

DATE IN 11/30/12	SUSPENSE	ENGINEER	LOGGED IN	TYPE SWD 1383	APP NO. 130136654
---------------------	----------	----------	-----------	---------------------	----------------------

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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



ADMINISTRATIVE APPLICATION CHECKLIST

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

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]

[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]

[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]

[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]

[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]

[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

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

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

Check One Only for [B] or [C]

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

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

- [D] Other: Specify _____

[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.

Ben Stone
 Print or Type Name

Signature

Agent for Ray Westall

Title
 ben@sosconsulting.us
 e-mail Address

11/29/12

Date

2017 NOV 30 A 11:41
 RECEIVED OCO

Ray Westall Oportunity INC
 Forwarded 10' Fed #1
 #10/185/28E/EDDY

Front page
 Lost? answer
 1/15/13



SOS Consulting, LLC

November 29, 2012

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

Attn: Ms. Jami Bailey, Director

*Re: Application of Ray Westall Operating, Inc. to permit for salt water disposal
in its Fireweed '10' Federal No.1 well located in Section 10, Township 18 South,
Range 28 East, NMPM, Eddy County, New Mexico.*

Dear Ms. Bailey,

Please find enclosed form C-108 Application for Authority to Inject, supporting the above-referenced request to covert for disposal, the Fireweed '10 Federal No.1.

Ray Westall Operating seeks to optimize efficiency, both economically and operationally, of its operations. Approval of this application is consistent with that goal as well as the NMOCD's mission of preventing waste and protection of correlative rights.

Published legal notice ran in the November 15, 2012 edition of the Artesia Daily Press and all offset operators and other interested parties have been notified individually. The legal notice affidavit is included in this application package. This application also includes wellbore schematics, area of review maps, leaseholder plats and other required information for a complete Form C-108. This well is located on federal lands and a copy of this application has been submitted to the Bureau of Land Management along with their Form 3160-5 Sundry Notice for approval.

I respectfully request that the approval of this salt water disposal well proceed swiftly and if you or your staff requires additional information or has any questions, please do not hesitate to call or email me.

Best regards,

Ben Stone, Partner
SOS Consulting, LLC
Agent for Ray Westall Operating, Inc.

Cc: Application attachment and file

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: **Salt Water Disposal** and the application **qualifies** for administrative approval.
- II. OPERATOR: **Ray Westall Operating, Inc.**
ADDRESS: **P.O. 4, Loco Hills, NM 88255**
- CONTACT PARTY: **Donnie Mathews (575) 677-2372**
Agent: SOS Consulting, LLC – Ben Stone (903) 488-9850
- III. WELL DATA: **All well data and applicable wellbore diagrams are attached hereto.**
- IV. **This is not an expansion of an existing project.**
- V. **A map is attached** 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. A tabulation is attached of data on all wells of public record within the area of review which penetrate the proposed injection zone. **(There are NO WELLS THAT PENETRATE the proposed disposal zone.)** The data includes a description of each well's type, construction, date drilled, location, depth, and a schematic of any plugged well illustrating all plugging detail.
- VII. **The following data is attached** 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. **Appropriate geologic data on the injection zone is attached** 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. **No stimulation program is proposed at this time.**
- *X. **There is no applicable logging and test data on the well however, any previous well logs have been filed with the Division and they need not be resubmitted.**
- *XI. **There is no water well within one mile the proposed salt water disposal well.**
- XII. **An affirmative statement is attached that available geologic and engineering data has been examined and no evidence was found** of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. **"Proof of Notice" section on the next page of this form has been completed. SOS was able to reliably determine all current operators and lessees of all leases intersected by the AOR. A total of 8 individuals and/or companies were notified via U.S. certified mail..**
- 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: **Ben Stone** TITLE: **SOS Consulting, LLC agent / consultant for Ray Westall Operating, Inc.**

SIGNATURE: 

DATE: **11/29/2012**

E-MAIL ADDRESS: **ben@sosconsulting.us**

- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:

III. WELL DATA – *The following information and data is included:*

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 *pursuant to the following criteria is attached.*

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.

PLUGGED WELL SCHEMATIC
Fireweed '10' Federal Well No.1

1870' FNL & 860' FEL, SEC. 10-T18S-R28E
EDDY COUNTY, NEW MEXICO

P&A Date: 1/30/2003

<PLUGGING ITEMS LISTED LEFT>

Shot Sqz Holes @ 50'
Sqz & Circ.
20 sx to Surface

Shot Sqz Holes @ 634'
Sqz w/ 75 sxs
(Tag @ 480')

Attempt Csg Cut @ 2759'
Unable to Pull
Sqz w/ 75 sxs
(Tag @ 2556')

Spot 35 sx Cmt
5406'-5191'

Circulated Hole w/ Mud

Spot 40 sx Cmt
7643'-7348'

Spot 40 sx Cmt
8547'-8302'

**Set CIBP @ 8547'
for P&A**

Set CIBP @ 9250'
Cap w/ 35' Cement
(Set for Cisco Recompletion)

Formation Fluids

**Note: Logging Tools
picked up at 11005'**

<PRE-P&A EXISTING ITEMS LISTED RIGHT>

Surface Casing

13.375", 54.5# csg. (17.5" Hole) @ 574'
600 sxs - Circulated to Surface

Intermediate Casing

9.625", 36.0# csg. (12.25" Hole) @ 2835'
1518 sxs - Circulated to Surface

<P&A SUBSEQUENT SUNDRY>

[illegible]

Perfs: 8720'- 8866'

Production Casing

7.0", 26.0# Csg (8.75" Hole) @ 10044'
1225 sxs - TOC @ 3500' by Temp

Perfs: 9528'- 9699'

ATKA: 10086
MRW: 10390
MISS: 10762

SOS Consulting, LLC

Drawn by: Ben Stone, revised 1/11/2013

WELL SCHEMATIC - PROPOSED Fireweed '10' Federal Well No.1

API 30-015-29165

1870' FNL & 860' FEL, SEC. 10-T18S-R28E
EDDY COUNTY, NEW MEXICO

Spud Date: 7/26/1999

Annulus Monitored
or open to atmosphere

Injection Pressure Regulated
and Volumes Reported

Surface Casing

13.375", 54.5# Csg. (17.5" Hole) @ 574'
600 sxs Class 'C' - Circulated

574'

Ray Westall Operating, Inc.

Convert to SWD: D/O & C/O Existing Plugs.

Set CIBP @ 9500' w/ 30' Cmt Cap.

Perforate Specific Intervals within
Permitted Depths.

Run PC Tubing and PKR - Conduct MIT.
Commence Disposal Operations.

2835'

Intermediate Casing

9.625", 36# Csg. (12.25" Hole) @ 2835'
1518 sxs Class 'C' - Circulated

Annulus Loaded
w/ Inert Packer Fluid

2.375" PC Tubing (or equivalent)
PKR ~7590'

NOTE: Existing perms within permitted interval
may or may not be utilized as specific intervals.

PROPOSED DISPOSAL INTERVALS
(Selectively Perforated Intervals TO BE DETERMINED.)

TOP of INTERVAL
@7696' - Wolfcamp

Production Casing

7.0" 26.0# Csg. (8.75" Hole) @ 10044'
1225 sxs Class 'H' - Cement to Surface

New Perfs To Be Determined
Within Permitted Interval.

BOTTOM of INTERVAL
@ 9448' - [Pennsylvanian] Canyon

Set CIBP @ ~9500'
(Isolate Existing Perfs)
Cap w/ 30' Cmt.

PBTD @ ~9470'

Existing Perfs: 9528' - 9699'

10044'

TD @ 10044'

SOS Consulting, LLC

Drawn by: Ben Stone, 11/28/2012

FROM	TO	HOURS	SUB	PHASE	OPERATIONS SUMMARY
00:00	05:00	5.00	P	PROD	DRLG 10865-10874
05:00	06:00	1.00	P	PROD	WL SURVEY AT 10834 2.5 DEG.
06:00	18:00	12.00	P	PROD	DRLG 10875-10899
18:00	00:00	6.00	P	PROD	TRIP FOR BIT NO. 11
00:00	07:00	7.00	P	PROD	TRIP FOR BIT LAY DOWN 12 JT. DP PU 12 4.5 DC
07:00	07:30	0.50	P	PROD	WASH 40' TP BTM
07:30	15:00	7.50	P	PROD	DRLG 10899- 10937
15:00	15:30	0.50	P	PROD	RIG SERVICE
15:30	00:00	8.50	P	PROD	DRLG 10937-10995
00:00	10:00	10.00	P	PROD	DRLG 10995-11062
10:00	12:00	2.00	P	PROD	CIRCULATE CONDITION HOLE TO LOG
12:00	18:30	6.50	P	PROD	DROP TOTCO AND 2"RABBIT TOH
18:30	00:00	5.50	P	PROD	RIG UP SCHLUMBERGER AND LOG
00:00	08:30	8.50	P	PROD	LOGGING DUAL LATEROLOG MICRO-CFLANGST, GAMMA RAY, COMPENSATED NEUTRON LITHO DENSITY/NGT MICRO-LOG, DIPOLE SONIC GAMMA RAY
08:30	12:00	3.50	P	PROD	RIG DOWN LOGGER TIH
12:00	13:00	1.00	P	PROD	CIRCULATE OUT GAS
13:00	16:00	3.00	P	PROD	TOH
16:00	22:30	6.50	P	PROD	TIH OPEN ENDED
22:30	00:00	1.50	P	PROD	WOO
00:00	00:00	24.00	P	PROD	WOO
00:00	15:30	15.50	P	PROD	WAIT ON ORDERS
15:30	16:00	0.50	P	PROD	LAY DOWN 16 JTS DP
16:00	18:00	2.00	P	PROD	WAIT ON DOWELL AND LD CREW
18:00	20:00	2.00	P	PROD	WAIT ON DOWELL TO REP. PUMP TRUCK
20:00	21:00	1.00	P	PROD	SET 80 SKS. CLASS H W/ .5% D-80C 10325 TO 9945
21:00	00:00	3.00	P	PROD	LAY DOWN DP
00:00	03:30	3.50	P	PROD	LAY DOWN DP
03:30	05:30	2.00	P	PROD	TIH W/ DC
05:30	08:00	2.50	P	PROD	LAY DOWN DC
08:00	16:00	8.00	P	PROD	NIPPLE DOWN BOP NIPPLE UP WELL HEAD CLEAN PITS RIG DOWN ROT FINAL REPORT RIG RELESED 1600 HR. 12-18-96

FROM	TO	HOURS	SUB PHASE	OPERATIONS SUMMARY
00:00	01:00	1.00	P	PROT1 DRL 8100 X 8121
01:00	02:00	1.00	P	PROT1 WL SURVEY 8081 X 2.5 DEG. N45W
02:00	16:00	14.00	P	PROT1 DRL 8121 X 8410
16:00	17:00	1.00	P	PROT1 WL SURVEY 2.25 DEG. 8378
17:00	00:00	7.00	P	PROT1 DRL 8410 X 8554 X DRILLING W/ 50 X 70 % RETURNS X HAULED 1500 BFW

FROM	TO	HOURS	SUB PHASE	OPERATIONS SUMMARY
00:00	02:30	2.50	P	PROT1 DRL 8554 X 8603
02:30	03:30	1.00	P	PROT1 WL SURVEY 8653 X 1.25 DEG. N 14 W
03:30	13:00	9.50	P	PROT1 DRL 8603 X 8840
13:00	13:30	0.50	P	PROT1 CIRC
13:30	17:00	3.50	P	PROT1 DRL 8840 X 8954
17:00	18:00	1.00	P	PROT1 WL SURVEY 8924 X 3/4 DEG. N 65 W
18:00	00:00	6.00	P	PROT1 DRL 8954 X 9200 DRL W/ PAIRIAL LOSS RETURNS

FROM	TO	HOURS	SUB PHASE	OPERATIONS SUMMARY
00:00	07:00	7.00	P	PROT1 DRL 9200 X 9438
07:00	08:00	1.00	P	PROT1 WL SURVEY 9406 X 1 DEG S 80 W
08:00	00:00	16.00	P	PROT1 DRL 9438 X 9879

FROM	TO	HOURS	SUB PHASE	OPERATIONS SUMMARY
00:00	00:30	0.50	P	PROT1 DRL 9879 X 9887
00:30	01:30	1.00	P	PROT1 WL SURVEY 9847 X 1 DEG. N 42 E
01:30	07:30	6.00	P	PROT1 DRL 9887 X 10043 X TD 8.75 HOLE CSG. POINT
07:30	11:00	3.50	P	PROT1 CIRC X COND. HOLE X PMP 400 BBL MUD PUMP W/ 61 VIS X 6.2 WL
11:00	16:00	5.00	P	PROT1 TOH X STRAP OUT HOLE
16:00	00:00	8.00	P	PROT1 LOGGING X LOGGER: S TD 10023

FROM	TO	HOURS	SUB PHASE	OPERATIONS SUMMARY
00:00	02:30	2.50	P	PROD FINISH RUNNING EST. 7" 26# N80 LTO ORG. LAND AT 10044'
02:00	06:30	4.50	P	PROD CIRCULATE CONDITION HOLE WO DOWELL FOR CEMENT TEST REPORT
06:30	07:30	1.00	P	PROD RU DOWELL AND CEMENT W/ 675 SKS BEAVER 902 1 + .6% D20 - .5% D44 - .2% D65 + .4% D112 - .1% D800 + .25PPS D29 AND 250 SKS 50/50 POZ - 2% D20 + 5% D44 + .2% D65 + .4% D112 + .15% D800 + .15PPS D29 + .1% D100 AND 300 SKS CLASS H + .4% D156 + .4% D65 + .2% D800 + .2% D46. FLOAT HELL BUMP PLUG W/ 3000 PSI.
07:30	12:00	4.50	P	PROD NIPPLE DOWN BOP SET SLIPS CUT OFF CSG.
12:00	22:30	10.50	P	PROD NIPPLE UP BOP CHANGE OUT RAMS AND KELLY RUN TEMP SURVEY TOC 3500'
22:30	00:00	1.50	P	PROD TEST BOP 250# LOW 5000# HIGH

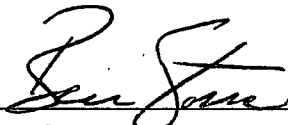
FROM	TO	HOURS	SUB PHASE	OPERATIONS SUMMARY
00:00	03:30	3.50	P	PROD CIRCULATE AND MUD UP
03:30	11:00	7.50	P	PROD DRLG 10070-10134
11:00	11:30	0.50	P	PROD RIG SERVICE
11:30	00:00	10.50	P	PROD DRLG 10134-10170

FROM	TO	HOURS	SUB PHASE	OPERATIONS SUMMARY
00:00	05:00	5.00	P	PROD DRLG 10196-10226
05:00	06:00	1.00	P	PROD SURVEY 10196 X 1.75 DEG.
06:00	16:00	10.00	P	PROD DRLG 10226-10306
16:00	17:00	1.00	P	PROD CIRCULATE BOTTOMS UP OK DRILLING BREAK 1001- UNITS OF GAS
17:00	00:00	7.00	P	PROD DRLG 10306-10360

FROM	TO	HOURS	SUB PHASE	OPERATIONS SUMMARY
00:00	00:00	0.00	P	PROD DRLG 10360-10360
00:00	00:00	0.00	P	PROD RIG SERVICE
00:00	00:00	0.00	P	PROD DRLG 10360-10360
00:00	00:00	0.00	P	PROD CIRCULATE
00:00	00:00	0.00	P	PROD TEMP FOR RIG W/ 1.75 DEG SURVEY

C-108 ITEM XII – GEOLOGIC AFFIRMATION

We have examined available geologic and engineering data and have found no evidence of open faults or other hydrologic connection between the disposal interval and any underground sources of drinking water.



Ben Stone, Partner
SOS Consulting, LLC

Project: Ray Westall Operating, Inc.
Fireweed '10 Federal No.1
Reviewed 11/20/2012

C-108 ITEM VIII – GEOLOGIC INFORMATION

The Wolfcamp formation is a mixed lithology system of interbedded carbonate and shale including considerable dolomite of medium to fine grains and minor sandstone. The formation thickness varies from about 400 to 500 feet of shales.

The [Pennsylvanian] Canyon formation consists of similarly medium-grained carbonates, primarily dolomite and porous and permeable sandstone interbedded with shale and is generally 150 to 200 feet in thickness.

There is potential sources of drinking water in the overlying sands occurring at a depth from surface of up to 250 feet. (Note: there are no known domestic water wells within one mile of the proposed SWD well.) The upper part of the section on average consists of 200 ft of Holocene alluvial deposits of caliche, sand, gravel, and clay. Included in this interval are red sandstone and shale of the Chinle formation and Santa Rosa sandstone and similar deposits of the Dewey Lake formation. These formations are underlain by the Rustler and Salado formations.

There are no known sources of water <10,000 mg/l TDS which underlie the injection zones.

C-108 ITEM XI – WATER WELLS IN AOR



New Mexico Office of the State Engineer Active & Inactive Points of Diversion (with Ownership Information)

										(R=POD has been replaced and no longer serves this file, C=the file is closed)		(quarters are 1=NW 2=NE 3=SW 4=SE)						
												(quarters are smallest to largest) (NAD83 UTM in meters)						
												q q q						
										Source		6416 4	Sec	Twp	Range	X	Y	
										Shallow		2	4	15	18S	28E	578921	3623453*
WR File Nbr	Sub	Use	Diversion	Owner	County	POD Number	Code	Grant										
L 01142	L	DOL	3	W L GREBON	LE	L 01142 POD1												
L 05515	1	DOM	3	GERALD P HANSON	LE	L 05515				Shallow	1	1	3	12	18S	28E	578155	3626781**
L 05541	1	DOM	3	L G MCDANIELS	LE	L 05541				Shallow	3	4	15	18S	28E	578579	3623641*	
R 13901		ODI	3	ATLANTIC RICHFIELD COVE	ED	R 13901					1	1	03	18S	28E	577707	3627449*	

Not within 1 mile

Not within 1 mile

Record Count: 4

PLSS Search:

Section(s): 2, 3, 10, 11, 14, 15 Township: 18S Range: 28E

Sorted by: File Number

*UTM location was derived from PLSS - see Help

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.

11/21/12 11:02 AM

ACTIVE & INACTIVE POINTS OF DIVERSION

The first well in the list appears to be within 1 mile of the proposed SWD, the other 3 are not.

A foot search was conducted to locate the well. The area was crisscrossed several times extending several hundred feet from the location with no evidence of any well. SOS and Ray Westall personnel assume the well must have been abandoned and covered up years ago. Ray Westall personnel also stated that they know of no other water wells and there are no windmills in the area.

C-108 - Item VII.5

Water Analysis - Source Water - MORROW



HALLIBURTON

CENTRAL OPERATIONS LABORATORY
WATER ANALYSIS REPORT
HOBBS, NEW MEXICO

COMPANY Marbach

REPORT WD2-128
DATE June 18, 2002
DISTRICT Hobbs

SUBMITTED BY Jim Trele

WELL Ruger St. #1 DEPTH FORMATION
COUNTY FIELD SOURCE

SAMPLE Morrow Prod. Water

Sample Temp.	<u>84</u>	°F	_____	°F	_____	°F	_____	°F
RESISTIVITY	<u>0.13</u>		_____		_____		_____	
SPECIFIC GR.	<u>1.040</u>		_____		_____		_____	
pH	<u>6.89</u>		_____		_____		_____	
CALCIUM	<u>4.500</u>	mg/L	_____	mg/L	_____	mg/L	_____	mg/L
MAGNESIUM	<u>6.300</u>	mg/L	_____	mg/L	_____	mg/L	_____	mg/L
CHLORIDE	<u>34.863</u>	mg/L	_____	mg/L	_____	mg/L	_____	mg/L
SULFATES	<u>mg/L</u>	mg/L	_____	mg/L	_____	mg/L	_____	mg/L
BICARBONATES	<u>18</u>	mg/L	_____	mg/L	_____	mg/L	_____	mg/L
SOLUBLE IRON	<u>0</u>	mg/L	_____	mg/L	_____	mg/L	_____	mg/L
Sodium	_____	mg/L	<u>0</u>	mg/L	<u>0</u>	mg/L	<u>0</u>	mg/L
TDS	_____	mg/L	<u>0</u>	mg/L	<u>0</u>	mg/L	<u>0</u>	mg/L
OIL GRAVITY	<u>0</u>	°API	<u>0</u>	°API	<u>0</u>	°API	<u>0</u>	°API

REMARKS

MPL = Milligrams per Liter
Resistivity measured in: Ohm-cm

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management. It may, however, be used in the course of regular business operations by any person or persons and employees thereof receiving such report from Halliburton Co.

ANALYST: Mike Armstrong

C-108 - Item VII.5

Water Analysis - Source Water - DELAWARE



Water Analysis

Date: 11-Jan-05

2788 West County Road, Hobbs NM 88240

Phone (505) 392-5556 Fax (505) 392-7307

Analyzed For

Devon	Spud 16 State #1	Lee	New Mexico
-------	------------------	-----	------------

Sample Source

Sample

Sample #

1

Formation

Depth

Specific Gravity

1.185

SG @ 60 °F

1.186

pH

5.96

Sulfides

Absent

Temperature (°F)

65

Reducing Agents

Cations

Sodium (Calc)

in Mg/L

73,885

in PPM

61,860

Calcium

in Mg/L

34,000

in PPM

28,428

Magnesium

in Mg/L

5,040

in PPM

4,214

Soluble Iron (FE2)

in Mg/L

50.8

in PPM

42

Anions

Chlorides

in Mg/L

188,800

in PPM

157,191

Sulfates

in Mg/L

550

in PPM

460

Bicarbonates

in Mg/L

78

in PPM

65

Total Hardness (as CaCO3)

in Mg/L

186,000

in PPM

88,629

Total Dissolved Solids (Calc)

in Mg/L

391,783

in PPM

282,289

Equivalent NaCl Concentration

in Mg/L

284,733

in PPM

212,988

Scaling Tendencies

*Calcium Carbonate Index

2,854,720

Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable

*Calcium Sulfate (Gyp) Index

18,700,000

Below 500,000 Remote / 500,000 - 10,000,000 Possible / Above 10,000,000 Probable

This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.

Remarks rw=0.040@63f

C-108 - Item VII.5

Water Analysis - Source Water - SAN ANDRES

B J Services Water Analysis

Artesia District Laboratory
(505)-748-3140

Date: 8-Nov-00 Test #:
Company: SDX Resources Well #:
Lease: Chalk Federal #2 County: Eddy
State: N.M. Formation San Andres
Depth: 2900 Source:

pH: 6.51 Temp (F): 58.3
Specific Gravity: 1.12

CATIONS	mg/l	mmol	ppm
Sodium (calc.)	64802	2370.7	48862
Calcium	3208	160.1	2884
Magnesium	1458	120.0	1302
Barium	< 25	—	—
Potassium	< 10	—	—
Iron	3	0.1	2

ANIONS	mg/l	mmol	ppm
Chloride	83000	2023.4	83036
Sulfate	1071	22.8	957
Carbonate	< 1	—	—
Bicarbonate	876	14.4	784

Total Dissolved Solids(calc.) 154120 137807

Total Hardness as CaCO3 14014 280.0 12513

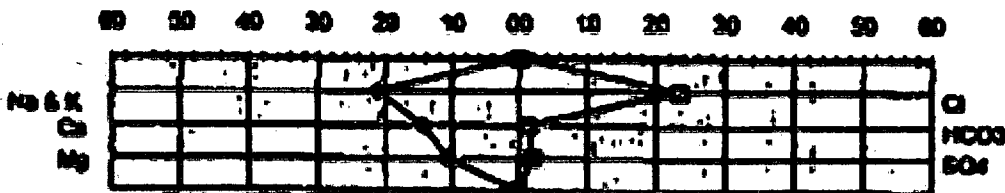
COMMENTS:

Rw= 0.0047 @ 51.1 deg.

SCALE ANALYSIS:

CaCO3 Factor	2817807	Calcium Carbonate Scale Probability ->	Probabl
CaSO4 Factor	3848600	Calcium Sulfate Scale Probability ->	Remain

SRF Plot



C-108 - Item VII.5

Water Analysis - Disposal Zone



Water Analysis

Date: 2/24/2005

2401 Sibley, Artesia NM 88210
Phone (505) 746-3160 Fax (505) 746-2293

Analyzed For

7
0 *Water From*

Company	Well Name	County	State
Westall	State G#1	Eddy	New Mexico

Sample Source

Sample #

1

Formation

Canyon

Depth

Specific Gravity

1.050

SG @ 60 °F

1.051

pH

6.30

Sulfates

Not Tested

Temperature (°F)

65

Reducing Agents

Not Tested

Cations

Sodium (Calc)

in Mg/L

9,318

in PPM

9,058

Calcium

in Mg/L

5,600

in PPM

5,328

Magnesium

in Mg/L

240

in PPM

228

Soluble Iron (FE2)

in Mg/L

300.0

in PPM

285

Anions

Chlorides

in Mg/L

24,000

in PPM

22,835

Sulfates

in Mg/L

2,000

in PPM

1,803

Bicarbonates

in Mg/L

186

in PPM

178

Total Hardness (as CaCO3)

in Mg/L

15,000

in PPM

14,272

Total Dissolved Solids (Calc)

in Mg/L

41,844

in PPM

39,513

Equivalent NaCl Concentration

in Mg/L

38,410

in PPM

36,540

Scaling Tendencies

*Calcium Carbonate Index

1,028,484

Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable

*Calcium Sulfate (Gyp) Index

11,200,000

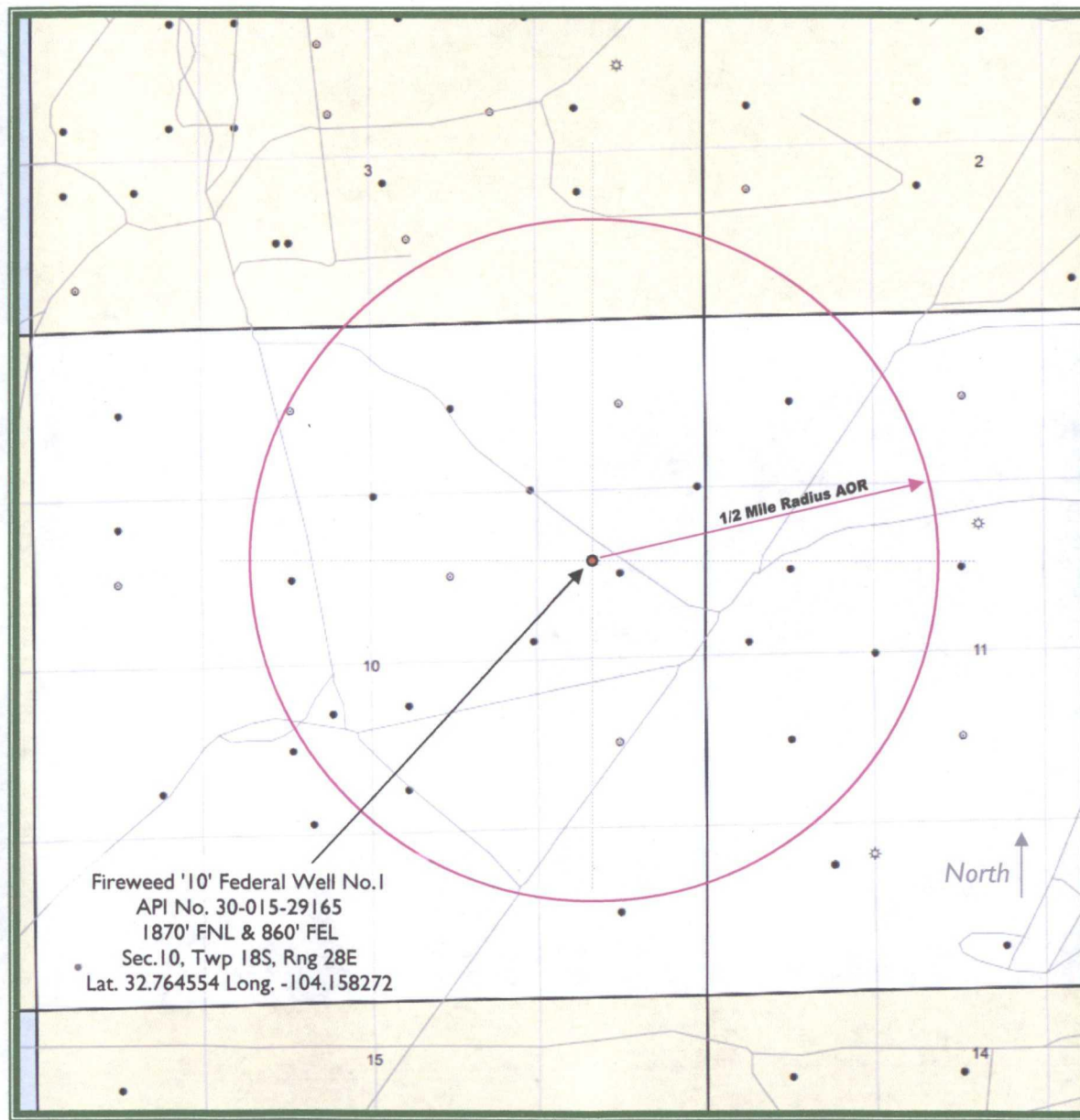
Below 500,000 Remote / 500,000 - 10,000,000 Possible / Above 10,000,000 Probable

This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.

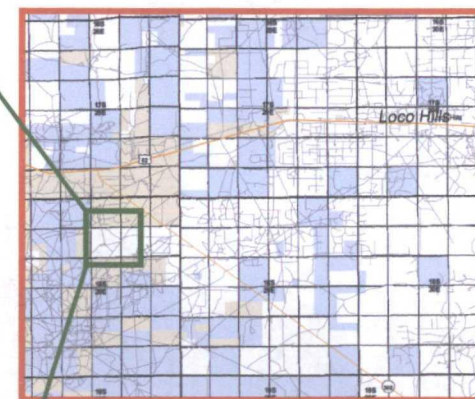
Remarks FAX 877-2381

Fireweed '10' Federal Well No.1 - Area of Review / Overview Map

(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



~11.0 miles West / Southwest
of Loco Hills, NM

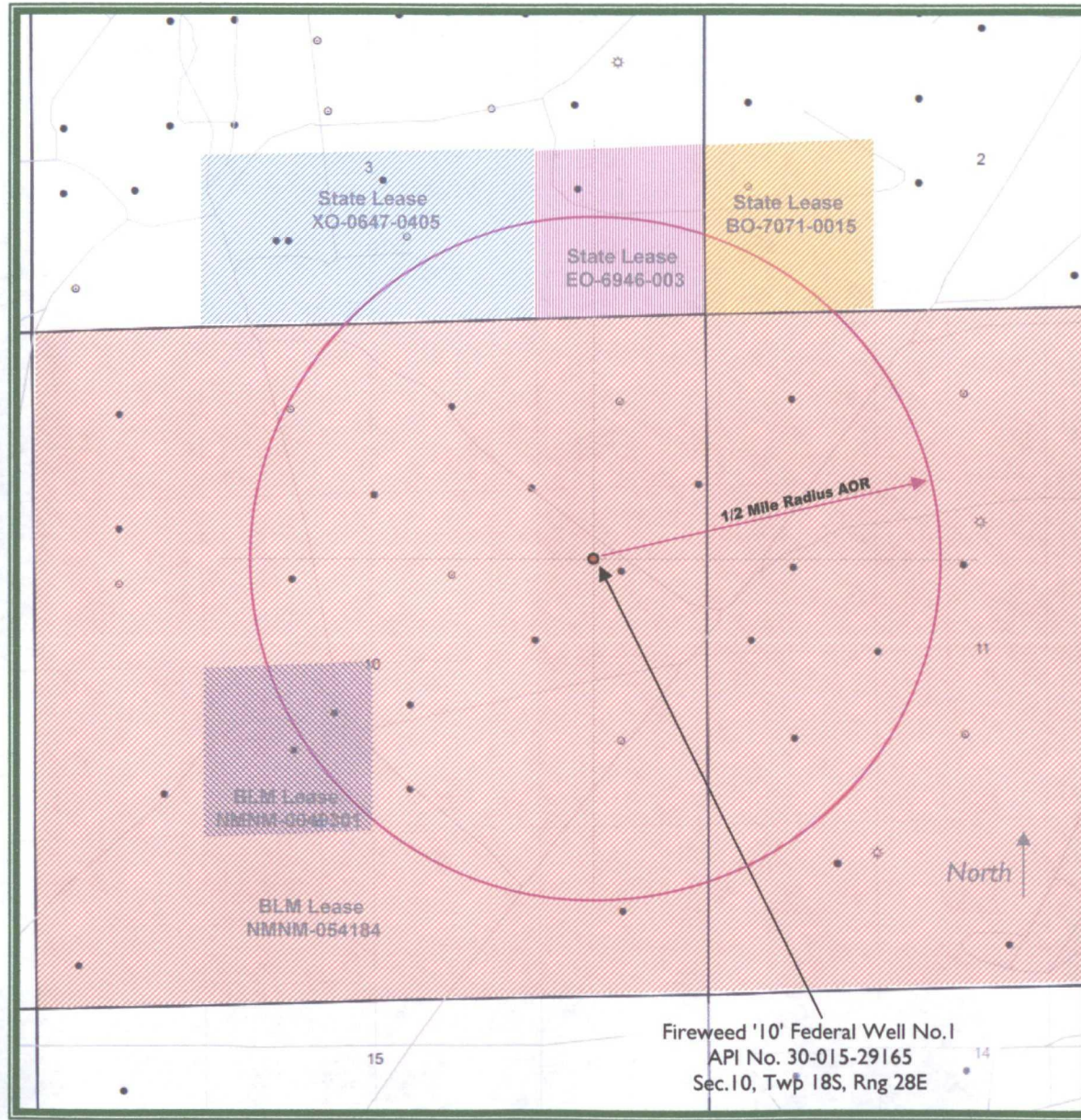


Eddy County, New Mexico

Ray Westall Operating, Inc.

Fireweed '10' Federal Well No.1 - Lessee / Operator Plat

(Attachment to NMOCD Form C-108, Application for Authority to Inject.)



LEGEND

-  NMNM-054184
Khody Land & Minerals; Marathon Oil;
Yates Petroleum; ZPZ Delaware
-  NMNM-0049301
VSW2 Exploration & Production
-  XO-0647-0405
Khody Land & Minerals
-  EO-6946-003
Jerry Curtis & Ralph Nix; Quantum
Resources Management
-  BO-7071-0015
Featherstone Development

>>> Research performed by C&G Records Research <<<



Eddy County, New Mexico

Ray Westall Operating, Inc.

Form C-108 Item VI - Tabulation of AOR Wells

Current Operator	API	Well Name	Well Number	Type	Lease	Status	ULSTR	Depth	Plugged On
Subject Well		PROPOSED INTERVAL: WOLFCAMP AND CANYON - 7696' TO 9448'							
[25773] DOMINION EXP & PROD INC	30-015-29165	FIREWEED 10 FEDERAL	#001	Gas	Federal	Plugged, Site Released	H-10-18S-28E	10044'	2/18/2003
Section 10 Wells (14 Wells)		<u>NO WELLS IN AREA OF REVIEW PENETRATE THE PROPOSED DISPOSAL INTERVAL</u>							
[184860] MELROSE OPERATING CO	30-015-01808	DUNN B FEDERAL	#012	Oil	Federal	Plugged, Site Released	B-10-18S-28E	2518'	12/10/2008
[214263] PRE-ONGARD OPERATOR	30-015-01817	PRE-ONGARD WELL	#001	Oil	State	Plugged, Site Released	K-10-18S-28E	NWF	1/1/1901
[214263] PRE-ONGARD OPERATOR	30-015-01803	PRE-ONGARD WELL	#005	Oil	State	Plugged, Site Released	J-10-18S-28E	NWF	1/1/1901
[214263] PRE-ONGARD OPERATOR	30-015-01804	PRE-ONGARD WELL	#006	Oil	State	Plugged, Site Released	J-10-18S-28E	NWF	1/1/1901
[243874] QUANTUM RSCS MGT, LLC	30-015-01809	DUNN B FEDERAL	#013	Injection	Federal	Active	A-10-18S-28E	2555'	
[243874] QUANTUM RSCS MGT, LLC	30-015-06114	DUNN B FEDERAL	#014	Oil	Federal	Active	F-10-18S-28E	2525'	
[243874] QUANTUM RSCS MGT, LLC	30-015-01812	DUNN B FEDERAL	#017	Injection	Federal	Active	C-10-18S-28E	2668'	
[243874] QUANTUM RSCS MGT, LLC	30-015-01813	DUNN B FEDERAL	#019	Injection	Federal	Active	G-10-18S-28E	2710'	
[243874] QUANTUM RSCS MGT, LLC	30-015-01814	DUNN B FEDERAL	#020	Oil	Federal	Active	H-10-18S-28E	2735'	
[243874] QUANTUM RSCS MGT, LLC	30-015-28009	DUNN B FEDERAL	#034	Oil	Federal	Active	B-10-18S-28E	3205'	
[243874] QUANTUM RSCS MGT, LLC	30-015-28244	DUNN B FEDERAL	#038	Oil	Federal	Active	G-10-18S-28E	4115'	
[243874] QUANTUM RSCS MGT, LLC	30-015-28245	DUNN B FEDERAL	#039	Oil	Federal	Active	A-10-18S-28E	4247'	
[243874] QUANTUM RSCS MGT, LLC	30-015-28247	DUNN B FEDERAL	#046	Oil	Federal	Active	G-10-18S-28E	3210'	
[20451] SDX RESOURCES INC	30-015-01816	DUNN B FEDERAL	#024	Injection	Federal	Plugged, Site Released	I-10-18S-28E	3257'	5/23/1995
Section 11 Wells (5 Wells)									
[214263] PRE-ONGARD OPERATOR	30-015-01818	PRE-ONGARD WELL	#002	Oil		Plugged, Site Released	E-11-18S-28E	NWF	1/1/1901
[214263] PRE-ONGARD OPERATOR	30-015-01824	PRE-ONGARD WELL	#016	Oil	Federal	Plugged, Site Released	D-11-18S-28E	2656'	1/1/1900
[243874] QUANTUM RSCS MGT, LLC	30-015-01826	DUNN B FEDERAL	#021	Oil	Federal	Active	E-11-18S-28E	2750'	
[243874] QUANTUM RSCS MGT, LLC	30-015-01828	DUNN B FEDERAL	#026	Oil	Federal	Active	L-11-18S-28E	2754'	
[243874] QUANTUM RSCS MGT, LLC	30-015-28010	DUNN B FEDERAL	#035	Oil	Federal	Active	K-11-18S-28E	3200'	

NWF = No Well File



**C-108 ITEM XIII – PROOF OF NOTIFICATION
INTERESTED PARTIES LIST**

SURFACE OWNER

U.S. DEPARTMENT OF INTERIOR - FedEx'd copy of application + BLM SWD Sundry
Bureau of Land Management
Oil & Gas Division
620 E. Greene St.
Carlsbad, NM 88220

OFFSET OPERATOR and/or LESSEES (All notified via U.S. Postal Certified Mail)

BLM Lease NMNM-054184

KHODY LAND & MINERALS CO ✓
210 Park Ave., Ste. 900
Oklahoma City, OK 73102-5606

MARATHON OIL CO ✓
P.O. Box 3128
Houston, TX 77253-3128

YATES PETROLEUM CORPORATION ✓
105 South 4th St.
Artesia, NM 88210

ZPZ DELAWARE I, LLC ✓
2000 Post Oak Blvd., Ste. 100
Houston, TX 77056-4497

BLM Lease NMNM-0049301

VSW2 EXPLORATION & PRODUCTION, LLC ✓
2207 Fairway Drive
Duncan, OK 73553

State Lease BO-7071-0015

FEATHERSTONE DEVELOPMENT CORP. ✓
1717 W 2nd St.
Roswell, NM 88201

State Lease EO-6946-003

JERRY CURTIS & RALPH NIX ✓
P.O. Box 617
Artesia, NM 88210

QUANTUM RESOURCES ✓
1401 McKinney St., Ste. 2400
Houston, TX 77010


only
of
5
H
well

also TUDAH OIL
NOTICE SENT 12/6/12

**C-108 ITEM XIII – PROOF OF NOTIFICATION
INTERESTED PARTIES LIST (cont.)**

State Lease XO-0647-0405

KHODY LAND & MINERALS CO
210 Park Ave., Ste. 900
Oklahoma City, OK 73102-5606



REGULATORY

NEW MEXICO OIL CONSERVATION DIVISION (FedEx'ed copy)
1220 St. Francis Drive
Santa Fe, NM 87505

NEW MEXICO OIL CONSERVATION DIVISION (FedEx'ed copy)
811 S. First St.
Artesia, NM 88210

BUREAU OF LAND MANAGEMENT
Oil & Gas Division
620 E. Greene St.
Carlsbad, NM 88220

CMD :
OG5SECT

ONGARD
INQUIRE LAND BY SECTION

01/08/13 16:58:01
OGOWVJ -TPX5
PAGE NO: 1

Sec : 10 Twp : 18S Rng : 28E Section Type : NORMAL

D 40.00 Federal owned A	C 40.00 Federal owned A C	B 40.00 Federal owned A A C	A 40.00 Federal owned A A C
E 40.00 Federal owned A A	F 40.00 Federal owned A C C	G 40.00 Federal owned A A A C	H 40.00 Federal owned A A

M0002: This is the first page

PF01 HELP	PF02	PF03 EXIT	PF04 GoTo	PF05	PF06
PF07 BKWD	PF08 FWD	PF09 PRINT	PF10 SDIV	PF11	PF12

Shipment I	Net Charge	Pieces in	Shipment I	Original wt	Proof of de	Recipient I	Recipient Company Name	Recipient / Recipient (Recipient I	Recipient (Reference	Reference	Reference
-1.29	15.46	1	0	0	R.MATHE\	Donnie Ma Ray Westall Operating, Inc.	132447 Lo LOCO HIL NM	88255 US	Westall Empire A Fed 2 S				
-1.29	15.46	1	0	0	J.WARRE\	Randy Dac NM Oil Conservation Division	811 S 1ST ARTESIA NM	88210 US	Westall Empire A Fed 2 S				
-1.29	15.46	1	1	1	S.GUMM	Wesley Inc BLM - Carlsbad Office	620 E. Gre CARLSBA NM	88220 US	Westall Empire A Fed 2 S				
-3.88	39.75	1	1	1	H.MILLER	Will Jones NM Oil Conservation Division	1220 S SA SANTA FENM	87505 US	Westall Empire A Fed 2 S				
-1.29	15.46	1	0	0	L.JUAREZ	Randy Dac NM Oil Conservation Division	811 S 1ST ARTESIA NM	88210 US	Westall Fireweed SWD				
-1.29	15.46	1	0	0	A.MATHE\	Donnie Ma Ray Westall Operating, Inc.	132447 Lo LOCO HIL NM	88255 US	Westall Fireweed SWD				
-1.29	15.39	1	1	1	S.GUMM	Wesley Inc BLM - Carlsbad Office	620 E. Gre CARLSBA NM	88220 US	Westall Fireweed SWD				
-1.29	15.39	1	0	0	P.MARTINE	L. Gonzz NMOC D - Hobbs District Office	1625 N FR HOBBS NM	88240 US	B2J - Sarah Sue 1 SWD				
-1.29	13.12	1	0	0	C.ROMER	Pete Martii NM State Land Office - Oil & G	310 OLD S SANTA FENM	87501 US	B2J - Sarah Sue 1 SWD				
-1.41	14.45	1	0	0	M.SENA	Nick Jaran NM State Land Office	310 OLD S SANTA FENM	87501 US	Cameron Gulf St 2 SWD				
-1.41	14.45	1	0	0	M.SENA	Melissa Ar NM State Land Office	310 OLD S SANTA FENM	87501 US	Cameron Gulf St 2 SWD				
-1.41	14.45	1	0	0	P.STACEY	David Swe Cameron Oil and Gas Company	300 W. 2n ROSWELL NM	88201 US	Cameron Gulf St.2 SWD Pi				
-1.36	17.34	1	0	0	1E+13	Denis Schi SWKFC	5708 W AI BROKEN , OK	74011 US	B2J - Sarah Sue 1 SWD				
-3.88	39.75	1	1	1	J.ORTEG/	Will Jones NM Oil Conservation Division	1220 S SA SANTA FENM	87505 US	Westall Fireweed SWD				
-3.88	39.58	1	1	1	L.VIGIL	Will Jones NM Oil Conservation Division	1220 S SA SANTA FENM	87505 US	B2J - Sarah Sue 1 SWD				
-2.61	28.93	1	0	0	A.UNDER\	Chuck Moi Yates Petroleum Corp.	105 S. 4th ARTESIA NM	88210 US	Westall Fireweed SWD				

C-108 - Item XIV

Proof of Notice (Certified Mail Receipts)

U.S. Postal Service™ CERTIFIED MAIL™ RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage \$	
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees \$	575
Sent To Street, Apt. or PO Box City, State, Zip KHODY LAND & MINERALS CO 210 Park Ave., Ste. 900 Oklahoma City, OK 73102-5606	
PS Form 380	

U.S. Postal Service™ CERTIFIED MAIL™ RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage \$	
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees \$	575
Sent To Street, Apt. or PO Box City, State, Zip MARATHON OIL CO P.O. Box 3128 Houston, TX 77253-3128	
PS Form 380	

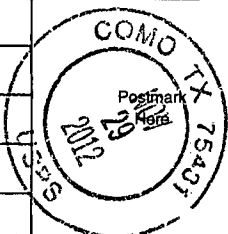
U.S. Postal Service™ CERTIFIED MAIL™ RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage \$	
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees \$	575
Sent To Street, Apt. or PO Box City, State, Zip YATES PETRO CORP 105 S 4TH ST ARTESIA NM 88210	
PS Form 380	

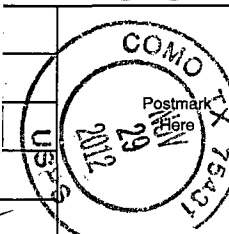
U.S. Postal Service™ CERTIFIED MAIL™ RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage \$	
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees \$	575
Sent To Street, Apt. or PO Box City, State, Zip ZPZ DELAWARE I, LLC 2000 Post Oak Blvd., Ste. 100 Houston, TX 77056-4497	
PS Form 380	

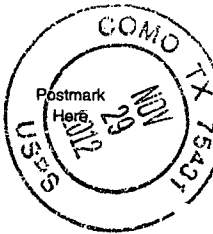
U.S. Postal Service™ CERTIFIED MAIL™ RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage \$	
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees \$	575
Sent To Street, Apt. or PO Box City, State, Zip VSW2 EXP & PROD, LLC 2207 Fairway Drive Duncan, OK 73553	
PS Form 380	

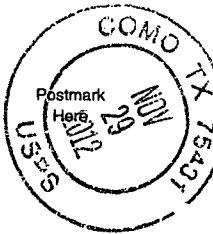
C-108 - Item XIV

Proof of Notice (Certified Mail Receipts - Cont.)

U.S. Postal Service CERTIFIED MAIL RECEIPT <i>(Domestic Mail Only; No Insurance Coverage Provided)</i>	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage \$ Certified Fee Return Receipt Fee (Endorsement Required) Restricted Delivery Fee (Endorsement Required) Total Postage & Fees \$ 575	
Sent To Street, Apt. 1 or PO Box N City, State, Z	
FEATHERSTONE DEVELOPMENT 1717 W 2nd St. Roswell, NM 88201	
PS Form 380	

Restricted Delivery Fee (Endorsement Required) Total Postage & Fees \$ 575	
---	--

U.S. Postal Service CERTIFIED MAIL RECEIPT <i>(Domestic Mail Only; No Insurance Coverage Provided)</i>	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage \$ Certified Fee Return Receipt Fee (Endorsement Required) Restricted Delivery Fee (Endorsement Required) Total Postage & Fees \$ 575	
Sent To Street, Apt. 1 or PO Box N City, State, Z	
QUANTUM RESOURCES 1401 McKinney St., Ste. 2400 Houston, TX 77010	
PS Form 380	

U.S. Postal Service CERTIFIED MAIL RECEIPT <i>(Domestic Mail Only; No Insurance Coverage Provided)</i>	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage \$ Certified Fee Return Receipt Fee (Endorsement Required) Restricted Delivery Fee (Endorsement Required) Total Postage & Fees \$ 575	
Sent To Street, Apt. 1 or PO Box N City, State, Z	
JERRY CURTIS & RALPH NIX P.O. Box 617 Artesia, NM 88210	
PS Form 380	

C-108 - Item XIV

Proof of Notice (Certified Mail Receipts)

Addendum to Application

7011 0110 0000 9155 2212

U.S. Postal Service™	
CERTIFIED MAIL™ RECEIPT	
<i>(Domestic Mail Only; No Insurance Coverage Provided)</i>	
For delivery information visit our website at www.usps.com	
OFFICIAL USE	
Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.75

TX 75431
DEC 6 2012
Postmark Here
USPS

Sent To	
Street, Apt. 1 or PO Box N	
City, State, Z	
PS Form 38	JUDAH OIL, LLC POB 568 Artesia, NM 88210

ms

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Tuesday, January 08, 2013 5:20 PM
To: Ben Stone
Cc: Ezeanyim, Richard, EMNRD; Shapard, Craig, EMNRD; Wesley_Ingram@blm.gov
Subject: Disposal application from Ray Westall Operating, Inc.: Fireweed 10 Federal #1 30-015-29165 Wolfcamp/Cisco/Canyon perforations

Hello Mr. Stone and Mr. Matthews,
Reviewed this application and have mostly easy questions/requests:

- ✓ a. Apparently this well was originally drilled and logged to 11062 feet and immediately plugged back to the casing at 10044 feet. The wellbore diagrams in the application only go to 10044 feet. Would you send new wellbore diagrams showing the actual original TD.
- ✓ b. I was able to find formation tops (Salt/Wolfcamp/CiscoCanyon/Strawn) in the well file – please send next time maybe on the wellbore diagrams.
- ✓ c. What formations will contribute waste waters to this well? The water analysis were labeled as to formation origin except for one.
- ✓ d. Will the well be used for lease only disposal? Or Ray Westall only disposal? Or for Commercial disposal?
- ✓ e. This Section 10 is all Federal acreage. The BLM personnel have requested us to require notice to the BLM by certified receipt like any other affected party. I assume they were sent notice by Fedex, but for our files, would you send a copy of proof of notice?
- ✓ f. This well seems to have been produced for a while as a Cisco Gas well. What was the cumulative and why didn't it produce more? The geo write-up didn't mention this brief period of production or why it ended.
- ✓ g. The Upper Penn is productive (as oil) from a VF Petroleum well a mile south of the subject well and for some reason the completed interval in this well was "gas" even though the formation tops seem lower on structure from the well to the south. Could be a separate productive lens? There is a brief Geo writeup of the stratigraphy in the proposed disposal interval but no mention of why the proposed disposal interval (Wolfcamp/Upper Penn) is not productive in this well. Would you ask the geo for some comments as to why? Too high in water? Or too low in porosity? Or no source rocks, etc.

Anyway,
Happy New Year,

William V. Jones, P.E.
505-476-3448W 505-476-3462F
Engineering Bureau, Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Jones, William V., EMNRD

From: Ben Stone <ben@sosconsulting.us>
Sent: Friday, January 11, 2013 1:15 PM
To: Jones, William V., EMNRD
Cc: 'Ingram, Wesley W'; Ezeanyim, Richard, EMNRD
Subject: RE: Disposal application from Ray Westall Operating, Inc.: Fireweed 10 Federal #1 30-015-29165 Wolfcamp/Cisco/Canyon perforations
Attachments: Schematic_CURRENT_Fireweed.pdf; FedExShipment_DetailPayer_Nov-Dec2012.pdf

Mr. Jones,

Following is my response to your questions and comments...

- a. The well was drilled to 11062' and logging tools consistently picked up at 11005'. I have revised the current wellbore schematic to reflect this and added formation tops.
- b. Added formation tops to current schematic, attached hereto.
- c. This well will take waters from several typical producing zones in the area. The application included 4 samples - one from the Canyon (labeled as the disposal zone) and one each from the San Andres, Delaware and Morrow formations - these three are labeled as "source water". Another formation that may ultimately contribute a considerable amount of produced water may be the Yeso formation. I do not have an entire sample sheet readily available but did locate some analysis numbers from a well in 30-17S-29E. The CHLORIDES are 3308.26 and TDS are 8482.82. Both of these values are much lower than the Canyon sample.
- d. The well will be for commercial purposes and upon OCD permitting, a BLM SWD right-of-way will be obtained.
- e. I've attached a copy of my FedEx shipping report to show delivery to BLM. That's the best proof I can provide at this time. (And the fact that Mr. Ingram has also commented on the application.)
- f. Cumulative production shows to be 524 oil and 6302 gas. The well only produced in 1999 and 2000. During the short operating life of the well, it well changed hands from Amoco to Altura to Louis Dreyfus and finally to Dominion. I can only assume by looking at the well file, that successive engineers and production departments looked at this well and evaluated it and ultimately found it to not be economically viable.
- g. I have reviewed production records in the area for the Upper Penn and Wolfcamp. While there is some marginal production in the 1 to 2 mile range, I did not locate anything substantial. The well you mention, shows that it produced 2 bbls of oil over the prior 12 month period from the last reported production. What I did find notable, was that 4 wells have already been permitted as Wolfcamp disposal wells in the area. I reviewed those C-108 applications and none of them indicated why the same subject disposal zones did not produce any additional volumes of hydrocarbons prior to being selected for disposal.

Based on the fundamental facts that:

Affidavit of Publication

NO. 22371

STATE OF NEW MEXICO

County of Eddy:

Danny Scott

being duly sworn, says that he is the

Publisher

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

Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for

1 Consecutive weeks/days on the same day as follows:

First Publication November 15, 2012

Second Publication _____

Third Publication _____

Fourth Publication _____

Fifth Publication _____

Subscribed and sworn to before me this

15th day of November 2012



OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires: 5/12/2015

Latisha Romine

Latisha Romine
Notary Public, Eddy County, New Mexico

Copy of Publication:

LEGAL NOTICE

Ray Westall Operating, Inc., P.O. Box 4, Loco Hills, NM 88255 is filing Form C-108 (Application for Authority to Inject) with the New Mexico Oil Conservation Division for administrative approval to permit for salt water disposal, its Fireweed 10 Federal Well No.1. The well, API No.30-015-29165 is located 1870 feet FNL & 860 feet FEL in Section 10, Township 18 South, Range 28 East in Eddy County, New Mexico. Produced water from area production will be disposed into the Wolfcamp and Pennsylvanian Canyon formations through perforations between a maximum top of 7696 feet to maximum depth of 9448 feet (specific perforated intervals to be determined) at a maximum injection pressure of 1539 psi and a maximum rate limited only by such pressure.

Interested parties wishing to object to the proposed application must file with the New Mexico Oil Conservation Division, 1220 St. Francis Dr., Santa Fe, NM 87505, (505)476-3460 within 15 days of the date of this notice. Additional information may be obtained from the applicant's agent, SOS Consulting, LLC, (903)488-9850.

Published in the Artesia Daily Press, Artesia, N.M., Nov. 15, 2012. Legal No 22371.

[Handwritten signature]

1) 4 operators evaluated the well's potential from several zones and the well was subsequently plugged and abandoned;

2) the Wolfcamp has already proven to be viable and acceptable to interested parties as a disposal formation in the area, and

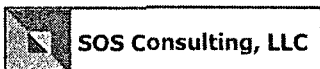
3) no well in the required 1/2 mile radius area of review penetrates the subject formation,

I would implore OCD to please continue the processing and timely approval of my client's application.

Thank you for your attention and,

Best regards,

Ben



Ph: 903-488-9850 Ex: 866-400-7628
P.O. Box 300 - Como, TX - 75431

CONFIDENTIALITY NOTICE: This message is confidential and may be privileged. If you believe that this email has been sent to you in error, please reply to the sender that you received the message in error; then please delete this email. Thank you.

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

Sent: Tuesday, January 08, 2013 6:20 PM

To: Ben Stone

Cc: Ezeanyim, Richard, EMNRD; Shapard, Craig, EMNRD; Wesley_Ingram@blm.gov

Subject: Disposal application from Ray Westall Operating, Inc.: Fireweed 10 Federal #1 30-015-29165
Wolfcamp/Cisco/Canyon perforations

Hello Mr. Stone and Mr. Matthews,

Reviewed this application and have mostly easy questions/requests:

- a. Apparently this well was originally drilled and logged to 11062 feet and immediately plugged back to the casing at 10044 feet. The wellbore diagrams in the application only go to 10044 feet. Would you send new wellbore diagrams showing the actual original TD.
- b. I was able to find formation tops (Salt/Wolfcamp/CiscoCanyon/Strawn) in the well file – please send next time maybe on the wellbore diagrams.
- c. What formations will contribute waste waters to this well? The water analysis were labeled as to formation origin except for one.
- d. Will the well be used for lease only disposal? Or Ray Westall only disposal? Or for Commercial disposal?
- e. This Section 10 is all Federal acreage. The BLM personnel have requested us to require notice to the BLM by certified receipt like any other affected party. I assume they were sent notice by Fedex, but for our files, would you send a copy of proof of notice?
- f. This well seems to have been produced for a while as a Cisco Gas well. What was the cumulative and why didn't it produce more? The geo write-up didn't mention this brief period of production or why it ended.
- g. The Upper Penn is productive (as oil) from a VF Petroleum well a mile south of the subject well and for some reason the completed interval in this well was "gas" even though the formation tops seem lower on structure from the well to the south. Could be a separate productive lens? There is a brief Geo writeup of the stratigraphy in the proposed disposal interval but no mention of why the proposed disposal interval

Jones, William V., EMNRD

From: Ben Stone <ben@sosconsulting.us>
Sent: Wednesday, January 09, 2013 11:27 AM
To: Jones, William V., EMNRD; 'Ingram, Wesley'
Cc: Ezeanyim, Richard, EMNRD; Shapard, Craig, EMNRD; wesley_ingram@blm.gov
Subject: RE: Disposal application from Ray Westall Operating, Inc.: Fireweed 10 Federal #1 30-015-29165 Wolfcamp/Cisco/Canyon perforations

Will and Wesley:

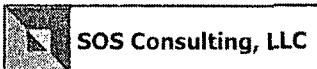
I have advised Ray Westall of the situation and assume they are aware of the challenges they may encounter in recompleting the well.

I showed the cement to surface on the well diagram since they subsequently were able to circulate cement during P&A and from a depth that would have covered the salt sections and potential fresh water intervals.

I will relay any additional comments from Ray Westall and will address Will's other comments as I acquire the additional information.

Thank you for you comments.

Ben



Ph: 903-488-9850 Fax: 866-400-7628
P.O. Box 300, Como, TX - 75431

CONFIDENTIALITY NOTICE: This message is confidential and may be privileged. If you believe that this email has been sent to you in error, please reply to the sender that you received the message in error; then please delete this email. Thank you.

From: Jones, William V., EMNRD [<mailto:William.V.Jones@state.nm.us>]
Sent: Wednesday, January 09, 2013 12:18 PM
To: Ingram, Wesley
Cc: Ben Stone; Ezeanyim, Richard, EMNRD; Shapard, Craig, EMNRD; wesley_ingram@blm.gov
Subject: RE: Disposal application from Ray Westall Operating, Inc.: Fireweed 10 Federal #1 30-015-29165 Wolfcamp/Cisco/Canyon perforations

Thank You –

Yes, I found a report of 3500 feet as Top of Cement by T.S. in the well file very hard to read.

This one may be difficult to enter...

From: Ingram, Wesley [<mailto:wingram@blm.gov>]
Sent: Wednesday, January 09, 2013 11:10 AM
To: Jones, William V., EMNRD

Cc: Ben Stone; Ezeanyim, Richard, EMNRD; Shapard, Craig, EMNRD; wesley_ingram@blm.gov

Subject: Re: Disposal application from Ray Westall Operating, Inc.: Fireweed 10 Federal #1 30-015-29165
Wolfcamp/Cisco/Canyon perforations

Will and Ben,

This well had to have the CIBP moved that was to be set at 8670', within 50-100' of the Cisco perforations, because the plugging company could not get below 8545'. This could indicate a casing problem in the section requested for injection.

I also question the schematic that shows cement to surface on the production casing. During the plugging operations, the casing was cut at 2759' and an attempt made to pull it. However, that was not possible and cement was pumped but it did not circulate. Operator perforated again near the surface and did circulate cement.

An APD will be required prior to re-entry.

I think Will covered the other items.

Sincerely,
Wesley W. Ingram
Supervisory Petroleum Engineer
Bureau of Land Management
Carlsbad Field Office
620 E. Greene Street
Phone: 575-234-5982
Fax: 575-234-5927

On Tue, Jan 8, 2013 at 5:19 PM, Jones, William V., EMNRD <William.V.Jones@state.nm.us> wrote:

Hello Mr. Stone and Mr. Matthews,

Reviewed this application and have mostly easy questions/requests:

- a. Apparently this well was originally drilled and logged to 11062 feet and immediately plugged back to the casing at 10044 feet. The wellbore diagrams in the application only go to 10044 feet. Would you send new wellbore diagrams showing the actual original TD.
- b. I was able to find formation tops (Salt/Wolfcamp/CiscoCanyon/Strawn) in the well file – please send next time maybe on the wellbore diagrams.
- c. What formations will contribute waste waters to this well? The water analysis were labeled as to formation origin except for one.
- d. Will the well be used for lease only disposal? Or Ray Westall only disposal? Or for Commercial disposal?

e. This Section 10 is all Federal acreage. The BLM personnel have requested us to require notice to the BLM by certified receipt like any other affected party. I assume they were sent notice by Fedex, but for our files, would you send a copy of proof of notice?

f. This well seems to have been produced for a while as a Cisco Gas well. What was the cumulative and why didn't it produce more? The geo write-up didn't mention this brief period of production or why it ended.

g. The Upper Penn is productive (as oil) from a VF Petroleum well a mile south of the subject well and for some reason the completed interval in this well was "gas" even though the formation tops seem lower on structure from the well to the south. Could be a separate productive lens? There is a brief Geo writeup of the stratigraphy in the proposed disposal interval but no mention of why the proposed disposal interval (Wolfcamp/Upper Penn) is not productive in this well. Would you ask the geo for some comments as to why? Too high in water? Or too low in porosity? Or no source rocks, etc.

Anyway,

Happy New Year,

William V. Jones, P.E.

505-476-3448W 505-476-3462F

Engineering Bureau, Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

Injection Permit Checklist

First Email Date:

1/8/13

Final Reply Date:

1/10/13

Final Notice Date:

12/6/12

Issued Permit: Type: WFX/PMX/SWD, Number:

1383

Permit Date

1/14/13

(Legacy Permit: _____)

Wells

1

Well Name(s):

FIREWEED 10 Federal #1

API Num:

30-0 15-29165

Spud Date:

7/26/99

New/Old:

N

(UIC CI II Primacy March 7, 1982)

Footages

1870 FNL/880 FEL

Lot

Unit

H

Sec

10

Tsp

185

Rge

28E

County

EDDY

General Location or Pool Area:

Operator:

Ray Westall Operating, INC

Contact

Ben Tora / Donnie Mathan

OGRID

119365

RULE 5.9 Compliance (Wells)

0/5

(Finan Assur)

OK

IS-5.9 OK?

OK

Well File Reviewed

Current Status:

PFA 1/30/13

Planned Work to Well:

Drill out / See New CIBP/CMT / Equip / DDPSTE

Diagrams: Before Conversion

After Conversion

Are Elogs in Imaging?

Well Details:

SIZES

Setting

Stage

Cement

Cement Top and

Hole.....Pipe

Depths

Tool

Sx or Cf

Determination Method

Planned ___ or Existing ___ Surface

17 1/2 - 13 3/8

574

—

600 SX

CIRC

Planned ___ or Existing ___ Interm

12 1/4 - 9 5/8

2835

—

1518 SX

CIRC

Planned ___ or Existing ___ Long St

8 3/4 - 7"

10044

—

1225 SX

into intermediate

Planned ___ or Existing ___ Liner

—

11062 TD

—

—

orig TOC 3500

Planned ___ or Existing ___ Open Hole

—

10044 - 11062

—

(PLUGGED, BACK W/ RIG)

Depths/Formations:

Depths, Ft.

Formation

Tops?

Above

Above

7696

WC

—

Proposed Interval TOP:

7696

WC

Max. PSI

1539

Open Hole

Perfs

Proposed Interval BOTTOM:

9448

WC

Tubing Size

2 3/8

Packer Depth

7590

Below

Below

8665

CISCO

—

9448

STRAIN

—

Capitan Pool? (in Annu)

Potash?

Noticed?

WIPP?

Noticed?

Salado Top

662

Bot

Off House?

Fresh Water: Max Depth:

<250'

FW Formation

CHINLE/SANTANA/Daisy Lake

Wells?

NO

Analysis?

Affirmative Statement

Disposal Fluid: Formation Source(s)

MANY

On Lease

Only from Operator

or Commercial

Disposal Interval: Protectable Waters?

NO

H/C Potential: Log

/Mudlog

/DST

/Tested

/Depleted

Other

PLUGGED

Notice: Newspaper Post Date

11/15/12

Surface Owner

BLM

(BLM owned)

Date

11/29/12

RULE 26.7(A) Identified Tracts?

Affected Persons

JUDITH etc see APP

N. Date

12/6/12

AOR: Maps?

Well List?

Producing in Interval?

Formerly Produced in Interval?

Penetrating.....No. Active Wells

0

Num Repairs?

0 on which well(s)?

Penetrating.....No. P&Aed Wells

0

Num Repairs?

0 on which well(s)?

Diagrams?

Permit Conditions:

Issues:

VF-Peter has off set UPRR Pan well to South

Issues:

Well is OK BUT HIGHER a Structure

Issues: