

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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



ADMINISTRATIVE APPLICATION CHECKLIST

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

Application Acronyms:

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

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

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery PERMIAN TDS, LLC
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR SV SUNDOWN #1
 30-025-32750

[D] Other: Specify _____

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

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

[B] ☒ Offset Operators, Leaseholders or Surface Owner

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

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

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

[F] ☐ Waivers are Attached

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

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

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

Eddie W. Seay
 Print or Type Name

Signature

Consulting Agent (Permian TDS, LLC)
 Title Date

seay04@leaco.net
 e-mail Address

RECEIVED OCT 18 2 02 PM '18

PERMIAN TDS, LLC

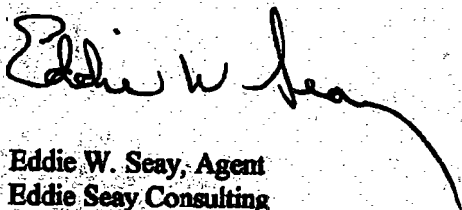
**RE: SV Sundown State #1 (API 30-025-32750)
Unit M, Sect. 14, T. 10 S., R. 37 E.
Lea County, NM**

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**

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance XXX Disposal Storage
Application qualifies for administrative approval? Yes No
- II. OPERATOR: PERMIAN TDS, LLC
ADDRESS: PO BOX 788 LOVINGTON NM 88260
CONTACT PARTY: Eddie W. Seay Consulting Agent PHONE: 575-392-2236
- 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 XXX 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:
- Proposed average and maximum daily rate and volume of fluids to be injected; SV SUNDOWN STATE 1
 - Whether the system is open or closed; 30-025-32750
 - Proposed average and maximum injection pressure; SWD; ECHOE; DEVONIAN NORTHEAST
 - Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 - 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: Eddie W. Seay TITLE Consulting Agent (Permian TDS, LLC)
SIGNATURE: Eddie W. Seay DATE: 12
E-MAIL ADDRESS: seay04@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: _____
- DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

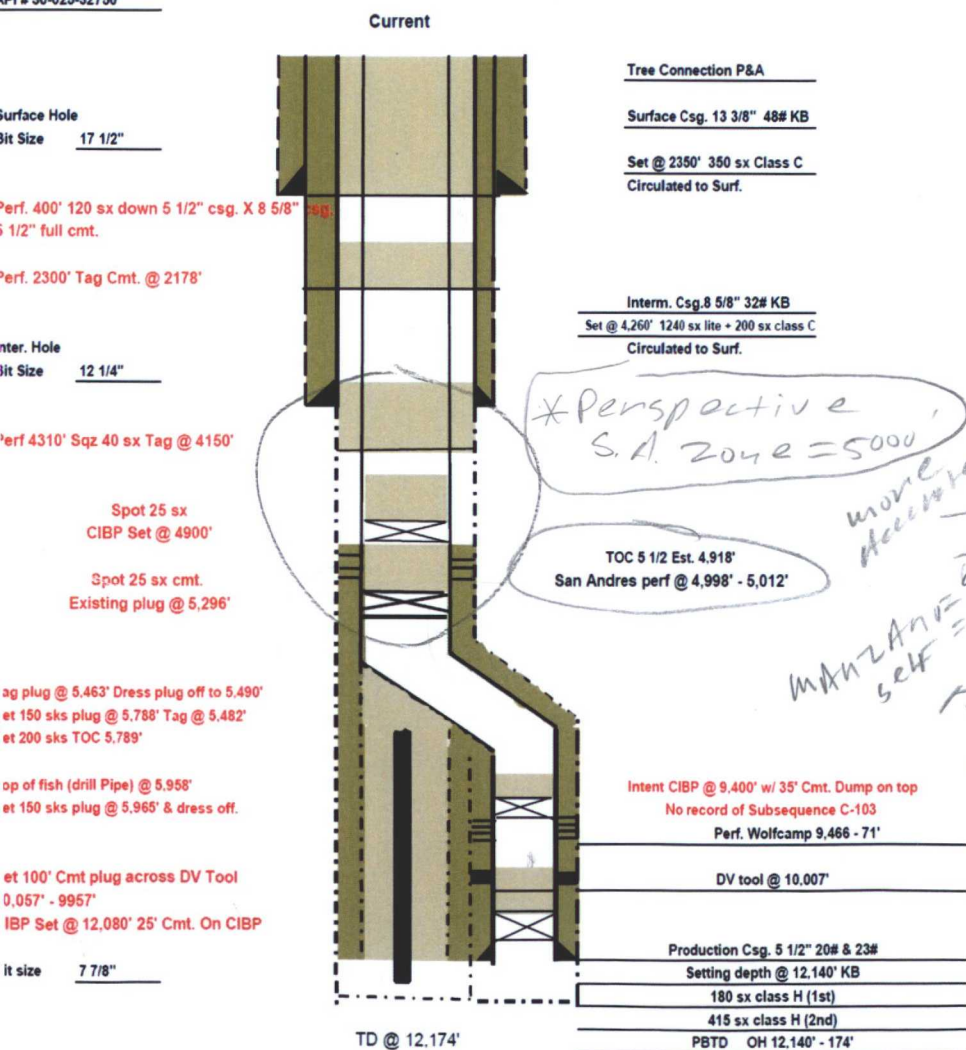
Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

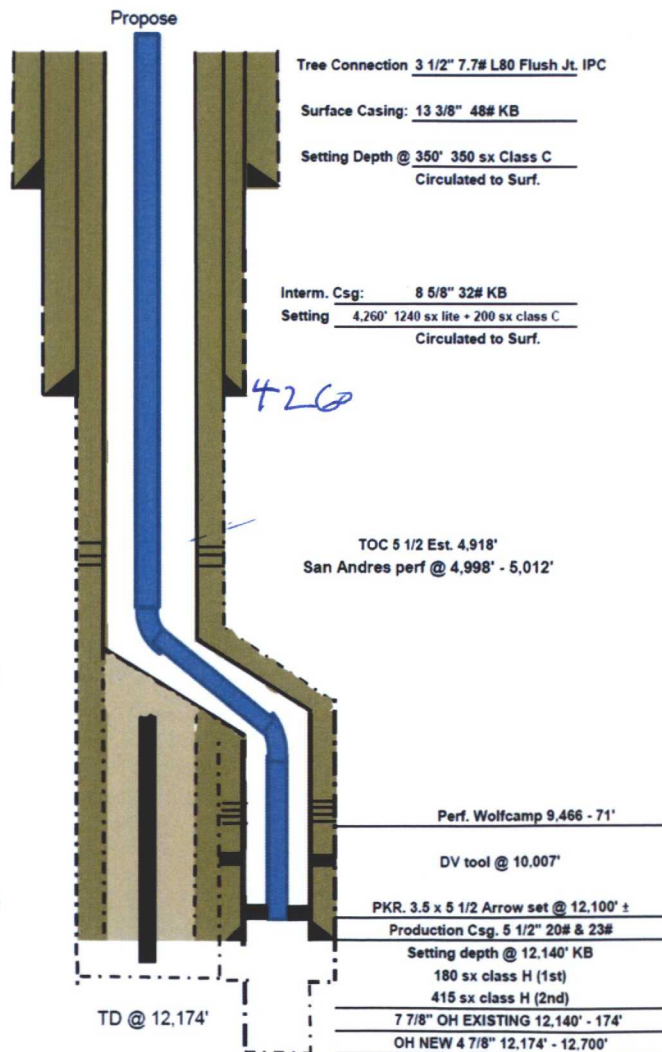
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

INJECTION WELL DATA SHEET

BeforeOPERATOR: PERMIAN TDS LLCWELL NAME & NUMBER: SV SUNDOWN STATE 1WELL LOCATION: 477' FSL 191' FWL M 14 10S 37E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingPermian TDS, LLC
SV Sundown State # 1
477' FSL, 191' FWL, Unit (M), Sec 14, T10S, R37E
API # 30-025-32750Hole Size: 17 - 1/2" Casing Size: 13 - 3/8"Cemented with: 350 sx. or 462 ft³Top of Cement: SURFACE Method Determined: CIRC. W/ 85sxIntermediate CasingHole Size: 12 - 1/4" Casing Size: 8 - 5/8"Cemented with: 1440 sx. or 1900.8 ft³Top of Cement: SURFACE Method Determined: CIRC. W/ 185 sxProduction CasingHole Size: 7 - 7/8" Casing Size: 5 - 1/2"Cemented with: 595 sx. or 785.4 ft³Top of Cement: 4918' Method Determined: CALCULATEDTotal Depth: 12,174' KBInjection Interval12,125' GL feet to EST. 12,700'(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Arten

OPERATOR: PERMIAN TDS, LLCWELL NAME & NUMBER: SV SUNDOWN STATE 1WELL LOCATION: 477' FSL 191' FWL M 14 10S 37E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGEWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface CasingPermian TDS, LLC
SV Sundown State # 1
477' FSL, 191' FWL, Unit (M), Sec 14, T10S, R37E
API # 30-025-32750Surface Hole
Bit Size 17 1/2"Inter. Hole
Bit Size 12 1/4"Tag plug @ 5,463' Dress plug off to 5,490'
Set 150 sks plug @ 5,788' Tag @ 5,482'
Set 200 sks TOC 5,789'Top of fish (drill Pipe) @ 5,958'
Set 150 sks plug @ 5,965' & dress off.Set 100' Cmt plug across DV Tool
10,057' - 9957'
CIBP Set @ 12,080' 25' Cmt. On CIBPBit size 7 7/8"Hole Size: 17 - 1/2" Casing Size: 13 - 3/8"Cemented with: 350 sx. *or* 462 ft³Top of Cement: SURFACE Method Determined: CIRC. W/ 85sxIntermediate CasingHole Size: 12 - 1/4" Casing Size: 8 - 5/8"Cemented with: 1440 sx. *or* 1900.8 ft³Top of Cement: SURFACE Method Determined: CIRC. W/ 185 sxProduction CasingHole Size: 7 - 7/8" Casing Size: 5 - 1/2"Cemented with: 595 sx. *or* 785.4 ft³Top of Cement: 4918' Method Determined: CALCULATEDTotal Depth: 12,174' KBInjection Interval12,125' GL feet to EST. 12,700'(Perforated or **Open Hole**; indicate which)

INJECTION WELL DATA SHEETTubing Size: 3 -1/2" 7.7# L80 FLUSH JOINT IPC Lining Material: PLASTICType of Packer: ARROW SET SS "F" NIPPLE O/O TOOL 3.5" X 5.5"Packer Setting Depth: 12,075'Other Type of Tubing/Casing Seal (if applicable): N/AAdditional Data

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

If no, for what purpose was the well originally drilled? O&G IN (DEVONIAN, WOLFCAMP), OIL IN SAN ANDRES

EFFORTS MADE RESULTED IN NON PRODUCTIVE RESULTS.

2. Name of the Injection Formation: DEVONIAN / SILURO - FUESSLMEN
3. Name of Field or Pool (if applicable): ECHOL; DEVONIAN NORTHEAST # 96374
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. WOLFCAMP PERF. 9,466' - 9,471'
SAN ANDRES 4,998' - 5012' 3 CIBP SET & 7 PLUGS SET PLEASE SEE SIDE 1
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: UNDERLYING ZONES BELOW ARE - MONTOYA EST. 12,700', SIMPSON EST. 13,050' ELENBURGER EST. 13,400'

OVERLAYING ZONES ARE - WOODFORD 12,097', MISSISSIPPIAN Ls. 11,494' PENNS.(BOUGH C) 9,510', WOLFCAMP 8950', ABO 7,752, DRINKARD 7,075' CLEARFORK 6,424' SAN ANDRES 4838', YATES 2950'

EQUIPMENT DESCRIPTION

RUN 1

RUN 2

SURFACE EQUIPMENT

LCM-AA 846
STM C 592
GSR-U/Y
TCM-AB 1322

DOWNHOLE EQUIPMENT

PEH-A

PEH-A

AH-64

TCC-B

ECH-KC 2950

TCC-B 950

SGT-L

SGH-K 553

SGC-SA 423

SGD-TAA

SDT-C

SDC-CB 825

ECH-K/I

SLS-WA

1st Status
CTEM

Current Day

U-F VDL

L-F

AH-169

DST-E

DLH-CB

DLC-D 718

DLS-F 762

SRE-F 735

SRS-D 820

LLD LLS

CALIPER S

CALIPER T

I/I

MSFL

Tension HV

TOOL ZERO

MAXIMUM STRING DIAMETER 5.38 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

67.4

65.6

64.2

61.2

61.2

60.3

55.7

39.2

38.2

35.6

34.6

1.0 IN

Standoff

1.0 IN

Standoff

31.1

29.7

15.3

3.5

3.2

1.7

1.5

0.0

Output DLIS Files				
DEFAULT	DSTE .013	FN:12 FIELD	8-MAR-1995 23:24	10494.5 FT 4259.5 FT
Integrated Hole/Cement Volume Summary Hole Volume = 3949.14 F3 Cement Volume = 2920.31 F3 (assuming 8.50 IN casing O.D.) Computed from 10494.5 FT to 4259.5 FT using data channel(s) CAL1				
OP System Version: 7C0-427 DBM				

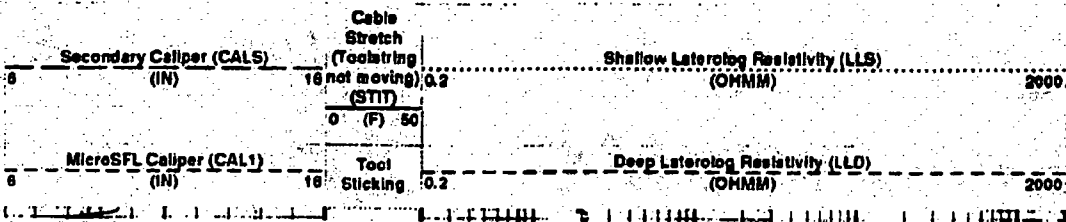
PIP SUMMARY

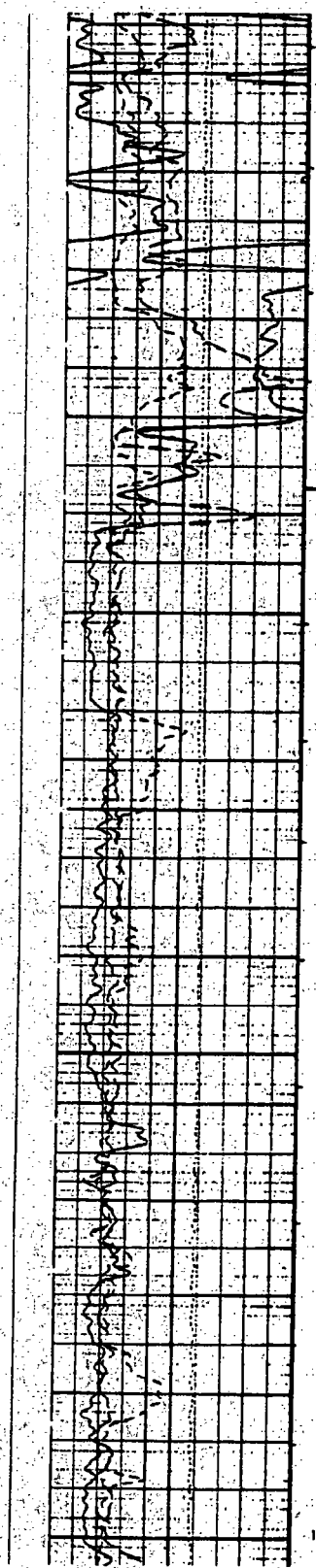
- 1 Integrated Borehole Volume Every 10 F3
- 1 Integrated Borehole Volume Every 100 F3
- 1 Integrated Annulus Volume Every 10 F3
- 1 Integrated Annulus Volume Every 100 F3

☒ Time Mark Every 60 S

Cable Tension (TENS)
(LBF) 0

Gamma Ray (GR)
(GAPI) 0 100



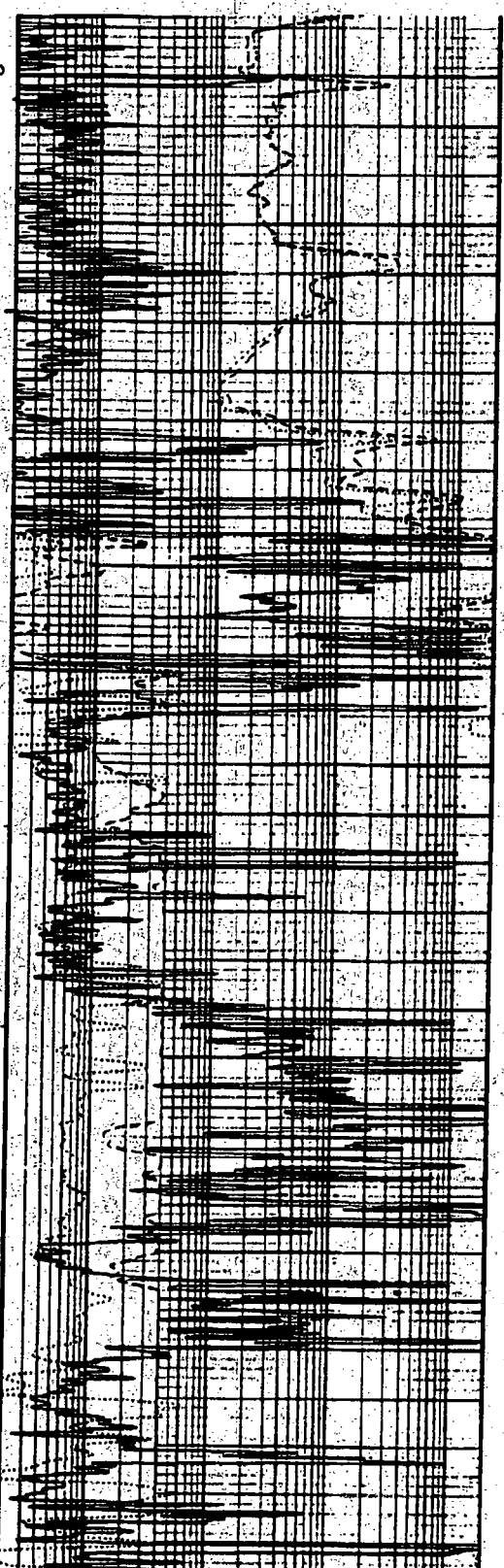


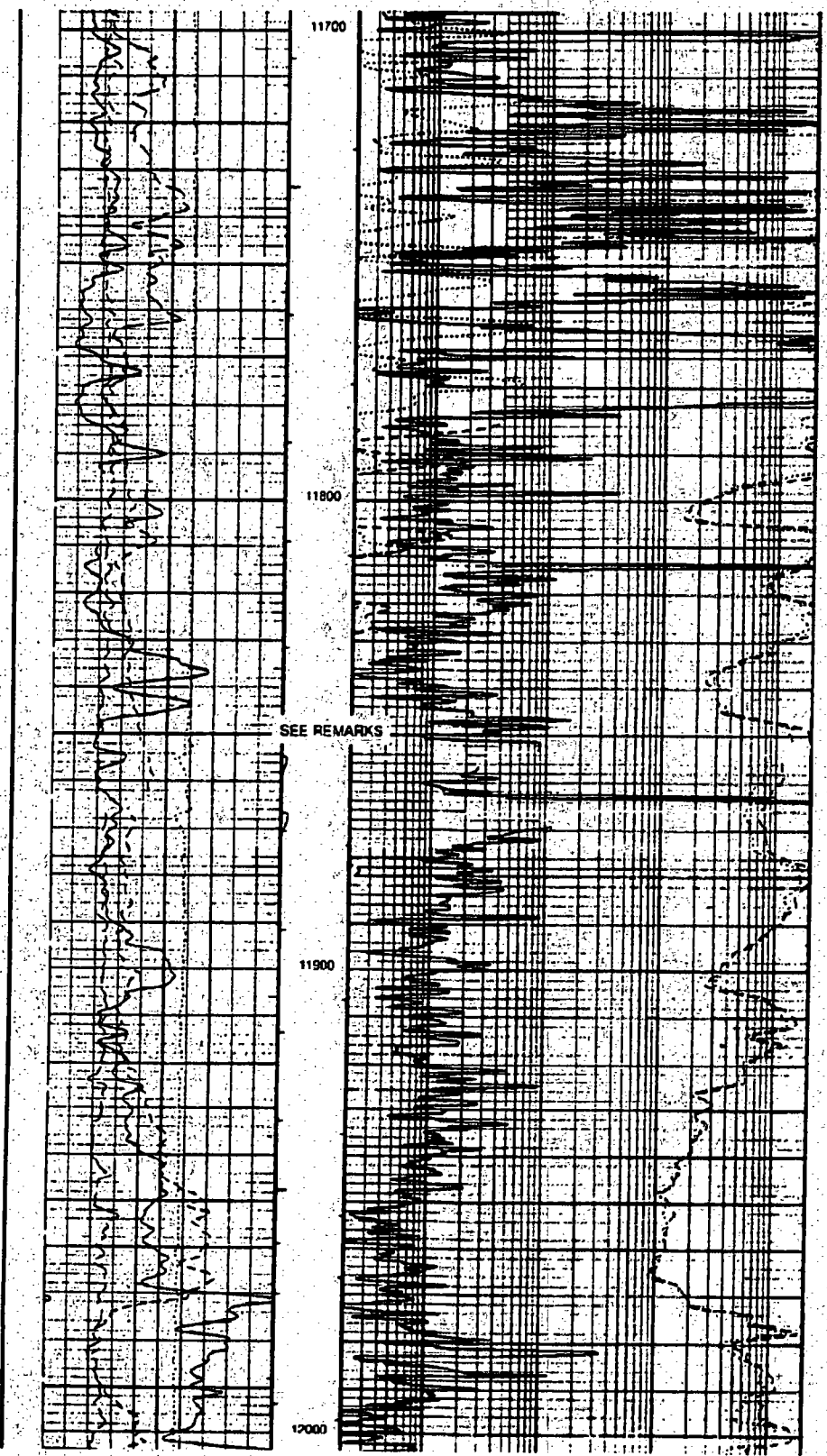
11400

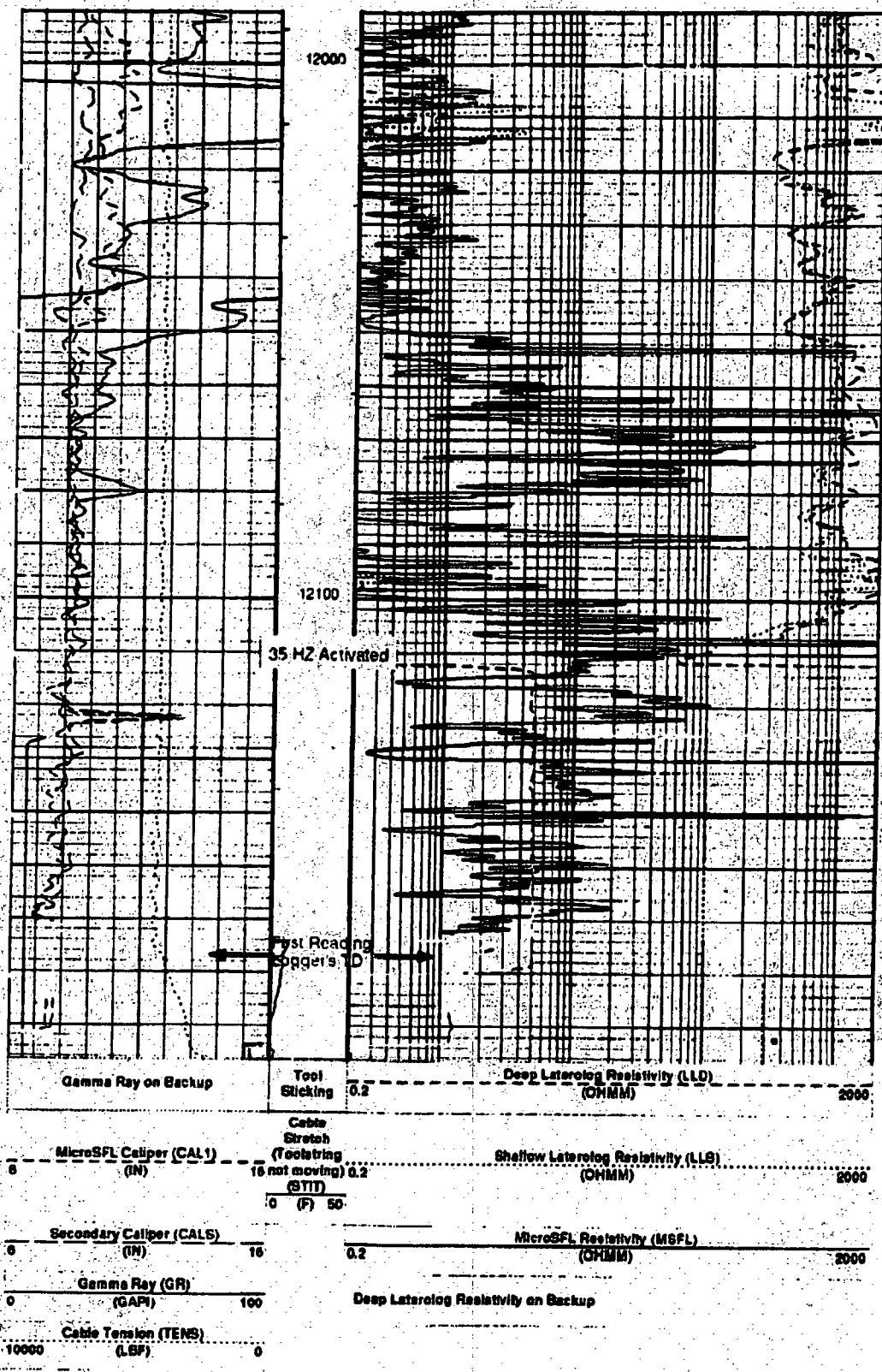
11500

11600

11700







COUNTY: CHICO Field: 1113-RTT Location: CHICO OIL AND GAS CORPORATION Well: BY BURDOWN STATE #1 Company: 30-025-3750		LANZANO OIL CORPORATION BURDOWN SV STATE #1 MILDCAT EA STATE: NEW MEXICO 22972 Schlumberger COMPENSATED NEUTRON LITHO-DENSITY GAMMA RAY 177 FSL & 10" FWL Elev. KB: 3950 F GL: 3941 F D.F.: 3950 F Permanent Datum: GROUND LEVEL Elev.: 3941 F Log Measured From: KELLY BUSHING 150 F above Perm. Datum Drilling Measured From: KELLY BUSHING		Run 1	Run 2	Run 3	Run 4	
API Serial No: 30-025-3750 SECTION: 14 TOWNSHIP: 10S RANGE: 37E		Logging Date: 8-MAR-1995 Run Number: ONE Depth Driller: 12174 F Schlumberger Depth: 12170 F Bottom Log Interval: 12167 F Top Log Interval: 200 F Casing Driller Size to Depth: 8.625 IN Casing Schlumberger: 4250 F Bit Size: 7.875 IN Type Fluid In Hole: DRINE Density: 8.8 LB/G Viscosity: 44 S Fluid Loss: 12 CC Source Of Sample: PT RM to Measured Temperature: 0.076 CHMM 55.0 DEG RMC to Measured Temperature: 0.069 CHMM 55.0 DEG RMC to Measured Temperature: MEASURED RM to MRT: 0.032 141.0029 141 Maximum Recorded Temperature: 141 DEGF Circulation Stopped: 7-MAR-1995 10:00 Logger On Bottom: 8-MAR-1995 4:30 Unit Number: 2030 Recorded By: BURKHARD / LAPONGA Witnessed By: MRI DONNIE BROWN		Logging Date: Run Number: Depth Driller: Schlumberger Depth: Bottom Log Interval: Top Log Interval: Casing Driller Size to Depth: Casing Schlumberger: Bit Size: Type Fluid In Hole: Density: Viscosity: Fluid Loss: Source Of Sample: RM to Measured Temperature: RMC to Measured Temperature: RMC to Measured Temperature: RM to MRT: Maximum Recorded Temperature: Circulation Stopped: Logger On Bottom: Unit Number: Recorded By: Witnessed By:				
OTHER SERVICES: OS1: 107/CH/RTT OS2: NOT CALLED OS3: OS4: OS5:		REMARKS: RUN NUMBER 1 THANK YOU FOR USING SCHLUMBERGER OPERATIONS AT YOUR SERVICE FOLEY READOCK AND ETWIN FRIZ		REMARKS: RUN NUMBER 2				

RUN 1			RUN 2		
SERVICE ORDER #			SERVICE ORDER #		
PROGRAM VERSION			PROGRAM VERSION		
FLUID LEVEL			FLUID LEVEL		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT					
CNB-AB 2155 NCT-8 NCS-V8 GSI-U/Y					
DOWNHOLE EQUIPMENT					
<p>Diagram of downhole equipment showing a vertical tool string with various components labeled and depth measurements in feet.</p>					
LEH-O LEH-O 35.7					
TCC-B EQ-KC TCC-B 35 33.5					
TCS-MS CTEM 30.5					
SGT-L SQ-H-K 553 SGC-SA 429 SGS-TAA 30.5					
CNT-H CND-NA MLS-KL NSR-F 2434 CNC-MA 420 CND-A 4409 BOW-SPR NPV-N 25.0					
LDT-O GSR-J 1778 PGD-G NSC-E 2854 EQH-MKA 2850 DPS-C 3880 PDH-L 1843 20.8 20.1					
17.8					
Caliper LS SS 2.1 2.3 2.5					
BNS-CCS TOOL ZERO 0.0 0.5					
MAXIMUM STRING DIAMETER 4.50 IN MEASUREMENTS RELATIVE TO TOOL ZERO ALL LENGTHS IN FEET					

Output DLIS Files

DEFAULT LDT0 .004 FN:3 FIELD 8-MAR-1995 04:50 12188.5 FT 190.0 FT

Integrated Hole/Cement Volume Summary

Hole Volume = 4663.33 F3
 Cement Volume = 3357.59 F3 (assuming 6.50 IN casing O.D.)
 Computed from 12174.0 FT to 4260.0 FT using data channel(s) CALI

OP System Version: 7C0-427

DBM

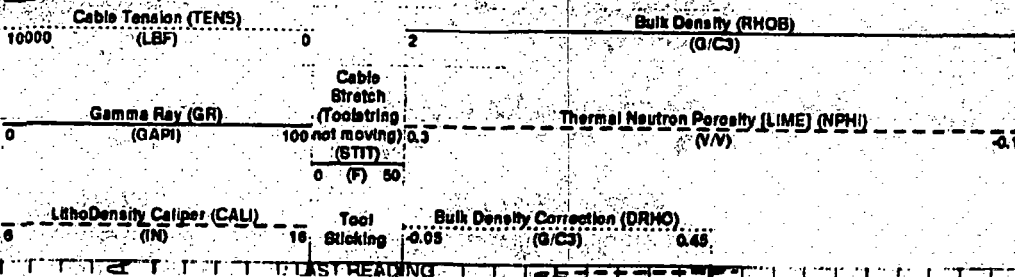
Changed Parameter Summary

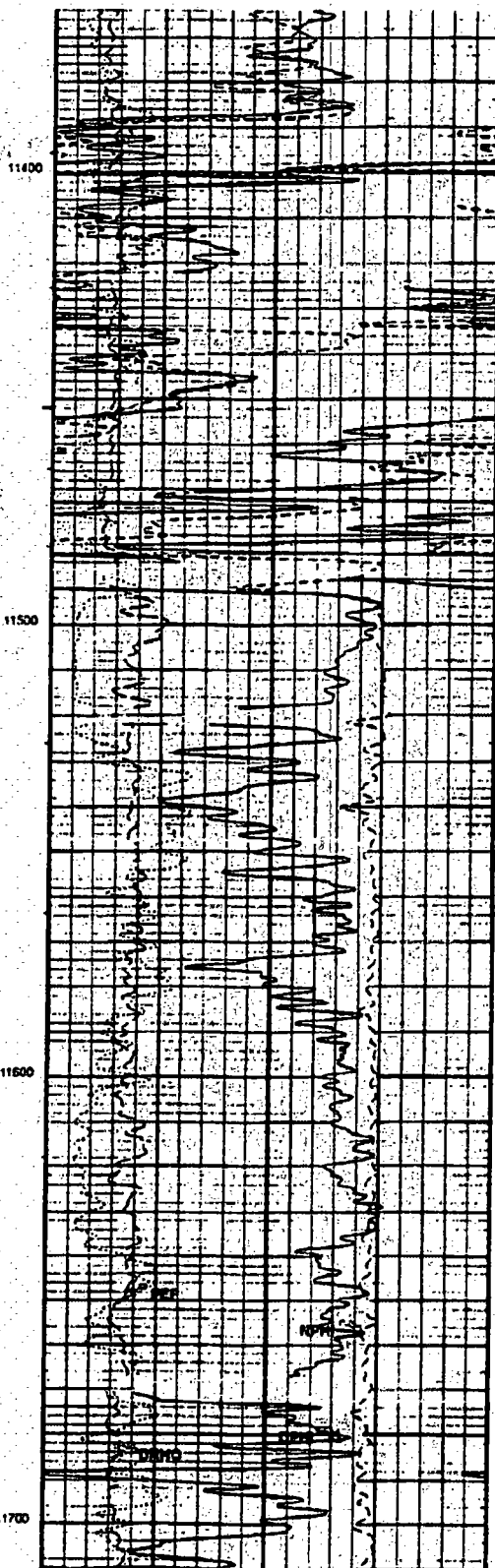
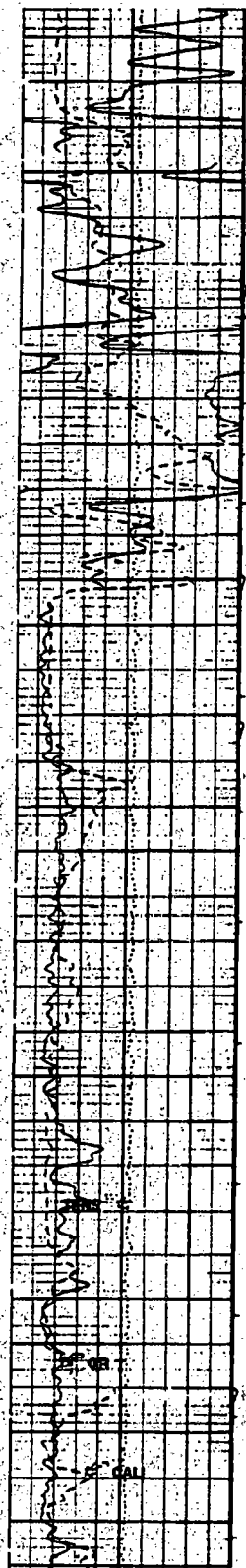
DLIS Name	New Value	Previous Value	Depth & Time
BHS	CASED	OPEN	4247.0 09:14:17

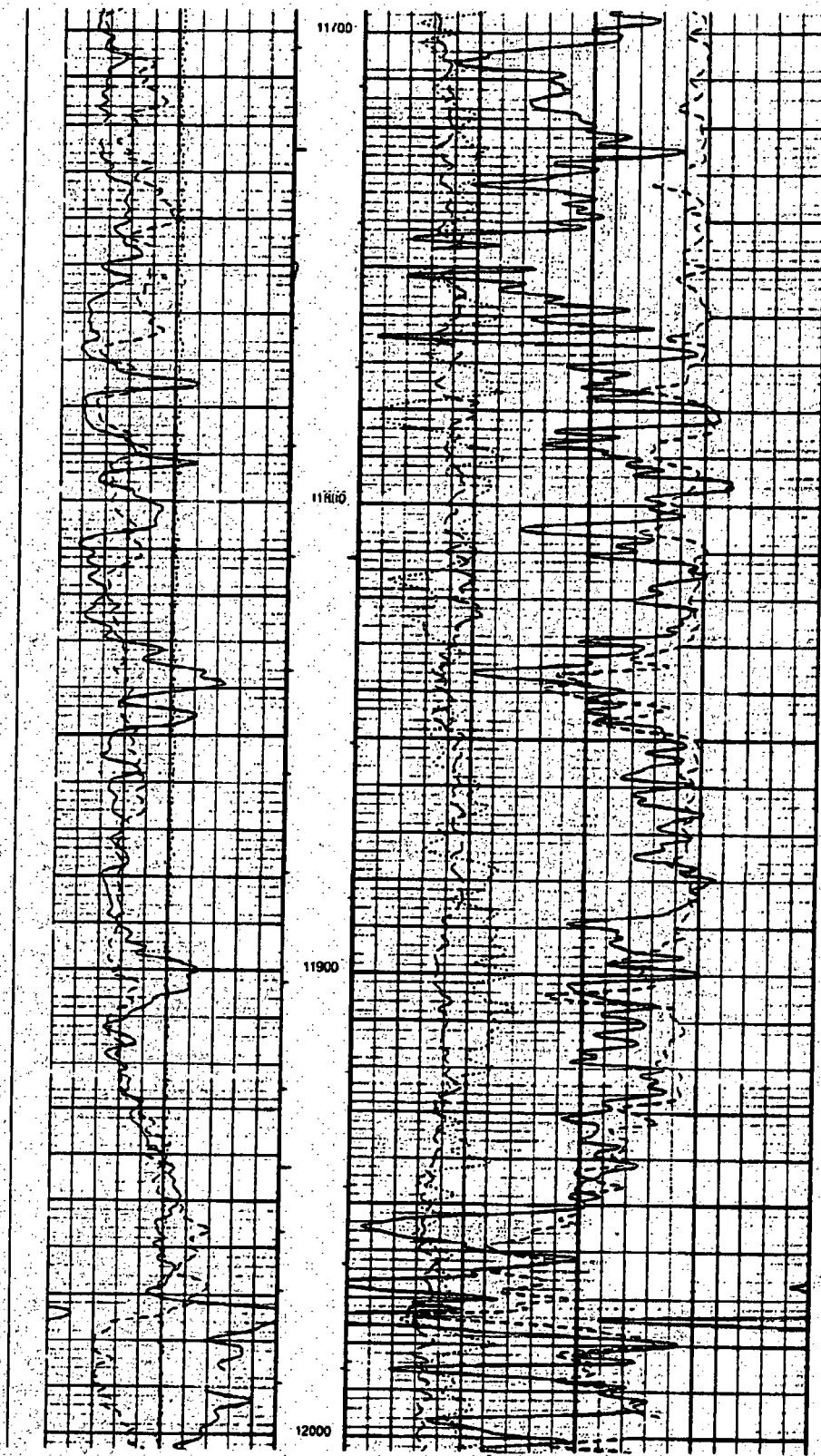
PIP SUMMARY

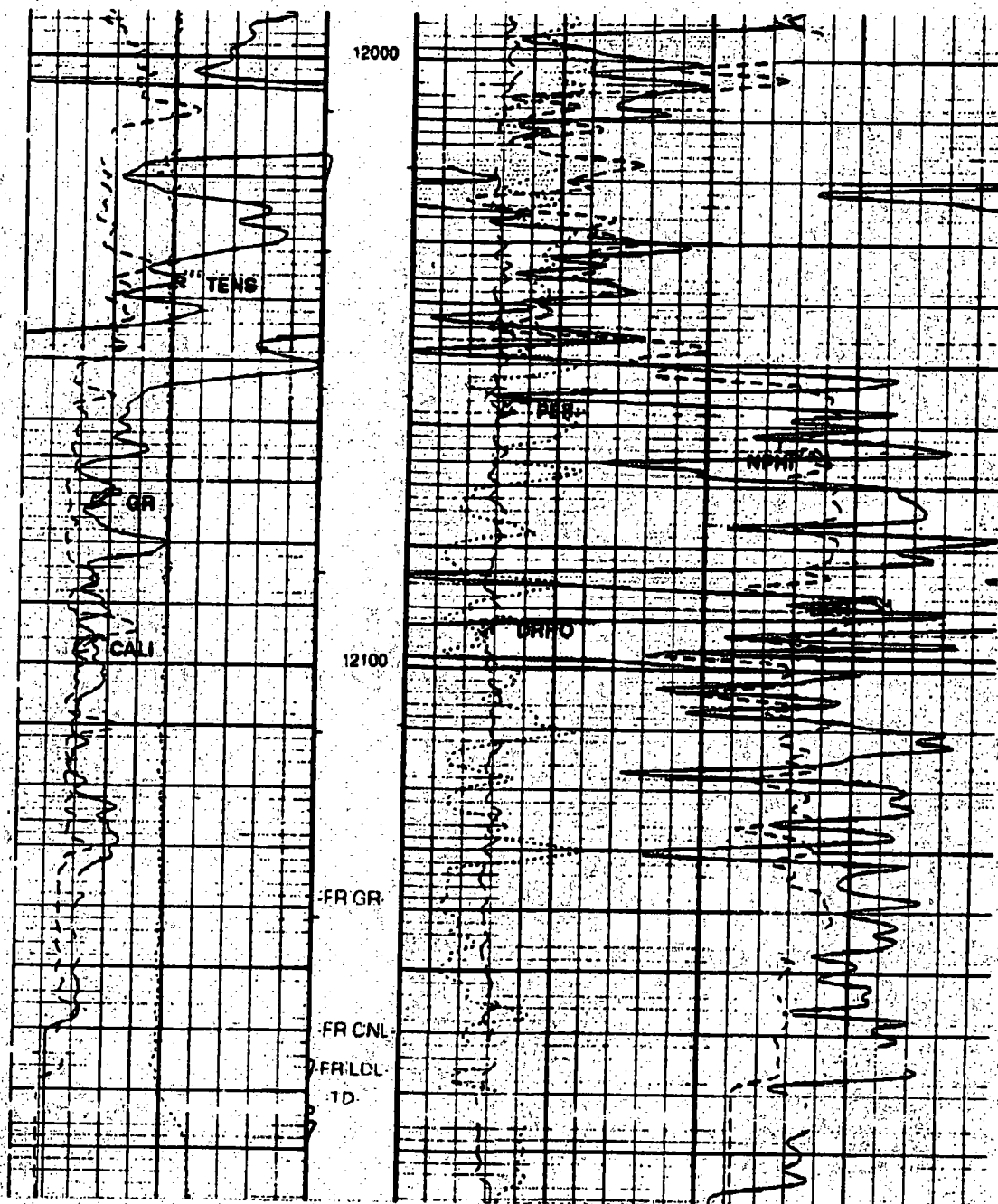
- Integrated Borehole Volume Every 10 F3
- Integrated Borehole Volume Every 100 F3
- Integrated Annulus Volume Every 10 F3
- Integrated Annulus Volume Every 100 F3

Time Mark Every 60 S









Gamma Ray on Backup

Tool Sticking

Bulk Density Correction (DRHO)
(G/C3) 0.43

Cable Stretch
(Toolstring 16 not moving) 0.3
(STT)

LithoDensity Caliper (CALI)
(IN)

LithoDensity Porosity (2.71) (DPHI)
(V/V)

-0.1

Permian TDS, LLC
P.O. Box 788
Lovington NM 88260

PERMIAN TDS, LLC

PAGE 1

SV SUNDOWN STATE 1

477' FSL, 191' FWL, SEC. 14, T. 10 S, R. 37 E

LEA COUNTY, NEW MEXICO

30-025-32750

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Objective is to re-enter a 1994 drilled wildcat Devonian well with a vertical depth of 12,174'. This well was plugged and abandoned on June 13, 2008. The SV Sundown 1 well located in unit (M) of Sec 14, T10S, R37E also was tested for production in the Wolfcamp and the San Andres they also showed non-productive. The conversion of this well is to create a Commercial Salt Water Disposal well.

- II. Operator: Permian TDS, LLC OGRID # 306958
Operator phone number: (575)-396-5303 or (575)-399-5031
Operator address: PO Box 788 Lovington NM 88260
Contact for Application: Eddie Seay, Consulting Agent (Permian TDS, LLC)
Phone (575) 392-2236

- III. A. (1) Lease: New Mexico State Land Office Lease (VB27320001.)
Lease Size: 40 acres (see Exhibit A for Map and C-102)
Closest Lease Line: 2,163 feet
Lease Area SW ¼ SW ¼ Section 14, Township 10 S, Range 37E

- A. (2) Surface Casing (13 – 3/8", 48# WCH-40 ST&C 8R) was set at 350' KB on 12-11-94 in a 17-1/2" hole. Cemented with 350 sacks Class C Circulating 85 sacks at surface.

PERMIAN TDS, LLC

PAGE 2

SV SUNDOWN STATE 1

477' FSL, 191' FWL, SEC. 14, T. 10 S, R. 37 E

LEA COUNTY, NEW MEXICO

30-025-32750

Intermediate casing (8 – 5/8" 32# K-55 ST&C 8R) was set at 4260' KB on 12-18-94 in a 12 – 1/4" hole. Cemented with 1240 sks. Lite Tail in with 200 sacks Class C Circulating 185 sacks at surface

Production Casing (5 – 1/2" S95 & N80 20# and 23# ST&C) DV tool was set at 10,007' Casing was set at 12,140' KB on 3-11-95 in a 7 – 7/8" hole. Cemented in 2 stages first stage with 180 sacks Class H second stage with 415 sacks of Class H.

Note: As Reported on C-103 1-23-95 TD 12,131' fishing for dropped drill pipe. Pulled 1 stand plus part of 2sd stand. Was 180' off bottom, Drill line parted and dropped drill pipe and block,

1-24-95 TIH to find top of fish with mill. Pulled out of the hole with 56 stands plus 24' of parted joint, Total tally of drill pipe recovery was 5939' Tagged the top of the fish at 5950'.

1-25-95 Waiting on wireline truck to run fish finder. Tripped into the hole and tried to hook fish – could not get below 5960'. Picked up wash over pipe with a shoe and mill. Tagged the fish at 5958' washed over fish to 5990'. Pulled Out of the hole.

1-26-95 Ran fish finder and found fish at 5933' picked up wash pipe, shoe and mill. Tagged fish 5958' washed over fish to 5990' mill at 5958'.

1-27-95 Prep to set 150 sack plug at 5965' and dress off. Will sidetrack hole.

1-29-95 Plug back total depth is at 5482'. Set a third plug of 200 sacks of Class H plus 2% CaCl. Tagged plug at 5789'. Set a fourth plug of 150 sacks Class H plus 2% CaCl at 5788' tagged plug at 5482'.

1-30-95 Drilling with downhole motor and two bent subs at 5491'. Tagged plug at 5463' dressed plug off to 5490'.

1-31-95 Drilling at 5563' with motor.

Permian TDS, LLC
P.O. Box 788
Lovington NM 88260

PERMIAN TDS, LLC

SV SUNDOWN STATE 1

PAGE 3

477' FSL, 191' FWL, SEC. 14, T. 10 S, R. 37 E

LEA COUNTY, NEW MEXICO

30-025-32750

2-01-95 Drilling at 5705'.

3-11-95 TD at 12,174' Ran 302 joints 5-1/2" S95 and N80 20# and 23# casing. DV tool at 10,007' set casing at 12,140' KB. Cemented in two stages with 180 sacks of Class H and second stage Cement with 415 sacks of Class H.

Chesapeake Operating Inc. Plugged and Abandoned the SV Sundown on 6-13-08 currently the well bore has three CIBP and possible a fourth above the Wolfcamp not defined in reports, with 7 cement plugs total.

- A. (3) Tubing will be 3.5" J-55 interior plastic coated. Setting depth will be approximately 12,100'KB. The Disposal interval will be (12,140' to Est. 12,700' KB).**
- A. (4) A 3.5" x 5-1/2" Arrow set SS "F" O/O tool packer will be set at approximately 12,100' KB (40' above the open hole top of 12,140' KB).**
- B. (1) Disposal Zone will be the SWD ECHOL; DEVONIAN NORTHEAST (96374). Including the Silurian and the Fuesslman zones.**
- B. (2) Disposal interval will be 12,140' to Est. 12,700'KB. There are no plugs below 12,140'.**
- C. (3) Well was drilled as a Devonian wildcat oil or gas production well. On 05-03-00 it was P&A with a CIBP set at 12,080' and 25' of cement by bail dump on top of CIBP. They set a 100' cement plug across the DV tool from 10,057' back to 9,957'. They then came up the hole and perforated the Wolfcamp at 9466'-71' to test.**

PERMIAN TDS, LLC

PAGE 4

SV SUNDOWN STATE 1

477' FSL, 191' FWL, SEC. 14, T. 10 S, R. 37 E

LEA COUNTY, NEW MEXICO

30-025-32750

B. (4) Disposal well will be completed open hole from 12,125' GL to Est. 12,700' GL. Currently the Devonian's open hole is from 12,140' KB to 12,174' KB. Wolfcamp was perforated from 9,466' to 9,471' procedure shows with APD to set CIBP at 9,400' and dump 35' on top. No C103 subsequence report on this to be found. A plug shows to have been placed at 5488'. San Andres perforated from 4,998' to 5,012' CIBP set at 4950' ball dump 35' cement on top.

B. (5) Above the Devonian Zone closest to this well is the SV Sundown State 2 San Andres (4,996'-5,010') 533' (Lat. 33.4416942 Long. -103.1297421) away. P&A in 7-23-15.

To the northwest SV Sunrise State 1, NE ECHOL DEVONIAN (12,050' – 12,108') 765' (Lat. 33.4423866 Long. -103.1331678) away. P&A in 6-14-16. See Exhibit B for aerial view of noted wells.

- IV. This is not an expansion of an existing injection project. It will be disposal only.
- V. In Exhibit C the half mile radius shows four wells with in the half mile radius (1- Proposed SWD plus 1- plugged Devonian plus 2 – Plugged San Andres wells). Exhibit D shows 20 existing wells of the 20 (9- P&A Devonian, 2- Devonian T&A, 1- Devonian Active, 5- P&A San Andres, 1- APD San Andres, 1- Active San Andres and 1- Inactive San Andres SWD). Exhibit E shows all leases and lessors (State, Fee or BLM) within a half mile radius. Exhibit F shows all leases and lessors (State, Fee or BLM) within a two-mile radius. Details on the leases within a half-mile AOR.

Permian TDS, LLC
P.O. Box 788
Lovington NM 88260

PERMIAN TDS, LLC

PAGE 5

SV SUNDOWN STATE 1

477' FSL, 191' FWL, SEC. 14, T. 10 S, R. 37 E

LEA COUNTY, NEW MEXICO

30-025-32750

<u>T. 10S, R. 37E</u>	<u>Lessor</u>	<u>Lease Number</u>	<u>Lessee</u>
Sec. 15	NMSLO	GT2454	Not leased
E Sec. 14	NMSLO	VB27130001	Apache
W Sec. 14	NMSLO	VB 27320001	Apache
N Sec. 22	NM SLO	VB2881000	Doug J. Schutz
S Sec. 22	NMSLO	VB28900000	Headington Energy Partners
W Sec. 23	NMSLO	VB27140001	Apache
E Sec. 23	NMSLO	VB27330000	Federal Abstract Corp.

VI. Four wells are within the 2,640' radius of the SV Sundown State 1, only one penetrates the top of the Devonian the other two wells are drilled to the San Andres formation. Exhibit G is the summary of all four wells. Wells in or near the area of review are:

API	WELL NAME	OPERATOR	WELL TYPE	SECTION	TVD	ZONE	DISTANCE
3002533724	SV Sunrise State 1	Legacy Reserves Operating LP	O	15	12,108	ECHOL: Devonian Northeast	765'
3002535597	SV Sundown State 2	Concho Oil & Gas	O	14	5,150'	East ECHOL San Andres	533'
3002535907	SV Sundown State 3	Chesapeake	O	14	5,200'	East ECHOL San Andres	2,522
3002504988	PRE ONGARD	PRE ONGARD	O	22	5077'	East ECHOL San Andres	3,643'
3002504989	Sundown State 1 SWD	Legacy Reserves Operating LP	O/INJ.	22	5535'	East ECHOL San Andres	3,612'

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Lovington NM 88260

PERMIAN TDS, LLC

PAGE 6

SV SUNDOWN STATE 1

477' FSL, 191' FWL, SEC. 14, T. 10 S, R. 37 E

LEA COUNTY, NEW MEXICO

30-025-32750

VII. 1. Average injection rate will be \approx 8,000 BWPB

Maximum injection rate will be 15,000 BWPB

2. System will be closed. Water will be trucked and pipelined to the SV Sundown State # 1 battery located close to the Bledsoe Hwy 125 then piped to the Storage suction tank battery on the location of the SV Sundown State 1.

3. Average injection pressure will be 2,400 psi. Average injection pressure will be 2,428 psi ($= 0.2$ psi/foot \times 12,140' top of hole interval).

4. There has been no reports of problems disposing into the Devonian in this area of review the closest plugged injection Devonian well the Morse SWD 1 (30-025-04995) (A-28-10S- R37E). Total of 225,045 bbl. was disposed down this well before it was plugged due to inactivity.

5. The main source of disposal water will be produced water from the San Andres and Devonian. Closest ECHOL Devonian Northeast well is 765' east and plugged in 5-31-16. A summary of water analyses is in Exhibit H.

VIII. The Devonian in the area of review is Dolomite, Limestone and Anhydrite from 12,050' to 12,174'. San Andres formation in the area of review is a tan-gray anhydritic dolomite with pin point and vuggy porosity from 4250 to 5200 \pm . The only known fresh water in the area is the Ogallala

McMillan, Michael, EMNRD

From: McMillan, Michael, EMNRD
Sent: Friday, May 19, 2017 10:29 AM
To: 'Rena Seay'
Cc: Jones, William V, EMNRD; Lowe, Leonard, EMNRD; Whitaker, Mark A, EMNRD; Kautz, Paul, EMNRD; Brown, Maxey G, EMNRD; Goetze, Phillip, EMNRD
Subject: Permian TDS SV Sundown State SWD Well No. 1 API 30-025-32750

Eddie:

The OCD has concerns about the calculated cement top in your application.

Original operator said the cement top of the 5-1/2 shows 9000' (most likely scenario). I calculated 7500'. Therefore it is reasonable to assume that the San Andres formation perforations are not covered by cement.

Therefore, the Applicant shall provide a CBL to the Hobbs District Office and Santa Fe office before injection occurs.

Next, the original TD was 12174 feet. Your injection interval is from 12174-12700'. The OCD will only allow injection into the Devonian and Silurian formations. Injection into the Ordovician is prohibited.

Therefore, the Applicant will be required to provide mud log, electric logs (if ran), and summary of log tops to the Hobbs and Santa Fe Offices to ensure that the injection interval is in the Devonian and Silurian formations. Injection shall not occur until both Santa Fe and Hobbs has approved your injection interval.

MICHAEL A. MCMILLAN

Engineering Bureau, Oil Conservation Division
1220 south St. Francis Dr., Santa Fe NM 87505
O: 505.476.3448
Michael.McMillan@state.nm.us

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

PLSS Search:

Section(s): 10-12, 13-15, 22-24 **Township:** 10S **Range:** 37E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

6/7/17 10:38 AM

WATER COLUMN/ AVERAGE
DEPTH TO WATER

Permian TDS, LLC
P.O. Box 788
Lovington NM 88260

PERMIAN TDS, LLC

PAGE 7

SV SUNDOWN STATE 1

477' FSL, 191' FWL, SEC. 14, T. 10 S, R. 37 E

LEA COUNTY, NEW MEXICO

30-025-32750

formation found at a depth of 75' with a thickness of 50' \pm . No drinking water has been found below the Devonian formation.

Formation Tops are:

Quaternary = 0'

Anhydrite = 2,250'

Yates = 2,950'

San Andres = 4,838'

Drinkard = 7,075'

Abo = 7,752'

Wolfcamp = 8,950'

Penn = 9,510'

Miss Lm = 11,494'

Wd = 11,972'
Devonian = 12,052'

PBTD = None, OH

Total Depth = 12,174'

Permian TDS, LLC
P.O. Box 788
Lovington NM 88260

PERMIAN TDS, LLC

PAGE 8

SV SUNDOWN STATE 1

477' FSL, 191' FWL, SEC. 14, T. 10 S, R. 37 E

LEA COUNTY, NEW MEXICO

30-025-32750

- IX. Stimulate with 7500 gal 25% HCL plus inhibitors and displaced with 10 pound quality brine to clean out scale and any existing wall cake.
- X. CNL- LITHO, DENSITY, DDL, MSFL, & DHCS Logs have been run and filed with the NM OCD.
- XI. No water wells are to be found within our half mile radius AOR. One well was found with a one mile radius in C-27-T 10S-R 37E. Exhibit H Map of documented water wells in the area, water analysis from the Devonian, San Andres & Ogallala formation. Exhibit I
- XII. Permian TDS LLC is not aware of any geologic or engineering data that may indicate the ECHOL; Devonian Northeast is in hydrological connection with any underground source of water. The Closest fault is in (Guadalupe) more than 120 miles away Affirmation letter & map Exhibit J.
- XIII. Notice (This application) has been sent Exhibit K to the surface owner (NM State Land Office), lessors, (NM State Land Office Lessees.)

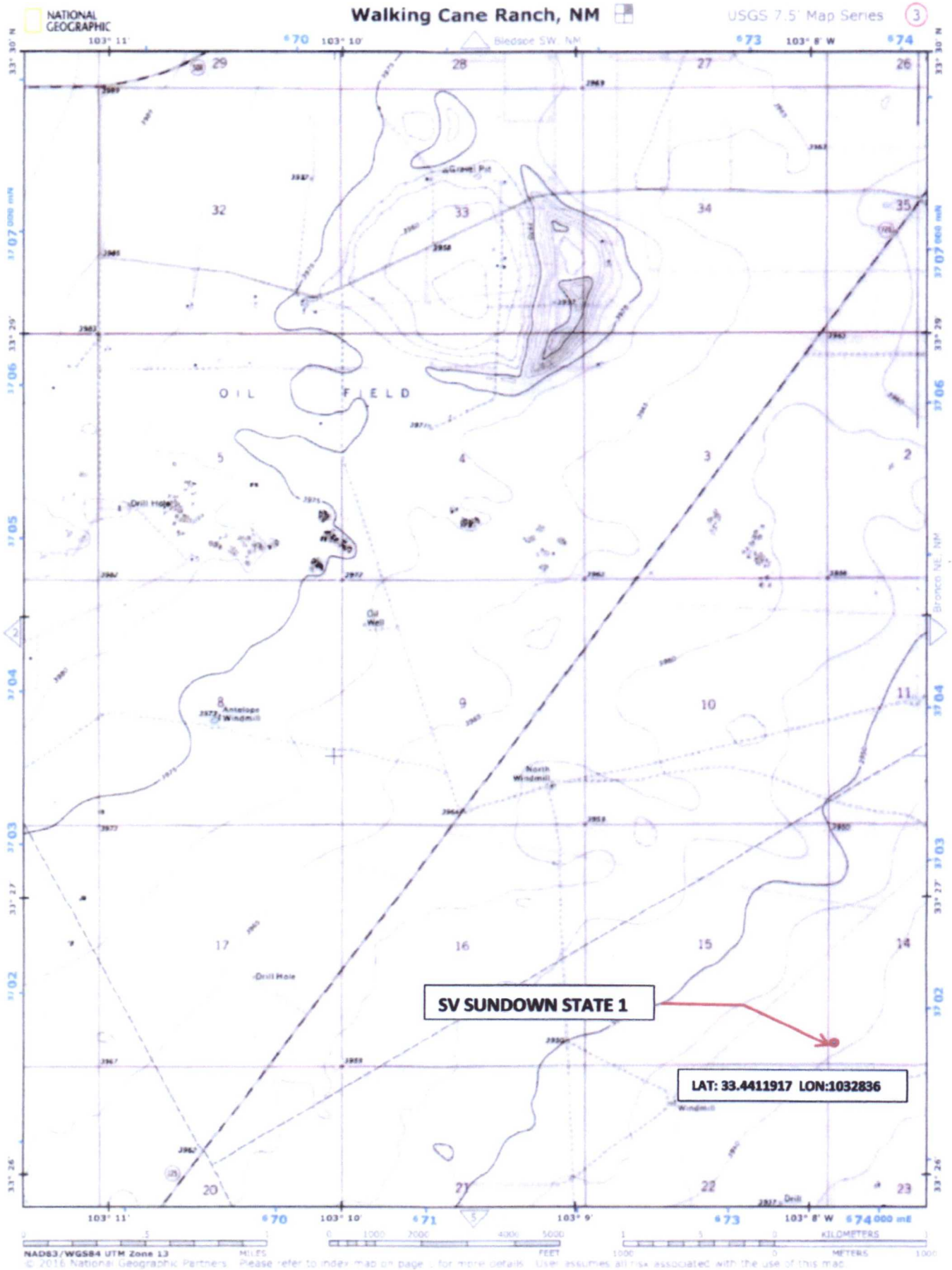


EXHIBIT A

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer 100, Artesia, NM 88210

DISTRICT III
1000 Rio Bravo Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Instruction on back
Submit to appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-32750	Pool Code 96D4D	Pool Name Wildcat Depression
Property Code 16113	Property Name SV SUNDOWN STATE	Well Number 1
OGRIID No. 13954	Operator Name MANZANO OIL CORP.	Elevation 3941'

Surface Location									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	14	10S	37E		477	SOUTH	191	WEST	LEA

Bottom Hole Location If Different From Surface									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40		Joint or Lease	Consolidation Code	Order No.					

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

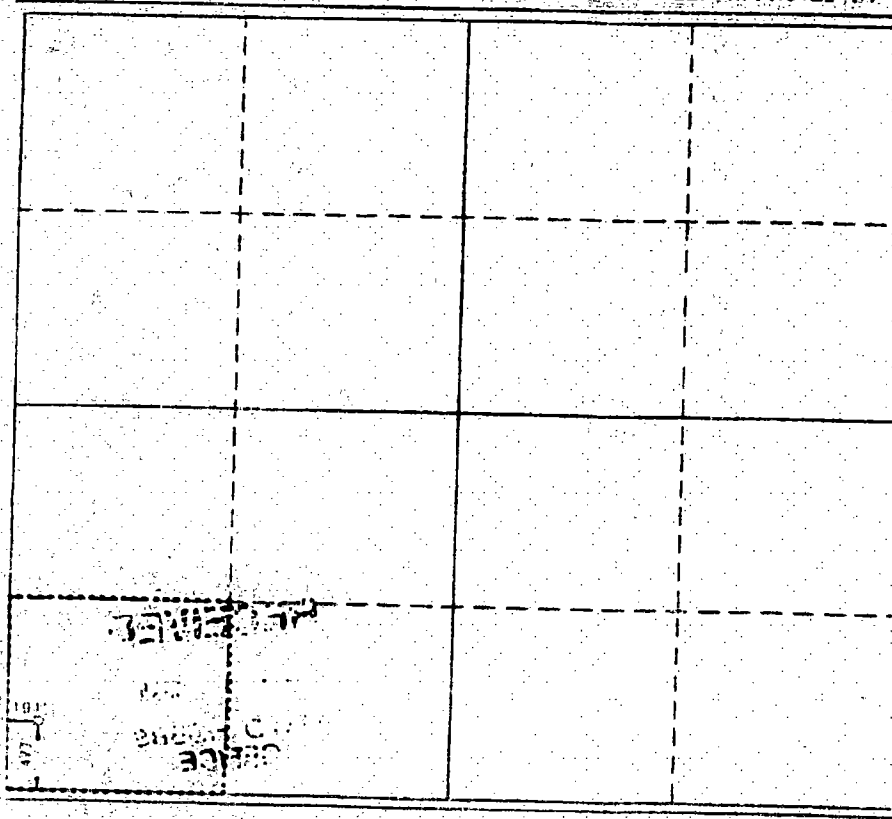
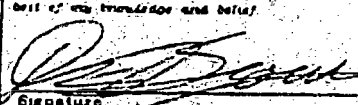
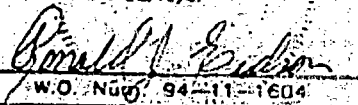
	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature D.E. Brown Printed Name VP Engineering Title May 3, 1995 Date
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief. SEPTEMBER 19, 1994 Date Surveyed  Signature & Seal of Professional Surveyor W.O. No. 94-11-1604 Certificate No. JOHN W. EIDEN 030 RONALD A. EIDEN 1227

EXHIBIT A

III. B. (5)

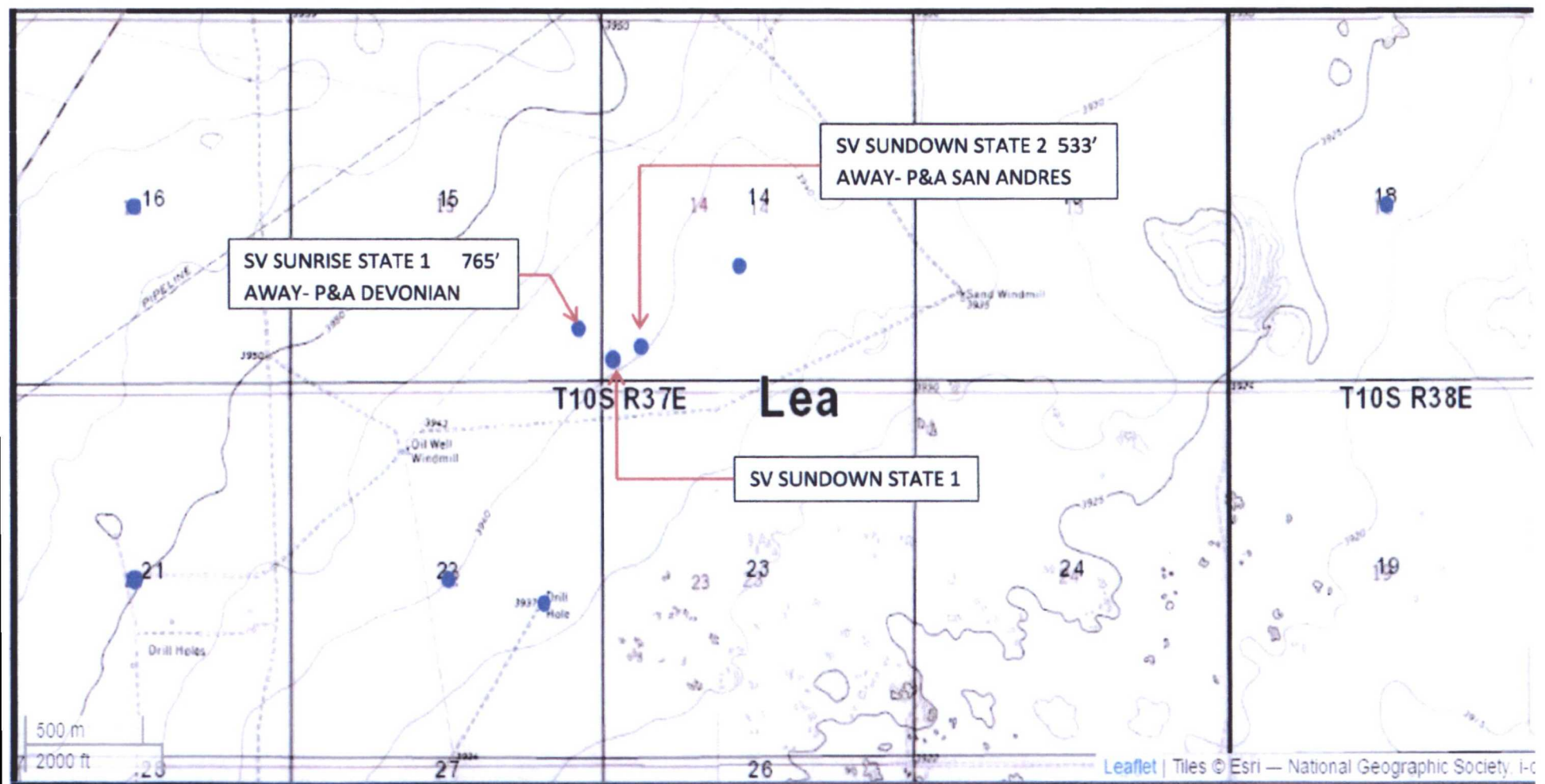


EXHIBIT B

SV SUNDOWN STATE 1

WELLS AND LEASES WITH IN TWO MILES AND HALF MILE RADIUS AOR

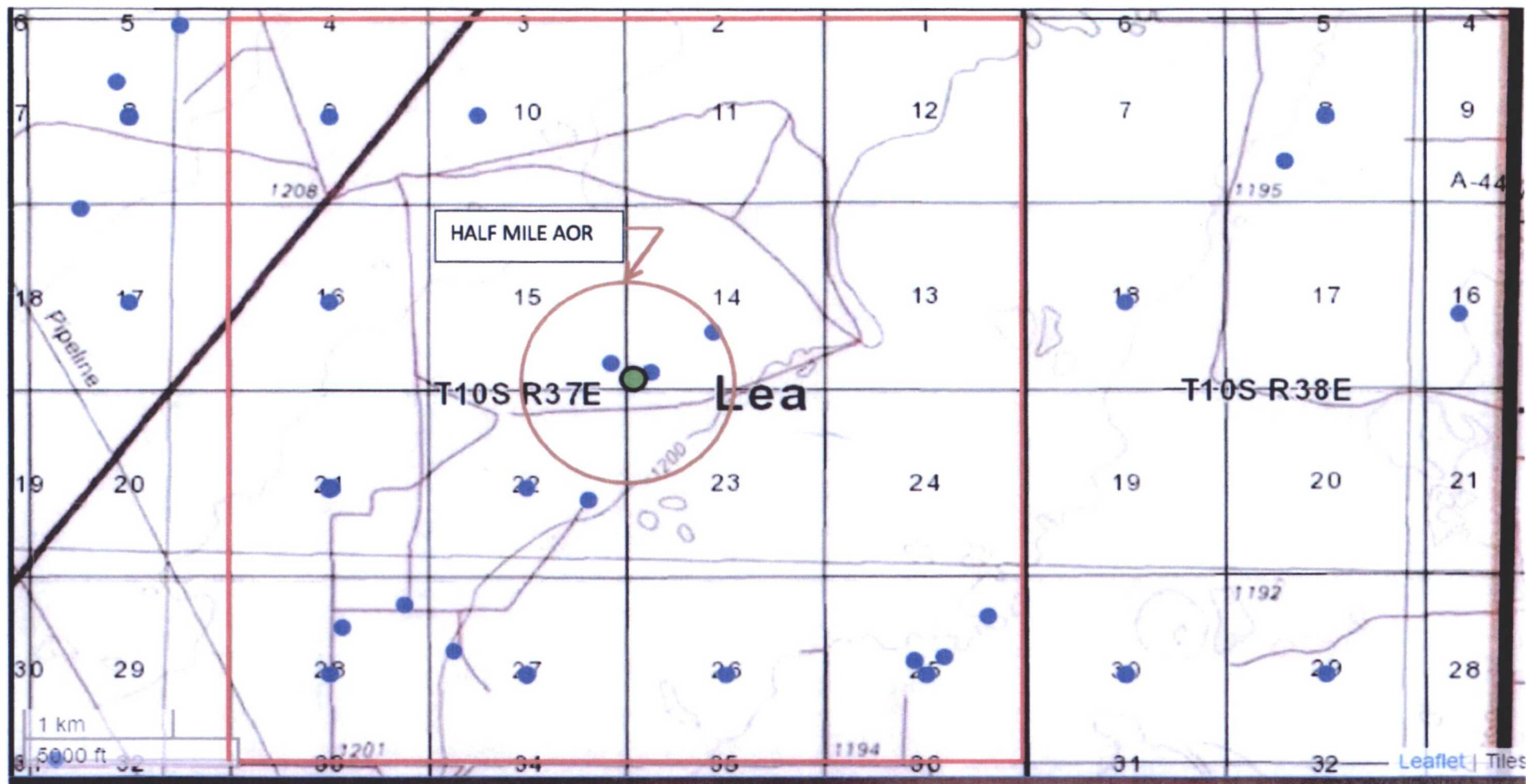


EXHIBIT C

SV SUNDOWN STATE 1

WELLS AND LEASES WITH IN TWO MILE Radius

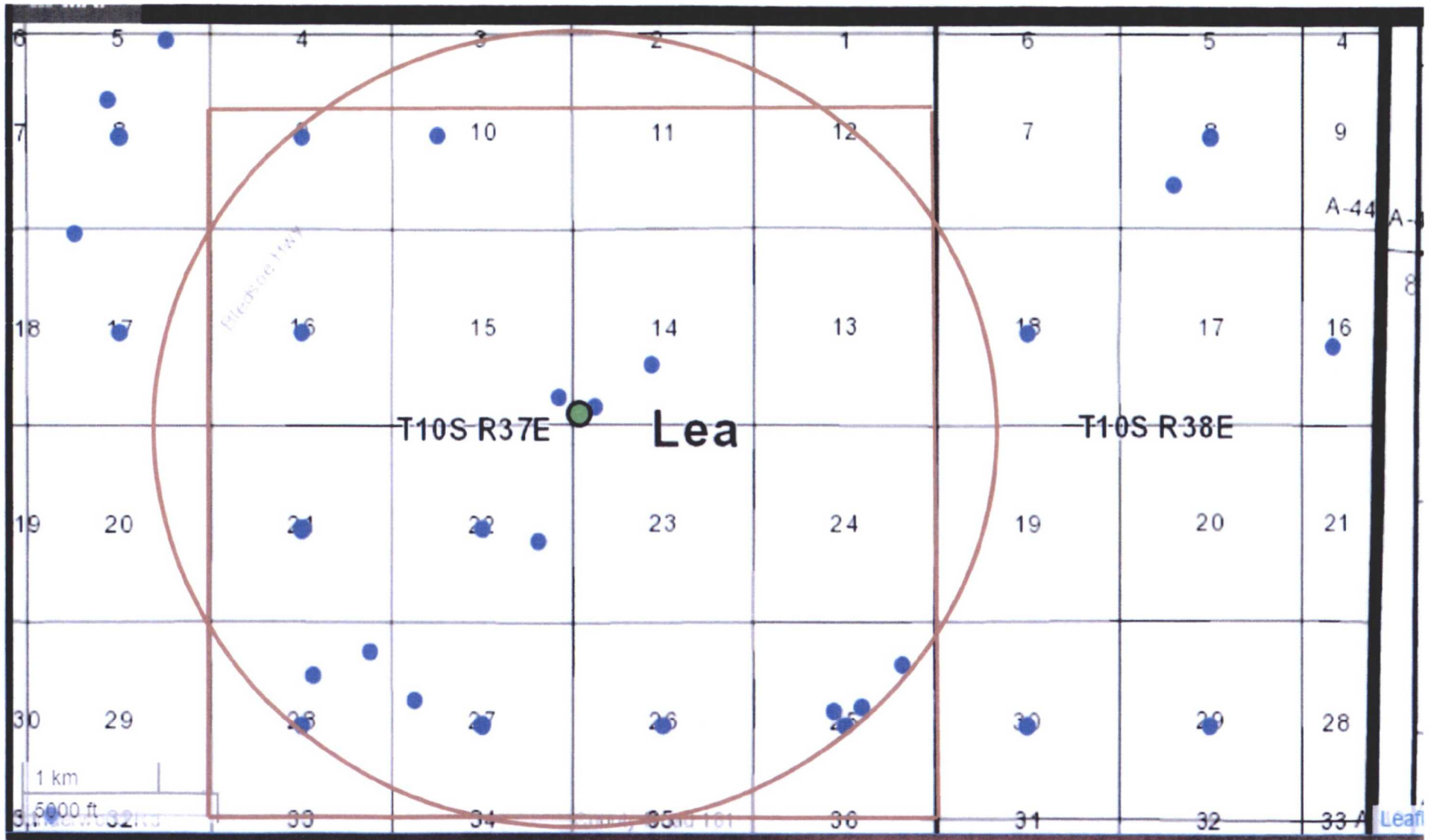


EXHIBIT D

NOTICES

SURFACE OWNER AND MINERAL INTEREST OWNER

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

OFFSET OPERATORS

None

OFFSET MINERAL INTEREST OWNER

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

OFFSET LEASEHOLD OPERATOR

Apache Corp.
2000 W. Sam Houston Pkwy #20
Houston, TX 77042



NEW MEXICO
STATE LAND OFFICE

HOI

Oil and Gas: Minerals Map Serv

☒ Map ☐ Relief ☐ Imagery ☐ Topo

10S-37E-14

E APACHE - VB27130001

W APACHE - VB27320001

10S-37E-15

NOT LEASED

10S-37E-22

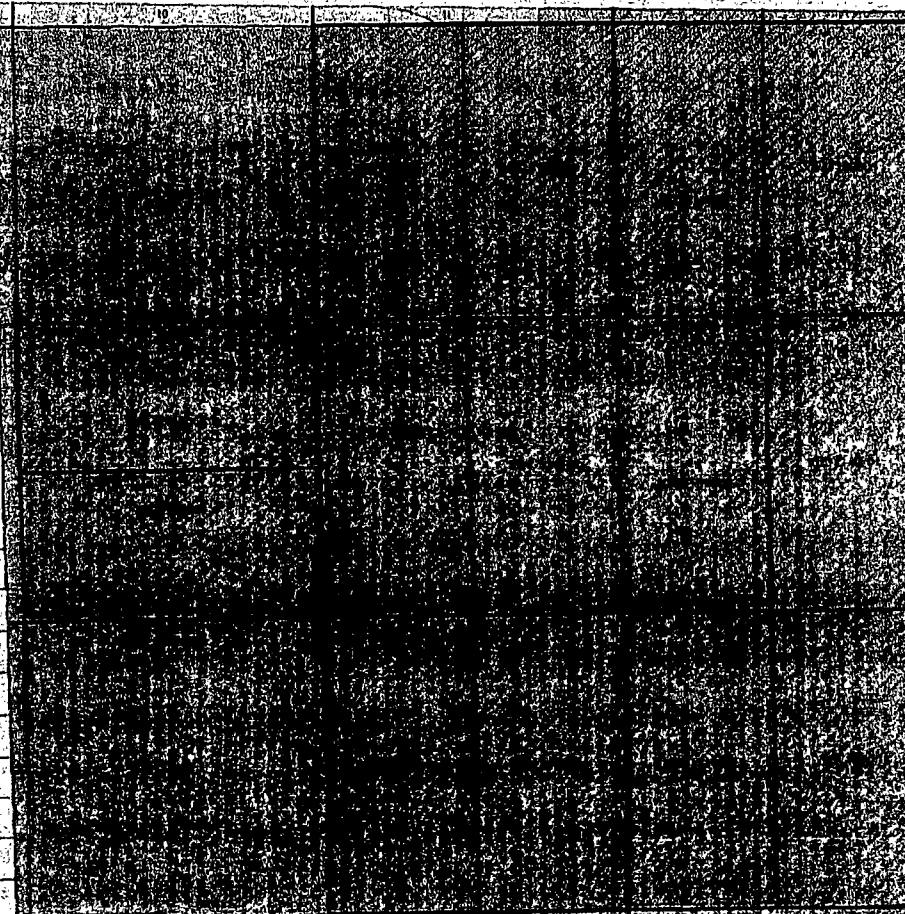
N Doug J. SCHULTZ - VB28810000

S HEADINGTON ENERGY PARTNERS - VB28900000

10S-37E-23

W APACHE - VB27140001

E FEDERAL ABSTRACT COMP. - VB27300000



10

1005
3892
10

20

30

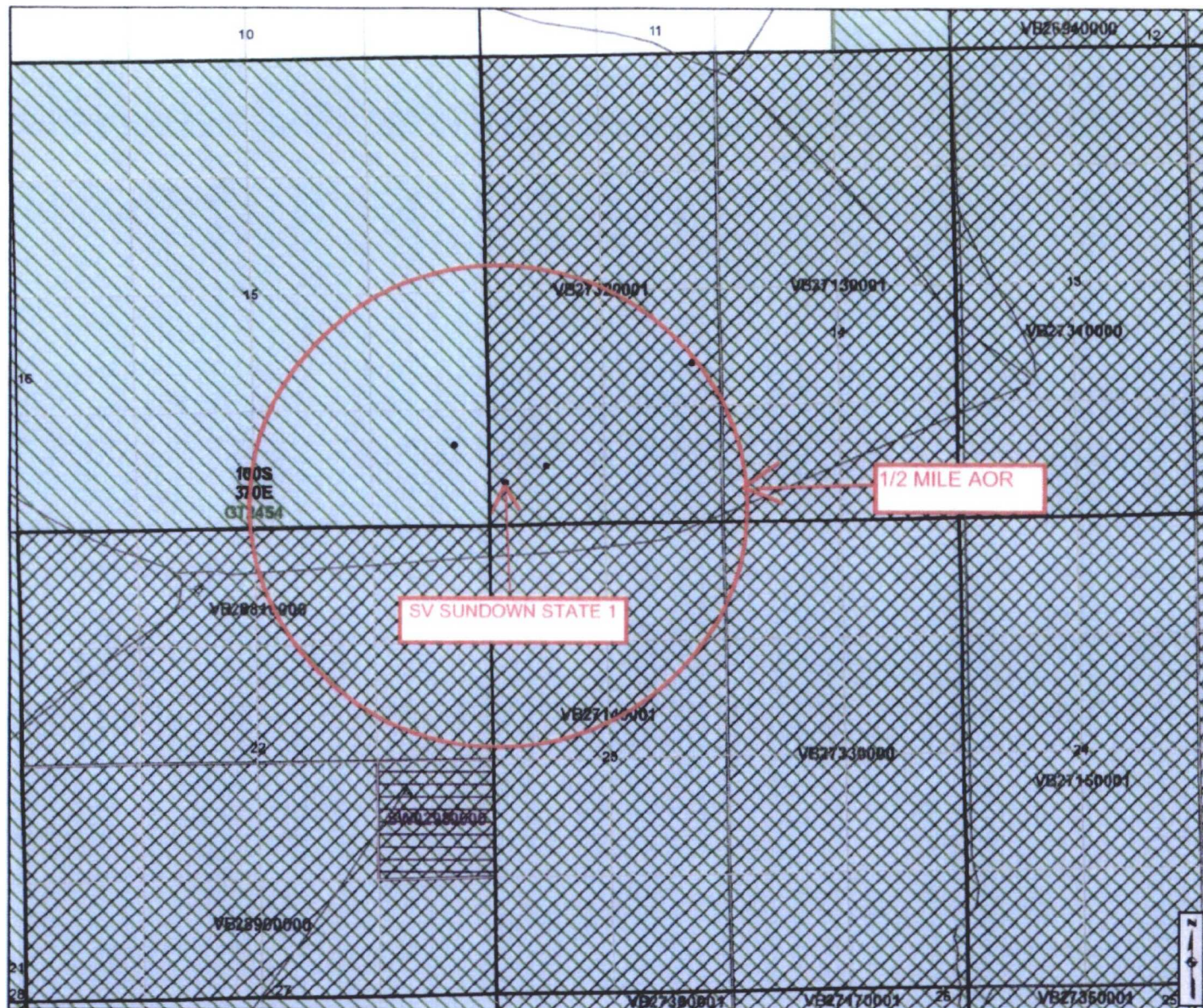
EXHIBIT E



NEW MEXICO
STATE LAND OFFICE

HOME AFFILIATED WEBSITES EMPLOYEE ACCESS JOB OPENINGS NEW MEXICO BUSINESS PORTAL
EMPLOYEE LOOKUP GET EMAIL UPDATES

310 Old Santa Fe Trail, Santa Fe NM 87501
P.O. Box 1148, Santa Fe, NM 87504



Cartographic Features

- County Boundaries
- County Seats
- City, Town or Village
- SLO District Offices
- SLO District Boundary
- Hwy Mileposts
- Interstate
- NM Hwy
- Local Road
- Continental Divide

Federal Minerals Ownership

- All Minerals
- Coal Only
- Oil and Gas Only
- Oil, Gas and Coal Only
- Other Minerals

State Trust Lands

- Surface Estate
- Subsurface Estate
- Surface and Subsurface Estate

State Leases

- Oil and Gas Leases
- Agricultural Leases
- Commercial Leases
- Minerals Leases
- Not Available for Oil and Gas Leasing
- Oil and Gas Leasing Influenced by Restriction

Oil and Gas Related Features

- Oil and Gas Unit Boundary
- Participating Areas in Units
- Geologic Regions
- Volcanic Vents
- NMOCD Order R-111-P
- Potash Enclave Outline

NMOCD Oil and Gas Wells

- CO₂
- Injection
- Oil
- Water
- Gas
- Miscellaneous
- Salt Water Disposal
- DA or PA

New Mexico State Land Office Oil, Gas and Minerals

0 0.05 0.1 0.2 0.3 0.4 Miles

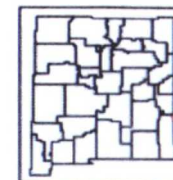
Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

EXHIBIT E

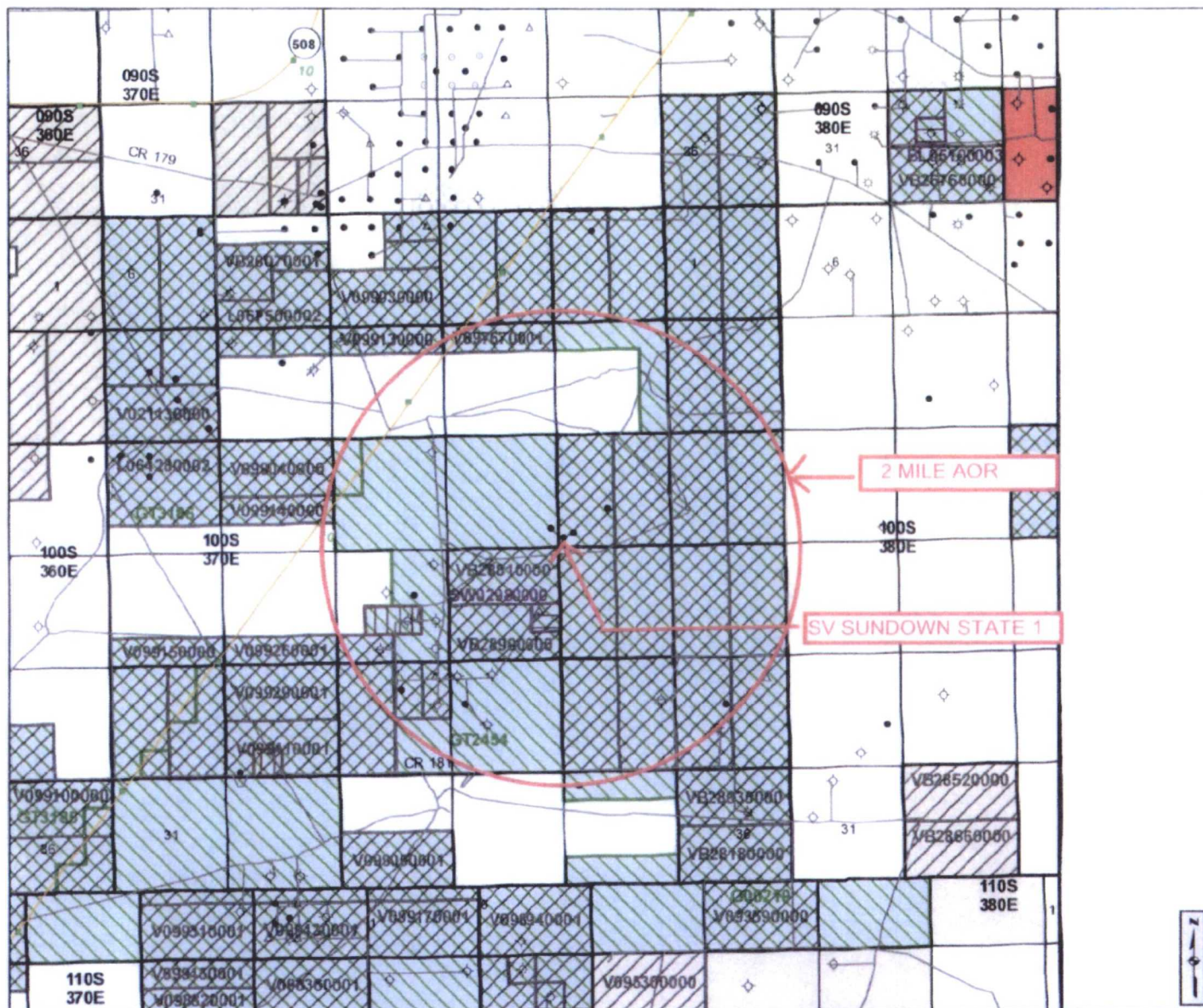
The New Mexico State Land Office assumes no responsibility or liability for, or in connection with, the accuracy, reliability or use of the information provided here, in State Land Office data layers or any other data layer.

Land Office Geographic Information Center
logyc@slo.state.nm.us

Created On: 3/28/2017 2:30:54 PM



www.nmstatelands.org



Cartographic Features

- County Boundaries
- County Seats
- City, Town or Village
- SLO District Offices
- SLO District Boundary
- Hwy Mileposts
- Interstate
- NM Hwy
- US Hwy
- Local Road
- Continental Divide

Federal Minerals Ownership

- All Minerals
- Coal Only
- Oil and Gas Only
- Oil, Gas and Coal Only
- Other Minerals

State Trust Lands

- Surface Estate
- Subsurface Estate
- Surface and Subsurface Estate

State Leases

- Oil and Gas Leases
- Agricultural Leases
- Commercial Leases
- Minerals Leases
- Not Available for Oil and Gas Leasing
- Oil and Gas Leasing Influenced by Restriction

Oil and Gas Related Features

- Oil and Gas Unit Boundary
- Participating Areas in Units
- Geologic Regions
- Volcanic Vents
- NMOC Order R-111-P
- Potash Enclave Outline

NMOC Oil and Gas Wells

- CO₂
- Injection
- Gas
- Miscellaneous
- Oil
- Salt Water Disposal
- Water
- DA or PA

New Mexico State Land Office

Oil, Gas and Minerals

0 0.2 0.4 0.8 1.2 1.6 Miles

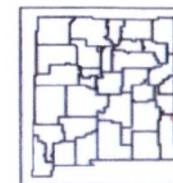
Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

EXHIBIT F

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Land Office Geographic Information Center
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PERMIAN TDS, LLC

SV SUNDOWN STATE 1

477' FSL, 191' FWL, SEC. 14, T. 10 S, R. 37 E

LEA COUNTY, NEW MEXICO

30-025-32750

WELLS THAT ARE WITHIN 2,640' SORTED BY DISTANCE

WELL	SPUD	TVD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMAND
SV SUNDOWN STATE 1	12/11/94	12,174'	ECHOL DEVONIAN NORTHEAST	O	17.5	13.375	350'KB	350 sx	GL	CIRCULATED 85sx AT SURFACE
30-025-32750					12.25	8.625	4,260'KB	1440 sx	GL	CIRCULATED 185 sx AT SURFACE
					7.875	5.5	12,140'KB	595 sx	4,918'	CALCULATED
SUNDOWN STATE 2	12/10/01	5,150'	EAST ECHOL SAN ANDRES	O	12.25	8.625	388'	250 sx	GL	CIRCULATED 70sx AT SURFACE
SV SUNRISE STATE 1	1/20/97	12,100'	ECHOL DEVONIAN NORTHEAST	O	17.5	13.375	355'	350 sx	GL	CIRCULATED 25 sx AT SURFACE
30-025-33724					12.25	8.625	4,250'	1200 sx	GL	CIRCULATED 169 sx AT SURFACE
					7.875	5.5	10,848'	1400 sx	3,500'	CALCULATED
						3.5 LINER	12,040	25 sx	11,400'	CALCULATED
SV SUNDOWN STATE 3	6/4/02	5,200'	EAST ECHOL SAN ANDRES	O	12.25	8.625	386'	225 sx	GL	CIRCULATED 5 sx AT SURFACE
30-025-35907					7.875	5.5	5200'	730 sx	2290	CALCULATED

EXHIBIT G

FRESH WATER CLOSEST TO SV SUNDOWN STATE # 1

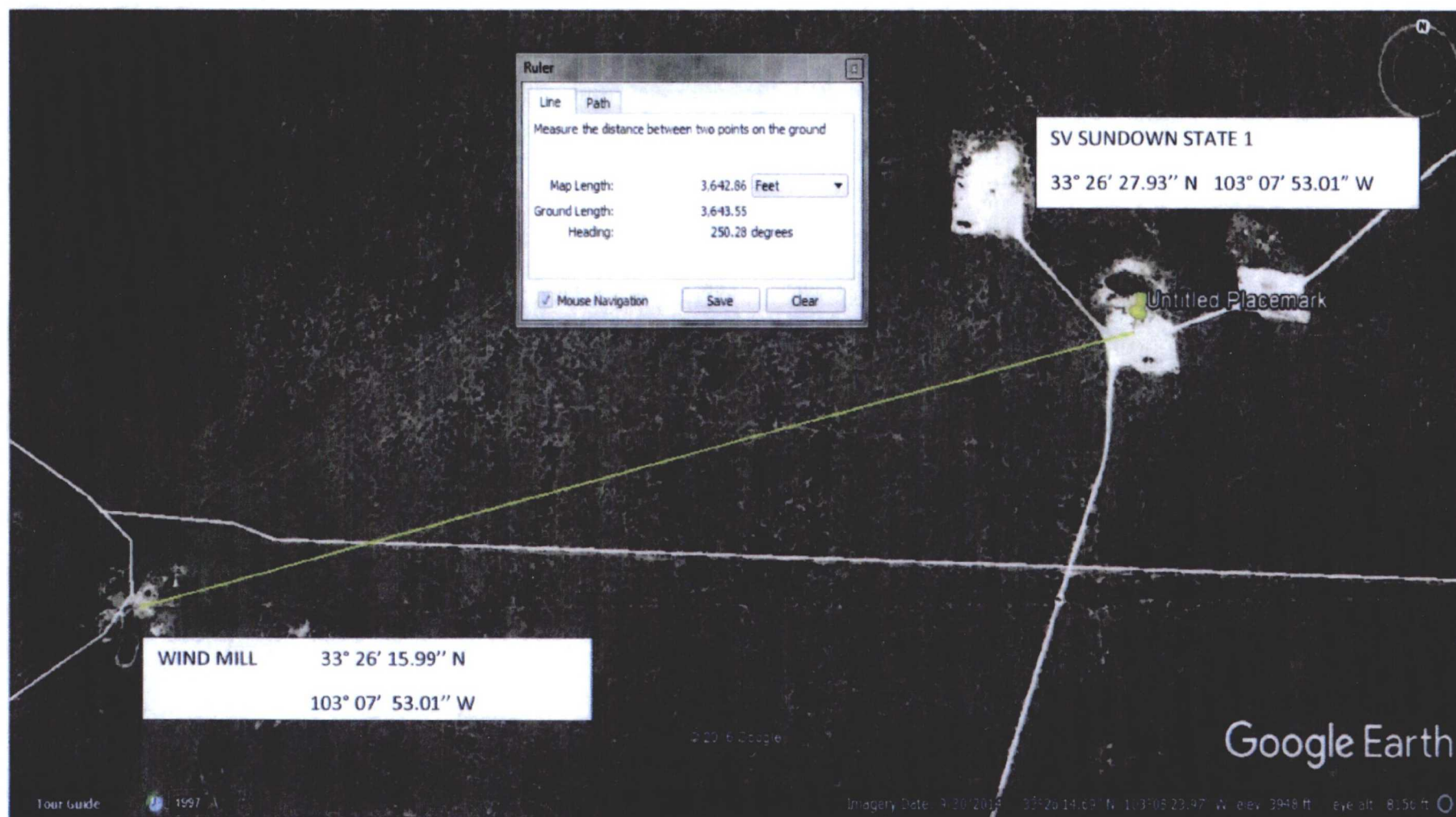


EXHIBIT H

FRESH WATER WITHIN ONE MILE AOR
OF SUNDOWN STATE 1

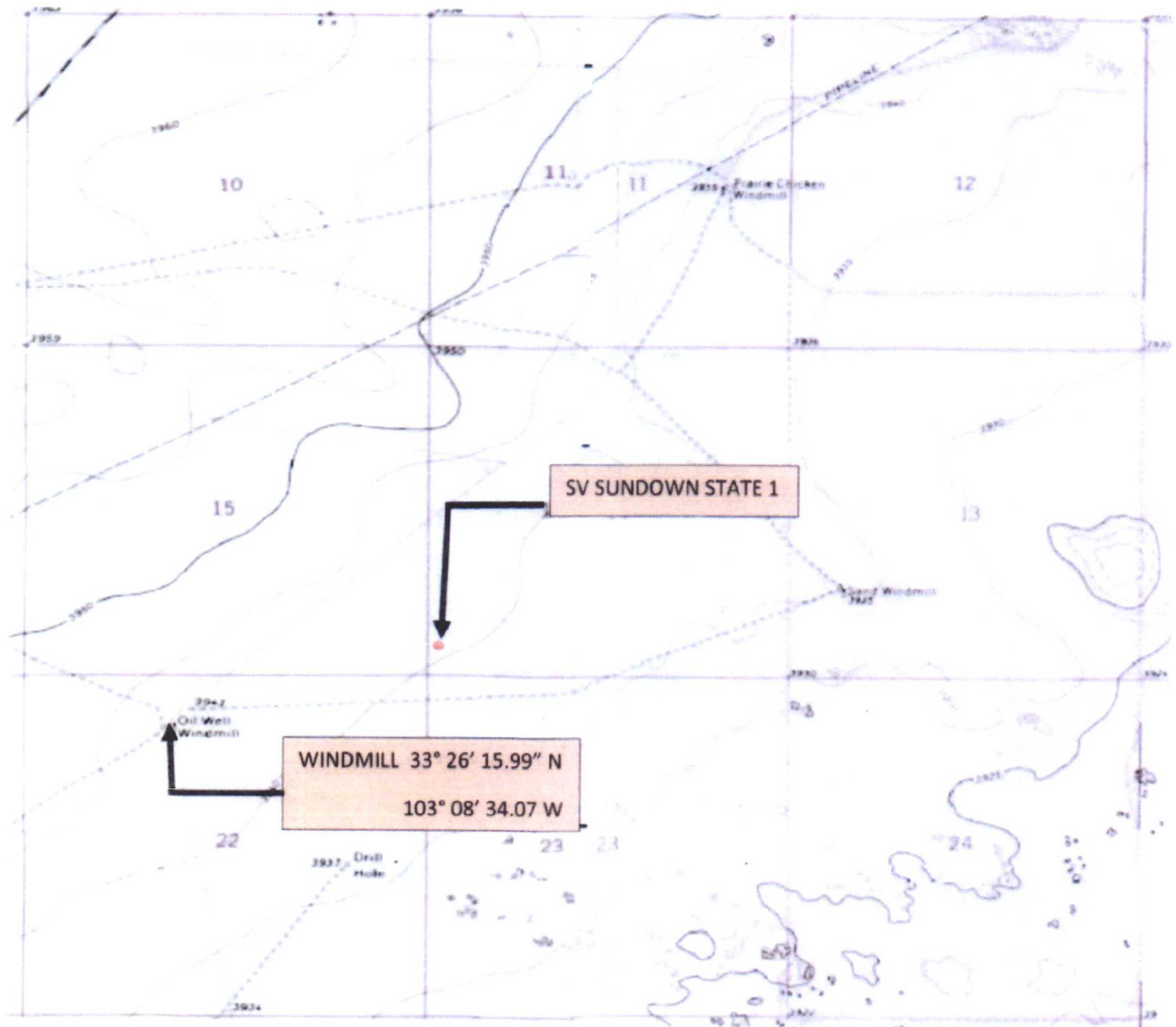


EXHIBIT I



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

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

No records found.

PLSS Search:

Section(s): 22 Township: 10S Range: 37E

The data is furnished by the NM/DSE/ISC and is accepted by the recipient with the expressed understanding that the USI/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

4/3/17 2:55 PM

WATER COLUMN/AVERAGE
DEPTH TO WATER

Exhibit I

SUMMARY OF WATER ANALYSES

WELL:	SV SUNDOWN 1 DEVONIAN	MORSE 1 DEVONIAN	PEARL MARR 3 SANANDRES		FRESH WATER	
API No.	30-025-32750	30-025-04991	30-025-25881			
LOCATION	M, 14- T 10S -R 37E	E, 27 - 10S - 37E	NE/SE, 33- T9S - R37E		33° 26' 15.99" N 103° 07' 53.01" W	
WATER SOURCE	WELL	WELL	WELL		WELL	
BARIUM	0.00 PPM	0.00	N/A		N/A	
BICARBONATES (HC03)	64 PPM	332 MG/L	596 MG/L		259 MG/L	
CALCIUM (Ca)	2,478 PPM	1,002 MG/L	11,022 MG/L		10 MG/L	
CARBON DIOXIDE (CO2)	N/A	N/A	N/A		N/A	
CHLORIDES (Cl)	39,991 PPM	19,995 MG/L	139,968 MG/L		300 MG/L	
HYDROGEN SULFIDE (H2S)	0.00 PPM	0.00	PRESENT		0.00	
IRON (Fe)	2,500 PPM	4.00 MG/L	1 MG/L		1 MG/L	
MAGNESIUM (Mg)	1,273 PPM	304 MG/L	3,890 MG/L		6 MG/L	
MANGANESE (Mn)	N/A	N/A	N/A		N/A	
PH	5.65	7.280	5.840		9.090	
POTASSIUM (K)	12.0 PPM	N/A	N/A		N/A	
SODIUM (Na)	21,396 PPM	11,868 MG/L	71,489 MG/L		348 MG/L	
STRONTIUM (Sr)	N/A	N/A	N/A		N/A	
SULFATE (SO4)	1,571 PPM	1,050 MG/L	1,050 MG/L		165 MG/L	
TOTAL DISSOLVED SOLIDS (TDS)	75,330 PPM	34,552 MG/L	228,013 MG/L		1,088 MG/L	
ZINC (Zn)	N/A	N/A	N/A		N/A	

EXHIBIT I

THE WESTERN COMPANY OF NORTH AMERICA

WATER ANALYSIS

HOBBBS, NEW MEXICO LAB ANALYSIS #: HB010501

GENERAL INFORMATION

OPERATOR: MANZANO OIL CORP.
 WELL: SV SUNDOWN ST. #1
 FIELD: *Sundown Data Set*
 FORMATION:
 COUNTY:
 STATE:
 DEPTH: 0
 DATE SAMPLED: 3/30/95
 DATE RECEIVED: 3/30/95
 SUBMITTED BY:
 WORKED BY: MIKE LEE
 PHONE #: 505-392-5556

SAMPLE DESCRIPTION: MORNING SAMPLE

Aw w/ Eq. NaCl @ 190 = 204

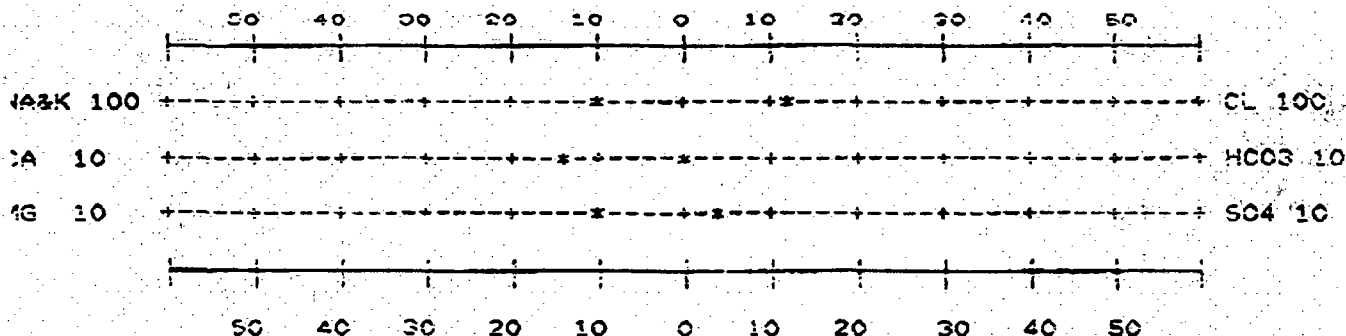
PHYSICAL AND CHEMICAL DETERMINATIONS

SPECIFIC GRAVITY:	1.050 @ 62 °F	PH:	5.65
RESISTIVITY (CALC.):	.095	OHMS @ 75 °F	
IRON (FE++):	2500 PPM	SULFATE:	1571 PPM
CALCIUM:	2667 PPM	TOTAL HARDNESS:	11905 PPM
MAGNESIUM:	1273 PPM	BICARBONATE:	465 PPM
CHLORIDE:	39991 PPM	SODIUM CHLORIDE (CALC):	65785 PPM
SODIUM+POTASS:	21396 PPM	TOT. DISSOLVED SOLIDS:	75330 PPM
		H2S	: NONE

REMARKS: 3PM SAMPLES DID NOT HAVE ENOUGH WATER FOR ANALYSIS.

API OIL GRAVITY FOR AFTERNOON SAMPLES WAS 37.5

STIFF TYPE PLOT (IN MEQ/L)



ANALYST: MIKE LEE

Permian Treat:

WATER ANALYSIS REPORT

SAMPLE

Oil Co. :
 Lease : CW Trainer
 Well No. : Morse #1 SW/4 Sec 27-T10S-R37E
 Salesman :
 Sample Loc. :
 Date Analyzed : 04-January-1996
 Date Sampled :
 Lea Co. New Mexico

ANALYSIS

1. pH 7.280
2. Specific Gravity 60/60 F. 1.028
3. CaCO₃ Saturation Index 80 F. +0.094
140 F. +1.064

Dissolved Gases

MG/L. EQ. WT. *MEQ/L

4. Hydrogen Sulfide Not Present
5. Carbon Dioxide Not Determined
6. Dissolved Oxygen Not Determined

Cations

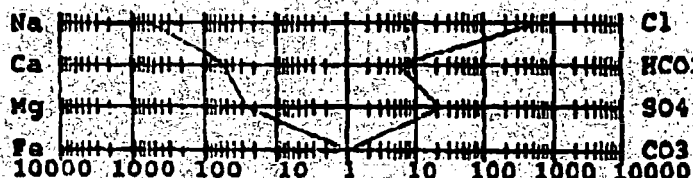
7. Calcium (Ca⁺⁺) 1,002 / 20.1 = 49.85
8. Magnesium (Mg⁺⁺) 304 / 12.2 = 24.92
9. Sodium (Na⁺) (Calculated) 11,869 / 23.0 = 516.04
10. Barium (Ba⁺⁺) Not Determined

Anions

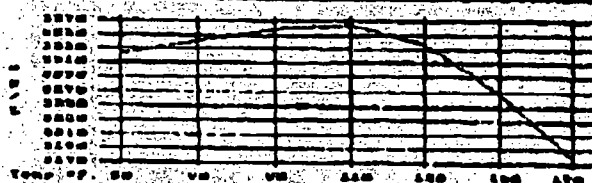
11. Hydroxyl (OH⁻) 0 / 17.0 = 0.00
12. Carbonate (CO₃²⁻) 0 / 30.0 = 0.00
13. Bicarbonate (HCO₃⁻) 332 / 61.1 = 5.43
14. Sulfate (SO₄²⁻) 1,050 / 48.8 = 21.52
15. Chloride (Cl⁻) 19,995 / 35.5 = 563.24
16. Total Dissolved Solids 34,552
17. Total Iron (Fe) 4 / 18.2 = 0.19
18. Total Hardness As CaCO₃ 3,753
19. Resistivity @ 75 F. (Calculated) 0.215 /cm.

LOGARITHMIC WATER PATTERN

*meq/L.



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT. X	*meq/L	mg/L.
Ca(HCO ₃) ₂	81.04	5.43	440
CaSO ₄	68.07	21.52	1,465
CaCl ₂	55.50	22.90	1,271
Mg(HCO ₃) ₂	73.17	0.00	0
MgSO ₄	60.19	0.00	0
MgCl ₂	47.62	24.92	1,187
NaHCO ₃	84.00	0.00	0
NaSO ₄	71.03	0.00	0
NaCl	58.46	516.42	30,131

*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 in solution.

04-January-1996

TO: Permian Treating Chemicals

Company : Devon Energy

Sample # 1

Morse #1 (Devonian wfr)

Sample # 2

Harr #3 (San Andres wfr)

Percent of #1 & #2	pH	TDS mg/L	SpGr	Saturation Index @80°F.	Saturation Index @140°F.	Calcium Sulfate Scaling Potential
100 - 0	7.280	34,552	1.028	+0.336	+1.140	Nil
95 - 5	7.208	44,225	1.034	+0.281	+1.120	Nil
90 - 10	7.136	53,898	1.041	+0.246	+1.027	Nil
85 - 15	7.064	63,571	1.047	+0.229	+0.967	Nil
80 - 20	6.992	73,245	1.053	+0.305	+1.056	Nil
75 - 25	6.920	82,918	1.060	+0.368	+1.132	Nil
70 - 30	6.848	92,591	1.066	+0.422	+1.198	Nil
65 - 35	6.776	102,264	1.072	+0.469	+1.257	Nil
60 - 40	6.704	111,937	1.079	+0.509	+1.311	Nil
55 - 45	6.632	121,610	1.085	+0.545	+1.359	Nil
50 - 50	6.560	131,284	1.092	+0.577	+1.404	Nil
45 - 55	6.488	140,957	1.098	+0.605	+1.445	Nil
40 - 60	6.416	150,630	1.104	+0.631	+1.483	Nil
35 - 65	6.344	160,303	1.111	+0.654	+1.519	Nil
30 - 70	6.272	169,976	1.117	+0.675	+1.553	Marginal
25 - 75	6.200	179,649	1.123	+0.694	+1.584	Marginal
20 - 80	6.128	189,322	1.130	+0.711	+1.614	Marginal
15 - 85	6.056	198,996	1.136	+0.726	+1.642	Marginal
10 - 90	5.984	208,669	1.142	+0.740	+1.669	Marginal
5 - 95	5.912	218,342	1.149	+0.753	+1.694	Marginal
0 - 100	5.840	228,015	1.155	+0.765	+1.718	Marginal

DATE TAKEN	01-26-96
REMARKS	Devonian Formation
Barium as Ba	0.00
Carbonate alkalinity PPM	0
Bicarbonate alkalinity PPM	64
pH at Lab	6.15
Specific Gravity @ 60° F	1.042
Magnesium as Mg	3,422
Total Hardness as CaCO3	5,900
Chlorides as Cl	25,063
Sulfate as SO4	2,875
Iron as Fe	72.50
Potassium	12.00
Hydrogen Sulfide	0.00
Resistivity Ohms	0.2490 25.7° C
Total Dissolved Solids	42,250
Calcium as CA	2,478
Nitrate	22.00

Results reported as Parts per Million unless stated

Langelier Saturation Index -0.69

Analysis by Vickie Walker
Date 01-31-96

Permian Treating Chemicals

WATER ANALYSIS REPORT

SAMPLE

Oil Co.: Coastal Oil & Gas

Lease: Sawyer

Well No.: Marr #3 NE/SE Sec 33-T9S-R37E

Salesman:

Lea Co. NM

Sample Loc.:

Date Analyzed: 04-January-1996

Date Sampled:

ANALYSIS

1. pH 7.840
2. Specific Gravity 60/60 F. 1.135
3. CaCO₃ Saturation Index 8.80 F. -0.978
140 F. -2.718

Dissolved Gases

4. Hydrogen Sulfide Present
5. Carbon Dioxide Not Determined
6. Dissolved Oxygen Not Determined

Cations

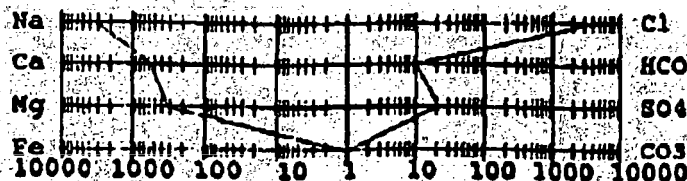
- | | | | |
|---|----------------|----------|----------|
| 7. Calcium (Ca ⁺⁺) | 11.022 | / 20.1 = | 548.36 |
| 8. Magnesium (Mg ⁺⁺) | 1.890 | / 12.2 = | 318.85 |
| 9. Sodium (Na ⁺) (Calculated) | 71.489 | / 23.0 = | 3,108.22 |
| 10. Barium (Ba ⁺⁺) | Not Determined | | |

Anions

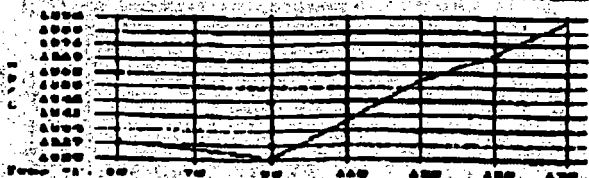
- | | | | |
|--|---------|----------|----------|
| 11. Hydroxyl (OH ⁻) | 0 | / 17.0 = | 0.00 |
| 12. Carbonate (CO ₃ ⁼) | 0 | / 30.0 = | 0.00 |
| 13. Bicarbonate (HCO ₃ ⁻) | 598 | / 61.1 = | 9.75 |
| 14. Sulfate (SO ₄ ⁼) | 1,050 | / 48.8 = | 21.52 |
| 15. Chloride (Cl ⁻) | 139,968 | / 35.5 = | 3,942.76 |

- | | | | |
|---|------------|----------|------|
| 16. Total Dissolved Solids | 228,015 | | |
| 17. Total Iron (Fe) | 1 | / 18.2 = | 0.05 |
| 18. Total Hardness As CaCO ₃ | 43,539 | | |
| 19. Resistivity @ 75 F. (Calculated) | 0.001 /cm. | | |

LOGARITHMIC WATER PATTERN



Calcium Sulfate Solubility Profile



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT. X	meq/L =	mg/L.
Ca(HCO ₃) ₂	81.04	9.75	791
CaSO ₄	68.07	21.52	1,465
CaCl ₂	55.50	517.09	28,698
Mg(HCO ₃) ₂	73.17	0.00	0
MgSO ₄	60.19	0.00	0
MgCl ₂	47.62	318.85	15,184
NaHCO ₃	84.00	0.00	0
NaSO ₄	71.03	0.00	0
NaCl	58.46	3,106.82	181,625

*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 H₂S in solution.

Permian Treating Chemicals

WATER ANALYSIS REPORT

SAMPLE

Oil Co. : Devon Energy
Lease : CW Trainer
Well No. : Fresh Water Well
Salesman:

Sample Loc. :
Date Analyzed: 04-January-1996
Date Sampled :

ANALYSIS

1. pH 9.090
2. Specific Gravity 60/60 F. 1.003
3. CaCO₃ Saturation Index @ 80 F. +0.906
@ 140 F. +1.606

Dissolved Gases

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

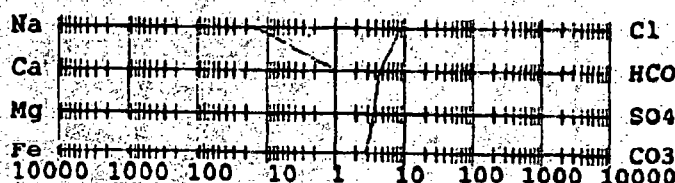
Cations

- | | | | |
|----------------------------------|------------------------------|----------|-------|
| 7. Calcium (Ca ⁺⁺) | 10 | / 20.1 = | 0.50 |
| 8. Magnesium (Mg ⁺⁺) | 6 | / 12.2 = | 0.49 |
| 9. Sodium (Na ⁺) | 348 | / 23.0 = | 15.13 |
| 10. Barium (Ba ⁺⁺) | (Calculated)
Below 10 (6) | | |

Anions

- | | | | |
|--|------------|----------|------|
| 11. Hydroxyl (OH ⁻) | 0 | / 17.0 = | 0.00 |
| 12. Carbonate (CO ₃ ²⁻) | 77 | / 30.0 = | 2.57 |
| 13. Bicarbonate (HCO ₃ ⁻) | 259 | / 61.1 = | 4.24 |
| 14. Sulfate (SO ₄ ²⁻) | 165 | / 48.0 = | 3.44 |
| 15. Chloride (Cl ⁻) | 300 | / 35.5 = | 8.45 |
| 16. Total Dissolved Solids | 1,088 | | |
| 17. Total Iron (Fe) | 1 | / 18.2 = | 0.05 |
| 18. Total Hardness As CaCO ₃ | 50 | | |
| 19. Resistivity @ 75 F. (Calculated) | 2.963 /cm. | | |

LOGARITHMIC WATER PATTERN



PROBABLE MINERAL COMPOSITION

COMPOUND	EQ. WT.	X	*meq/L = mg/L.
Ca(HCO ₃) ₂	81.04	0.50	40
CaSO ₄	68.07	0.00	0
CaCl ₂	55.50	0.00	0
Mg(HCO ₃) ₂	73.17	0.49	36
MgSO ₄	60.19	0.00	0
MgCl ₂	47.62	0.00	0
NaHCO ₃	84.00	3.25	273
NaSO ₄	71.03	3.38	240
NaCl	58.46	8.45	494

Calcium Sulfate Solubility Profile



This water is somewhat corrosive due to the pH observed on analysis.
The corrosivity is increased by the content of mineral salts in solution.

*Milli Equivalents per Liter

EXHIBIT "H"

XII.

I, Eddie W. Seay, have examined all available geologic and engineering data pertaining to the SV Sundown State #1 and have found no evidence of open faults or any other hydrologic connection between the disposal zones and any underground source of drinking water.

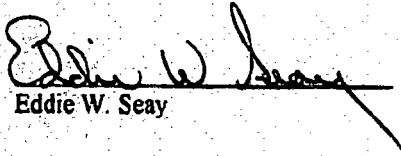

Eddie W. Seay

EXHIBIT J

QUATERNARY FAULTS OVER 120 MILES AWAY

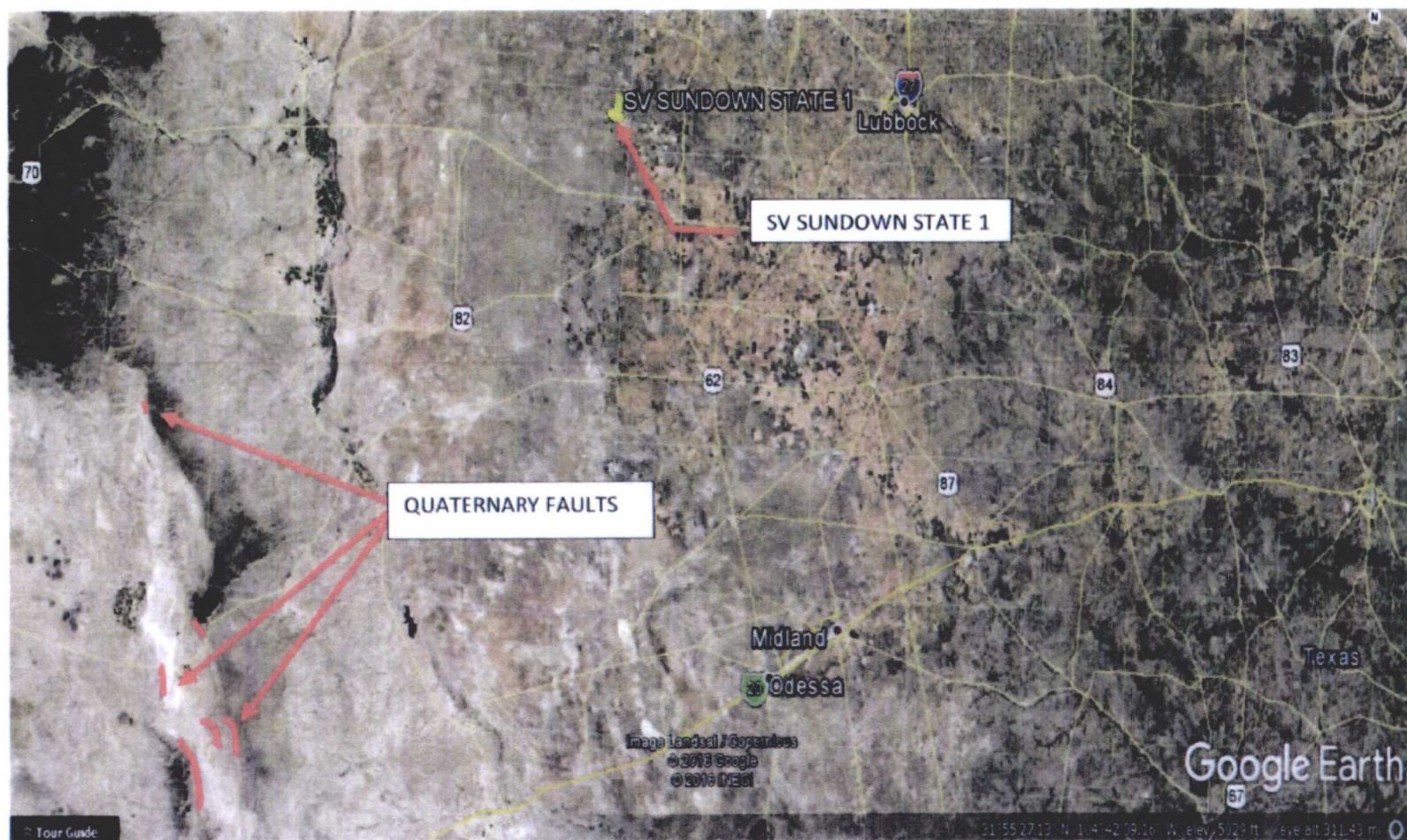
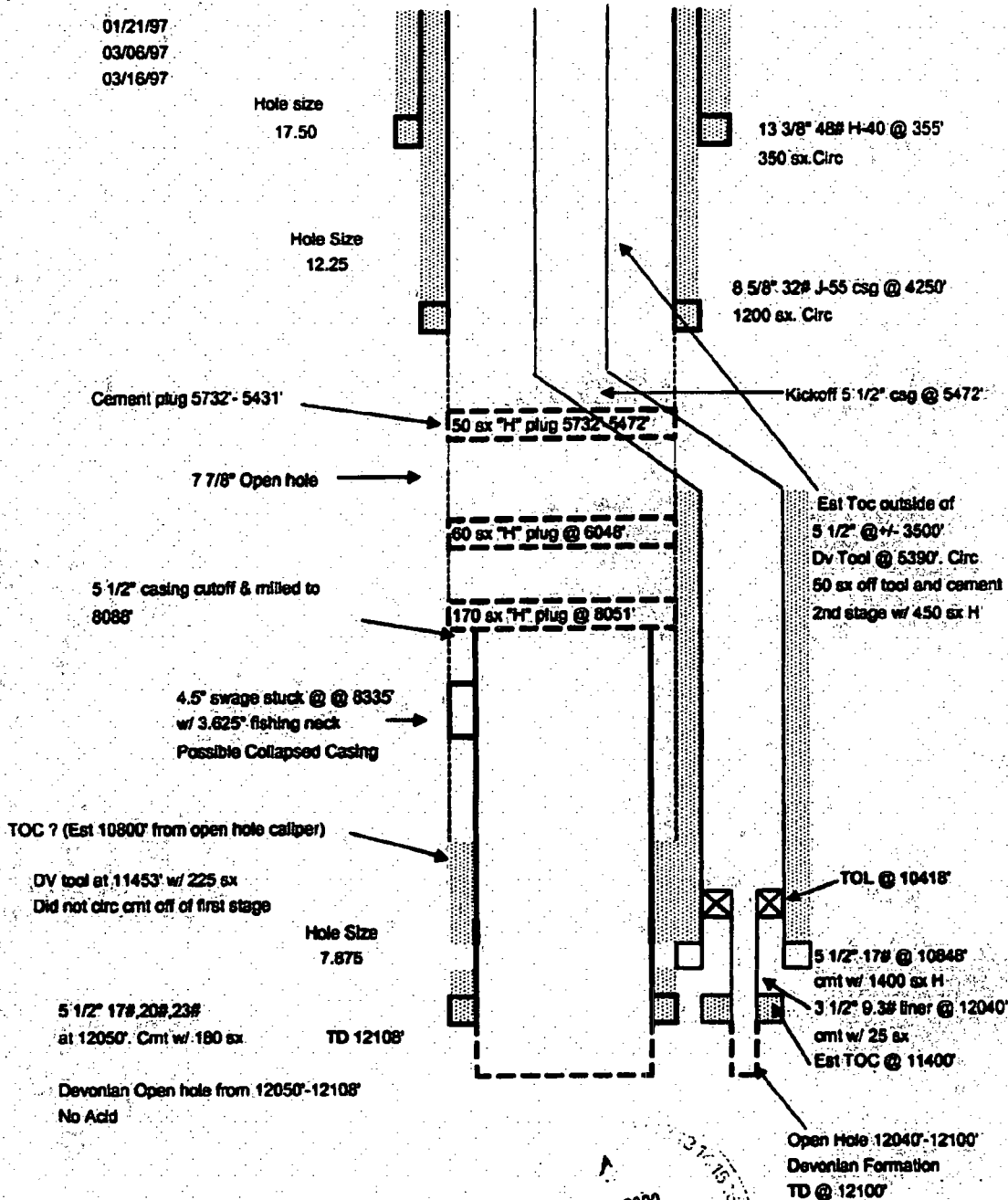


EXHIBIT J

SV SUNRISE STATE #1

Lease No.: Dist. No.: County: Lea Field: NE Echol Devonian
 Section: 15 Twsp: 10S Rge: 37E Unit Ltr: P Location: 913 FSL & 382 FEL
 API No: 30-025-33724

01/21/97
 03/06/97
 03/16/97



JAN 2003
 RECEIVED
 Hobbs
 OCD

1/8/2003

SV Sundown State #002

[illegible][illegible][illegible][illegible][illegible]

West ID Info:	
API No:	30-025-35597
Spud Date:	12/19/2001
Csg:	6-5815 2.40
Set (°):	360
Cement wt:	250 BX CLASS C
Surface:	

TOC @ 1354

TOC on CIBPC sand at 4915
CIBP top @ 4950

San Andrea
4,950-5,012
Acidized w/ 8,000 gal 15%
Free w/ 107,448 gals 123,967# sand

Cap.	5-1/2" 15.56 J-65
Set @	5.150
Connent w/	1230 BX CLASS C
Cnt.	none

TD: \$ 150
PBTD: \$ 102

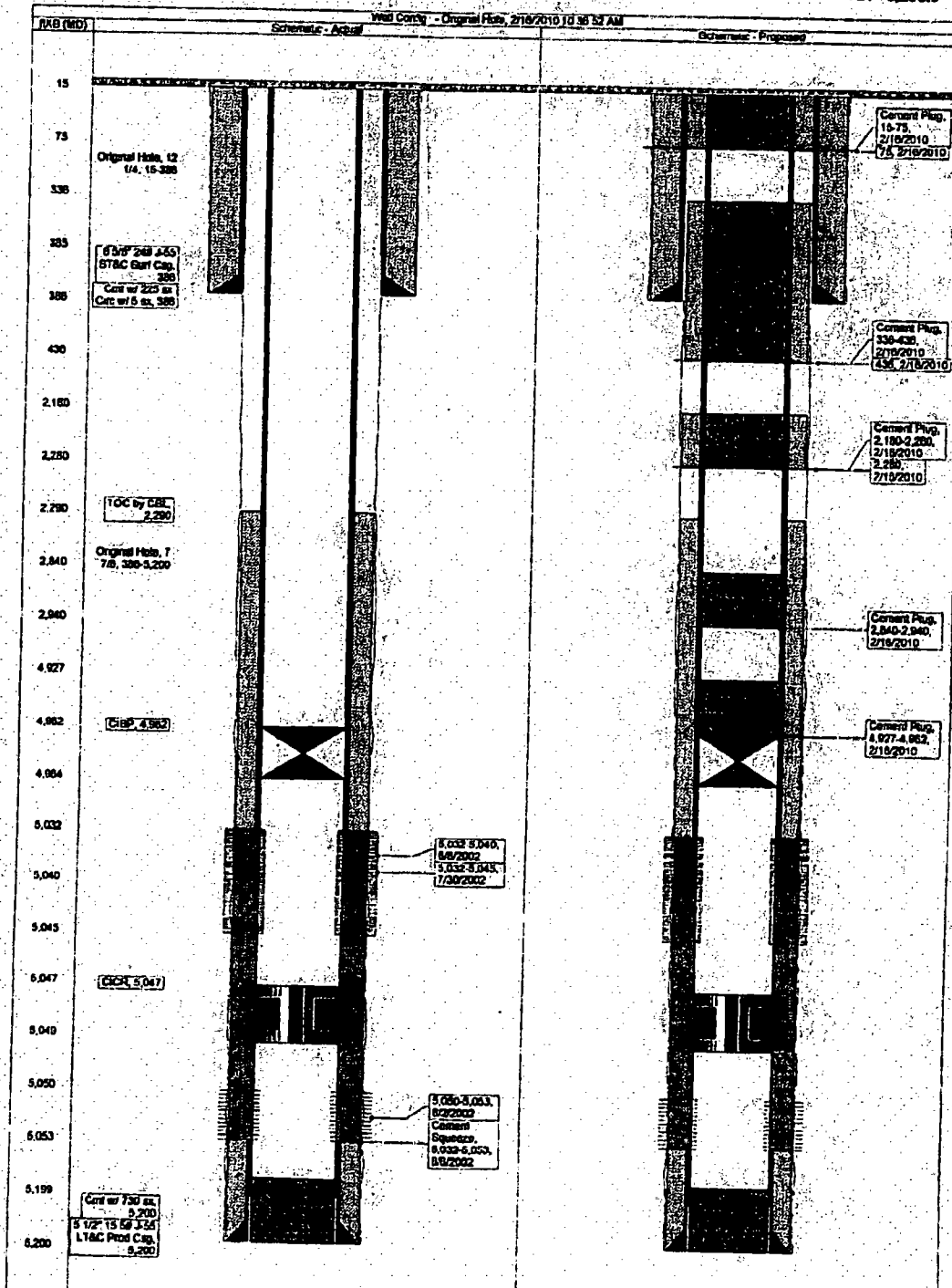
Lat 33.4417038
Long - 103.1297455



P&A Proposal
SUNDOWN STATE 3

Field: East Echol San Andres
County: LEA
State: NEW MEXICO
Location: SEC 14, 10S-37E, 1799 F&L & 2310 FWL
Elevation: GL 3,937.00 KB 3,952.00
KB Height: 15.00

Spud Date: 8/5/2002
Initial Compl. Date:
API #: 3002535907
CHK Property #: 890889
1st Prod Date:
PBTD: Original Hole - 5047.0
TD: 5,200.0



NOTICES

SURFACE OWNER AND MINERAL INTEREST OWNER

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

OFFSET OPERAORS

None

OFFSET MINERAL INTEREST OWNER

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

OFFSET LEASEHOLD OPERATOR

Apache Corp.
2000 W. Sam Houston Pkwy #20
Houston, TX 77042

LEGAL NOTICE

Pursuant to the rules and regulations of the Oil Conservation Division of the State of New Mexico, Permian TDS, LLC, Box 788, Lovington, NM 88260, is filing a C-108 Application for Salt Water Disposal. The well being applied for is the SV Sundown State #1, API 30-025-32750, located in Unit M, Section 14, Township 10 South, Range 37 East, Lea Co., NM. The injection formations are the Devonian, Silurian and Fusselman from 12140' to 12700' below surface. Expected maximum injection rate is 15,000 bpd., and the expected maximum injection pressure is 2500 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.

PERMIAN TDS, LLC

RE: SV Sundown State #1 (API 30-025-32750)
Unit M, Sect. 14, T. 10 S., R. 37 E.
Lea County, NM

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

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

7016 1970 0000 1625 4319

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®	
SANTA FE, NM 87504	
OFFICIAL USE	
Certified Mail Fee	\$3.35
Extra Services & Fees (check box, add fee as appropriate)	\$2.75
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$6.65
Total Postage and Fees	\$12.75
Sent To <i>NM S&O</i>	
Street and Apt. No., or PO Box No.	
City, State, ZIP+4® <i>Permian TDS LLC SV Sundown 1</i>	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

APR 14 2017
USPS 88210

Article Number
(Transfer from service label)

7011 2970 0002 1366 1974

Article Addressed to:

NMOCID
220 South St. Francis Dr.
Santa Fe, NM
87505

SENDER: COMPLETE THIS SECTION

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

SENDER: COMPLETE THIS SECTION

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

1. Article Addressed to:

Apache Corporation
2000 Post Oak Blvd
Suite 100
Houston, TX
77056-44002. Article Number
(Transfer from service label)

7011 2970 0002 1366 1981

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

SENDER: COMPLETE THIS SECTION

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

1. Article Addressed to:

State of New Mexico
State Land Office
310 Old Santa Fe Trail
Box 1148
Santa Fe, NM 875042. Article Number
(Transfer from service label)

7016 1970 0000 1625 4319

PS Form 3811, July 2013

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

- A. Signature ☒ Agent ☐ Addressee
- B. Received by (Printed Name) ☒ Date of Delivery
- C. Is delivery address different from item 1? ☐ Yes ☒ No
- If YES, enter delivery address below: ☐ Yes ☒ No

3. Service Type
- ☒ Certified Mail ☐ Express Mail
- ☐ Registered ☐ Return Receipt for Merchandise
- ☐ Insured Mail ☐ C.O.D.
4. Restricted Delivery? (Extra Fee) ☐ Yes

COMPLETE THIS SECTION ON DELIVERY

- A. Signature ☒ Agent ☐ Addressee
- B. Received by (Printed Name) ☒ Date of Delivery
- C. Is delivery address different from item 1? ☐ Yes ☒ No
- If YES, enter delivery address below: ☐ Yes ☒ No

3. Service Type
- ☐ Certified Mail® ☐ Priority Mail Express™
- ☐ Registered ☐ Return Receipt for Merchandise
- ☐ Insured Mail ☐ Collect on Delivery
4. Restricted Delivery? (Extra Fee) ☐ Yes

COMPLETE THIS SECTION ON DELIVERY

- A. Signature ☒ Agent ☐ Addressee
- B. Received by (Printed Name) ☐ Date of Delivery
- C. Is delivery address different from item 1? ☐ Yes ☒ No
- If YES, enter delivery address below: ☐ Yes ☒ No

3. Service Type
- ☒ Certified Mail ☐ Express Mail
- ☐ Registered ☐ Return Receipt for Merchandise
- ☐ Insured Mail ☐ C.O.D.
4. Restricted Delivery? (Extra Fee) ☐ Yes

MAY 2 2017
COMMUNICATIONS SECTION

Affidavit of Publication

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

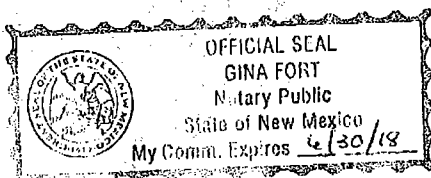
Joyce Clemens being first duly sworn on oath deposes and says that she is Advertising Manager of THE LOVINGTON LEADER, a thrice a week newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county 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 day(s), beginning with the issue of April 20, 2017 and ending with the issue of April 20, 2017.

And that the cost of publishing said notice is the sum of \$ 26.35 which sum has been (Paid) as Court Costs.

Joyce Clemens
Joyce Clemens, Advertising Manager
Subscribed and sworn to before me this
25th day of April, 2017.

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



Legal Notice

Pursuant to the rules and regulations of the Oil Conservation Division of the State of New Mexico, Permian TDS, LLC, Box 788, Lovington, NM 88260, is filing a C-108 Application for Salt Water Disposal. The well being applied for is the SV Sundown State #1, API 30-025-32750, located in Unit M, Section 14, Township 10 South, Range 37 East, Lea Co., NM. The injection formations are the Devonian, Silurian and Fusselman from 12140' to 12700' below surface. Expected maximum injection rate is 15,000 bpd., and the expected maximum injection pressure is 2500 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 April 20, 2017.

PERMIAN TDS, LLC

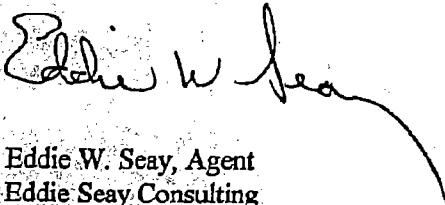
RE: SV Sundown State #1 (API 30-025-32750)
Unit M, Sect. 14, T. 10 S., R. 37 E.
Lea County, NM

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

7016 1970 0000 1625 4326

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only	
For delivery information, visit our website at www.usps.com ®.	
HOUSTON TX 77044	
Certified Mail Fee	\$3.35
Extra Services & Fees (check box, add fee as appropriate)	
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$6.65
Total Postage and Fees	\$12.75
Sent To <u>Apache Corp</u>	
Street and Apt. No., or PO Box No.	
City, State, ZIP+4® <u>Permian TDS LLC SV Sundown</u>	
PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions	

ARTESIA NM 88210
APR 14 2017
Postman Here

Submit 1 Copy To Appropriate District Office

District I - (575) 393-6161

1625 N. French Dr., Hobbs, NM 88241

District II - (575) 748-1283

811 S. First St., Artesia, NM 88210

District III - (505) 334-6178

1000 Rio Brazos Rd., Aztec, NM 87410

District IV - (505) 476-3460

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

State of New Mexico

Energy, Minerals and Natural Resources

Form C-103

Revised July 18, 2013

HOBBS OGD

OIL CONSERVATION DIVISION

JUN 20 2016 1220 South St. Francis Dr.

Santa Fe, NM 87505

RECEIVED

WELL API NO.

30-025-33724

5. Indicate Type of Lease

STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

S.V. SUNRISE STATE

8. Well Number

1

9. OGRID Number

240974

10. Pool name or Wildcat

ECHOLS, NE (DEVONIAN)

SUNDRY NOTICES AND REPORTS ON WELLS

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

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

2. Name of Operator

LEGACY RESERVES OPERATING LP

3. Address of Operator

PO BOX 10848, MIDLAND, TX 79702

4. Well Location

Unit Letter P 913 feet from the SOUTH line and 382 feet from the EAST line
Section 15 Township 10S Range 37E NMPM County LEA

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3941' GR

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

NOTICE OF INT

PERFORM REMEDIAL WORK ☐

TEMPORARILY ABANDON ☐

PULL OR ALTER CASING ☐

DOWNHOLE COMMINGLING ☐

CLOSED-LOOP SYSTEM ☒

OTHER: ☐

INT TO PA

P&A NR pm

P&A R

SUBSEQUENT REPORT OF

REMEDIAL WORK ☐

COMMENCE DRILLING OPNS ☐

CASING/CEMENT JOB ☐

OTHER: ☐

ALTERING CASING ☐

P AND A ☒

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

05/24/16 MIRU plugging equipment. Dug out cellar.

05/25/16 RU Rotary Wire Line. Cut 2 7/8 tbg and ESP cable @ 6925'. RIH w/ wireline. Tagged tbg and ESP @ 10100'. RU Cudd coiled tbg. RIH w/ coiled tubing to 10328'. Spotted 31 sx class H cement @ 10328-10088'. POH w/ coiled tbg.

05/25/16 Tagged plug @ 10032'. RIH w/ cutter and cut 2 7/8 tbg @ 5000'. RIH w/ coiled tubing to top of fish @ 8107'. Circulate 65 bbls of MLF. Spot 25 sx class H cement @ 8107-7817. Pulled coiled tubing to 5440'. Spotted 25 sx class C cement @ 5440-5187. POH w/ coiled tbg. WOC. Tagged plug @ 5158'. Perf'd 2 7/8 & 5 1/2 csg @ 4290'. Pressured up on perf. RIH w/ coiled tbg to 4340'. Spotted 10 sx class C cement @ 4340-3934. POH w/ coiled tbg. WOC.

05/27/16 Tagged plug @ 3600'. Cut 2 7/8 tbg. @ 2235' & pulled 2 7/8 out of hole. RIH w/ tbg and spotted 25 sx class C @ 2235-1988. WOC. Tagged @ 1972'. Spotted 45 sx class C @ 412-surface.

05/31/16 Verified cement @ surface. Riggged Down moved off.

06/14/16 MI welder and backhoe. Dug out cellar, /cut off wellhead. Welded on "Below Ground Dry Hole Marker".

Backfill cellar. Remove deadmen. Clean loc. and moved off. Installed Closed-Loop System with steel tanks. Hauled contents from Closed-Loop System to approved NMOCD disposal location according to Rule 19.15.17.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

TITLE COMPLIANCE COORDINATOR

DATE 06/16/2016

Type or print name LAURA PINA

E-mail address: lpina@legacyp.com

PHONE: 432-689-5200

For State Use Only

APPROVED BY:

TITLE P.E.S.

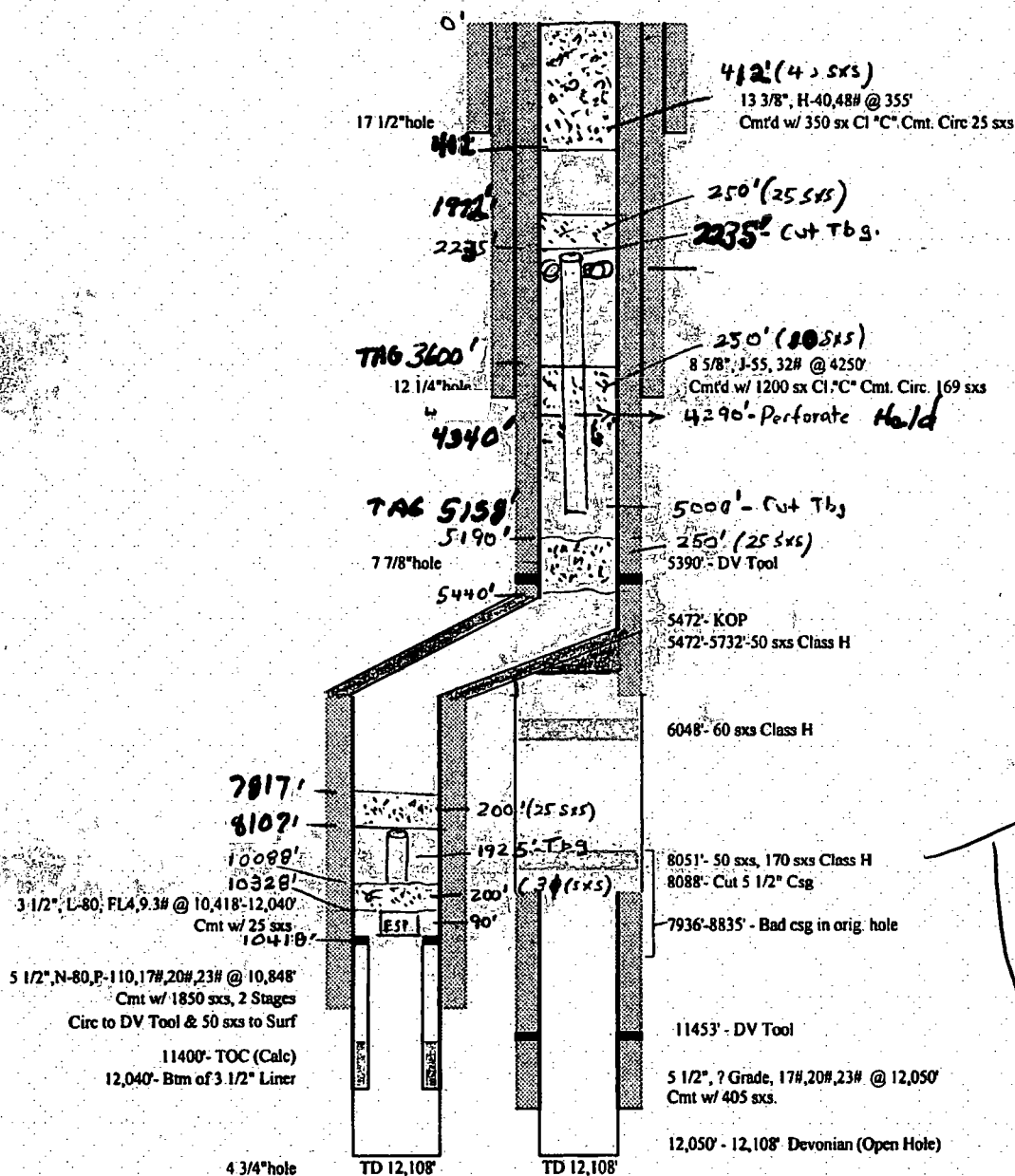
DATE 6/21/2016

Conditions of Approval (if any):

WELLBORE SCHEMATIC

Final P&A

Well Name & No.:	S. V. Sunrise State #1
Field:	Echols, NE (Devonian) Field
Location:	913' FSL, 382' FEL, Sec. 15, T-10-S, R-37-E
County:	Lea
GR Elev:	3941.0
KB:	16.0
GR Elev:	3957.0
	State: NM API #: 30-025-33724
	Spud Date: 01/20/97
	Original Operator: Manzano Oil Corp.
	Original Lease Name: Same As Above



6/2/17

McMillan, Michael, EMNRD

From: Brown, Maxey G, EMNRD
Sent: Thursday, June 8, 2017 8:00 AM
To: Jones, William V, EMNRD
Cc: McMillan, Michael, EMNRD
Subject: RE: Permian TDS, LLC SV Sundown SWD Well No. 1

I agree with you procedure less the final log.
MGB.

From: Jones, William V, EMNRD
Sent: Thursday, June 8, 2017 7:58 AM
To: Brown, Maxey G, EMNRD <MaxeyG.Brown@state.nm.us>
Cc: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Subject: RE: Permian TDS, LLC SV Sundown SWD Well No. 1

Maxey,
Sounds logical!
Would you go with my "procedure" less the final log – or just a writeup?
Would you wordsmith this to make this work for you?

Will

From: Brown, Maxey G, EMNRD
Sent: Thursday, June 8, 2017 6:03 AM
To: Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>
Subject: RE: Permian TDS, LLC SV Sundown SWD Well No. 1

I was just confused on why the CBL is ran twice from 12040 to surface. I see the first time to determine TOC. And if a second time is required why from 12040 again. When the well was plugged the 8 5/8" shoe was perforated @ 4310' and squeezed. So any cement squeezed through the perfs @ 4998'-5012' will not come up or probably not down. So the second CBL will only show the small section of the new squeeze. Or that's my theory.
MGB.

From: Jones, William V, EMNRD
Sent: Wednesday, June 7, 2017 6:28 PM
To: Brown, Maxey G, EMNRD <MaxeyG.Brown@state.nm.us>; McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Cc: Whitaker, Mark A, EMNRD <MarkA.Whitaker@state.nm.us>
Subject: RE: Permian TDS, LLC SV Sundown SWD Well No. 1

Oops,
We were probably working on this at the same time...
I am going home for the night.

From: Brown, Maxey G, EMNRD
Sent: Wednesday, June 7, 2017 4:57 PM
To: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>; Jones, William V, EMNRD

McMillan, Michael, EMNRD

From: McMillan, Michael, EMNRD
Sent: Monday, June 12, 2017 9:15 AM
To: 'Rena Seay'
Cc: Jones, William V, EMNRD; Lowe, Leonard, EMNRD; Goetze, Phillip, EMNRD; Brown, Maxey G, EMNRD; Whitaker, Mark A, EMNRD
Subject: RE: Permian TDS SV Sundown State SWD Well No. 1 API 30-025-32750

Eddy:
Based on examination of the well file, discussions with the Engineering Bureau, and Hobbs District Office, here are the requirements I am recommending to the Director for the Permian TDS SV Sundown State SWD Well No. 1 API 30-025-32750.

IT IS FURTHER ORDERED THAT:

The operator shall file (Notice of Intention) Form C-103 and under guidance of the Hobbs district office of the Division perform the following:

- a. Drill out shallower plugs down to the CIBP at approximately 12040 feet.*
- b. Run a cement bond log (or equivalent) from PBTD to surface.*
- c. Pressure test and isolate (locate) any casing leaks.*
- d. Squeeze cement as needed to repair leaks and to cover the San Andres formation from 5350 feet to 4000 feet.*

These requirements shall be completed successfully prior to running injection tubing inside the 5-1/2-inch casing.

Thank You

Michael McMillan
1220 South St. Francis
Santa Fe, New Mexico
505-476-3448
Michael.mcmillan@state.nm.us

From: McMillan, Michael, EMNRD
Sent: Monday, June 5, 2017 4:30 PM
To: Rena Seay <seay04@leaco.net>
Cc: Jones, William V, EMNRD <WilliamV.Jones@state.nm.us>; Lowe, Leonard, EMNRD <Leonard.Lowe@state.nm.us>; Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Subject: RE: Permian TDS SV Sundown State SWD Well No. 1 API 30-025-32750



C-108 Review Checklist:

Received

Add. Request:

Reply Date:

Suspended:

[Ver 15]

ORDER TYPE: WFX / PMX / (SWD) Number:

Order Date:

Legacy Permits/Orders:

Well No. 1Well Name(s): SV SANDOWN SUN

API: 30-0

25-32750

Spud Date:

New or Old:

(UIC Class II Primacy 03/07/1982)

Footages

77+155L
191FW

Lot

or Unit

M Sec

14

Tsp

105

Rge

37E

County

LEG

General Location:

2.15 miles NW Tatum

Pool:

SILVER-DEVONIAN

Pool No.:

97865

BLM 100K Map:

Tatum

Operator:

Pennion TDS, LLCOGRID: 306958

Contact:

Eddie
SELY AgentCOMPLIANCE RULE 5.9: Total Wells: 0Inactive: 0Fincl Assur: OKCompl. Order? NAIS 5.9 OK? OKDate: 6-17-2017WELL FILE REVIEWED (1) - Current Status: PFAWELL DIAGRAMS: NEW: Proposed ☐ or RE-ENTER: Before Conv. ☐ After Conv. ☒ Logs in Imaging: X

Planned Rehab Work to Well:

Well Construction Details		Sizes (in)	Setting	Cement	Cement Top and Determination Method
		Borehole / Pipe	Depths (ft)	(Sx or Cf)	
Planned ___ or Existing ___	Surface	<u>12 1/2 x 3/8</u>	<u>2350</u>	<u>350</u>	<u>Surface / VISUAL</u>
Planned ___ or Existing ___	Interm/Prod	<u>12 1/4 x 5/8</u>	<u>4260</u>	<u>1440</u>	<u>Surface / VISUAL</u>
Planned ___ or Existing ___	Interm/Prod	<u>7 1/4 x 5/8</u>	<u>12174</u>	<u>695</u>	<u>Surface / VISUAL</u>
Planned ___ or Existing ___	Prod/Liner				
Planned ___ or Existing ___	Liner				
Planned ___ or Existing ___	OH / PERF	<u>12 1/2 x 12700</u>		<u>560'</u>	
Injection Lithostratigraphic Units:		Depths (ft)	Injection or Confining Units	Tops	Completion/Operation Details:
Adjacent Unit: Litho. Struc. Por.			<u>W2</u>	<u>11972</u>	Drilled TD <u>12174</u> PBDT <u>NA</u>
Confining Unit: Litho. Struc. Por.			<u>D12</u>		NEW TD <u>12700</u> NEW PBDT <u>NA</u>
Proposed Inj Interval TOP:					NEW Open Hole <input checked="" type="radio"/> or NEW Perfs <input type="radio"/>
Proposed Inj Interval BOTTOM:					Tubing Size <u>32</u> in. Inter Coated? <u>X</u>
Confining Unit: Litho. Struc. Por.					Proposed Packer Depth <u>12100</u> ft
Adjacent Unit: Litho. Struc. Por.					Min. Packer Depth <u>12074</u> (100-ft limit)
					Proposed Max. Surface Press. <u>2200</u> psi
					Admin. Inj. Press. <u>2428</u> (0.2 psi per ft)
AOR: Hydrologic and Geologic Information					
POTASH: R-111-P <u>NA</u> Noticed? <input type="radio"/> BLM Sec Ord <input type="radio"/> WIPP <input type="radio"/> Noticed? <input type="radio"/> Salt/Salado T: <u>2300</u> B: <u>2154</u> NW: Cliff House fm					
FRESH WATER: Aquifer <u>NA</u> Max Depth <u>NA</u> HYDRO AFFIRM STATEMENT By Qualified Person <input checked="" type="radio"/>					
NMOSE Basin: <u>LEG</u> CAPITAN REEF: thru adj <u>NA</u> No. Wells within 1-Mile Radius? <u>NA</u> FW Analysis					
Disposal Fluid: Formation Source(s) <u>S.A. Dev</u> Analysis? <u>Y</u> On Lease <input type="radio"/> Operator Only <input type="radio"/> or Commercial <input checked="" type="radio"/>					
Disposal Int: Inject Rate (Avg/Max BWPD): <u>8K/15K</u> Protectable Waters? <u>Y</u> Source: <u>NA</u> System <u>Closed</u> or Open					
HC Potential: Producing Interval? <u>Y</u> Formerly Producing? <u>Y</u> Method: Logs/DST/P&A/Other <u>NA</u> 2-Mile Radius Pool Map <input checked="" type="radio"/>					
AOR Wells: 1/2-M Radius Map? <u>Y</u> Well List? <u>Y</u> Total No. Wells Penetrating Interval: <u>1</u> Horizontals? <u>NA</u>					
Penetrating Wells: No. Active Wells <u>0</u> Num Repairs? <u>NA</u> on which well(s)? <u>NA</u> Diagrams? <u>NA</u>					
Penetrating Wells: No. P&A Wells <u>1</u> Num Repairs? <u>NA</u> on which well(s)? <u>NA</u> Diagrams? <u>Y</u>					
NOTICE: Newspaper Date <u>NA</u> Mineral Owner <u>NMSLW</u> Surface Owner <u>NMSLW</u> N. Date <u>NA</u>					
RULE 26.7(A): Identified Tracts? <u>NA</u> Affected Persons: <u>NA</u> N. Date <u>NA</u>					

Order Conditions: Issues:

Add Order Cond:

* require C-13 L After 2017 Closures
 * NO CASING thru productive S.A. zone
 * MAKE SURE ONLY