearburg (original operator) reports 9 5/8-inch casing set at 5621 feet. This is a significant inaccuracy.
2. Applicant has applied for a disposal interval from 5630 ft to 6290 ft, yet the perforations in the proposed well diagram are shown as 5730 ft to 6290 ft. With consideration of the information in item 1., does the applicant plan to perf both intermediate and production casing?
3. Both the NMSLO and NMOCD has concerns regarding the selection of the base of the Capitan Reef aquifer (a protectable water source not identified in the application) relative to the upper limit of the proposed injection interval. The proximity of the upper limit may provide communication to the aquifer considering the proposed disposal rate of 10,000 BWPD and an interval of approximately 500 feet, especially with recent observations provided in hearing that shallow Delaware Mountain group (DMG; Bell Canyon and Cherry Canyon formations) are demonstrating formation parting pressures below the *administratively approved gradient of 0.20 psi/ft.*
4. The hydrocarbon potential of the proposed injection interval is not supported. The application describes the interval as "Lower Delaware". Assessments by the NMBGMR show this area as having a low potential for hydrocarbon development. This potential would typically occur in the Brushy Canyon formation of the DMG (i.e. the "Lower Delaware"). The application makes no mention as to the lower confining layer – i.e. contact of the Bell Canyon fm with the Cherry Canyon fm – that prevents vertical migration.
5. OSE records show two PODs (CP-755 and CP-939) within one-mile of the proposed SWD. Of these two,

CP-939 is reported to be 400 feet deep with a water level at 165 ft. The application makes no mention of this shallow water well.

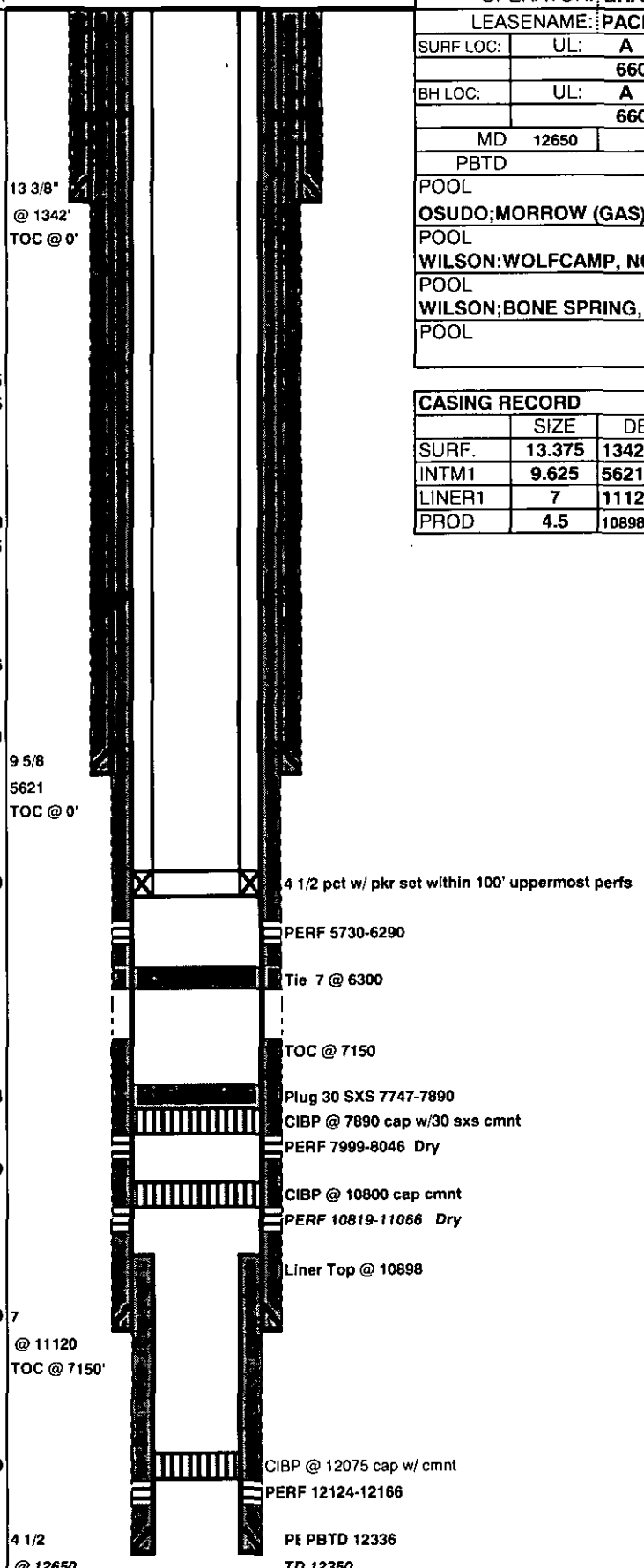
I don't see any additional issues, but I shall be looking at available logs and Hiss to assess the lower extent of the aquifer. Sometime, as priorities allow. Please comment on the status of this application when you have time.
PRG

Phillip R. Goetze, PG
Engineering and Geological Services Bureau
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505
Direct: 505.476.3466
e-mail: phillip.goetze@state.nm.us

AFTER WELLBORE SCHEMATIC AND HISTORY

COMPLETION SCHEMATIC

FORM	DEPTH
Rustler	1765
T. Salt	2295
B. Salt	3430
Yates	3695
Capitan R	4146
B. Capitan R	5480
Delaware	5630
Bone Spring	7658
Wolfcamp	10710
Strawn	11100
Morrow	11480



APINUM:	30-025-35108
OPERATOR:	GRAMA RIDGE DISPOSAL LLC
LEASENAME:	PACKER 18 STATE — WELL NO. 1
SURF LOC:	UL: A SEC: 18 TWN: 21S RNG: 35E
	660 FNL 660 FEL
BH LOC:	UL: A SEC: 18 TWN: 21S RNG: 35E
	660 FNL 660 FEL
MD 12650	KB 3691 DF 3690
PBTD	GL 3672
POOL	PERFS 12124-12166
OSUDO;MORROW (GAS)	
POOL	PERFS 10819-11066
WILSON:WOLFCAMP, NORTH (DRY)	
POOL	PERFS 7990-8046
WILSON;BONE SPRING, NORTH (DRY)	
POOL	PERFS

CASING RECORD

	SIZE	DEPTH	CMT	HOLE SIZE	TOC
SURF.	13.375	1342	1042 sxs	17.5	0' Circ
INTM1	9.625	5621	1400 sxs	12.25	0' Circ
LINER1	7	11120	650 sxs	8.75	7150 CBL
PROD	4.5	10898-12650	200 sxs	na	10898 TS

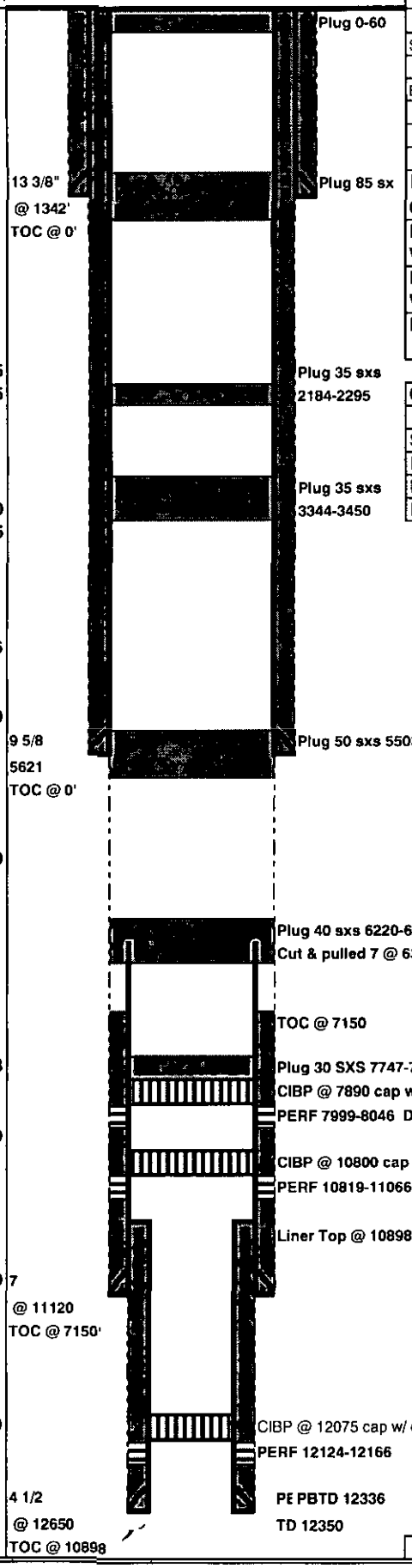
SPUD: 08/13/2000
COMP: 12/01/2000
P&A: 11/25/2008
Reent: tbd

PREPARED BY: Eddie Seay — UPDATED 05/20/16

BEFORE WELLBORE SCHEMATIC AND HISTORY

COMPLETION SCHEMATIC

FORM	DEPTH
Rustler	1765
T. Salt	2295
B. Salt	3430
Yates	3695
Capitan R	4146
B. Capitan R	5480
Delaware	5630
Bone Spring	7658
Wolfcamp	10710
Strawn	11100
Morrow	11480



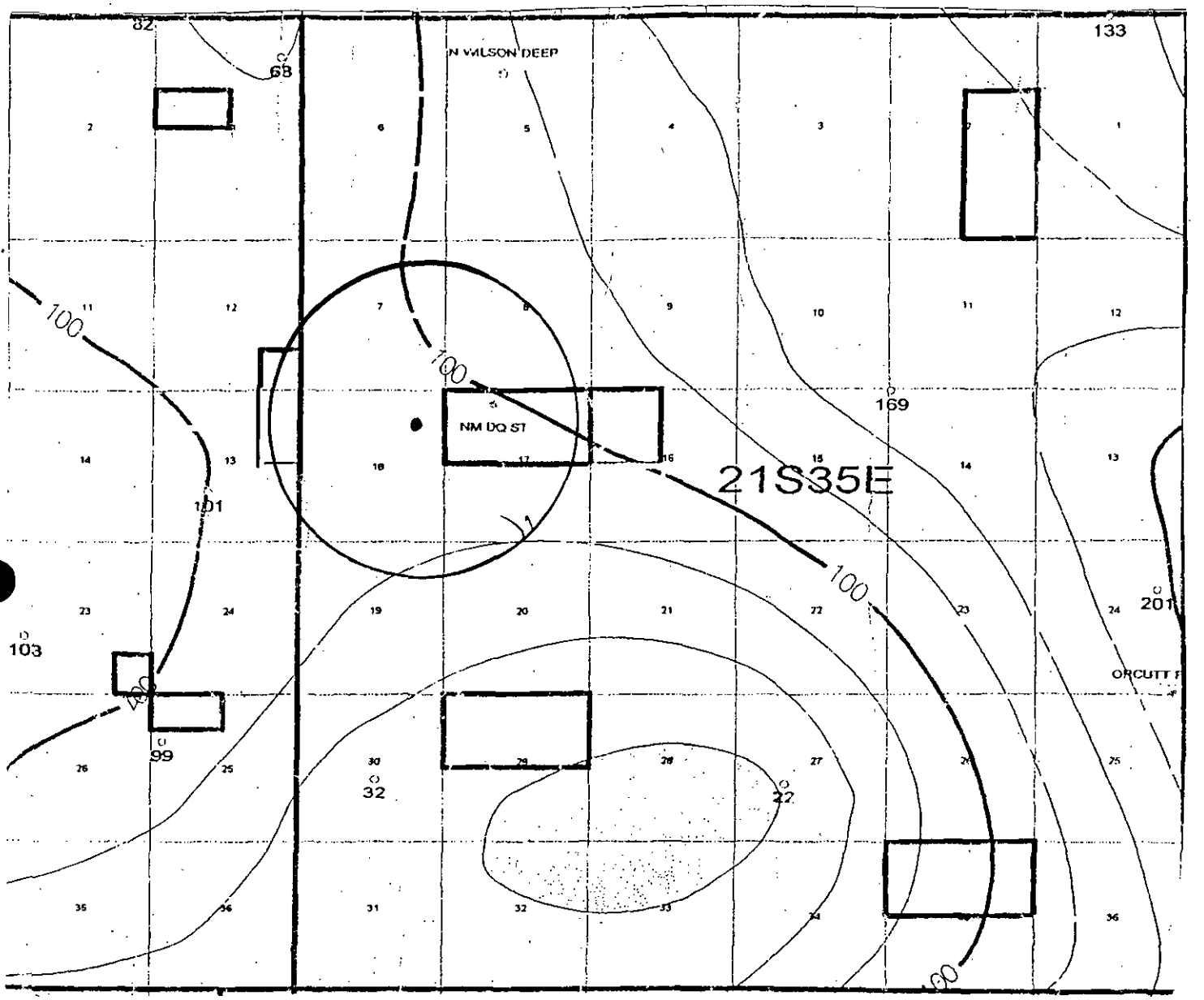
APINUM:	30-025-35108						
OPERATOR:	NEARBURG PRODUCING CO						
LEASENAME:	PACKER 18 STATE					WELL NO.	1
SURF LOC:	UL: A	SEC: 18		TWN: 21S		RNG:	35E
	660 FNL			660 FEL			
BH LOC:	UL: A	SEC: 18		TWN: 21S		RNG:	35E
	660 FNL			660 FEL			
MD	12650		KB	3691	DF	3690	
PBTD			GL	3672			
POOL				PERFS	12124-12166		
OSUDO;MORROW (GAS)							
POOL				PERFS	10819-11066		
WILSON:WOLFCAMP, NORTH (DRY)							
POOL				PERFS	7990-8046		
WILSON;BONE SPRING, NORTH (DRY)							
POOL				PERFS			

CASING RECORD

	SIZE	DEPTH	CMT	HOLE SIZE	TOC
SURF.	13.375	1342	1042 sxs	17.5	0' Circ
INTM1	9.625	5621	1400 sxs	12.25	0' Circ
LINER1	7	6300-11120	650 sxs	8.75	7150 CBL
PROD	4.5	10898-12650	200 sxs	na	10898 TS

SPUD: 08/13/2000
COMP: 12/01/2000
P&A: 11/25/2008

PREPARED BY: Eddie Seay | UPDATED 05/20/16



Groundwater Map (Source ?)

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

No records found.

Basin/County Search:

Basin: Lea County **County:** Lea

PLSS Search:

Section(s): 7 **Township:** 21S **Range:** 35E

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

No records found.

Basin/County Search:

Basin: Lea County **County:** Lea

PLSS Search:

Section(s): 17 **Township:** 21S **Range:** 35E

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

No records found.

Basin/County Search:

Basin: Lea County County: Lea

PLSS Search:

Section(s): 18 Township: 21S Range: 35E

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

No records found.

Basin/County Search:

Basin: Lea County County: Lea

PLSS Search:

Section(s): 13 Township: 21S Range: 34E

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

No records found.

Basin/County Search:

Basin: Lea County **County:** Lea

PLSS Search:

Section(s): 24 **Township:** 21S **Range:** 34E

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

No records found.

Basin/County Search:

Basin: Lea County **County:** Lea

PLSS Search:

Section(s): 12 **Township:** 21S **Range:** 34E

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

No records found.

Basin/County Search:

Basin: Lea County **County:** Lea

PLSS Search:

Section(s): 8 **Township:** 21S **Range:** 35E

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

No records found.

Basin/County Search:

Basin: Lea County **County:** Lea

PLSS Search:

Section(s): 17 **Township:** 21S **Range:** 35E

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

No records found.

Basin/County Search:

Basin: Lea County **County:** Lea

PLSS Search:

Section(s): 19 **Township:** 21S **Range:** 35E

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

No records found.

Basin/County Search:

Basin: Lea County **County:** Lea

PLSS Search:

Section(s): 20 **Township:** 21S **Range:** 35E

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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00755			LE	1	3	4	17	21S	35E	651427	3594168*	200		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

PLSS Search:

Section(s): 17 **Township:** 21S **Range:** 35E

***UTM location was derived from PLSS - see Help**

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

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin Code	County	Q 64	Q 16	Q 4	Sec	Twn	Rng	X	Y	Depth Well	Depth Water	Water Column
CP 00939 POD1		LE	4	1	2	07	21S	35E	649974	3596760*	400	165	235
CP 00940 POD1		LE	4	1	2	07	21S	35E	649974	3596760*	400	165	235

Average Depth to Water: **165 feet**

Minimum Depth: **165 feet**

Maximum Depth: **165 feet**

Record Count: 2

PLSS Search:

Section(s): 7 **Township:** 21S **Range:** 35E

***UTM location was derived from PLSS - see Help**

12/4/15 NMSLO - Comments on interval

C-108 Review Checklist: Received 12/2/15 Add. Request: 5/5/16 Reply Date: 7/21/16 Suspended: 5/5/16 [Ver 16]

ORDER TYPE: WFX / PMX / SWD Number: 1643 Order Date: 8/8/16 Legacy Permits/Orders: None — Email - review of application

Well No. 1 Well Name(s): Packer 18 State

API : 30-0 25 - 35108 Spud Date: 08/13/2000 New or Old: New (UIC Class II Primacy 03/07/1982)

Footages 660 FNL / 660 FEL Lot — or Unit A Sec 18 Tsp 21S Rge 35E County Lea

General Location: ~14 mi West of Eunice; N of SR 176 Pool: SWD, Delaware Pool No.: 96100 — Original: WC; Bone Spring & Osudo; Morrow & Wilson; UC

BLM 100K Map: Jal Operator: Grama Ridge Disposal LLC OGRID: 370997 Contact: E. Seay, Consultant

COMPLIANCE RULE 5.9: Total Wells: 0 Inactive: 0 Fincl Assur: Blanket Bond / no single well bond Compl. Order? No **IS 5.9 OK?** Yes **Date:** 8/8/2016

WELL FILE REVIEWED ✓ Current Status: Plugged but not released; previously tested & prod Bone Spring; TA for Delaware Zone Limited to Mostaw only or pot.

WELL DIAGRAMS: NEW: Proposed ○ or **RE-ENTER:** Before Conv. ✓ After Conv. ✓ Logs in Imaging: Shoe of 9 5/8-in. casing;

Planned Rehab Work to Well: Drill out plugs to above plug at 7747'; run 7-in casing to tie with cmt / cmt to surf & perf

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Stage Tool	Cement (Sx or Cf)	Cement Top and Determination Method
Planned __ or Existing ✓ Surface	17 1/2 / 13 3/8	0 to 1342		1042	Circ. to Surface
Planned __ or Existing ✓ Interm/Prod	12 1/4 / 9 5/8	0 to 5621	None	1400	Circ. to surface
Planned __ or Existing ✓ Interm/Prod	8 3/4 / 7	0 to 11120	None	650	TOC 7160 by TS
Planned __ or Existing ✓ Prod/Liner	6 1/8 / 4 1/2	10898 to 12650	None	200	TOL / calc. → CBL
Planned ✓ or Existing __ Liner	7 inch in 9 5/8 inch / 0 to 6300		None	[Est. 700]	[Circ or CBL / TS]
Planned ✓ or Existing __ OH / PERF	Old: M: 12114 – 12162 (Nay) BS: 7990'-8024'	5730 5650 to 6290'	Inj Length 640' 540'		

Injection Lithostratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops
Adjacent Unit: Litho. Struc. Por.	WC: 8819'-10067'	Capitan Reef (Yates)	2400
Confining Unit: Litho Struc Por	ϕ ± 120	Del Sand / Bell	5630
Proposed Inj Interval TOP:	5630 5750	Bell Canyon → SH NDE	7
Proposed Inj Interval BOTTOM:	6290	Cherry Canyon NDE	
Confining Unit: Litho Struc. Por	± 200'	Brushy Canyon	6500
Adjacent Unit: Litho. Struc. Por.		Bone Spring	7958

Completion/Operation Details:

Drilled TD 12650' PBTD 12527'

NEW TD NA NEW PBTD [6300']

NEW Open Hole ○ or NEW Perfs ✓

Tubing Size 4 1/2 in. Inter Coated? Yes

Proposed Packer Depth within 100 ft of top perf

Min. Packer Depth 5650 (100-ft limit)

Proposed Max. Surface Press. 1100 psi

Admin. Inj. Press. 1150 (0.2 psi per ft) 5750

AOR: Hydrologic and Geologic Information

POTASH: R-111-P NA Noticed? No BLM Sec Ord NA WIPP NA Noticed? No Salt/Salado T: 2295 B: 3430 **NW:** Cliff House fm NA

FRESH WATER: Aquifer [Capitan at depth] / Santa Rosa / Alluvial Max Depth SR: <400' see attachment & wdl API 30-025-03917 **HYDRO AFFIRM STATEMENT By Qualified Person** ✓

NMOSE Basin: Capitan **CAPITAN REEF:** thru ✓ adj __ NA __ **No. GW Wells in 1-Mile Radius?** 0 FW Analysis? 0 — 2 for SR but located

Disposal Fluid: Formation Source(s) Bone Spring; WC; Penn-Perm Analysis? Yes On Lease ○ Operator Only ○ or Commercial ✓

Disposal Interval: Inject Rate (Avg/Max BWPD): — 10,000 Protectable Waters? No Source: Historical System: Closed or Open

HC Potential: Producing Interval? No Formerly Producing? No Method: Logs/DST/P&A/Other HC potential 2-Mile Radius Pool Map ○

AOR Wells: 1/2-M Radius Map? Yes Well List? Yes Total No. Wells Penetrating Interval: 1 Horizontals? 0 — Avalon & BS producing in Area; Undetermined - swab proposed

Penetrating Wells: No. Active Wells 1 Num Repairs? 0 on which well(s)? — Diagrams? Yes

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

NOTICE: Newspaper Date 11/17/15 Mineral Owner NMSLO Surface Owner NMSLO N. Date 11/17/15

RULE 26.7(A): Identified Tracts? Yes Affected Persons: Nearburg / Three Rivers Oper. / Chevron / Mewbourne N. Date 11/17/15

Order Conditions: Issues: NMSLO - confining layers; swab test proposed by operator; injection survey

Add Order Cond: Reduced interval to 5750' per NMSLO, swab test; injection survey proposed by operator

Goetze, Phillip, EMNRD

From: Holm, Anchor <aholm@slo.state.nm.us>
Sent: Friday, December 04, 2015 11:44 AM
To: Goetze, Phillip, EMNRD
Cc: Martin, Ed; Khalsa, Niranjan K.
Subject: Grama Ridge Disposal, LLC - Packer 18 State #1 SWD Proposed ReEntry

Phil,

After review of the above SWD Application by Grama Ridge Disposal, LLC to reEnter the Packer 18 State #1 (30-025-35108), The State Land Office has concerns as to the protection of useable ground water in the Yates, Seven Rivers and Capitan Reef, with directly overly the Delaware Sands. The deepest porosity in these zones is near a depth of 5421' on the Compensated Density/Neutron open hole log. Therefore, the State Land Office will not concur with the proposed SWD interval of 5630' to 6290'. We believe that the top of the SWD interval must be below 5721'.

Thank you for your assistance in this concern,

Anchor E. Holm
Geoscientist/Petroleum Engineering Specialist
Oil Gas & Minerals Division
505.827.5759
New Mexico State Land Office
310 Old Santa Fe Trail
P.O. Box 1148
Santa Fe, NM 87504-1148
aholm@slo.state.nm.us
nmstatelands.org

Patrick

From: Patrick <hsncpbm@leaco.net>
Sent: Thursday, May 5, 2016 3:54 PM
To: 'Rena Seay'
Subject: FW: C-108 Application: Packer 18 State No. 1
Attachments: Packer 18 State Com 1 well const.pdf; C-108 well diagram.pdf

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From: Jones, William V, EMNRD [mailto:WilliamV.Jones@state.nm.us]
Sent: Thursday, May 5, 2016 1:32 PM
To: hsncst@leaco.net; hsncpbm@leaco.net
Cc: Brooks, David K, EMNRD <DavidK.Brooks@state.nm.us>; Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Subject: FW: C-108 Application: Packer 18 State No. 1

From: Goetze, Phillip, EMNRD
Sent: Thursday, May 05, 2016 1:10 PM
To: Jones, William V, EMNRD
Cc: McMillan, Michael, EMNRD; Lowe, Leonard, EMNRD; Holm, Anchor E.
Subject: C-108 Application: Packer 18 State No. 1

RE: Packer 18 State No. 1 (API 30-025-35108; Application no. pMAM15336337710)

Will:

At your request, I revisited the referenced application. Currently, the items in the application that need to be addressed, based on a cursory review, are the following:

1. Submitted C-108 application identifies (in text and diagram; see attachment) that the intermediate casing string is 8 ¾-inch set at 4522 feet. The C-105 provided by Nearburg (original operator) reports 9 5/8-inch casing set at 5621 feet. This is a significant inaccuracy.
2. Applicant has applied for a disposal interval from 5630 ft to 6290 ft, yet the perforations in the proposed well diagram are shown as 5730 ft to 6290 ft. With consideration of the information in item 1., does the applicant plan to perf both intermediate and production casing?
3. Both the NMSLO and NMOCD has concerns regarding the selection of the base of the Capitan Reef aquifer (a protectable water source not identified in the application) relative to the upper limit of the proposed injection interval. The proximity of the upper limit may provide communication to the aquifer considering the proposed disposal rate of 10,000 BWPD and an interval of approximately 500 feet, especially with recent observations provided in hearing that shallow Delaware Mountain group (DMG; Bell Canyon and Cherry Canyon formations) are demonstrating formation parting pressures below the administratively approved gradient of 0.20 psi/ft.
4. The hydrocarbon potential of the proposed injection interval is not supported. The application describes the interval as "Lower Delaware". Assessments by the NMBGMR show this area as having a low potential for hydrocarbon development. This potential would typically occur in the Brushy Canyon formation of the DMG (i.e. the "Lower Delaware"). The application makes no mention as to the lower confining layer – i.e. contact of the Bell Canyon fm with the Cherry Canyon fm – that prevents vertical migration.
5. OSE records show two PODs (CP-755 and CP-939) within one-mile of the proposed SWD. Of these two, CP-939 is reported to be 400 feet deep with a water level at 165 ft. The application makes no mention of this shallow water well.

I don't see any additional issues, but I shall be looking at available logs and Hiss to assess the lower extent of the aquifer. Sometime, as priorities allow. Please comment on the status of this application when you have time. PRG

Phillip R. Goetze, PG
Engineering and Geological Services Bureau
Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, NM 87505
Direct: 505.476.3466
e-mail: phillip.goetze@state.nm.us

Submit to Appropriate District Office
State Lease - 6 copies
Fee Lease - 5 copies
District I
1625 N. French, Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

RECEIVED
AUG – 7 2008
HOBBS OCD

Form C-105
Revised June 10, 2003

WELL API NO. 30-025-35108
5. Indicate Type Of Lease STATE ☐ FEE ☐
6. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well: OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER
b. Type of Completion: NEW WELL ☐ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☒ DIFF. RESVR. ☐ OTHER

7. Lease Name or Unit Agreement Name: Packer 18 State ~~Com~~

2. Name of Operator: Nearburg Producing Company
8. Well No.: 1
3. Address of Operator: 3300 N A St., Bldg 2, Suite 120, Midland, TX 79705
9. Pool name or Wildcat: WILDCAT Undesignated; Bone Spring 97304

4. Well Location
Unit Letter A : 660 Feet From The North Line and 660 Feet From The East Line
Section 18 Township 21S Range 35E NMPM Lea County

10. Date Spudded	11. Date T.D. Reached	12. Date Compl. (Ready to Prod.)	13. Elevations (DF & RKB, RT, GR, etc.)	14. Elev. Casinghead
8/13/00	9/30/00	1/15/08	3672' GL	

15. Total Depth	16. Plug Back T.D.	17. If Multiple Compl. How Many Zones?	18. Intervals Drilled By	Rotary Tools	Cable Tools
12650	10800				

19. Producing Interval(s), of this completion - Top, Bottom, Name: 7990-8046 (OA)
20. Was Directional Survey Made: No
21. Type Electric and Other Logs Run
22. Was Well Cored: No

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13-3/8	61, 68, 72	1342	17-1/2	1042	NA
9-5/8	36, 40	5621	12-1/4	1400	NA
7	23, 26, 29	11120	8-3/4	650	NA

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN
4-1/2	10898	12650	200	

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET
2-7/8	8102	

26. Perforation record (interval, size, and number)
12124-12166 CIBP @12075
10819-11066 CIBP @ 10800
7990-8046 - 4 SPF (108 holes)

27. ACID, SHOT, FRACTURE, CEMENT, SQEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
7990-8046	715 bbls Medallion 3000 fluid w/
	3 ppg Super LC 16/30 sand

28. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping - Size and type pump)	Well Status (Prod. or Shut-in)
01/16/08	Pumping	Producing

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
1/30/08	24			9	0	17	NA

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API -(Corr.)
NA	NA		9	0	17	NA

29. Disposition of Gas (Sold, used for fuel, vented, etc.): NA
Test Witnessed By: R Foutch

30. List Attachments: C104

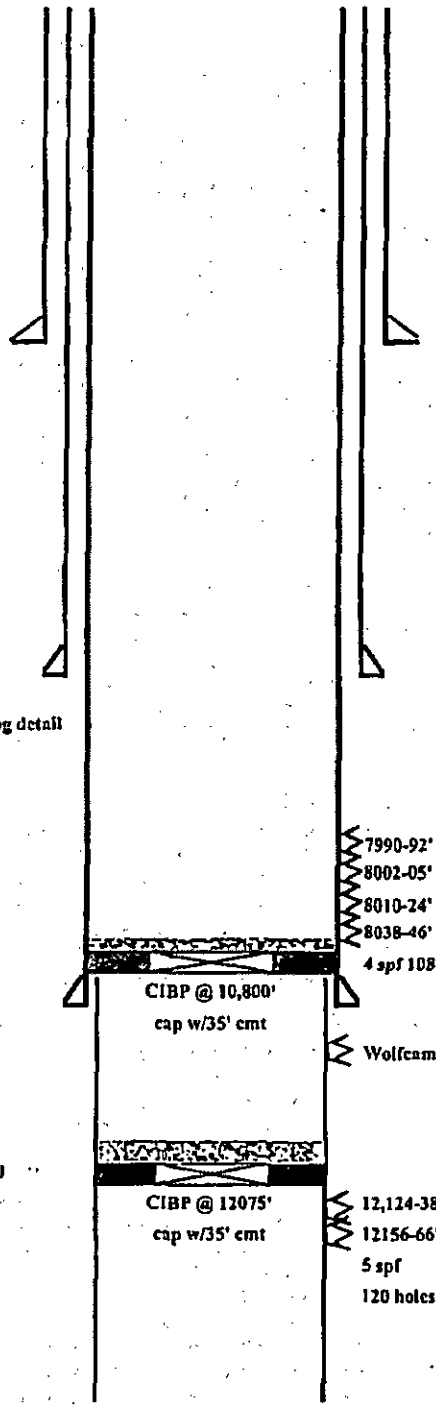
31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature [signature] Printed Name Sarah Jordan Title Prod Analyst Date 7/11/08

E-mail address sjordan@nearburg.com

CURRENT WELLBORE DIAGRAM

LEASE:	Packer 18 State Com #1	WELL:	#1	FIELD:	Osudo	API:	30-025-35108
LOC:	660' FNL & 660' FEL	SEC:	18	BLK:		Reservoir	Bone Springs
SVY:	Sec 18 T21S R35E	GL:	3672'	CTY/ST	Lea / NM	SPUD:	8/13/2000
CURRENT STATUS:	Shut-In	KB:	3691	DF:	3690	TD DATE:	9/30/2000
						COMP. DATE:	12/1/2000



FRESH WATER DEPTH:

TBG: see attached tbg detail
JTS:
SN:
TAC:
ROD SIZE:

PKR:
TYPE:

OH ID:
COTD:
PBTD: 12,527' original
TD: 12,650'

OPEN HOLE:

COMMENTS:

HOLE SIZE:	17.5"
SURF CSG & SIZE:	13-3/8" 61/68/72#
SET @:	1342'
SXS CMT:	1042 sx
CIRC:	183 sx
TOC AT:	Surf
TOC BY:	circ

*******GEOLOGY*******

TOPS OF ALL ZONES PRODUCTIVE OF HYDRO-CARBONS:

HOLE SIZE:	12.25"
INT. CSG & SIZE:	9-5/8" 36/40#
SET @:	5621'
SXS CMT:	1st stg: 1000 sx, 2nd stg: 400 sx
CIRC:	94 sx
TOC AT:	Surf
TOC BY:	Circ.

CURRENT PERFS:

HOLE SIZE:	8-3/4"
PROD. CSG & SIZE:	7" 23/26/29#
SET @:	11120'
SXS CMT:	650 sx
CIRC:	no
TOC AT:	7150'
TOC BY:	CBL

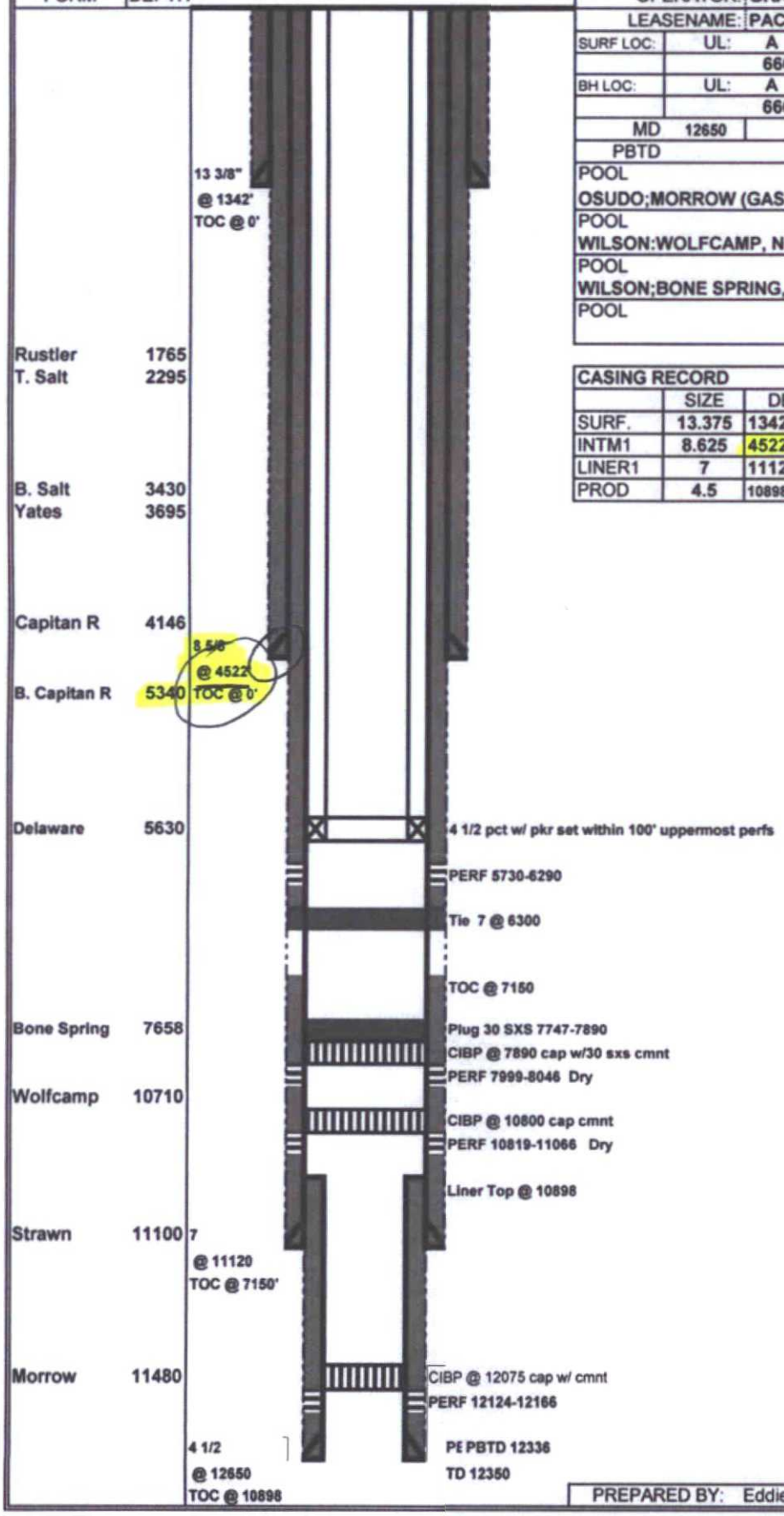
SQUEEZE JOBS:

Wolfcamp perfs: 10819', 10821', 10837', 10838', 10839', 10840', 10841', 10884', 10960', 10961', 11008', 11014', 11031', 11032', 11033', 11040', 11062', 11063', 11064', 11065', 11066' 21 holes w/3-1/8" guns .34" holes

HOLE SIZE:		
LINER SIZE:	4-1/2"	
Top @:	10,897'	
Btm @:	12,650'	
SXS CMT:	200 sx	
CIRC:	rvse out 18 bbls	BY: TS
TOC AT:		8/5/2008
TOC BY:		

AFTER WELLBORE SCHEMATIC AND HISTORY

COMPLETION SCHEMATIC



APINUM:	30-025-35108
OPERATOR:	GRAMA RIDGE DISPOSAL LLC
LEASENAME:	PACKER 18 STATE
WELL NO.	1

SURF LOC:	UL:	A	SEC:	18	TWN:	21S	RNG: 35E
	660 FNL				660 FEL		
BH LOC:	UL:	A	SEC:	18	TWN:	21S	RNG: 35E
	660 FNL				660 FEL		

MD	12650	KB	3691	DF	3690
PBTD		GL	3672		

POOL	PERFS 12124-12166
OSUDO;MORROW (GAS)	
POOL	PERFS 10819-11066
WILSON:WOLFCAMP, NORTH (DRY)	
POOL	PERFS 7990-8046
WILSON;BONE SPRING, NORTH (DRY)	
POOL	PERFS

CASING RECORD

	SIZE	DEPTH	CMT	HOLE SIZE	TOC
SURF.	13.375	1342	1042 sxs	17.5	0' Circ
INTM1	8.625	4522	1400 sxs	12.25	0' Circ
LINER1	7	11120	650 sxs	8.75	7150 CBL
PROD	4.5	10898-12650	200 sxs	na	10898 TS

SPUD: 08/13/2000
COMP: 12/01/2000
P&A: 11/25/2008
Reent: tbd

PREPARED BY: Eddie Seay | UPDATED 09/08/15

Patrick

From: Patrick <hsncpbm@leaco.net>
Sent: Thursday, May 5, 2016 3:56 PM
To: 'Rena Seay'
Subject: FW: Grama Ridge Disposal, LLC proposed commercial Delaware SWD: 30-025-35108

From: Jones, William V, EMNRD [mailto:WilliamV.Jones@state.nm.us]
Sent: Thursday, May 5, 2016 1:32 PM
To: hsncpbm@leaco.net; hsncst@leaco.net
Cc: Brooks, David K, EMNRD <DavidK.Brooks@state.nm.us>; Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Subject: Grama Ridge Disposal, LLC proposed commercial Delaware SWD: 30-025-35108

Hello Patrick,
I have talked this over with Phil.

There has been waste and correlative rights issues with large Commercial Disposal wells in the Delaware Mountain Group such as this is proposed.
We have not as yet totally ruled out approval of commercial disposals in the Delaware, but are waiting on more data and will soon (as everyone's time allows) have a study team up and running.

In particular for this application:
The short story is this one is more than we want to handle administratively.
The longer story is detailed in Phil's message that I will forward to you.

You are always welcome to enter a case for hearing so it can be considered further.
If you choose to do so, please again provide notice of the application and hearing to all affected persons including the State Land Office.

Many Regards,

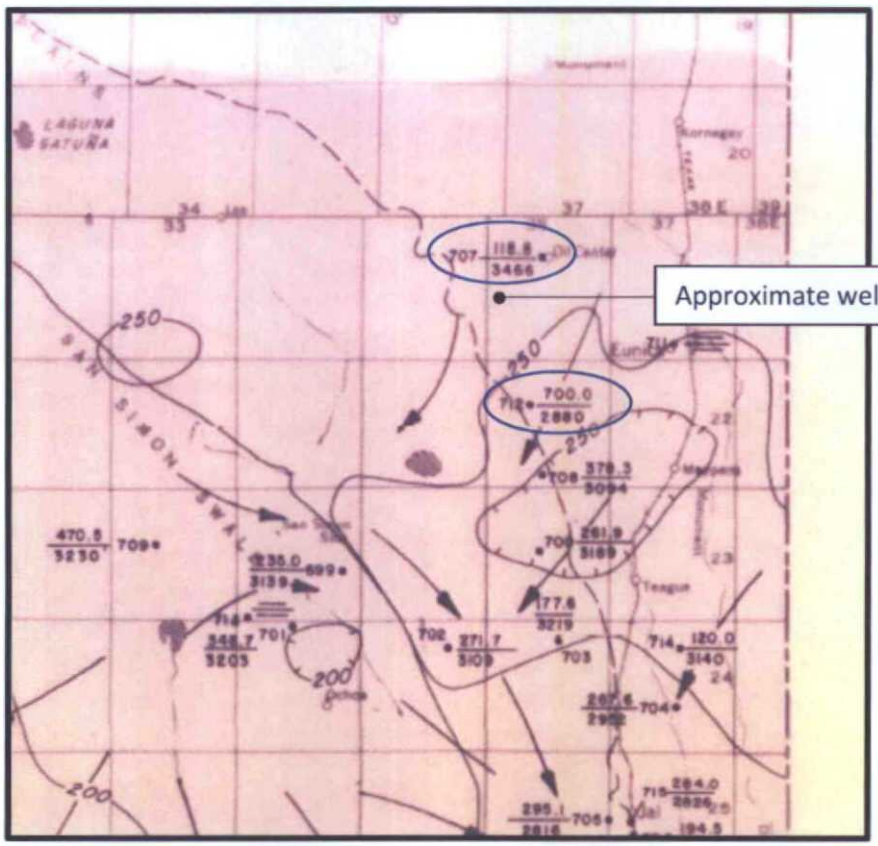
Will Jones

William V. Jones, P.E., Engineer and District IV Supervisor
Oil Conservation Division http://www.emnrd.state.nm.us/ocd/
1220 South St. Francis Drive, Santa Fe, NM 87505
P: 505.476.3477 C: 505.419.1995

C-108 Application for Packer 18 State No. 1: Santa Rosa Information (Not Provided)

PLATE 4

DELAWARE BASIN, TEXAS AND NEW MEXICO
WATER-RESOURCES INVESTIGATIONS REPORT 84-4077



— 250 — LINE OF EQUAL THICKNESS OF SANTA ROSA SANDSTONE--Dashed where approximately located. Interval 50 feet.

WELL 707 118.8 / 3466 WELL AND IDENTIFICATION NUMBER--Upper number is water level below land surface, in feet. Lower number is altitude of water level, in feet. R indicates reported measurement. Datum is sea level.

→ GENERAL DIRECTION OF GROUND-WATER FLOW IN THE SANTA ROSA SANDSTONE--Arrows represent regional interpretations and do not necessarily fit individual control points.

APPROXIMATE AREA OF THE SANTA ROSA SANDSTONE.

DUPLICATE

FORM C-105

NEW MEXICO OIL CONSERVATION COMMISSION

Santa Fe, New Mexico

WELL RECORD

Mail to Oil Conservation Commission, Santa Fe, New Mexico, or ... proper agent not more than twenty days after completion of well. Follow instructions in the Rules and Regulations of the Commission. Indicate questionable data by following it with (?). SUBMIT IN TRIPLICATE.

AREA 640 ACRES
LOCATE WELL CORRECTLY

John L. Boyd — Company or Operator — Shell-State — Lease

Well No. 1 in NE¼ NW¼ of Sec. 18, T. 21 S, R. 35 E, N. M. P. M. Wilcox Field, Lea County.

Well is 330 feet south of the North line and 3630 (1320 / 1650) feet west of the East line of Section 18

If State land the oil and gas lease is No. 13-600 Assignement No. B-1400-4

If patented land the owner is ____ Address ____

If Government land the permittee is ____ Address ____

The Lessee is John L. Boyd Address Box 241, Lockhart, Texas

Drilling commenced March 3 19 52 Drilling was completed June 2 19 52

Name of drilling contractor John L. Greer Drlg.Co., Inc. Address Midland, Texas

Elevation above sea level at top of casing 3,684 feet.

The information given is to be kept confidential until no restriction 19____

OIL SANDS OR ZONES

No. 1, from ____ to ____ No. 4, from ____ to ____

No. 2, from ____ to ____ No. 5, from ____ to ____

No. 3, from ____ to ____ No. 6, from ____ to ____

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from 80 to 115 feet. rose 100'

No. 2, from 315 to 350 feet. rose to top

No. 3, from ____ to ____ feet. ____

No. 4, from ____ to ____ feet. ____

CASING RECORD

SIZE	WEIGHT PER FOOT	THREADS PER INCH	MAKE	AMOUNT	KIND OF SHOE	CUT & FILLED FROM	PERFORATED FROM	PERFORATED TO	PURPOSE
13"	61	11		125					Surface

MUDDING AND CEMENTING RECORD

SIZE OF HOLE	SIZE OF CASING	WHERE SET	NO. SACKS OF CEMENT	METHOD USED	MUD GRAVITY	AMOUNT OF MUD USED
15"	13"	125	50	Halliburton		

PLUGS AND ADAPTERS

Heaving plug—Material ____ Length ____ Depth Set ____

Adapters—Material ____ Size ____

RECORD OF SHOOTING OR CHEMICAL TREATMENT

SIZE	SHELL USED	EXPLOSIVE OR CHEMICAL USED	QUANTITY	DATE	DEPTH SHOT OR TREATED	DEPTH CLEANED OUT
		Dowell M-36	500 gals.	5/17/52	3717-3800	
4"		Nitro		5/24/52	3760-3802	3802

Results of shooting or chemical treatment None

RECORD OF DRILL-STEM AND SPECIAL TESTS

If drill-stem or other special tests or deviation surveys were made, submit report on separate sheet and attach hereto.

TOOLS USED

Rotary tools were used from ____ feet to ____ feet, and from ____ feet to ____ feet.

Cable tools were used from 0 feet to 3832 feet, and from ____ feet to ____ feet.

PRODUCTION

Put to producing ____ 19____

The production of the first 24 hours was ____ barrels of fluid of which ____ % was oil; ____ % emulsion; ____ % water; and ____ % sediment. Gravity, Be ____

If gas well, cu. ft. per 24 hours ____ Gallons gasoline per 1,000 cu. ft. of gas ____

Rock pressure, lbs. per sq. in. ____

EMPLOYEES

Robert E. Lynch Driller L. A. Sample Driller

E. L. Bohannon Driller ____ Driller

FORMATION RECORD ON OTHER SIDE

I hereby swear or affirm that the information given herewith is a complete and correct record of the well and all work done on it so far as can be determined from available records.

Subscribed and sworn to before me this ____ day of ____ 19____

Margaret L. Mitter
Notary Public

My Commission expires 6-1-53

Lockhart, Texas, June 9, 1952
Place Date

Name John L. Boyd
Owner

Position ____

Representing John L. Boyd
Company or Operator

Address Box 241, Lockhart, Texas