

Submit 1 Copy To Appropriate District Office
 District I - (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II - (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III - (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV - (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

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

WELL API NO. 30-015-43868
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. FEDERAL
7. Lease Name or Unit Agreement Name OUTER BANKS SWD
8. Well Number 1
9. OGRID Number 161968
10. Pool name or Wildcat [96101] SWD; DEVONIAN
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3325' GR

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

1. Type of Well: Oil Well Gas Well Other **SWD**

2. Name of Operator
MESQUITE SWD, INC.

3. Address of Operator **PO BOX 1479
CARLSBAD NM 88220**

4. Well Location
 Unit Letter **I** : **1990** feet from the **SOUTH** line and **955** feet from the **EAST** line
 Section **13** Township **20S** Range **29E** NMPM **EDDY** County

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input checked="" type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

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

Mesquite SWD, Inc. requests permission for the following changes to the well plan approved in SWD-1641:

- Surface Casing:** Approved: 20" 106.5# J55 LTC
Change to: 20" 94# K55 BTC, Burst SF 4.6; Collapse SF 1.29; Joint SF 15 Dry; Body SF 15 Dry
- 2nd Intermediate Casing:** Approved: 9 5/8" 53.5# L80 LTC
Change to: 9 5/8" 40# L80 LTC, Burst SF 1.2; Collapse SF 1.125; Joint SF 3.29 Dry; Body SF 3.4 Dry
- Production Casing:** Approved: 8 1/2" hole - 7" 35# HCL80/29# P110 LTC casing
Change to: 8 3/4" hole - 7 5/8" 39# P110 FJ casing, Burst SF 1.27; Collapse SF 1.23; Joint SF 4.01 Buoy; Body SF 5.35 Buoy
- Open Hole:** Approved: 5 7/8" 13180' - 14180'
Change to: 6 1/2" 13180' - 14180'
- Tubing:** Approved: 4 1/2" 11.6# P110 LTC
Change to: 5 1/2" 20# JFE Bear
- BOP:** Approved: 10M BOP with 10M annular
Change to: Request variance for use of 10 BOP with 5M annular. Well Control Plan attached.

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SEP 04 2018

Revised proposed well bore diagram is attached.

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

DISTRICT II-ARTESIA O.C.D.

SIGNATURE Melanie J. Wilson TITLE Regulatory Analyst DATE 08/29/2018

Type or print name Melanie J. Wilson E-mail address: mjp1692@gmail.com PHONE: 575-914-1461
 For State Use Only

APPROVED BY: [Signature] TITLE Staff DATE 9-4-18

Conditions of Approval (if any):

RECEIVED:	REVIEWER:	TYPE:	APP NO:
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & 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

Applicant: <u>Mesquite SWD, Inc.</u>	OGRID Number: <u>161968</u>
Well Name: <u>Outer Banks SWD No. 1</u>	API: <u>30-015-43868</u>
Pool: <u>SWD; Devonian</u>	Pool Code: <u>96101</u>

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

1) TYPE OF APPLICATION: Check those which apply for [A]

A. Location - Spacing Unit - Simultaneous Dedication

NSL NSP (PROJECT AREA) NSP (PRORATION UNIT) SD

B. Check one only for [I] or [II]

[I] Commingling - Storage - Measurement

DHC CTB PLC PC OLS OLM

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

WFX PMX SWD IPI EOR PPR

RECEIVED

SEP 04 2018

DISTRICT II-ARTESIA O.C.D.

2) NOTIFICATION REQUIRED TO: Check those which apply.

- A. Offset operators or lease holders
- B. Royalty, overriding royalty owners, revenue owners
- C. Application requires published notice
- D. Notification and/or concurrent approval by SLO
- E. Notification and/or concurrent approval by BLM
- F. Surface owner
- G. For all of the above, proof of notification or publication is attached, and/or.
- H. No notice required

FOR OCD ONLY	
<input type="checkbox"/>	Notice Complete
<input type="checkbox"/>	Application Content Complete

3) 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.

Melanie Wilson

Print or Type Name

Signature

8/30/18

Date

575-914-1461

Phone Number

mjp1692@gmail.com

e-mail Address

August 30, 2018

Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Attention: Ms. Heather Riley
Division Director

Re: Application to Amend Order SWD-1641
Mesquite SWD, Inc.
Outer Banks SWD Well No. 1
API No. 30-015-43868
1990' FSL & 955' FEL, Unit I
Section 13, T-20S, R-29E, NMPM,
Eddy County, New Mexico

Dear Ms. Riley,

By Administrative Order SWD-1641 dated August 4, 2016 the Division authorized R360 Permian Basin, LLC to utilize the Outer Banks SWD No. 1 as a produced water disposal well, injection to occur into the Devonian formation through the open-hole interval from approximately 13,180 feet to 14,180 feet. The order also stipulated that injection was to occur through 4 ½" or smaller tubing in a packer set within 100 feet of the open-hole injection interval.

Mesquite SWD, Inc. ("Mesquite"), the successor operator of the Outer Banks SWD No. 1 respectfully requests that Order SWD-1641 be amended to authorize the use of 5 ½" tubing within the subject well from surface to packer setting depth, and to authorize minor changes in the casing program and open-hole interval hole size.

Please note that a provision within Order SWD-1641 stipulated that the injection authority granted would expire on August 4, 2018 if the operator has not commenced injection into the well. Injection has not yet commenced, however, a request for extension of Order SWD-1641 was submitted to the Division by Mesquite via E-mail dated June 19, 2018. As of yet, Mesquite has not received a response from the Division to that request.

In support of this request, Mesquite submits the following statements and/or documents:

1. Copy of Order SWD-1641 (Exhibit 1);
2. Copy of OCD Form C-145 received by the Division on May 10, 2017 showing a change of operator of the well from R360 Permian Basin, LLC to Mesquite SWD, Inc. (Exhibit 2);

3. Attached is the wellbore schematic originally submitted with the C-108 application received by the Division on June 9, 2016 (Exhibit 3). Also attached is a wellbore schematic that shows the proposed wellbore configuration (Exhibit 4). In addition to the request to amend the tubing size, Mesquite also proposes to make the following changes to the casing program. These changes are highlighted on the attached wellbore schematic and on the BLM and OCD Sundry Notices attached:

	<u>Original Casing</u>	<u>Proposed Casing</u>
Surface:	20" 106.5 J-55 LTC	20" 94# K-55 BTC
2 nd Int.	9 5/8" 53.5# L-80 LTC	9 5/8" 40" L-80 LTC
Production:	8 1/2" Hole; 7" 35# HCL80/ 29# P110 LTC	8 3/4" Hole; 7 5/8" 39# P-110 FJ Casing
Open Hole:	5 7/8" Hole 13,180'-14,180'	6 1/2" Hole 13,180'-14,180'

4. OCD GIS map (Exhibit 5) showing the location of the Outer Banks SWD No. 1 and the surrounding 9-section area. An examination of Division records indicates that there are currently no additional Devonian/Silurian produced water disposal wells within this 9-section area;
5. By Order No. R-14392-A issued in Case No. 15654 on December 7, 2017 the Oil Conservation Commission approved the application of Mesquite to increase the injection tubing size in eight of its Devonian/Silurian produced water disposal wells from a maximum of 4 1/2 inches to a maximum of 5 1/2 inches for each well. In that case, the Commission finds that:
- Finding No. 21: "Mesquite also presented sufficient evidence and testimony in this particular case which indicates that the increased injection rates, achieved through the use of 5 1/2" tubing, is unlikely to create fault slippage or induced seismicity. That is, in part, due to the distance between the wells at issue in Mesquite's application and the distance from the wells to known fault lines";
 - Finding No. 22: "The evidence presented further indicated that fishing operations could successfully be performed on the wells when 5 1/2" tubing is utilized within 7 5/8" casing";

Please note that the wells that are the subject of Case No. 15654 are located approximately 24 miles Southeast of the Outer Banks SWD No. 1.

6. By Order No. R-14796 issued in Case No. 16308 on July 30, 2018 the Oil Conservation Division approved the application of Mesquite to increase the injection tubing size from 5 ½” or smaller tubing inside the surface and intermediate casing to 7”, and increase the injection tubing size from 4 ½” or smaller in the 7 5/8” liner to 5 ½” within its Mesa Verde SWD Well No. 3 located in Unit N of Section 13, Township 24 South, Range 31 East, NMPM, Eddy County, New Mexico. In that case, the Division finds that:
 - a. Finding No. 8: “The fishing specification books available to the Examiner indicate that the proposed 5 ½-inch diameter tubing cannot be fished with an off-the-shelf slim hole overshot inside 7 5/8-inch, 39-ppf casing. Therefore, the overshot tool required in this instance must be specifically milled to a smaller outside diameter, resulting in lower tensile strength rating. The evidence presented from an expert in pipe recovery indicates that the proposed tubing inside the subject well’s casing can be fished (pulled out of the hole) with an internal spear type tool and can also be fished from the hole with a modified or milled overshot grapple”;
 - b. Finding No. 13: “The proposed increase in tubing size in this properly cemented and cased disposal well should not pose an increased risk to potable or protectable waters and should not degrade the ability of the Division to properly administer the Class II Underground Injection Control Program”;
7. Attached are the following documents presented as evidence in Case No. 16308 to support Mesquite’s position that due to the proximity of the Mesa Verde SWD No. 3 to known Pre-Cambrian Faults in Southeast New Mexico, it is unlikely that any seismic activity will result from injection into the Devonian/Silurian formation in this area:
 - a. Map of known Pre-Cambrian faults in Southeast New Mexico (Exhibit 6) relative to the location of the Mesa Verde SWD No. 3. (It should be noted that the Outer Banks SWD No. 1 is located approximately 30 miles Northwest of the Mesa Verde SWD No. 3 however, both wells are located approximately the same distance away from known Pre-Cambrian Faults);
 - b. A summary of seismic events within 25 km of the Mesa Verde SWD No. 3 (Exhibit 7). This evidence shows no seismic activity within the area of the Outer Banks SWD No. 1;
8. Attached is a document presented in Case No. 16308 which demonstrates that increasing the tubing size in a Devonian well in this area will result in an increase in injection rate from 29 MBWPD to 41 MBWPD (Exhibit 8). The resulting increase in injection rate will mean that less produced water disposal wells will be necessary to accommodate the ever-increasing demand for disposal.

Mesquite SWD, Inc.
Application to Amend SWD-1641
Outer Banks SWD No. 1

9. Attached is a copy of a C-103 Sundry Notice that will be submitted to the Artesia District office of the Division (Exhibit 9).
10. Attached is a Form 3160-5 that has been submitted to the Bureau of Land Management requesting approval of the amended casing and tubing program (Exhibit 10).

In summary, the proposed amendment of Order SWD-1641 will not likely result in an increase in seismic activity in Southeast New Mexico, will not cause mechanical problems within the well in the event the tubing is required to be fished, will reduce the number of disposal wells necessary to accommodate produced water disposal needs in Southeast New Mexico, and will result in a more efficient use of the Outer Banks SWD No. 1 for produced water disposal.

Mesquite requests that the processing of this application be expedited by the Division to the extent possible. Drilling operations on the Outer Banks SWD No. 1 will commence before the end of the year, and it will be necessary to plan ahead for equipping the well for disposal.

I believe that all the information necessary to approve the application is enclosed. If additional information is needed, please contact me at (575) 914-1461.

Sincerely,



Melanie Wilson-Regulatory Analyst
Mesquite SWD, Inc.
P.O. Box 1479
Carlsbad, New Mexico 88221-1479

Xc: OCD-Artesia

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Tony Delfin
Acting Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division



Administrative Order SWD-1641
August 4, 2016

**ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION**

Pursuant to the provisions of Division Rule 19.15.26.8B, NMAC, R360 Permian Basin, LLC (the "operator") seeks an administrative order to authorize the Outer Banks SWD Well No. 1 located 1990 feet from the South line and 955 feet from the East line, Unit I of Section 13, Township 20 South, Range 29 East, NMPM, Eddy County, New Mexico, for the commercial disposal of produced water.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division Rules 19.15.26.8B, NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objection was received within the required suspense period. The applicant has presented satisfactory evidence that all requirements prescribed in Rule 19.15.26.8 NMAC have been met and the operator is in compliance with Rule 19.15.5.9 NMAC.

IT IS THEREFORE ORDERED THAT:

The applicant, R360 Permian Basin, LLC (OGRID 289936), is hereby authorized to utilize its Outer Banks SWD Well No. 1 (API 30-015-43868) located 1990 feet from the South line and 955 feet from the East line, Unit I of Section 13, Township 20 South, Range 29 East, NMPM, Eddy County, for commercial disposal of oil field produced water (UIC Class II only) in the Devonian formation, through open-hole interval from **13180 to 14180 feet**. Injection will occur through internally-coated, 4½-inch or smaller tubing and a packer set within 100 feet of the open-hole injection interval.

IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the disposed water enters only the approved disposal interval and is not permitted to escape to other formations or onto the surface. This includes the completion and construction of the well as proposed in the application, and as modified by this Order.

This permit is limited as advertised to only the Devonian aged rocks and to the depths listed above. It does not permit disposal into deeper formations including the Ellenburger formation (lower Ordovician) or lost circulation intervals directly on top and obviously connected

to that formation.

Prior to commencing disposal, the operator shall submit mudlog and geophysical logs information, to the Division's District geologist and Santa Fe Bureau Engineering office, showing evidence agreeable that only the permitted formation is open for disposal including a summary of depths (picks) for contacts of the formations which the Division shall use to amend this order for a final description of the depth for the injection interval.

Operator shall submit the results of the swab test which shall include formation water analysis and hydrocarbon potential of the injection interval to the Division's District geologist and Santa Fe Bureau Engineering office prior to commencing injection.

The operator shall run separate casing strings through both the potash, and Capitan Reef.

Every casing string shall be cemented and circulated to the surface.

The operator shall run a CBL (or equivalent) across the 7-inch casing to surface to ensure good cement across the casing.

Within two years after commencing disposal, the operator shall conduct an injection survey, consisting of a temperature log or equivalent, over the entire injection interval using representative disposal rates. Copies of the survey results shall be provided to the Division's District II office and Santa Fe Engineering Bureau office.

After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT procedures and schedules shall follow the requirements in Division Rule 19.15.26.11A. NMAC. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths in this well.

*The wellhead injection pressure on the well shall be limited to **no more than 2636 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.*

The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate Test.

The operator shall notify the supervisor of the Division's District II office of the date and

time of the installation of disposal equipment and of any MIT so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's District office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Division Rules 19.15.26.13 and 19.15.7.24 NMAC.

Without limitation on the duties of the operator as provided in Division Rules 19.15.29 and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's District II office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

The injection authority granted under this order is not transferable except upon Division approval. The Division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

The Division may revoke this injection order after notice and hearing if the operator is in violation of Rule 19.15.5.9 NMAC.

The disposal authority granted herein shall terminate two (2) years after the effective date of this Order if the operator has not commenced injection operations into the subject well. One year after the last date of reported disposal into this well, the Division shall consider the well abandoned, and the authority to dispose will terminate *ipso facto*. The Division, upon written request mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

Compliance with this Order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the disposal authority granted herein.

This Division Order supersedes Division Order SWD-1599, issued on November 13, 2015.

Administrative Order SWD-1641
R360 Permian Basin, LLC
August 4, 2016
Page 4 of 4



DAVID R. CATANACH
Director

DRC/mam

cc: Oil Conservation Division – Artesia
Bureau of Land Management - Carlsbad
Well File - 30-015-43868

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-8770

District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3482

**State of New Mexico
Energy, Minerals and Natural
Resources**

**Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505**

Change of Operator

Form C-145
August 1, 2011
Permit 234366

**NM OIL CONSERVATION
ARTESIA DISTRICT
MAY 10 2017**

RECEIVED

Previous Operator Information

New Operator Information

OGRID: 289936
Name: R360 PERMIAN BASIN, LLC
Address: 4507 Carlsbad Hwy

City, State, Zip: Hobbs, NM 88240

Effective Date: Effective on the date of approval by the OCD
OGRID: 161968
Name: MESQUITE SWD, INC
Address: PO BOX 1479

City, State, Zip: CARLSBAD, NM 88221

I hereby certify that the rules of the Oil Conservation Division ("OCD") have been complied with and that the information on this form and the certified list of wells is true to the best of my knowledge and belief.

Additionally, by signing below, MESQUITE SWD, INC certifies that it has read and understands the following synopsis of applicable rules.

PREVIOUS OPERATOR certifies that all below-grade tanks constructed and installed prior to June 16, 2008 associated with the selected wells being transferred are either (1) in compliance with 19.15.17 NMAC, (2) have been closed pursuant to 19.15.17.13 NMAC or (3) have been retrofitted to comply with Paragraphs 1 through 4 of 19.15.17.11(i) NMAC.

MESQUITE SWD, INC understands that the OCD's approval of this operator change:

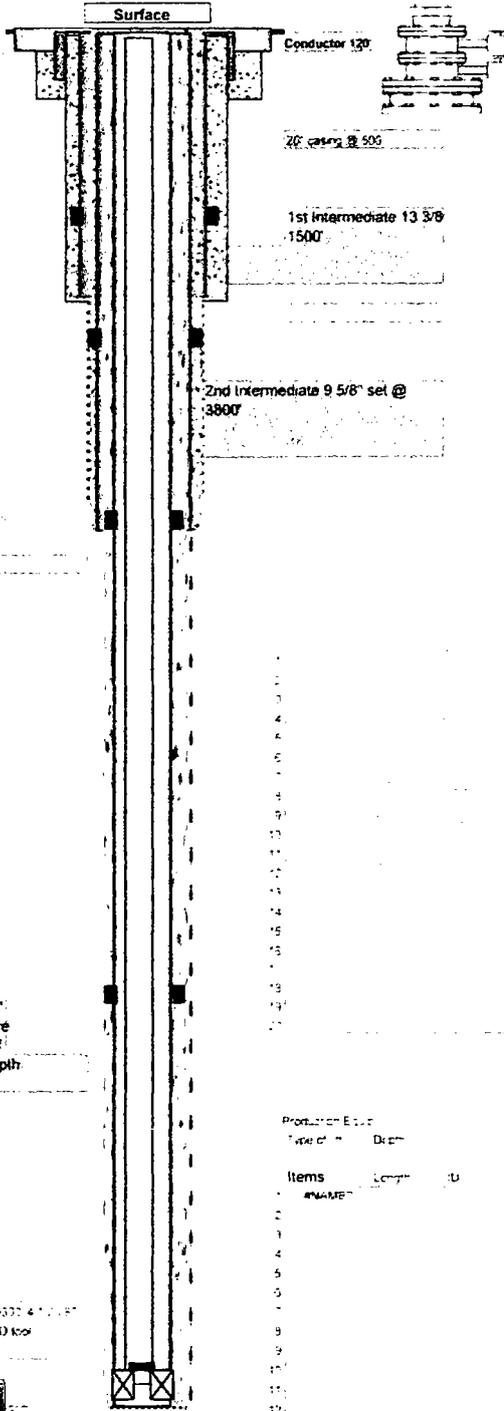
1. constitutes approval of the transfer of the permit for any permitted pit, below-grade tank or closed-loop system associated with the selected wells; and
2. constitutes approval of the transfer of any below-grade tanks constructed and installed prior to June 16, 2008 associated with the selected wells, regardless of whether the transferor has disclosed the existence of those below-grade tanks to the transferee or to the OCD, and regardless of whether the below-grade tanks are in compliance with 19.15.17 NMAC.

Cambrian Management EXECUTIVE SUMMARY WELLBORE DIAGRAM

WELL NAME: R 300 Outer Banks		STATE: New Mexico	Permit #		Job #
LOCATION: T2CS R29 E Section 24		COUNTY: Eddy	Spud	TD	Pig Release
ELEVATION:		DATE:			
APW:		PREPARED (A Review)	Total Depth	14,180'	PBTD
Drill Contractor: TED		WEIGHT	CMT	CMT VOL	TOC
Conductor CASING:	DEPTH	HOLE SIZE	CASING SIZE	WEIGHT	GRADE
Surf CASING:	520	26"	20"	126.4 cpl	J55 LTC
1st Int CASING:	1500	17 1/2"	13 3/8"	28 cpl	J-55 LTC
2nd Int CASING:	3800	12 1/4"	9 5/8"	53.5	L 57 LTC
Prod Casing	13,180	8 1/2"	7"	25.28/35	CLSP110HCL LTC
Tubing	13,180	5 7/8"	4 1/2"	11.6	P110L8J Etra LTC

Water Board Depth
Regulator Mark Larson
Drilling Dallas
Complete Andy
Workover

Initial Potential
Oil (BOPD)
Gas (MCFD)
Water (BPD)
GOR
Flowing/Pumping
Choke
Flowing Tbg psi
Csg Pressure
Oil Gravity



Vendor	Type	Rating
5		
6		
A		

Geology Formation	Depth (top)
1 Dewey Lake	
2 Saado	
3 Tans	
4 Yates	
5 Captain	
6	
7 Bone Spring	
8	
9	
10	
11	
12	
13	
14 Woodford Shale	
15	
16	
17	
18	
19	

7" Dv tool 9500'
depth as needed to ensure
full cement returns to surf
Contingency: Cem vol depth
adjusted Proportionately

CLS100 4" x 10" P110 9500' 4" x 10" tool
Arrowset "X" air O/O tool
Flange Ratchet



5 7/8" Open Hole Completion

**Exhibit No. 3
Original Wellbore Configuration
Application to Amend SWD-1641
Outer Banks SWD No. 1**

Mesquite SWD, Inc.
Outer Banks SWD No. 1: Proposed Wellbore Schematic
1990' FSL & 955' FEL (Unit I)
Section 13, T-20S, R-29E, NMPM, Eddy County, NM

Surface Casing:

Hole Size: 26"
 Size: 20" 94# K-55 BTC
 Set @: 500'
 Sx. Cmt: 874
 TOC: Surface

1st Intermediate Casing:

Hole Size: 17.5"
 Size: 13.375" 68# J-55
 Set @: 1,500'
 Sx. Cmt: 1117
 TOC: Surface

2nd Intermediate Casing

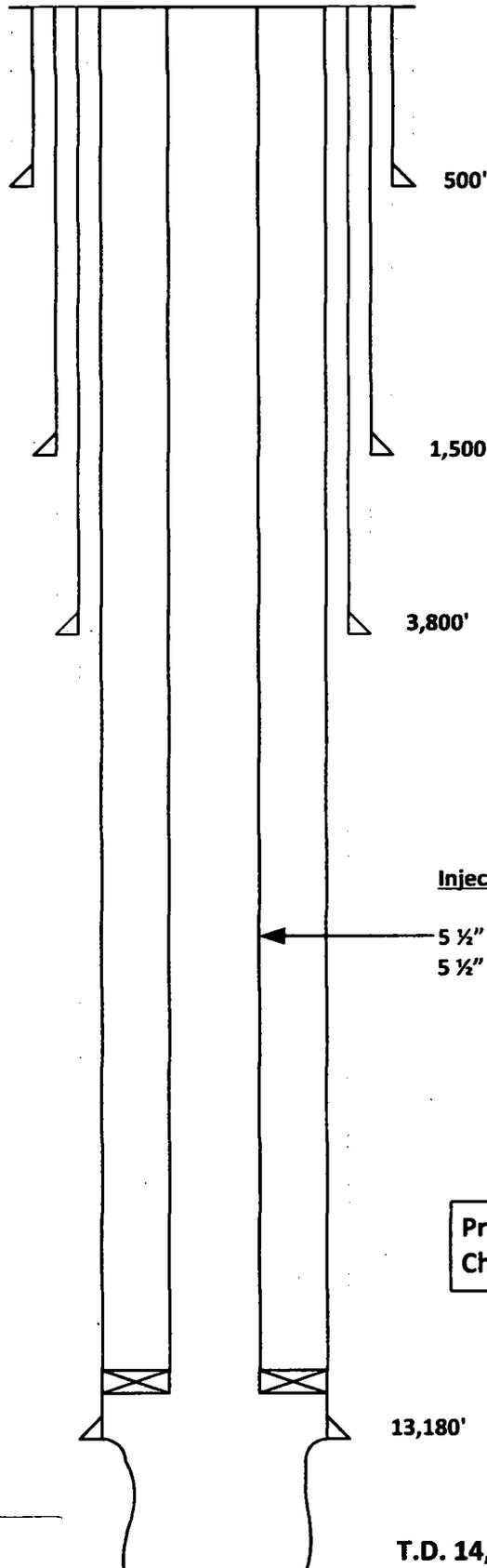
Hole Size: 12.25"
 Size: 9.625 40# L-80 LTC
 Set @: 3,800'
 Sx. Cmt: 753
 TOC: Surface

Production

Hole Size: 8.75"
 Size: 7.625" 39# P-110 FJ
 Set @: 13,180'
 Sx. Cmt: 1092 2-Stage
 Stage Tools: 9,500' & 5,500'
 TOC: Surface

Open Hole Injection Interval

Hole Size: 6 1/2"
 Interval: 13,180'-14,180'



Injection Tubing

5 1/2" 20# JFE Bear Tbg. Set @ 13,130'
 5 1/2" Lok Set or Equivalent Packer @ 13,130'

Proposed Casing/Tubing/Hole Size Changes Shown in Red Text

T.D. 14,180'

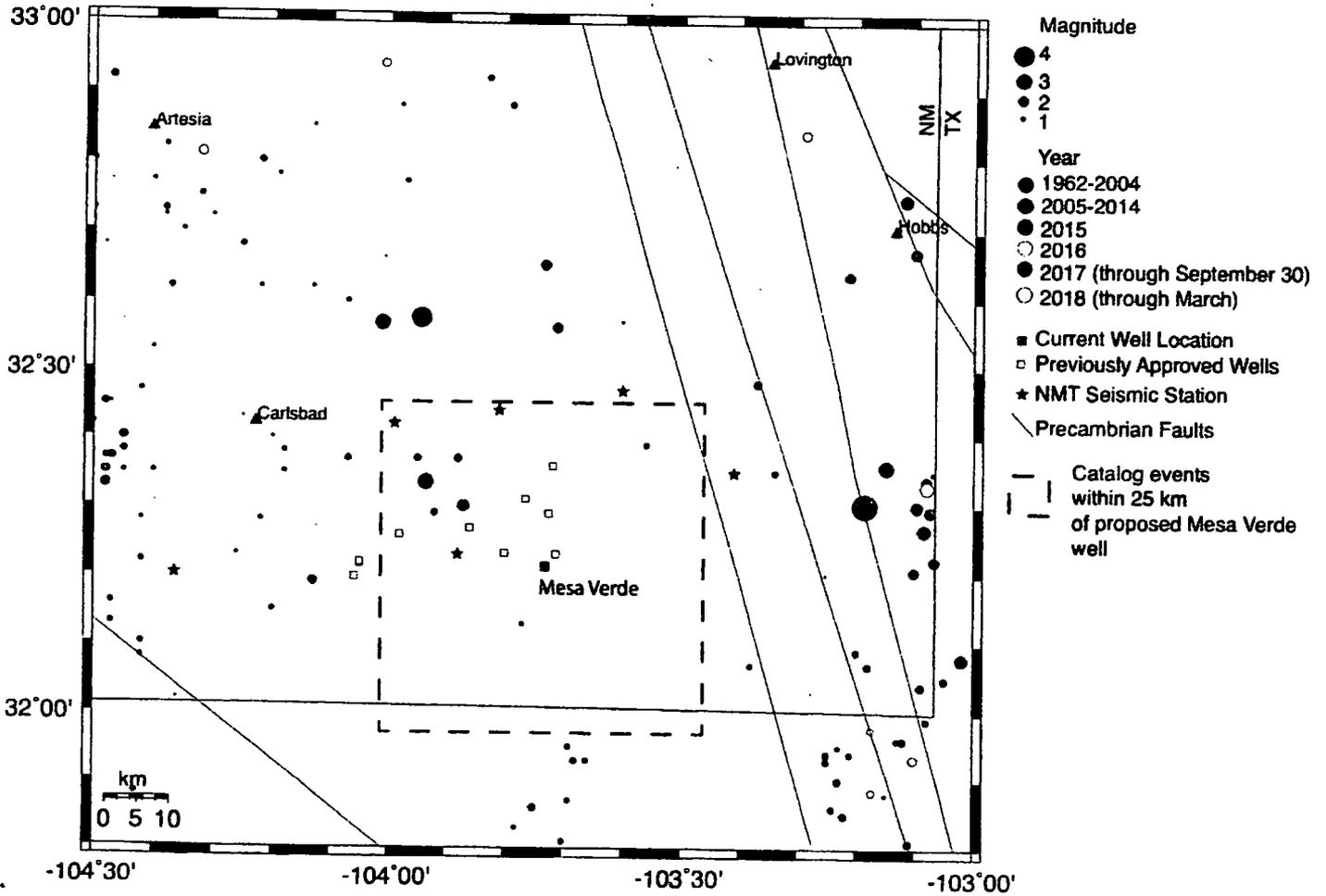


Exhibit No. 6
Known Pre-Cambrian Faults
Application to Amend SWD-1641
Outer Banks SWD No. 1

Seismic Catalog Analysis within 25 km of Mesa Verde #3:

Analysis based on NMT seismicity analysis using US Geological Survey earthquake catalog and data from seismic network stations within the SE New Mexico region. Published NMT catalogs span 1962-2009 (Sanford et al., 2002, Sanford et al., 2006, Stankova-Pursley et al., 2013) and unpublished catalogs from 2009 – September 2017, February-March 2018.

Total of 7 events within 25 km of this well (between 1962-March 2018)

Catalog from 1962-2004: 1 event magnitude 3.2
Closest event to well location: 23.7 km (magnitude 3.2 event)

Catalog from 2005-2018(March): minimum magnitude 1.0, maximum magnitude 2.4
Closest event to well location: 9.8 km (1.0 magnitude event)

Yearly summary of earthquakes within 25 km of Mesa Verde #3 well:

1962_1998: 1 (1 earthquake with magnitude greater than 2)
1998_2004:0
2005-2014: 2 (1 earthquake with magnitude greater than 2)
2015: 0
2016: 0
2017: 4 (0 > M2)
2018(through March): 0

YYYYMMDD	HH:MM:SS	LATITUDE	LONGITUDE	MAGNITUDE
19971019	11:12:09	32.33	-103.94	3.2
20111227	23:10:37	32.37	-103.95	1.6
20120318	10:57:22	32.30	-103.87	2.4
20170211	14:34:27	32.29	-103.92	1.5
20170302	11:38:53	32.37	-103.88	1.7
20170325	22:46:01	32.13	-103.77	1.0
20170814	01:09:56	32.39	-103.56	1.2

Earthquake depths are unconstrained.

References:

Sanford, A. R., Lin, K-w., Tsai, I., and Jaksha, L. H., 2002, Earthquake catalogs for New Mexico and bordering areas: 1869–1998: New Mexico Bureau of Geology and Mineral Resources, Circular 210, 104 pp.

Sanford, A. R., Mayeau, T. M., Schlue, J. W., Aster, R. C., and Jaksha, L. H., 2006, Earthquake catalogs for New Mexico and bordering areas II: 1999–2004: New Mexico Geology, v. 28, no. 4, pp. 99–109.

Pursley, J., Bilek, S.L., and Ruhl, C.J., 2013, Earthquake catalogs for New Mexico and bordering areas: 2005–2009, New Mexico Geology, v. 35, no. 1, pp. 3–12.



Wellbore Hydraulics Models predict a 33% increase in maximum injection rate between 5.5x4.5 tubing and 7x5.5 tubing.

Mesquite Sand Dunes SWD #2
 Reservoir Data
 Pressure = 7750.00 psia
 kh = 10800.0
 Skin = 0.00

SandDunes SWD WellboreSize Sensitivity.snp Rate vs. Pressure 28-Jun-18 13:39:01
 WB Depth (MD ft) = 18035
 WHPres (psia) = 1700.00
 Tubing I.D. = 6.276 (s1)

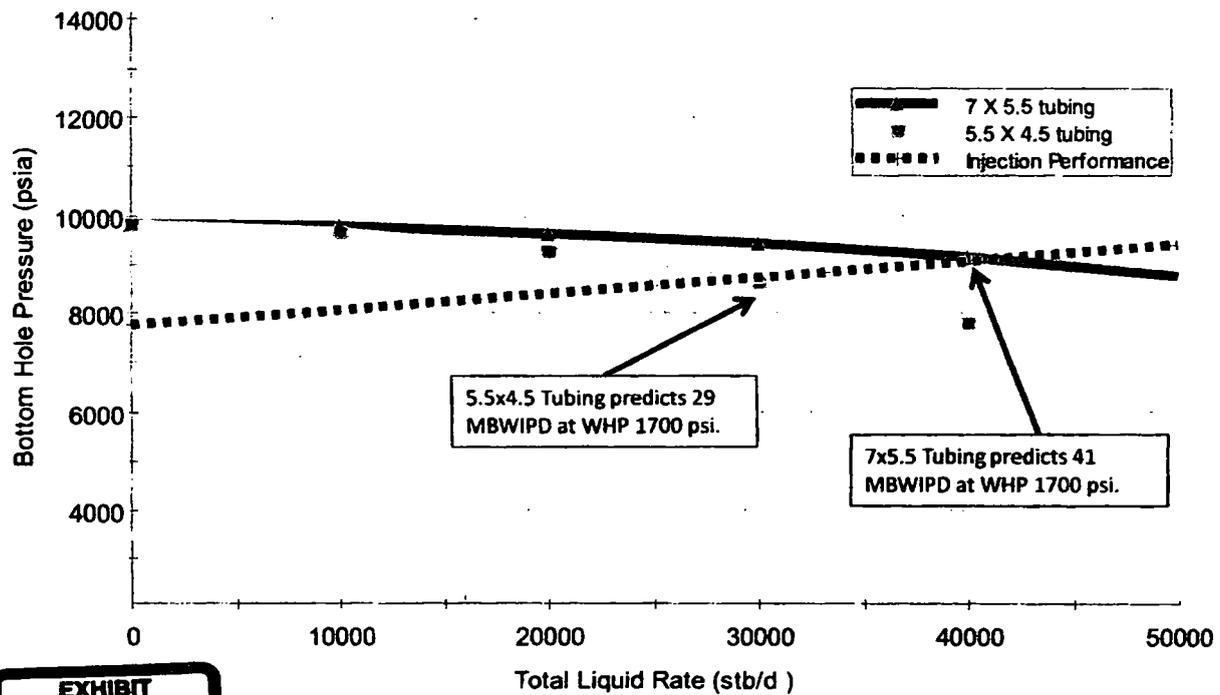


EXHIBIT
15

Submit 1 Copy To Appropriate District Office
 District I - (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II - (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III - (505) 334-6178
 1600 Rio Brazos Rd., Aztec, NM 87410
 District IV - (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

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

WELL API NO. 30-015-43868
 5. Indicate Type of Lease
 STATE FEE
 6. State Oil & Gas Lease No.
FEDERAL

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

7. Lease Name or Unit Agreement Name
OUTER BANKS SWD
 8. Well Number 1
 9. OGRID Number 161968
 10. Pool name or Wildcat
[96101] SWD: DEVONIAN

1. Type of Well: Oil Well Gas Well Other **SWD**

2. Name of Operator
MESQUITE SWD, INC.

3. Address of Operator **PO BOX 1479
 CARLSBAD NM 88220**

4. Well Location
 Unit Letter I : 1990 feet from the SOUTH line and 955 feet from the EAST line
 Section 13 Township 20S Range 29E NMPM EDDY County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3325' GR

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

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

- | | | | |
|--|--|--|--|
| PERFORM REMEDIAL WORK <input type="checkbox"/> | PLUG AND ABANDON <input type="checkbox"/> | REMEDIAL WORK <input type="checkbox"/> | ALTERING CASING <input type="checkbox"/> |
| TEMPORARILY ABANDON <input type="checkbox"/> | CHANGE PLANS <input checked="" type="checkbox"/> | COMMENCE DRILLING OPNS. <input type="checkbox"/> | P AND A <input type="checkbox"/> |
| PULL OR ALTER CASING <input type="checkbox"/> | MULTIPLE COMPL <input type="checkbox"/> | CASING/CEMENT JOB <input type="checkbox"/> | |
| DOWNHOLE COMMINGLE <input type="checkbox"/> | | | |
| CLOSED-LOOP SYSTEM <input type="checkbox"/> | | | |
| OTHER: <input type="checkbox"/> | | OTHER: <input type="checkbox"/> | |

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

Mesquite SWD, Inc. requests permission for the following changes to the well plan approved in SWD-1641:

- Surface Casing:** Approved: 20" 106.5# J55 LTC
 Change to: 20" 94# K55 BTC. Burst SF 4.6 Collapse SF 1.29 Joint SF 15 Dry Body SF 15 Dry
- 2nd Intermediate Casing:** Approved: 9 5/8" 53.5# L80 LTC
 Change to: 9 5/8" 40# L80 LTC. Burst SF 1.2. Collapse SF 1.125 Joint SF 3.29 Dry; Body SF 3.4 Dry
- Production Casing:** Approved: 8 1/2" hole - 7" 35# HCL80/29# P110 LTC casing
 Change to: 8 3/4" hole - 7 5/8" 39# P110 FJ casing. Burst SF 1.27 Collapse SF 1.23. Joint SF 4.0; Buoy Body SF 5.35 Buoy
- Open Hole:** Approved: 5 7/8" 13180' - 14180'
 Change to: 6 1/2" 13180' - 14180'
- Tubing:** Approved: 4 1/2" 11 6# P110 LTC
 Change to: 5 1/2" 20# JFE Bear
- BOP:** Approved: 10M BOP with 10M annular
 Change to: Request variance for use of 10 BOP with 5M annular Well Control Plan attached

Revised proposed well bore diagram is attached.

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

SIGNATURE Melanie J. Wilson TITLE Regulatory Analyst DATE 08/29/2018

Type or print name Melanie J. Wilson E-mail address: mjl1092@gmail.com PHONE: 575-914-1461
For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
 Conditions of Approval (if any): _____

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM 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 <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other: INJECTION		5. Lease Serial No. NMNM110350
2. Name of Operator MESQUITE SWD, INC.		6. If Indian, Allottee or Tribe Name
3a. Address PO BOX 1479 CARLSBAD, NM 88221		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 575-914-1461		8. Well Name and No. OUTER BANKS SWD 1
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 13 T20S R29E Mer NMP NESE 1990FSL 955FEL		9. API Well No. 30-015-43868
		10. Field and Pool or Exploratory Area SWD;DEVONIAN
		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
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Deepen
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Hydraulic Fracturing
	<input type="checkbox"/> Production (Start/Resume)
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Alter Casing
	<input type="checkbox"/> Reclamation
	<input type="checkbox"/> Well Integrity
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Recomplete
	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans
	<input type="checkbox"/> Plug and Abandon
	<input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Change to Original APD
	<input type="checkbox"/> Convert to Injection
	<input type="checkbox"/> Plug Back
	<input type="checkbox"/> 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 recomplete 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 recompletion 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.

Mesquite SWD, Inc. respectfully requests the following changes to the original APD:

Surface Casing:

Approved: 20" 106.5# J55 LTC

Change to: 20" 94# K55 BTC, Burst SF 4.6; Collapse SF 1.29; Joint SF 15 Dry; Body SF 15 Dry

2nd Intermediate Casing:

Approved: 9 5/8" 53.5# L80 LTC

Change to: 9 5/8" 40# L80 LTC, Burst SF 1.2; Collapse SF 1.125; Joint SF 3.29 Dry; Body SF 3.4 Dry

Production Casing:

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #433149 verified by the BLM Well Information System For MESQUITE SWD, INC., sent to the Carlsbad	
Name (Printed/Typed) SHERYL BAKER	Title DRILLING SUPERINTENDENT
Signature (Electronic Submission)	Date 08/29/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____	Title _____	Date _____
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 _____

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)

**** OPERATOR-SI**

PERATOR-SUBMITTED **

Additional data for EC transaction #433149 that would not fit on the form

32. Additional remarks, continued

Approved: 8 1/2" hole - 7" 35# HCL80/29# P110 LTC casing
Change to: 8 3/4" hole - 7 5/8" 39# P110 FJ casing, Burst SF 1.27; Collapse SF 1.23; Joint SF 4.01
Buoy; Body SF 5.35 Buoy

Open Hole:

Approved: 5 7/8" 13180' - 14180'
Change to: 6 1/2" 13180' - 14180'

Tubing:

Approved: 4 1/2"
Change to: 5 1/2"

BOP:

Approved: 10M BOP with 10M annular
Change to: Request variance for use of 10 BOP with 5M annular. Well Control Plan attached.