

Goetze, Phillip, EMNRD

From: Tim Harrington <tharrington@mewbourne.com>
Sent: Wednesday, July 10, 2019 8:17 AM
To: Goetze, Phillip, EMNRD
Subject: [EXT] FW: SALT DRAW 28 SWD

Phillip:

SWD- 1637 designates our injection interval 14147-15800' and we encountered the top of the Devonian at 14,090'. Please made this adjustment to the revised permit. Thanks.

Tim Harrington
Reservoir Engineer
Mewbourne Oil Company
3620 Old Bullard Road
PO Box 7698
Tyler, TX 75701

W- 903-561-2900 (Ext 7647)
C – 832-217-6852
tharrington@mewbourne.com

From: Tim Harrington
Sent: Monday, July 8, 2019 1:49 PM
To: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Subject: SALT DRAW 28 SWD

Hi Phillip:

We have reached TD (15000') on our Salt Draw 28 SWD and we plan to move the rig off and run tubing with a large pulling unit within the next week. My company has applied to upsize the tubing string to 7" x 5.5" in February and applied to extend the permit in May 2019. Below are some updated comments / questions:

1. The top of the Devonian came in around 14090' and we plan to run logs in the next 24 hours to confirm the actual formation top. Our permitted top of the Devonian is 14147' therefore our permit will require an injection interval depth modification. I will email you the Devonian log top when obtained.
2. Are we going to be required to obtain a static BHP prior to the start of injection?
3. We are currently planning on running a 5 ½" (Production) x 5" (liner) tubing string in the well. Can we get verbal approval to do this?

Please get back with me if you have any questions. Thanks.

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tharrington@mewbourne.com

Goetze, Phillip, EMNRD

From: Tim Harrington <tharrington@mewbourne.com>
Sent: Monday, May 20, 2019 7:19 AM
To: Goetze, Phillip, EMNRD
Subject: [EXT] RE: SALT DRAW 28 SWD - APPLICATION TO INCREASE TUBING SIZE

Hi Phillip:

I'm sorry that I missed your call Friday afternoon. Yes. Mewbourne would be agreeable to 5" tubing in the liner. Thanks.

From: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Sent: Friday, May 17, 2019 4:38 PM
To: Tim Harrington <tharrington@mewbourne.com>
Subject: RE: SALT DRAW 28 SWD - APPLICATION TO INCREASE TUBING SIZE

Mr. Harrington:

Per our conversation this morning, would Mewbourne be agreeable to 5-inch tubing for the sidetracked liner instead of the of the 5.5-inch tubing proposed in the application? Please consider and provide a response. Thank you. PRG

Phillip Goetze, PG
Engineering Bureau, Oil Conservation Division, NM EMNRD
1220 South St. Francis Drive, Santa Fe, NM 87505
Direct: 505.476.3466
E-mail: phillip.goetze@state.nm.us

From: Tim Harrington <tharrington@mewbourne.com>
Sent: Friday, February 22, 2019 7:49 AM
To: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>
Subject: [EXT] SALT DRAW 28 SWD - RETURN RECEIPT - APPLICATION TO INCREASE TUBING SIZE

Mr. Goetze:

Attached is documentation that COG Operating received a copy of our notification that we were applying to run a larger tubing string in our proposed Salt Draw 28 Federal #1 SWD. Please get back with me if you have any additional questions. Thanks.

Tim Harrington
Reservoir Engineer
Mewbourne Oil Company
3620 Old Bullard Road
PO Box 7698
Tyler, TX 75701

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C - 832-217-6852

Goetze, Phillip, EMNRD

From: Tim Harrington <tharrington@mewbourne.com>
Sent: Monday, July 8, 2019 12:49 PM
To: Goetze, Phillip, EMNRD
Subject: [EXT] SALT DRAW 28 SWD

Hi Phillip:

We have reached TD (15000') on our Salt Draw 28 SWD and we plan to move the rig off and run tubing with a large pulling unit within the next week. My company has applied to upsize the tubing string to 7" x 5.5" in February and applied to extend the permit in May 2019. Below are some updated comments / questions:

1. The top of the Devonian came in around 14090' and we plan to run logs in the next 24 hours to confirm the actual formation top. Our permitted top of the Devonian is 14147' therefore our permit will require an injection interval depth modification. I will email you the Devonian log top when obtained.
2. Are we going to be required to obtain a static BHP prior to the start of injection?
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Please get back with me if you have any questions. Thanks.

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Reservoir Engineer
Mewbourne Oil Company
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Tyler, TX 75701

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tharrington@mewbourne.com

Goetze, Phillip, EMNRD

From: Tim Harrington <tharrington@mewbourne.com>
Sent: Thursday, June 6, 2019 9:22 AM
To: Goetze, Phillip, EMNRD
Subject: [EXT] MOC SALT DRAW 28 SWD - PERMIT EXTENSION & TUBING UPGRADE APPROVAL

Hi Phillip:

I am checking on the status of the above noted approvals. We have built our location and we are scheduled to MIRU in the next week. Thanks.

Tim Harrington
Reservoir Engineer
Mewbourne Oil Company
3620 Old Bullard Road
PO Box 7698
Tyler, TX 75701

W- 903-561-2900 (Ext 7647)
C – 832-217-6852
tharrington@mewbourne.com



MEWBOURNE
OIL COMPANY

May 20, 2019

New Mexico Oil Conservation Division
Attn: Mr. Phillip Goetze
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

SUBJECT: Request for Second Permit Extension of SWD -1637
Salt Draw 28 Federal SWD #1
API: 42-015-26142
1980' FNL, 660' FEL, Unit H
Sec 28, Twp 24S, Rge 28E
Eddy County, NM

Dear Mr. Goetze:

The purpose of this letter is to request a six (6) month permit extension to SWD-1637 that is scheduled to expire on 8/05/2019. Mewbourne Oil Company has contracted a drilling rig for early June to re-enter this temporarily abandoned wellbore, deepen the wellbore and complete as an open-hole Devonian SWD. An extension is required as a precaution if we are unable to commence produced water injection before the SWD permit expiration date.

On February 12, 2019, Mewbourne mailed the OCD a letter requesting a modification to SWD-1637, to allow for the utilization of a 7" x 5.5" injection string. Attachments to this document included:

- Copy of approved BLM Sundry Notice to mill a window and deepen to the Devonian
- Updated C-108
- Updated well schematic
- 1-mile Area of Review Well List
- Expanded Notification List (notification sent to one new operator)
- Devonian-Silurian SWD Map
- Devonian-Silurian SWD Map with Faults and Earthquakes
- Statement Regarding Seismicity and Well Spacing
- Map of Carlsbad Water Management System
- Plugging Risk Assessment

Approval of this request is still pending.

I have recently completed a re-review of wells and operators within the 1-mile Area of Review (AOR).

Wells within 1 Mile AOR

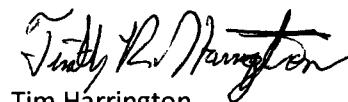
Attached is an updated tabulation of wells within the one-mile area of review (AOR). Three new horizontal locations have been permitted and are listed at the bottom of the spreadsheet. No wells within the one-mile AOR penetrate the proposed disposal interval.

Operators within 1 Mile AOR

There have been no operator changes since my February 2019 review.

Please contact me if you have any questions regarding our request.

Very truly yours,



Tim Harrington

Reservoir Engineer

tharrington@mewbourne.com

903-534-7647

MEWBOURNE OIL COMPANY
SALT DRAW 28 FEDERAL SWD #1
C-108 APPLICATION - LISTING OF WELLS WITHIN 1 MILE RADIUS
REVISED 5/20/2019

TOP OF PROPOSED
DISPOSAL INTERVAL

14147

Hole Dir	API	Lease Name	Well Num	Operator Name	Current Operator	Section	Township	Range	Footage	Current Status	Final Status	IP Prod Form Name	TVD (FT)	Driller TD (FT)	Form at TD Name	Proj Depth	Proj Form	Permit Date	Spud Date	Comp Date
H	30015412210000	STENT 21-1 FEDERAL COM	2H	OCCIDENTAL PERMIN LP	OCCIDENTAL PERMIAN	21	24S	28E	50 FSL 2000 FWL	ACTIVE	OIL	BONE SPRING	8080	12732	BONE SPRING	12749	BONE SPRING	2013-03-15	2013-12-01	2014-02-25
H	30015448850000	CREDENCE 21.16 WOHSA STATE COM	1H	MEWBOURNE OIL CO	MEWBOURNE OIL CO	21	24S	28E	2525 FSL 635 FEL	LOCATION	PERMIT		9548			16975	WOLF CAMP	04/17/2018		
H	30015448860000	CREDENCE 21.16 WOHSA STATE COM	2H	MEWBOURNE OIL CO	MEWBOURNE OIL CO	21	24S	28E	2525 FNL 735 FEL	LOCATION	PERMIT		9541			16980	WOLF CAMP	04/17/2018		
H	30015451440000	CREDENCE 21.16 B3GB STATE COM	1H	MEWBOURNE OIL CO	MEWBOURNE OIL CO	21	24S	28E	2630 FNL 635 FEL	LOCATION	PERMIT		9418			17109	WOLF CAMP	08/09/2018		
H	30015451450000	CREDENCE 21.16 B3HA STATE COM	1H	MEWBOURNE OIL CO	MEWBOURNE OIL CO	21	24S	28E	2630 FNL 2015 FEL	LOCATION	PERMIT		9412			17100	BONE SPRING	08/09/2018		
H	30015454403000	KANSAS 21-28 W0BP FEDERAL COM	2H	MEWBOURNE OIL CO	MEWBOURNE OIL CO	21	24S	28E	2600 FSL 705 FEL	LOCATION	PERMIT		9579			17087	WOLF CAMP	10/25/2018		
V	30015335531000	OPL NEW ZIPPER FEDERAL	1	OCCIDENTAL PERMIAN	OCCIDENTAL PERMIAN	21	24S	28E	990 FSL 990 FEL	ACTIVE	GAS	MORROW	12921	12921	MORROW LOWER	12900	MORROW	2004-04-21	2004-07-21	2004-10-25
V	30015343333000	OPL STENT FEDERAL	1	OCCIDENTAL PERMIAN	OCCIDENTAL PERMIAN	21	24S	28E	660 FSL 1400 FWL	ACTIVE	GAS	MORROW	12877	12877	MORROW	12900	MORROW	9/2/2005	10/22/2005	2/24/2006
V	30015350200000	AMINOIL FEDERAL	3	MADEL &GUSSMAN	MARATHON OIL PERMIAN LLC	22	24S	28E	660 FSL 660 FWL	ACTIVE	GAS	MORROW	12950		MORROW	12900	MORROW	2006-07-17	2006-12-16	2008-03-14
H	30015432120000	ROCK SPUR 27 W2CN STATE COM	1H	MEWBOURNE OIL CO	MEWBOURNE OIL CO	27	24S	28E	250 FNL 1650 FWL	ACTIVE	GAS	WOLF CAMP	10624	15400	WOLF CAMP	15150	WOLF CAMP	2015-07-09	3/26/2017	6/28/2017
H	30015448640000	ROCK SPUR 27 W2CN STATE COM	2H	MEWBOURNE OIL CO	MEWBOURNE OIL CO	27	24S	28E	250 FNL 1590 FWL	ACTIVE	GAS	WOLF CAMP	9581	14380	WOLF CAMP	14175	WOLF CAMP	4/17/2017	5/6/2017	6/28/2017
H	30015439400000	ROCK SPUR 27 B2DM FED COM	1H	MEWBOURNE OIL CO	MEWBOURNE OIL CO	27	24S	28E	185 FNL 330 FWL	LOCATION	PERMIT		8180			12807	BONE SPRING	10/18/2016		
H	30015455780000	ROCK SPUR 27 W0BO STATE	3H	MEWBOURNE OIL CO	MEWBOURNE OIL CO	27	24S	28E	250 FNL 1300 FEL	LOCATION	PERMIT		9595			14139	WOLF CAMP	01/03/2019		
H	30015455790000	ROCK SPUR 27 W0BO STATE COM	4H	MEWBOURNE OIL CO	MEWBOURNE OIL CO	27	24S	28E	330 FSL 2640 FEL	LOCATION	PERMIT		9580			14228	WOLF CAMP	01/03/2019		
V	30015025060000	REED-STATE	1	BUNNEL ROBERT L	BUNNEL ROBERT L	27	24S	28E	2280 FSL 1980	P&A	D&A		2622	2622	UNKNOWN			1956-11-09	1956-11-19	1957-01-30
V	30015025070000	TODHUNTER	1	HANSON EA-DENISON SD	HANSON EA-DENISON SD	27	24S	28E	1980 FNL 660 FWL	P&A	D&A-G		2651	2651	UNKNOWN			1959-04-25	1959-05-05	1959-05-15
V	30015324660000	STATE V 492	2	POGO PRODUCING CO	MEWBOURNE OIL CO	27	24S	28E	800 FNL 2300 FWL	ACTIVE	GAS	ATOKA	12990	12990	MORROW	13500	MORROW	2002-10-08	2002-10-11	2003-03-15
V	30015274510000	MALAGA	1	COLLINS & WARE INC	MEWBOURNE OIL CO	27	24S	28E	1980 FSL 1350 FWL	ACTIVE	GAS	ATOKA	12095	12095	ATOKA	13000	MORROW	1993-05-19	1993-05-29	1993-07-23
V	30015256020000	STATE V-492	1	POGO PRODUCING CO	OXY U S A INC	27	24S	28E	760 FNL 810 FEL	ACTIVE	GAS	ATOKA	13095	13095	ATOKA	13100	ATOKA	1986-03-30	1986-04-09	1986-07-12
V	30015261142000	SALT DRAW 28 FEDERAL	1	SANTA FE ENERGY OPERTING	MEWBOURNE OIL CO	28	24S	28E	1980 FNL 660 FEL	PLUGGED	GAS	ATOKA	13450	13450	BARNETT SHALE	13600	ATOKA	07/09/1989	7/19/2089	12/5/1989
V	30015261142001	SALT DRAW 28 FEDERAL	1	FASKEN OIL AND RANCH LTD	MEWBOURNE OIL CO	28	24S	28E	1980 FNL 660 FEL	SI	OIL-WO	BONE SPRING	13450	13450	BARNETT SHALE	13600	BONE SPRING	11/28/2011	12/3/2011	3/5/2012
V	30015025080000	REED	1	FREDERICK CJ	FREDERICK CJ	28	24S	28E	1980 FSL 1980 FWL	P&A	TA-O		2770	2770	UNKNOWN			1937-08-20	1937-08-30	1938-12-12
V	30015025080001	REED	1	FREDERICK CJ	FREDERICK CJ	28	24S	28E	1980 FSL 1980 FWL	P&A	D&AW		2893	2893	UNKNOWN			1940-12-22	1941-01-01	1941-06-15
V	30015354010000	MOSSBERG FEDERAL	1	OXY USA WTP LP	OXY USA WTP LP	28	24S	28E	660 FSL 810 FWL	P&A	J&A		656	13000	PENNSYLVANIAN	13000	MORROW	2007-01-22	2007-02-28	2007-03-30
V	30015355330000	MOSSBERG FEDERAL	1V	OXY USA WTP LP	OXY USA WTP LP	28	24S	28E	725 FSL 809 FWL	ACTIVE	GAS	ATOKA	12935	12935	MORROW	13000	MORROW	2007-03-30	2007-03-31	2007-08-25
V	30015209560000	FEDERAL 28	1	ENFIELD ROBERT N	ENFIELD ROBERT N	28	24S	28E	1980 FSL 330 FWL	P&A	D&A		2920	2920	DELAWARE		UNKNOWN	1973-09-17	1973-09-27	1973-10-22
H	30015402410000	REALLY SCARY FEDERAL	5H	COG OPERATING LLC	COG OPERATING LLC	33	24S	28E	380 FSL 990 FEL	ACTIVE	OIL	BONE SPRING	8117	12615	BONE SPRING	11235	BONE SPRING	2012-05-01	2012-05-15	2012-08-04
H	30015363720100	REALLY SCARY FEDERAL COM	3H	COG OPERATING LLC	COG OPERATING LLC	33	24S	28E	430 FSL 2310 FWL	ACTIVE	OIL-WO	BONE SPRING	6545	10925	BONE SPRING	6800	DELAWARE	2008-06-05	2011-05-23	2012-02-22
H	30015414110100	REALLY SCARY FEDERAL COM	2H	COG OPERATING LLC	COG OPERATING LLC	33	24S	28E	190 FSL 1683 FWL	ACTIVE	OIL-WO	BONE SPRING	8103	12914	BONE SPRING	12707	BONE SPRING	2013-05-31	2013-07-14	2013-09-08
H	30015416700000	REALLY SCARY FEDERAL	4H	COG OPERATING LLC	COG OPERATING LLC	33	24S	28E	250 FSL 2293 FEL	ACTIVE	OIL	BONE SPRING	8108	12789	BONE SPRING	12674	BONE SPRING	2013-09-13	2014-03-02	2014-05-19
V	30015237430000	UNION FEDERAL	1	MADDOX ENERGY CORP	PARKER&PARSLEY PET	33	24S	28E	1980 FNL 560 FEL	P&A	ABD-OW	BONE SPRING	7560	7560	BONE SPRING	8000	BONE SPRING	1981-04-15	1981-04-25	1981-08-06
H	30015421870000	KYLE 34 FEDERAL	2H	MADEL &GUSSMAN	MARATHON OIL PERMIAN	34	24S	28E	330 FSL 330 FWL	ACTIVE	OIL	BONE SPRING	8266	12875	BONE SPRING	12602	BONE SPRING	2014-03-10	2014-06-09	2014-08-29
H	30015434050000	KYLE 34 FEDERAL	3H	BC OPERATING INC	MARATHON OIL PERMIAN	34	24S	28E	150 FSL 1650 FWL	ACTIVE	OIL	WOLF CAMP	9686	14366	WOLF CAMP	14393	WOLF CAMP	2015-09-29	11/24/2017	1/6/2018
5/20/2019 - ADDITIONS																				
H	30015457390000	CHICKEN FRY FC 24 28 22 WD	016H	MARATHON OIL PERMIAN LLC	MARATHON OIL PERMIAN LLC	22	24S	28E	310 FNL 2247 FEL	LOCATION	WELL PERMIT		10460			15151	WOLF CAMP	2018-12-20		
H	30015457610000	CHICKEN FRY FC 24 28 22 W4Y	012H	MARATHON OIL PERMIAN LLC	MARATHON OIL PERMIAN LLC	22	24S	28E	310 FNL 2216 FEL	LOCATION	WELL PERMIT		9593			14172	WOLF CAMP	2019-01-30		
H	30015457620000	CHICKEN FRY FC 24 28 22 WA	015H	MARATHON OIL PERMIAN LLC	MARATHON OIL PERMIAN LLC	22	24S	28E	310 FNL 2187 FEL	LOCATION	WELL PERMIT		9746			14528	WOLF CAMP	2019-01-30		

NO WELLS PENETRATE THE PROPOSED DISPOSAL INTERVAL WITHIN 1 MILE RADIUS



February 12, 2019

New Mexico Oil Conservation Division
Engineering Bureau
Attn: Mr. Phillip Goetze
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Salt Draw 28 SWD #1 (SWD-1637)
Request for Increase in Tubing Size
Section 28, Township 24 South, Range 28 East
1980' FNL & 660' FEL
Eddy County, New Mexico

Dear Mr. Goetze:

Mewbourne Oil Company is requesting permission to modify SWD-1637 to allow us to utilize a 7" x 5.5" injection string in the subject well. This SWD well is scheduled to be spud in 2019 and will become an important part of our Carlsbad Water Management System (CWMS) that was been upgraded to accommodate the transportation of produced water for the fracture stimulation of 150+ future new drills in the area. Mewbourne stimulated 34 new completions utilizing "treated on the fly" produced water off the system in 2018, averaging twenty-six percent produced water usage. Produced water usage for fracture stimulation has increased to over 60% in early 2019. Our new estimated average injection volume will be 15,000 Bwpd. The larger diameter tubing is necessary to handle volumes as high as 35,000 Bwpd during periods when produced water re-use operations are suspended, when multiple new well stimulation flowbacks are occurring or when existing commercial interruptible SWD outlets are restricted. There are also two Delaware SWD wells connected to the CWMS, the San Lorenzo SWD #1 and the Delaware Ranch SWD #1, and they are utilized only on an emergency basis, as exhibited by their average 2018 disposal rate of 127 Bwpd and 113 Bwpd respectively.

At your request, we have extended the area of review from one half mile to one mile and have sent notification to one new operator. A return receipt will be forwarded to you later in the week.

A BLM Sundry Notice 3160-5 was approved on August 9, 2018 to obtain permission to sidetrack the existing wellbore (copy attached) and run 4 1/2" tubing. A new BLM Sundry Notice will be submitted for approval of the new proposed tubing diameters and a copy will be forwarded to you and the Artesia OCD Field Office.

Attached are the following:

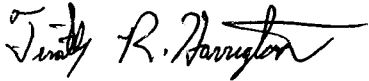
- Copy of approved BLM Sundry Notice to mill a window and deepen to the Devonian
- Updated C-108

- Updated well schematic
- 1 mile Area of Review Well List (no wells penetrate the proposed disposal interval)
- Expanded Notification List (notifications sent to one new operator)
- Devonian-Silurian SWD Map
- Devonian-Silurian SWD Map with Faults and Earthquakes
- Statement Regarding Seismicity and Well Spacing
- Map of Carlsbad Water Management System
- Plugging Risk Assessment

Should you have any questions or require any further information, please contact us at (903) 534-7647.

Sincerely yours,

MEWBOURNE OIL COMPANY



Tim Harrington
Reservoir Engineer
tharrington@mewbourne.com

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM36975
2. Name of Operator MEWBOURNE OIL COMPANY Contact: JACKIE LATHAN E-Mail: jlathan@mewbourne.com		6. If Indian, Allottee or Tribe Name
3a. Address P O BOX 5270 HOBBS, NM 88241	3b. Phone No. (include area code) Ph: 575-393-5905	7. If Unit or CA/Agreement, Name and/or No. <i>Salt Draw 28 Federal #1</i>
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Multiple--See Attached <i>SWD-1637</i>		8. Well Name and No. Multiple--See Attached <i>316473</i>
		9. API Well No. Multiple--See Attached <i>30-045-26142</i>
		10. Field and Pool or Exploratory Area <i>WILLOW LAKE-BONE SPRING, SE</i> <i>Devonian-SWD 96101</i>
		11. County or Parish, State EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
☒ Notice of Intent	☐ Acidize ☒ Deepen ☐ Production (Start/Resume) ☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing ☐ Hydraulic Fracturing ☐ Reclamation ☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair ☐ New Construction ☐ Recomplete ☐ Other
	☐ Change Plans ☐ Plug and Abandon ☐ Temporarily Abandon
	☐ Convert to Injection ☐ Plug Back ☐ Water Disposal

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Mewbourne Oil Company requests approval to make the following changes:

- 1) Change name to Salt Draw 28 Federal SWD #1. - *322277*
- 2) Mill window in casing @ 8400' and deepen well to 15,500' in Devonian/Silurian.
- 3) Set & cmt 7 5/8" liner from 8000'-14,175'.

Please see attachments containing C-102, plug-back procedure, proposed wellbore diagram, and casing and cement information.

Please contact Andy Taylor with any questions.

GC 8-13-18
Accepted for record - NMOCD**Carlsbad Field Office**
OCD ArtesiaNM OIL CONSERVATION
ARTESIA DISTRICT

14. I hereby certify that the foregoing is true and correct. Electronic Submission #428184 verified by the BLM Well Information System For MEWBOURNE OIL COMPANY, sent to the Carlsbad Committed to AFMSS for processing by PRISCILLA PEREZ on 07/26/2018 (18PP2276SE)		AUG 10 2018
Name (Printed/Typed) ANDREW TAYLOR	Title ENGINEER	RECEIVED
Signature (Electronic Submission)	Date 07/20/2018	

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>ZQIA STEVENS</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>08/09/2018</u>
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED *****RWP 8-23-18*

Additional data for EC transaction #428184 that would not fit on the form

Wells/Facilities, continued

Agreement	Lease	Well/Fac Name, Number	API Number	Location
NMNM36975	NMNM36975	SALT DRAW 28 FEDERAL 1	30-015-26142-00-S1	Sec 28 T24S R28E SENE 1980FNL 680FEL
NMNM36975	NMNM36975	SALT DRAW 28 FEDERAL 1	30-015-26142-00-S2	Sec 28 T24S R28E SENE 1980FNL 680FEL

COMPLETION PROCEDURE

Submitted By: Andy Taylor

Well Name: Salt Draw 28 Fed SWD #1

Location: 1980' FNL & 660' FEL
Section 28, T24S, R28E
Eddy County, New Mexico

Date: July 17, 2018

Csg Set: 9800'

Liner Set @: 13,450'

PBTD: 8442'

Perforations: 8594' – 12,668' (Bone Spring

Liner Top: 9313'

Atoka, Morrow)

Csg Size: (9 5/8" 43.5# N80 & 53.5# P110)

Liner Size: 5 1/2" 23# N80 & P110

Procedure:

- 1) Clean off location.
- 2) MIRU drlg rig.
- 3) NU BOPE.
- 4) TIH w/whipstock & set @ 8400'
- 5) TOOH & pick up bit.
- 6) TIH & mill window in 9 5/8" csg.
- 7) TOOH & exchange BHA.
- 8) Drill 8 1/2" hole to top of Devonian @ 14,175'.
- 9) Run 7 5/8" 39# P-110 LTC liner from 8000' to 14,175'.
- 10) TIH w/6 1/8" BHA & drill to 15,500'
- 11) TOOH & LD DP
- 12) Run 4 1/2" 12.75# P110 injection tbg. Set pkr @ 14105'
- 13) ND BOPE & NU WH.
- 14) RDMO drlg rig.

INJECTION WELL DATA SHEET

OPERATOR: **Mewbourne Oil Company**WELL NAME & NUMBER: **Salt Draw 28 Federal SWD #1 (30-015-26142)**WELL LOCATION: **1980' FNL & 660' FEL****H****28E**

FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE
WELL CONSTRUCTION DATA				
<u>Surface Casing</u>				
Hole Size: 26"		Casing Size: 20" @ 600'		
Cement with: 2405 sx		Top of Cement: Surface (Did not circulate, run 1" & cement to surface)		
<u>Intermediate Casing</u>				
Hole Size: 17 1/2"		Casing Size: 13 3/8" @ 2540'		
Stage 1: 4028 sx		Top of Cement: Surface (Circulated)		
<u>Intermediate 2 Casing</u>				
Hole Size: 12 1/4"		Casing Size: 9 5/8" @ 9,800'		
Stage 1: 1575 sx		Top of Cement: 5,730' (Temp Survey)		
<u>Intermediate 3 Liner (Cut window in 9 5/8" casing @ 8,400')</u>				
Hole Size: 8 3/4"		Casing Size: 7 5/8" Top @ 8,000' Bottom @ 14,175'		
Cement with: 1,035 sx DVT @ 14,115' External Csg Packer @ 14,155'		Top of Cement: 8,000' (Proposed: circulated to liner top)		
Stage 1: 50 sx				
Stage 2: 985 sx				
TD @ 15,500'				
<u>Injection Interval</u>				
Permitted SWD interval 14,147'-15,500'				

WELLBORE SCHEMATIC (See Attached)WELL CONSTRUCTION DATASurface CasingHole Size: **26"**Casing Size: **20" @ 600'**Cement with: **2405 sx**Top of Cement: **Surface (Did not circulate, run 1" & cement to surface)**Intermediate CasingHole Size: **17 1/2"**Casing Size: **13 3/8" @ 2540'**Stage 1: **4028 sx**Top of Cement: **Surface (Circulated)**Intermediate 2 CasingHole Size: **12 1/4"**Casing Size: **9 5/8" @ 9,800'**Stage 1: **1575 sx**Top of Cement: **5,730' (Temp Survey)**Intermediate 3 Liner (Cut window in 9 5/8" casing @ 8,400')Hole Size: **8 3/4"**Casing Size: **7 5/8" Top @ 8,000' Bottom @ 14,175'**Cement with: **1,035 sx DVT @ 14,115' External Csg Packer @ 14,155'**Top of Cement: **8,000' (Proposed: circulated to liner top)**Stage 1: **50 sx**Stage 2: **985 sx****TD @ 15,500'**Injection Interval

Permitted SWD interval 14,147'-15,500'

INJECTION WELL DATA SHEET

Tubing Size: **7" 26# P-110 UFJ & 5 1/2" 17# P110 UFJ** Lining Material: **Duoline**

Type of Packer: **Model R (nickel plated)**

Packer Setting Depth: **+/- 14,105'**

Other Type of Tubing/Casing Seal (if applicable): **N/A**

Additional Data

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

If no, for what purpose was the well originally drilled? **Production**

2. Name of the Injection Formation: **Devonian, Fusselman & Montoya - Open Hole Completion**

3. Name of Field or Pool (if applicable): **97803: SWD; Devonian-Montoya**

4. Has the well ever been perforated in any other zone(s)? **Yes. (see attached current well schematic)**

Bone Spring: 8,594-8,628' (CIBP @ 8,523' w/ 25 sx)

Atoka: 11,566-72', 11,604-14' & 11,660-67' (CIBP @ 11,500' w/ 52' cement)

Atoka: 11,695-11,704', 11,710-14', 11,720-30' & 11,759-63' (CIBP @ 11,690' w/ 7' cement)

Morrow: 12,625-45' & 12,663-68' (CIBP @ 12,520' w/ 35' cement)

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

Overlying potentially productive zone tops – **Delaware (2,553'), Bone Spring (7,135'), Wolfcamp (9,418'), Strawn (11,558') Atoka (11,764') & Morrow (12,051')**,

Underlying producing zone – **N/A**

SALT DRAW 28 FEDERAL SWD #1
Additional Details

- VI.** There are no wells penetrating the disposal formation within the 1 mile radius area of review.
- VII.** 1. Proposed average rate of 15,000 bwpd and maximum rate of 35,000 bwpd.
2. Closed system.
3. Proposed average injection pressure is unknown and the maximum injection pressure is approximately 2835 psi (0.2 psi/ft x 14,175 ft).
4. Injection fluid will be formation water from the Mewbourne Oil Company operated wells currently producing or planned in the area. Representative water samples from the Wolfcamp and Avalon Shale formations are attached.
5. We will be injecting into the Devonian formation. Devonian formation water is known to be compatible with the formation water of the Avalon, Bone Spring and Wolfcamp. No Devonian water analysis are available within the immediate area. The following data is the closest produced water analysis that is available on the USGS

IDUSGS	IDORIG	IDDB	SOURCE	LATITUDE	LONGITUDE	API	COUNTY	FIELD	WELLNAME	TOWNRANGE	
35292	30000310	USGSBREIT	Pan American Petroleum Corporation	32.183	-103.7766	30015108590000	Eddy	Poker Lake South	Poker Lake Unit #36	S 24 E 31 28	
DATESAMPLE	METHOD	FORMATION	DEPTHUPPER	DEPTHLOWER	SG	SPGRAV	RESIS	RESIST	PH	TDSUSGS	TDS
1967-04-06	Separator	Devonian	16578	16660	1.086	1.086	0.067	77	6.6	120326	120326

- VIII.** 1. The proposed injection interval is within the Devonian formation which is a porous dolomitic limestone from 17240' to 15,620'.
2. The underground fresh water aquifers (unnamed) are present at shallow depths <150'. There are no known fresh water intervals underlying the injecting formation.
- IX.** The proposed stimulation is an open-hole acid treatment of 30000 gallons of 15% HCL.
- IX.** No logs are currently on file with the Division. A gamma-ray / neutron log will be run from TD to surface upon the drilling and completion of proposed well.
- X.** There are no water wells on file with the State Engineers Office within in the area of interest. A fresh water sample caught in Section 26, 24S, 28E is attached.
- XI.** Mewbourne Oil Company has examined geologic and engineering data and has found that there is no evidence of faulting between the proposed disposal zone and any underground sources of drinking water. A signed affidavit is attached.
- XII.** See attached Proof of Notice

Mewbourne Oil Company

Well Name: Salt Draw 28 Federal SWD #1
Spud: 7/19/1989

Last Updated by: A. Taylor on 7/6/2016

20" 106.5# K-55 STC
Set @ 600'
Cmt w/ 2405 sx. TOC @ Surface

13 3/8" 54.5# K-55 STC
Set @ 2540'
Cmt w/ 4028 sx. TOC @ Surface

CIBP @ 8523' w/ 81' cmt

9 5/8" 43.5# N-80 & S-95 & 53.5# P-110 LTC
Set @ 9800'
Cmt w/ 1575 sx. TOC @ 5730' (TS)

Cmt Plug (125 sx) 9182'-9850'

CIBP @ 11500' w/ 52' cmt

CIBP @ 11690' w/ 7' cmt

CIBP @ 12520' w/ 35' cmt

5 1/2" 23# N-80 & P-110 LTC Liner
Set from 9313'-13450'
Cmt w/ 1650 sx

7 5/8" 39# P-110 LTC Liner
Set from 8000'-14175'

6 1/8" Open Hole
TD @ 15,500'

Liner Top @ 8000'

Mill 3 3/4" window in 9 5/8" csg
Whipstock set @ 8400'

Bone Springs Perfs
8594'-8628'

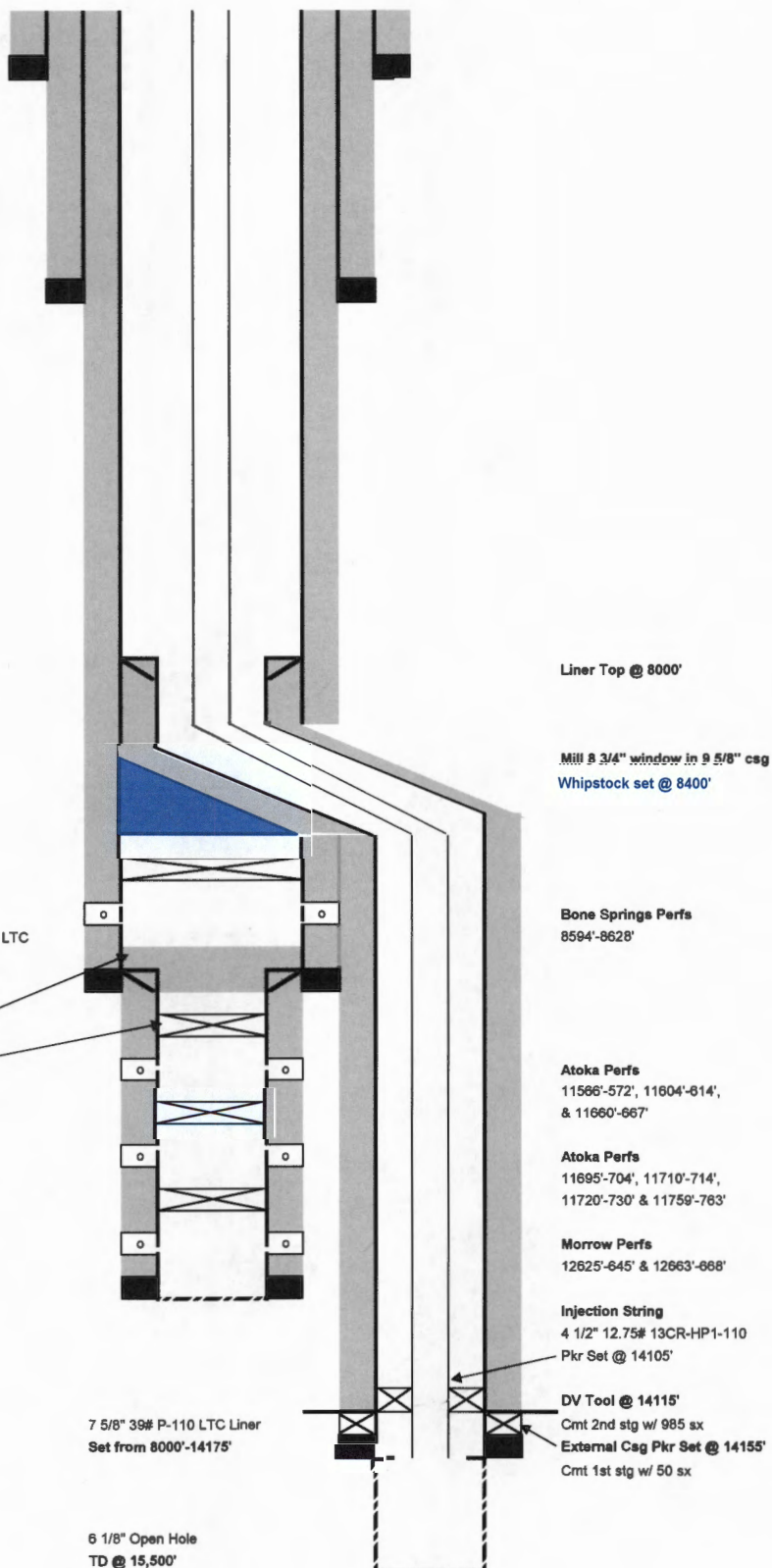
Atoka Perfs
11566'-572', 11604'-614',
& 11660'-667'

Atoka Perfs
11695'-704', 11710'-714',
11720'-730' & 11759'-763'

Morrow Perfs
12625'-645' & 12663'-668'

Injection String
4 1/2" 12.75# 13CR-HP1-110
Pkr Set @ 14105'

DV Tool @ 14115'
Cmt 2nd stg w/ 985 sx
External Csg Pkr Set @ 14155'
Cmt 1st stg w/ 50 sx



MEWBOURNE OIL COMPANY
SALT DRAW 28 FEDERAL SWD #1
C-108 APPLICATION - LISTING OF WELLS WITHIN 1 MILE RADIUS
REVISED 2/4/2019

TOP OF PROPOSED
DISPOSAL INTERVAL
14147

Hole Dir	API	Lease Name	Well Num	Operator Name	Current Operator	Section	Township	Range	Footage	Current Status	Final Status	IP Prod Form Name	PROJ.TVD TVD (FT)	Driller TD (FT)	Form at TD Name	Proj Depth	Proj Form	Permit Date	Spud Date	Comp Date
H	30015412210000	STENT 21 FEDERAL COM	2H	OCCIDENTAL PERMIAN LP	OCCIDENTAL PERMIAN		21	24S	28E	50 FSL 2000 FWL CONGRESS SECTION	ACTIVE	OIL	8080	17732	BONE SPRING	12749	BONE SPRING	2013-03-15	2013-12-01	2014-02-25
H	30015448850000	CREDENCE 21.16 WOPA STATE COM	1H	MEWBOURNE OIL CO	MEWBOURNE OIL CO		21	24S	28E	2525 FSL 635 FEL CONGRESS SECTION	LOCATION	PERMIT				16975	WOLF CAMP	04/17/2018		
H	30015448860000	CREDENCE 21.16 WOPA STATE COM	2H	MEWBOURNE OIL CO	MEWBOURNE OIL CO		21	24S	28E	2525 FSL 735 FEL CONGRESS SECTION	LOCATION	PERMIT				16980	WOLF CAMP	04/17/2018		
H	30015451140000	CREDENCE 21.16 BSHA STATE COM	1H	MEWBOURNE OIL CO	MEWBOURNE OIL CO		21	24S	28E	2630 FSL 635 FEL CONGRESS SECTION	LOCATION	PERMIT				17109	WOLF CAMP	08/09/2018		
H	30015451150000	CREDENCE 21.16 BSHA STATE COM	1H	MEWBOURNE OIL CO	MEWBOURNE OIL CO		21	24S	28E	2630 FSL 2013 FEL CONGRESS SECTION	LOCATION	PERMIT				17100	BONE SPRING	08/09/2018		
H	30015454039000	KANSAS 21-28 WOPF FEDERAL COM	2H	MEWBOURNE OIL CO	MEWBOURNE OIL CO		21	24S	28E	2630 FSL 705 FEL CONGRESS SECTION	LOCATION	PERMIT				17087	WOLF CAMP	10/25/2018		
H	300153593510000	OPL NEW ZIPPER FEDERAL	1	OCCIDENTAL PERMIAN	OCCIDENTAL PERMIAN		21	24S	28E	980 FSL 990 FEL CONGRESS SECTION	ACTIVE	GAS	12921		12921	MORROW LOWER	MORROW	2004-04-21	2004-07-21	2004-10-25
V	30015343333000	OPL STENT FEDERAL	1	OCCIDENTAL PERMIAN	OCCIDENTAL PERMIAN		21	24S	28E	660 FSL 1400 FWL CONGRESS SECTION	ACTIVE	GAS	12877		12877	MORROW	MORROW	9/2/2005	2/24/2006	2/24/2006
V	30015350200000	AMINOIL FEDERAL	3	NADEL & GUSSMAN	MARATHON OIL PERMIAN LLC		22	24S	28E	660 FSL 660 FWL CONGRESS SECTION	ACTIVE	GAS	12950		12950	MORROW	MORROW	2006-07-17	2006-12-16	2008-03-14
H	30015412120000	ROCK SPUR 27 W2CN STATE COM	1H	MEWBOURNE OIL CO	MEWBOURNE OIL CO		27	24S	28E	250 FSL 1650 FWL CONGRESS SECTION	ACTIVE	GAS	10624		15400	WOLF CAMP	WOLF CAMP	2015-07-09	3/28/2017	6/28/2017
H	30015440640000	ROCK SPUR 27 W2CN STATE COM	2H	MEWBOURNE OIL CO	MEWBOURNE OIL CO		27	24S	28E	250 FSL 1980 FWL CONGRESS SECTION	ACTIVE	GAS	9681		14380	WOLF CAMP	WOLF CAMP	4/17/2017	5/6/2017	6/28/2017
H	30015439440000	ROCK SPUR 27 B2DM FED COM	1H	MEWBOURNE OIL CO	MEWBOURNE OIL CO		27	24S	28E	185 FSL 330 FWL CONGRESS SECTION	LOCATION	PERMIT				14175				
H	30015455780000	ROCK SPUR 27 W2RO STATE	3H	MEWBOURNE OIL CO	MEWBOURNE OIL CO		27	24S	28E	250 FSL 330 FWL CONGRESS SECTION	LOCATION	PERMIT				12807	BONE SPRING	10/18/2016		
H	30015455790000	ROCK SPUR 27 W2RO STATE COM	4H	MEWBOURNE OIL CO	MEWBOURNE OIL CO		27	24S	28E	330 FSL 2640 FEL CONGRESS SECTION	LOCATION	WELL PERMIT				14139	WOLF CAMP	07/03/2019		
V	30015025060000	REED STATE	1	BUNNEL ROBERT L	BUNNEL ROBERT L		27	24S	28E	2280 FSL 1980 FWL CONGRESS SECTION	P&A	D&A	2622		2622	UNKNOWN	WOLF CAMP	07/03/2019		
V	30015025070000	TODHUNTER	1	HANSON EX-DENISON SD	HANSON EX-DENISON SD		27	24S	28E	1980 FSL 1980 FWL CONGRESS SECTION	P&A	D&A	2651		2651	UNKNOWN	WOLF CAMP	1956-11-09	1956-11-19	1957-01-30
V	30015324660000	STATE V 492	2	POGO PRODUCTIONS CO	MEWBOURNE OIL CO		27	24S	28E	1800 FSL 2900 FWL CONGRESS SECTION	ACTIVE	GAS	12990		12990	MORROW	MORROW	1959-04-25	1959-05-05	1959-05-15
V	30015274510000	MALAGA	1	COLLINS & WARE INC	RKI EXP & PROD LLC		27	24S	28E	1980 FSL 1350 FWL CONGRESS SECTION	ACTIVE	GAS	12095		12095	ATOKA	MORROW	1993-05-19	1993-05-29	1993-07-23
V	300152746020000	STATE V-492	1	POGO PRODUCTIONS CO	OXY U S A INC		27	24S	28E	760 FSL 810 FEL CONGRESS SECTION	ACTIVE	GAS	13095		13095	ATOKA	ATOKA	1986-03-30	1986-04-09	1986-07-12
V	30015261142000	SALT DRAW 28 FEDERAL		1 SANTA FE ENERGY OPERTING	MEWBOURNE OIL CO		28	24S	28E	1980 FSL 660 FEL CONGRESS SECTION	PLUGGED	GAS	13450		13450	ATOKA	ATOKA	07/09/1989	7/19/2089	12/5/1989
V	30015261142001	SALT DRAW 28 FEDERAL		1 FASKEN OIL AND RANCH LTD	MEWBOURNE OIL CO		28	24S	28E	1980 FSL 660 FEL CONGRESS SECTION	SI	OIL-WO	13450		13450	BONE SPRING	BONE SPRING	11/28/2011	12/3/2011	3/5/2012
V	30015025090000	REED	1	FREDERICK CJ	FREDERICK CJ		28	24S	28E	1980 FSL 1980 FWL CONGRESS SECTION	P&A	TA-O	2770		2770	UNKNOWN	UNKNOWN	1937-08-20	1937-08-30	1938-12-12
V	30015025090001	REED	1	FREDERICK CJ	FREDERICK CJ		28	24S	28E	1980 FSL 1980 FWL CONGRESS SECTION	P&A	D&A	2893		2893	UNKNOWN	UNKNOWN	1940-12-22	1941-01-01	1941-06-15
V	30015354010000	MOSSBERG FEDERAL	1	OXY USA WTP LP	OXY USA WTP LP		28	24S	28E	660 FSL 810 FWL CONGRESS SECTION	P&A	D&A	656		13000	PENNSYLVANIAN	MORROW	2007-01-22	2007-02-28	2007-03-30
V	30015356330000	MOSSBERG FEDERAL	1Y	OXY USA WTP LP	OXY USA WTP LP		28	24S	28E	725 FSL 809 FWL CONGRESS SECTION	ACTIVE	GAS	12935		12935	MORROW	MORROW	2007-03-30	2007-03-31	2007-08-25
V	30015209560000	FEDERAL 28	1	ENFIELD ROBERT N	ENFIELD ROBERT N		28	24S	28E	1980 FSL 330 FWL CONGRESS SECTION	P&A	D&A	2920		2920	DELAWARE	UNKNOWN	1973-09-17	1973-09-27	1973-10-22
H	30015402410000	REALLY SCARY FEDERAL	5H	COG OPERATING LLC	COG OPERATING LLC		33	24S	28E	380 FSL 990 FEL CONGRESS SECTION	ACTIVE	OIL	8117		12615	BONE SPRING	BONE SPRING	2012-05-01	2012-05-15	2012-08-04
H	30015383720000	REALLY SCARY FEDERAL COM	3H	COG OPERATING LLC	COG OPERATING LLC		33	24S	28E	430 FSL 2310 FWL CONGRESS SECTION	ACTIVE	OIL-WO	6945		10925	BONE SPRING	DELAWARE	2008-06-05	2011-05-23	2012-02-22
H	30015414110100	REALLY SCARY FEDERAL COM	2H	COG OPERATING LLC	COG OPERATING LLC		33	24S	28E	190 FSL 1683 FWL CONGRESS SECTION	ACTIVE	OIL-WO	8103		12914	BONE SPRING	BONE SPRING	2013-05-31	2013-07-14	2013-09-28
H	30015416700000	REALLY SCARY FEDERAL	4H	COG OPERATING LLC	COG OPERATING LLC		33	24S	28E	250 FSL 2293 FEL CONGRESS SECTION	ACTIVE	OIL	8108		12789	BONE SPRING	BONE SPRING	2013-09-13	2014-03-02	2014-05-19
V	30015237490000	UNION FEDERAL	1	MADDOX ENERGY CORP	PARKER&PARSLEY PET		33	24S	28E	1980 FSL 560 FEL CONGRESS SECTION	P&A	ABD-OW	7560		7560	BONE SPRING	BONE SPRING	1981-04-15	1981-04-25	1981-08-06
H	30015421870000	KYLE 34 FEDERAL	2H	NADEL & GUSSMAN	MARATHON OIL PERMIAN		34	24S	28E	330 FSL 330 FWL CONGRESS SECTION	ACTIVE	OIL	8266		12875	BONE SPRING	BONE SPRING	2014-03-10	2014-06-09	2014-08-29
H	30015434050000	KYLE 34 FEDERAL	3H	BC OPERATING INC	MARATHON OIL PERMIAN		34	24S	28E	150 FSL 1650 FWL CONGRESS SECTION	ACTIVE	OIL	9686		14366	WOLF CAMP	WOLF CAMP	2015-09-29	11/24/2017	1/6/2018

NO WELLS PENETRATE THE PROPOSED DISPOSAL INTERVAL WITHIN 1 MILE RADIUS

Revised Listing (2/11/2019) of Notified Persons 1 Mile AOR

Salt Draw 28 Federal SWD #1 Application
1980' FNL & 660' FEL
Section 28, T24S, R28E, Eddy County, NM

Surface Owner

Pecos Valley Artesian Conservation Division
P.O. Box 1346
Roswell, NM 88202

Mineral Owner

Bureau of Land Management
620 East Greene Street
Carlsbad, New Mexico 88220

Offsetting Operators Notified Previously

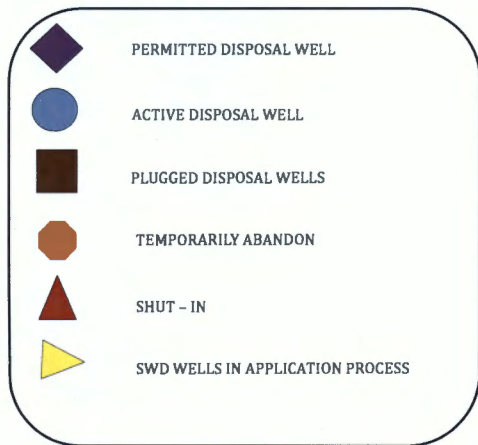
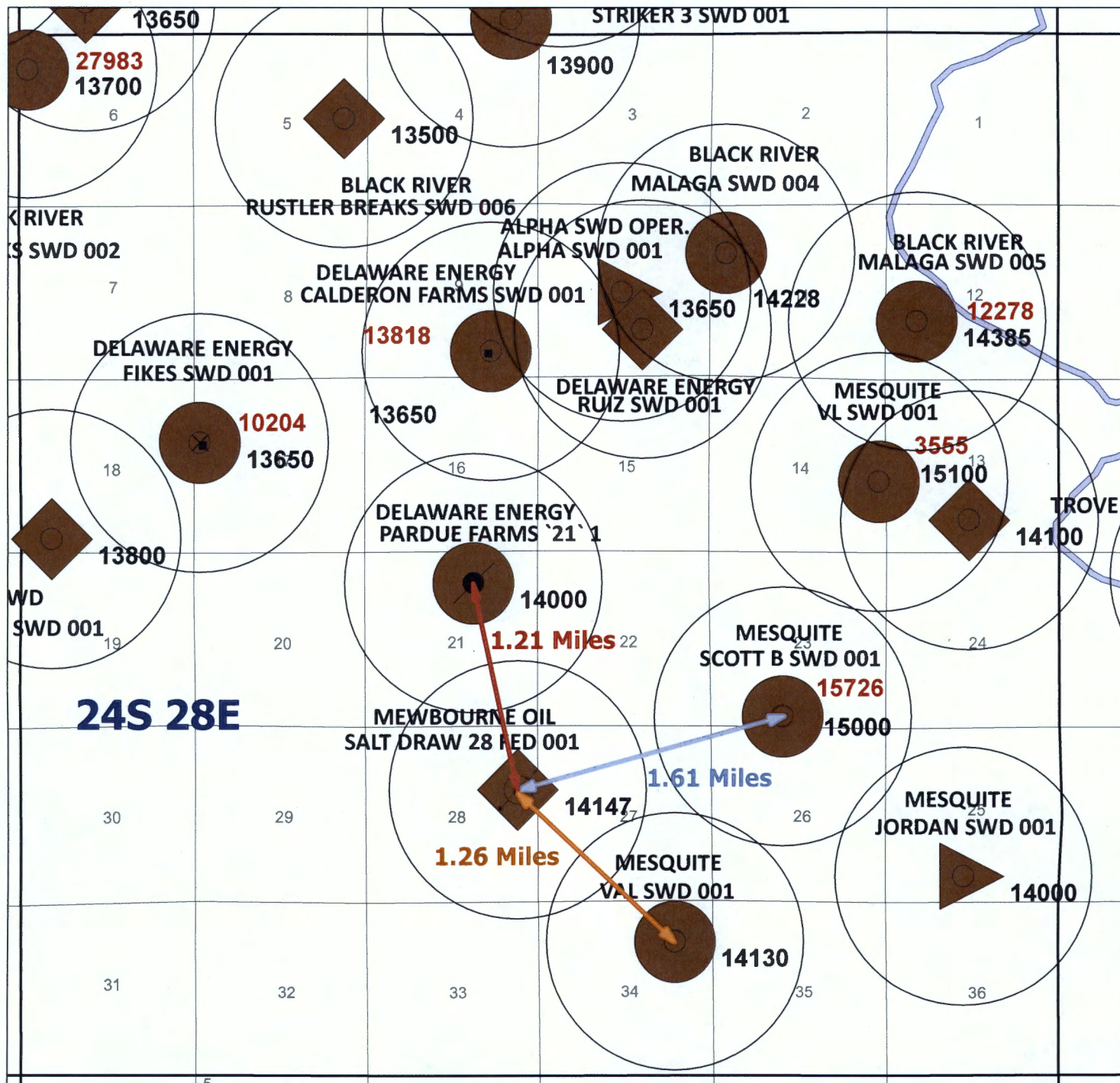
Marathon Oil Permian LLC
5555 San Felipe St.
Houston, TX 77056

Occidental Permian LTD
5 Greenway Plaza
Houston, TX 77046

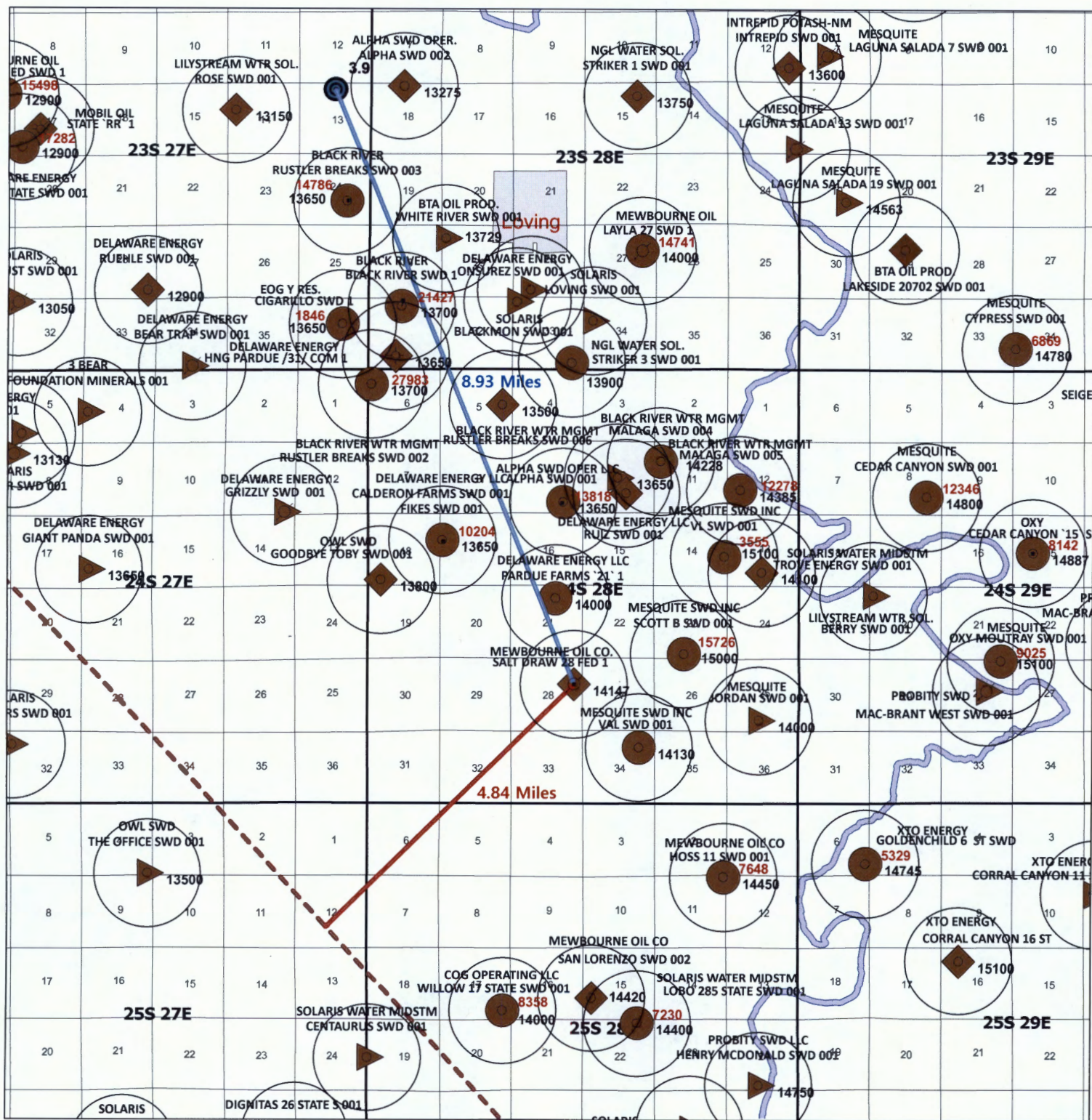
OXY USA WTP Limited Partnership
5 Greenway Plaza
Houston, TX 77046

Additional Offset Operator Notification

COG Operating LLC
600 W Illinois Ave
Midland, TX 79701



Mewbourne Oil Company		
SALT DRAW 28 SWD #2		
Author: Tim Harrington		Date: 4 February, 2019
Tech: S. Daughtry	Scale: 1" = 4500'	Salt Draw 28 Exhibit Map #2



DEVONIAN SWD WELLS



2018 AVG RATE
TOP INTERVAL



3/4 MILE CIRCLE



EARTHQUAKE DATA FROM USGS

TECTONIC BASEMENT FAULTS
(BUREAU OF ECONOMIC GEOLOGY)

Mewbourne Oil Company		
SALT DRAW 28 SWD		
EDDY, NM 28-24S-28E		
Author: Tim Harrington	Date: 7 January, 2019	
Tech: S. Daugherty	Scale: 1" = 11250'	

STATEMENTS REGARDING SEISMICITY AND WELL SPACING

Historically, the area nearby our proposed Salt Draw 28 Federal SWD #1 has not seen seismic activity. The closest seismic event (per USGS database) was a magnitude 3.9 earthquake in 1974 that is located approximately 9 miles northwest of our proposed SWD.

Mewbourne Oil Company does not own 2D or 3D seismic data near our proposed SWD therefore our fault interpretation is based on subsurface mapping and data obtained from public technical sources. Based off our subsurface mapping of the deep formations, Mewbourne has not interpreted any faults in the immediate area. Our map does include a Precambrian fault documented by Ruppel, et al. (2005), that is located approximately 4.8 miles SW of our proposed SWD.

A very recent technical paper written by Snee and Zoback, "State of Stress in the Permian, Basin, Texas and New Mexico: Implications for induced seismicity", that was published in the February 2018 edition of The Leading Edge, evaluates the strike-slip probability, using probabilistic FSP analysis, of known Permian Basin faults. This study predicts that the Precambrian fault located on our map has less than a 10% probability of being critically stressed so as to create an induced seismicity event. The main reason for this low probability is due to the relationship of the strike of this fault to the regional Shmax orientation (approx. N 35-45 deg E) as shown in Figure 1.

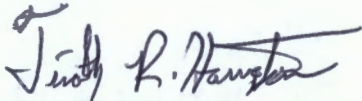
Our Salt Draw 28 Federal SWD is offset by three active Devonian SWD wells, the closest being 1.21 miles away. The Scott B SWD and the Salt Draw 28 SWD permits were approved in August 2016 and are spaced 1.61 miles apart. The drilling of our well has been significantly delayed while waiting on the completion of salt water disposal and surface use agreement negotiations. The Val and Pardue Farms 21 permits were approved by the OCD 13 months and 21 months later respectively.

MEWBOURNE OIL COMPANY SALT DRAW 28 FEDERAL SWD #1																
SWD PERM #	PERMIT APPROVAL DATE	DISTANCE AWAY		WELL NAME	STATUS	DISPOSAL FORMATION(S)	SEC	TWP	RGE	UPPER CASING (In)	LOWER CASING (In)	UPPER TUBING (In)	LOWER TUBING (In)	OPERATOR	1st INJ	2018 RATE (Bwpd)
		(Miles)														
1637	8/5/2016	0.00		SALT DRAW 28 FEDERAL	NEW	DEVONIAN FUSSELMAN MONTOYA	28	24S	28E	9.625	7.625	4.5 (7)	4.5 (5.5)	MEWBOURNE OIL		
1642-A	8/5/2016	1.61		SCOTT B SWD	ACTIVE	DEVONIAN SILURIAN	23	24S	28E	9.625	7.625	5.5	4.5	MESQUITE SWD	DEC 2017	15,726
1692	8/29/2017	1.21		PARDUE FARMS 21	ACTIVE	DEVONIAN	21	24S	28E	9.625	7.000	4.5	4.5	DELAWARE ENERGY	NA	NA
1725	4/24/2018	1.26		VAL SWD	ACTIVE	SILURO DEVONIAN	34	24S	28E	9.625	7.625	7.0	5.5	MESQUITE SWD	SEPT 2018	NA
NOTE: BOLD = ACTUAL (PROPOSED)																

NOTE: BOLD = ACTUAL
(PROPOSED)

Based on our water projections based on our well type curves, current producing well water forecasts and our current long-range plan drilling schedule, we expect that the average disposal rate will be around 15,000 Bwpd into the Salt Draw 28 SWD. The large tubing diameter will be required during periods when produced water re-use for stimulation operations are suspended, when multiple new well stimulation flowbacks are occurring or when existing commercial interruptible SWD outlets are restricted.

Mewbourne Oil Company
Salt Draw 28 Federal SWD #1
February 11, 2019


Timothy R. Harrington

Reservoir Engineer
tharrington@mewbourne.com
903-534-7647

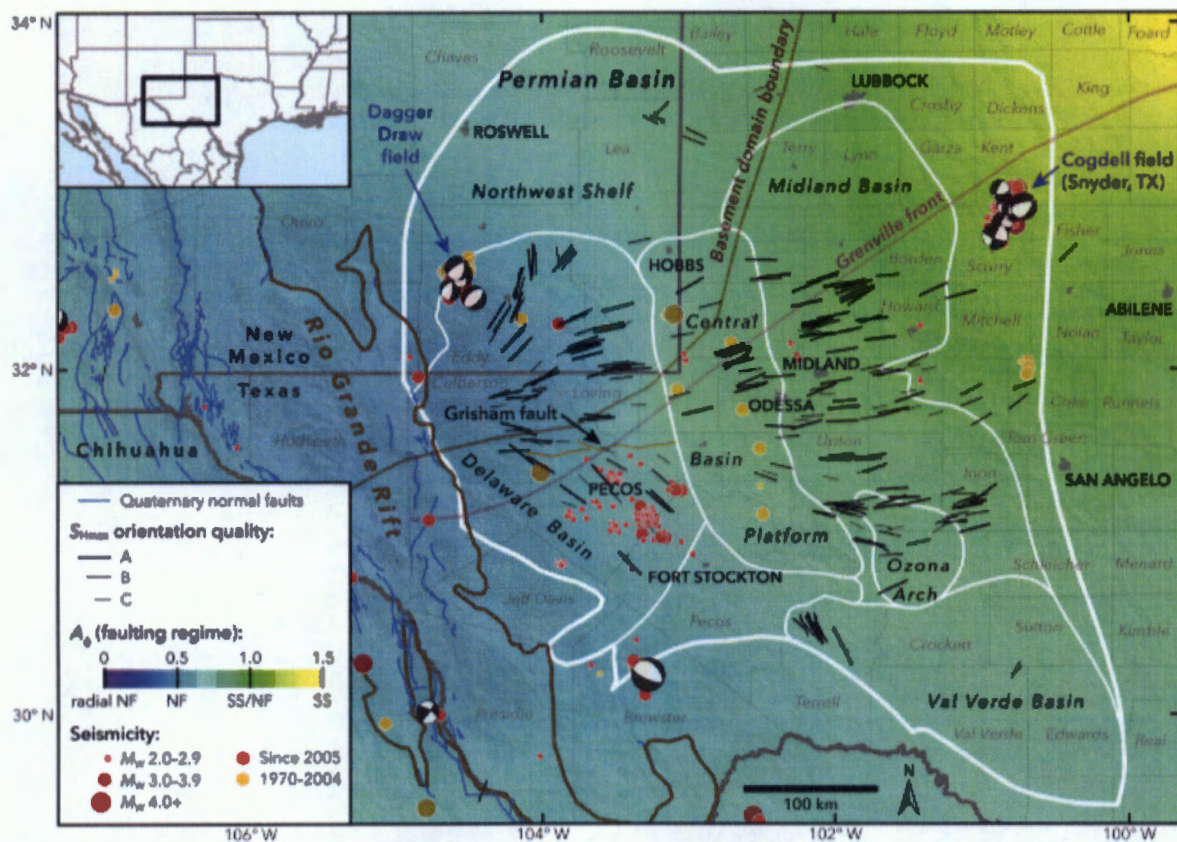
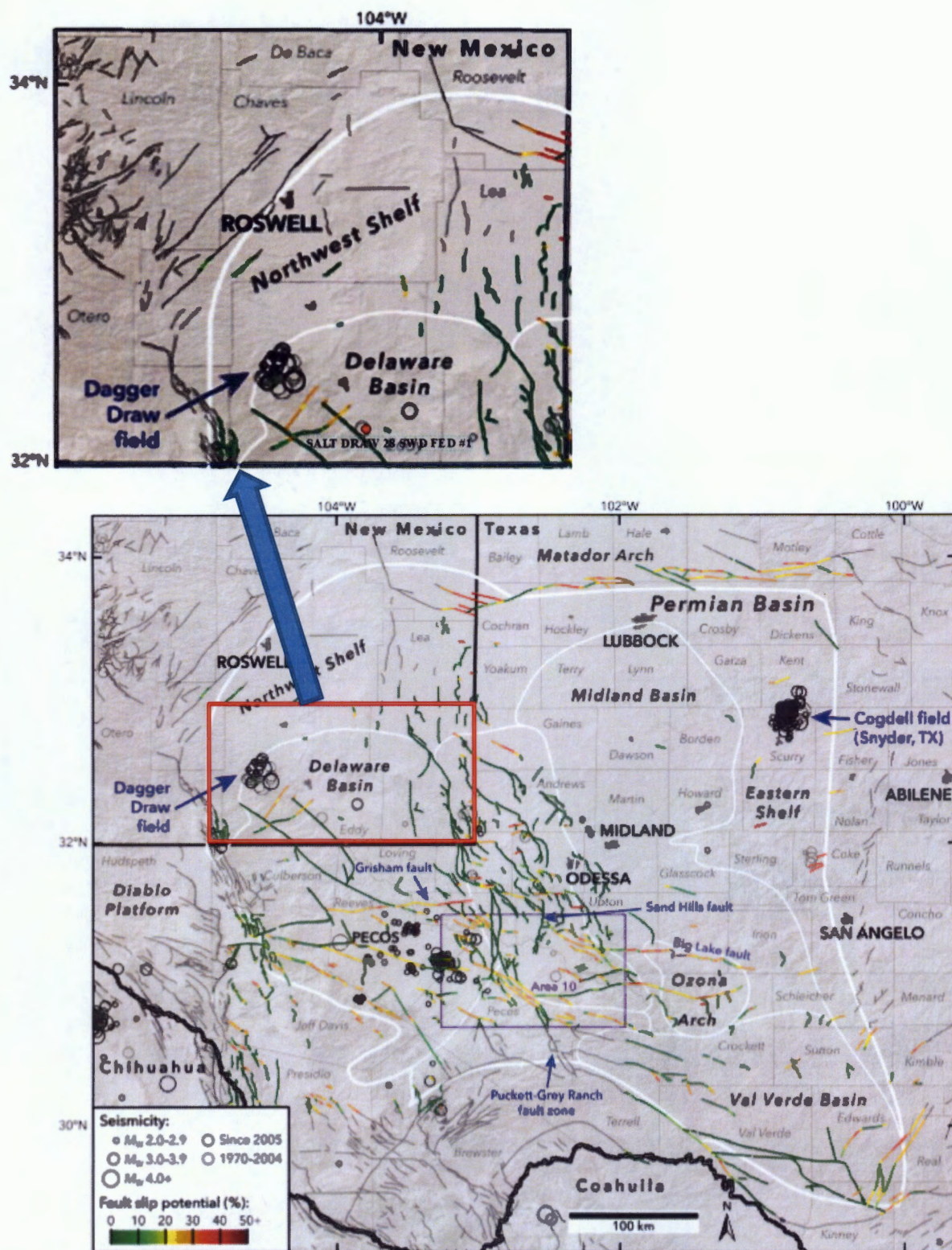


Figure 1. State of stress in the Permian Basin, Texas and New Mexico. Black lines are the measured orientations of S_{max} , with line length scaled by data quality. The colored background is an interpolation of measured relative principal stress magnitudes (faulting regime) expressed using the A_0 parameter (see text for details) of Simpson (1997). Blue lines are fault traces known to have experienced normal-sense offset within the past 1.6 Ma, from the USGS Quaternary Faults and Folds Database (Crone and Wheeler, 2000). The boundary between the Shawnee and Mazatzal basement domains is from Lund et al. (2015), and the Precambrian Grenville Front is from Thomas (2006). The Permian Basin boundary is from the U.S. Energy Information Administration, and the subbasin boundaries are from the Texas Bureau of Economic Geology Permian Basin Geological Synthesis Project. Earthquakes are from the USGS National Earthquake Information Center, the TexNet Seismic Monitoring Program, and Gan and Frohlich (2013). Focal mechanisms are from Saint Louis University (Herrmann et al., 2011).

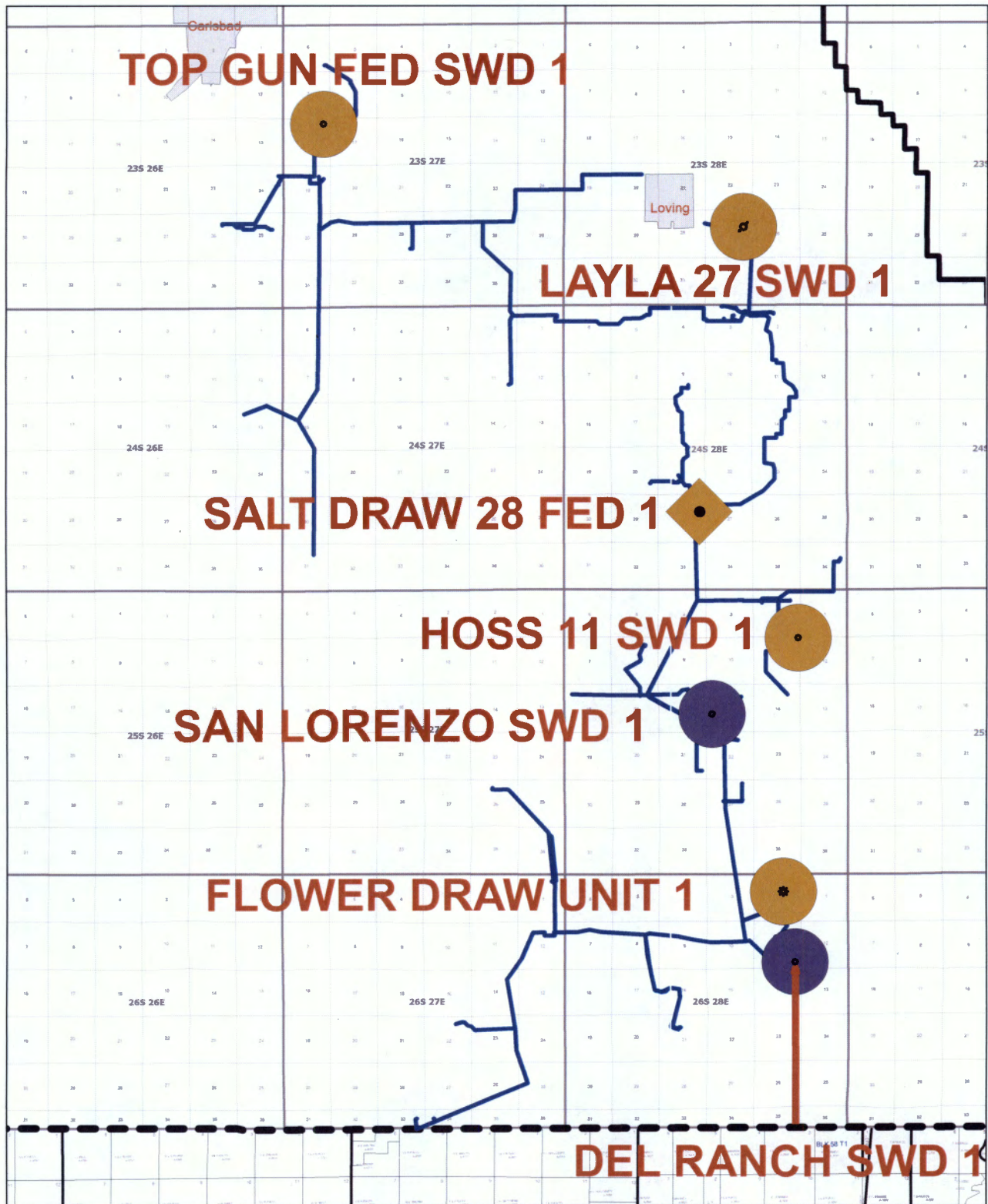
Mewbourne Oil Company
Salt Draw 28 Federal SWD #1
February 11, 2019



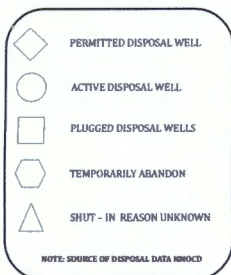
Mewbourne Oil Company
Salt Draw 28 Federal SWD #1
February 11, 2019

References

Jens-Erik Lund Snee and Mark D. Zoback, 2018, State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity: The Leading Edge, February 2018.



MOC SWD LINES



DELAWARE SWD WELLS (Dark blue circle)

DEVONIAN SWD WELLS (Brown circle)

MOC Mewbourne Oil Company		
CARLSBAD WATER MANAGEMENT SYSTEM		
Author: T. Harrington		Date: 8 February, 2019
Tech: sd	Scale: 1"=200,000'	Carlsbad water management system.gmp

**MEWBOURNE OIL COMPANY
SALT DRAW 28 FEDERAL SWD #1**

PLUGGING RISK ASSESSMENT

5 ½" Flush Joint Injection Tubing Inside of 7 ⅝" Casing

Specs

5 ½" 17# HCP110 Flush Joint Tubing	OD (in)	ID (in)	Drift (in)	LINED ID (in)	FLARE DRIFT (in)
Coupling	N/A	N/A	N/A	N/A	N/A
Body	5.500	4.892	4.767	4.520	4.275
7 ⅝" 39# P110 Casing	OD (in)	ID (in)	Drift (in)	Wall Thickness (in)	5 ½" Flush Jt. Clearance (in)
	7.625	6.625	6.500	0.500	0.562

*All fishing procedures are subject to well conditions. Determinations are made onsite on a case by case scenario.

Overshot Fishing Procedure

A 6.625" O.D. Bowen Series 150 overshot (Assembly 8625) with a spiral grapple will be utilized to perform this overshot operation. ***NOTE: (The 6.625" O.D. will be turned down to 6.500" O.D. prior to commencing operation).** Details on the overshot are noted below.

Series 150 Overshots

Tools are listed in order of maximum catch size.

The following table shows only a partial listing of available NOV Dowhole Bowen® overshots.

NOTE: Nitralloy Grapples are available upon request.

Bowen Series 150 Releasing and Circulation Overshots
Maximum Catch Size 4X "to 5X" Inclusive

Maximum Catch Size (Spiral)	4X	4½	4¾	5	5½	6	6½
Maximum Catch Size (Basket)	3¾	4	4½	4¾	5	5½	6
Overall O.D.	5¾	5¾	5¾	5¾	5¾	5¾	5¾
Type	E.S.	S.H.	S.H.	S.F.S.	S.H.	E.S.	S.H.
Complete Assembly	Part No.	5808	5808	C-5108	8875	C-5171	C-4825
(Dressed Spiral Parts)	Weight	130	130	133	138	140	182

Replacement Parts

Top Bolt	Part No.	5807	5800	A-5100	8878	A-5172	B-4820	8826
Bowl	Part No.	5808	5700	B-5170	8877	B-5173	B-4827	8817
Pusher	Part No.	100	1140	B-2100	8114	L-3830	L-4305	8818
Spiral Grapple	Part No.	105	1135	B-2201	8112	B-4380	M-1071	8819
Spiral Grapple Control	Part No.	188	1137	B-2202	8113	B-4370	M-1072	8820
Standard Guide	Part No.	187	1143	B-2203	8121	B-4371	L-1074	8821

Basket Parts

Basket Grapple	Part No.	105	1135	B-2201	8112	B-4380	M-1071	8819
Basket Grapple Control	Part No.	188	1137	B-2202	8113	B-4370	M-1072	8820
MB Control Pusher	Part No.	100-R	1140-R	B-2100-R	8114-R	L-3830-R	M-4305	L-8818-R

In the Event of a Connection Break

1. If dressing is needed, trip in hole with a mill and mill connection to allow for (above listed) turned-down overshot to be latched onto the body of the tubing. If no milling is required, trip in hole with (above listed) turned-down overshot and latch onto fish.
2. Once latched onto fish, pick up string weight and straight pull to release Model R packer.
3. Once packer is released, trip out of hole with fish.

In the Event of a Body Break

1. If dressing is needed, trip in hole with a mill and mill tubing to allow for (above listed) turned-down overshot to be latched onto the body of the tubing. If no milling is required, trip in hole with (above listed) turned-down overshot and latch onto fish.
2. Once latched onto fish, pick up string weight and straight pull to release Model R packer.
3. Once packer is released, trip out of hole with fish.

*NOTE: (Wash pipe with a mill may be substituted for dressing off a break instead of a standard mill to ensure pipe stabilization and to ensure that the casing is not damaged due to milling.)

In the Event a Mill Cannot be Used

If an inadequate fishing neck is looking up and a mill cannot be used to dress the fish, a cutting tool may be utilized to cut off the damaged portion of tubing and a spear used to retrieve the cut-off piece. Once the cut-off piece is retrieved, the (above listed) turned-down overshot may be utilized to retrieve the fish and release the packer.

Spear Fishing Procedure

In the event the (above listed) turned-down overshot cannot be used or the fishing neck is inadequate, a spear may be used to spear into the fish. In the case of insert lined pipe, a smaller spear will be utilized to go inside the insert liner and pull out the lining. Once the lining has been removed, trip out of hole with insert liner. Pick up the proper sized spear for the pipe ID. Trip in hole with tubing spear, spear the fish, pick up string weight and straight pull to release the packer. Trip out of hole with fish and packer assembly.

7" Flush Joint Injection Tubing Inside of 9 5/8" Casing

Specs

7" 26# HCP110 Flush Joint Tubing	OD (in)	ID (in)	Drift (in)	LINED ID (in)	FLARE DRIFT (in)
Coupling	N/A	N/A	N/A	N/A	N/A
Body	7.000	6.276	6.151	6.080	5.815
9 5/8" 47# HCL80 Casing	OD (in)	ID (in)	Drift (in)	Wall Thickness (in)	7" Flush Jt. Clearance (in)
	9.625	8.681	8.525	0.472	0.840

*All fishing procedures are subject to well conditions. Determinations are made onsite on a case by case scenario.

Overshot Fishing Procedure

A Bowen Series 150 overshot (Assembly 9217) with a spiral grapple will be utilized to perform this overshot operation. Details on the overshot are noted below.

Bowen Series 150 Releasing and Circulation Overshots

Maximum Catch Size 6 5/8" to 7 1/2" Inclusive

Maximum Catch Size (Spiral)		6 5/8"	6 7/8"	7"	7 1/2"
Maximum Catch Size (Basket)		5 7/8"	6 1/8"	6 5/8"	6 7/8"
Overshot O.D.		8 1/8"	7 7/8"	8 1/8"	8 7/8"
Type		F.S.	S.H.	S.H.	S.H.
Complete Assembly	Part No.	C-3032	C-5222	0217	C-5354
(Dressed Spiral Parts)	Weight	280	243	251	260

Replacement Parts

Top Sub	Part No.	A-3033	A-5223	0218	A-5355
Bowl	Part No.	B-3034	B-5224	0210	B-5356
Packer	Part No.	A-1814	B-5225	0224	B-5357
Spiral Grapple	Part No.	N-84	B-5227	0222	B-5359
Spiral Grapple Control	Part No.	M-80	A-5228	0223	B-5360
Standard Guide	Part No.	A-1818	A-5229	0226	A-5361

Basket Parts

Basket Grapple	Part No.	N-84	B-5227	0222	B-5359
Basket Grapple Control	Part No.	M-80	A-5228	0223	B-5360
Mill Control Packer	Part No.	A-1814-R	B-5225-R	0224-R	B-5357-R

In the Event of a Connection Break

1. If dressing is needed, trip in hole with a mill and mill connection to allow for (above listed) overshot to be latched onto the body of the tubing. If no milling is required, trip in hole with (above listed) overshot and latch onto fish.
2. Once latched onto fish, pick up string weight and straight pull to release Model R packer.
3. Once packer is released, trip out of hole with fish.

In the Event of a Body Break

1. If dressing is needed, trip in hole with a mill and mill tubing to allow for (above listed) overshot to be latched onto the body of the tubing. If no milling is required, trip in hole with (above listed) overshot and latch onto fish.
2. Once latched onto fish, pick up string weight and straight pull to release Model R packer.
3. Once packer is released, trip out of hole with fish.

*NOTE: (Wash pipe with a mill may be substituted for dressing off a break instead of a standard mill to ensure pipe stabilization and to ensure that the casing is not damaged due to milling.)

In the Event a Mill Cannot be Used

If an inadequate fishing neck is looking up and a mill cannot be used to dress the fish, a cutting tool may be utilized to cut off the damaged portion of tubing and a spear used to retrieve the cut-off piece. Once the cut-off piece is retrieved, the (above listed) overshot may be utilized to retrieve the fish and release the packer.

Spear Fishing Procedure

In the event the (above listed) overshot cannot be used or the fishing neck is inadequate, a spear may be used to spear into the fish. In the case of insert lined pipe, a smaller spear will be utilized to go inside the insert liner and pull out the lining. Once the lining has been removed, trip out of hole with insert liner. Pick up the proper sized spear for the pipe ID. Trip in hole with tubing spear, spear the fish, pick up string weight and straight pull to release the packer. Trip out of hole with fish and packer assembly.

Abandonment Procedure in-the-Event that Injection Tubing Cannot be Fished

The operator will need to ensure that geological formations are properly isolated to prevent future fluid communication. The operator will first insure that the injection tubing I.D. is open and clear. Once injection tubing I.D. is confirmed to be open and clear, run in hole with a wireline set profile plug and set plug inside of the packer assembly. This plug would allow for cement to fill both the I.D. of the injection tubing and the tubing-to-casing annulus to provide isolation between the different geological formations. Next, run in hole with wireline conveyed perforating guns and shoot perforations at the deepest depth that the injection tubing is still in the wellbore. Trip in hole with a workstring and latch onto the injection tubing with an overshot, spear, cement retainer or any other tool that would ensure a work string-to-injection tubing seal and allow the operator to pump cement down the remaining injection tubing. Rig up cement truck and cement the annulus between the injection tubing and casing to surface.