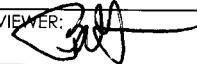


| | | | |
|-------------------------------|--|---------------------|----------------------------------|
| RECEIVED: <u>3/07/2018</u> | REVIEWER:  | TYPE: <u>SWI</u> | APP NO: <u>PMAM1806647382</u> |
|-------------------------------|--|---------------------|----------------------------------|

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



*915
database*

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: Mesquite SWD, Inc. **OGRID Number:** 161968
Well Name: Mesa Verde SWD #3 **API:** 30-015-44676
Pool: SWD;Devonian **Pool Code:** 96101

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

MAR 07 2018 AM 11:37

SWD -1646-A

- 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

- 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

- ☐ Notice Complete
☐ 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 J. Wilson
 Print or Type Name

Melanie J. Wilson
 Signature

03/04/2018
 Date

575-914-1461
 Phone Number

mjp1692@gmail.com
 e-mail Address

MESQUITE SWD, INC.

PO Box 1479
CARLSBAD, NM 88221-1479
575-887-0980

March 5, 2018

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

Attention: Engineering Bureau

Re: Order No. SWD-1696
API #30-015-44676
Mesa Verde SWD #3
1030' FSL & 2635' FWL
Section 13-R24S-R31E
Eddy County, New Mexico

Gentlemen:

Mesquite SWD, Inc. is seeking to amend SWD-1696 to utilize a tapered tubing string, with 7" tubing inside the surface and intermediate casings and 5 1/2" tubing inside the liner. An amended proposed wellbore diagram is attached.

This well was spud on February 25, 2018.

No new wells have been drilled in the target formation within the area of review since approval of the original C-108 application.

Thank you for your consideration of this application. Please let me know if there is anything further that you need. I may be reached at 575-914-1461 or by email at mjp1692@gmail.com.

Sincerely,



Melanie J. Wilson
Regulatory Analyst

Mesquite SWD, Inc.
Mesa Verde SWD #3
API #30-015-44676
1030' FSL & 2635' FWL
Section 13, T24S, R31E, Eddy County, NM

Revised

**Proposed Well Bore Diagram
Amended 02/19/2018**

KB: 3622'
GL: 3597'

Surface Casing

Size: 20" 94# J-55 BTC
Set @: 880'
Sx Cmt: 1980
TOC: Surf
Hole Size: 26"

1st Intermediate Casing

Size: 13 3/8" 54.5# NE80 BTC
Set @: 4400'
Sx Cmt: 1000
TOC: Surf
Hole Size: 17 1/2"

2nd Intermediate Casing

Size: 9 5/8" 53.5# P-110 BTU
Set @: 11700'
Sx Cmt: 1800'
TOC: Surf
Hole Size: 12 1/4"

Liner

Size: 7 5/8" 39# ECP-110 J-2/STL FJ
Top: 11650'
Set @: 16620'
Sx Cmt: 2880
TOC: 9370'
Hole Size: 8 1/2"

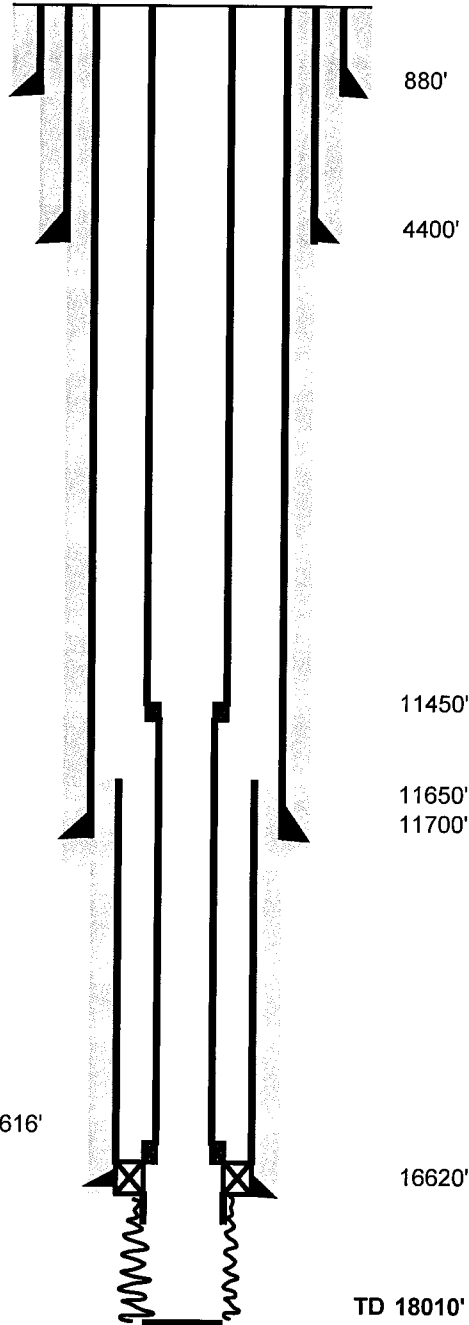
Open Hole

Interval: 16620-18010'
Hole Size: 6 1/2"

Tubing

7" 26# P-110 Tbg @ 11449"
7" x 5 1/2" X-Over @ 11450"
5 1/2" 20# JFE Bear Tbg @ 16615'
7 5/8" x 5 1/2" Dual Bore Permapak Packer @ 16616'

Open hole acid if required
Tubing annulus w/corrosion inhibitor
Complete surface head for disposal



880' Rustler est 720'
Top of Salt est 1060'
Base of Salt est 4370'
Delaware Mtn group est 4612'
DVT @ approx 4800'
Bone Spring est 8400'
Wolfcamp est 11165'
11450'
11650'
11700'
Strawn est 13500'
Morrow est 14315'
Mississippi Lime est 16150'
16620' Top Siluro-Devonian est 16620'

TD 18010'

Not to Scale

McMillan, Michael, EMNRD

From: Melanie Wilson <mjp1692@gmail.com>
Sent: Wednesday, March 7, 2018 11:20 AM
To: McMillan, Michael, EMNRD
Subject: RE: SWD-1696 REQUEST TO AMEND

Estimated is 30,000 BWPD and maximum is 40,000 BWPD. Would you like me to revise my letter and add that?

From: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Sent: Wednesday, March 7, 2018 9:47 AM
To: Melanie Wilson <mjp1692@gmail.com>
Subject: RE: SWD-1696 REQUEST TO AMEND

The OCD will require the estimated and max injection rates.

Mike

From: Melanie Wilson [<mailto:mjp1692@gmail.com>]
Sent: Wednesday, March 7, 2018 9:33 AM
To: Goetze, Phillip, EMNRD <Phillip.Goetze@state.nm.us>; McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Cc: Podany, Raymond, EMNRD <Raymond.Podany@state.nm.us>; Klein, Ranell, EMNRD <Ranell.Klein@state.nm.us>
Subject: SWD-1696 REQUEST TO AMEND

Good Morning!

Attached is a letter requesting to amend Mesquite SWD, Inc.'s Order SWD-1696 for their Mesa Verde SWD #3 well. If we need to provide any further information, please let me know.

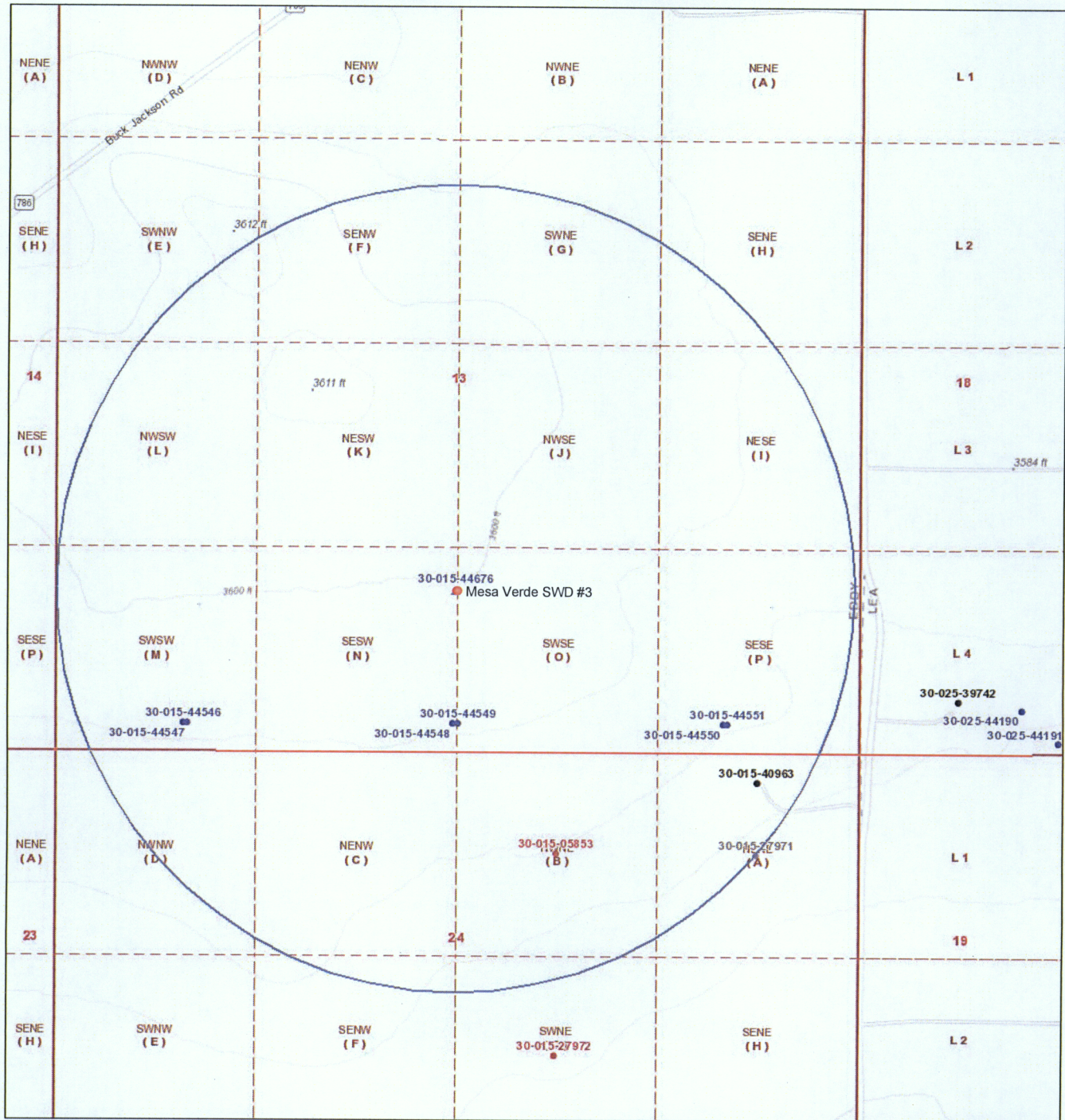
Thank you!

Melanie Wilson

Mjp1692@gmail.com

575-914-1461

Mesa Verde SWD #3 Area of Review



2 / 19 / 2018 5 : 34 : 52 PM

1:9,028

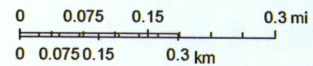
Areas

Override 1

Well Locations - Large Scale

- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2, Plugged
- CO2, Temporarily Abandoned
- Gas Active
- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged

- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned
- OCD District Offices
- PLSS Second Division
- PLSS First Division



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

Ken McQueen
Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

David R. Catanach, Division Director
Oil Conservation Division



Administrative Order SWD-1696
October 20, 2017

**ADMINISTRATIVE ORDER
OF THE OIL CONSERVATION DIVISION**

Pursuant to the provisions of Division Rule 19.15.26.8B, NMAC, Mesquite SWD, Inc. (the "operator") seeks an administrative order for its Mesa Verde SWD Well No. 3 ("proposed well") with a location of 1030 feet from the South line and 2635 from the West line, Unit N of Section 13, Township 24 South, Range 31 East, NMPM, Eddy County, New Mexico, for the purpose of commercial disposal of produced water.

THE DIVISION DIRECTOR FINDS THAT:

The application has been duly filed under the provisions of Division Rule 19.15.26.8B, NMAC and satisfactory information has been provided that affected parties as defined in said rule have been notified and no objections have been received within the prescribed waiting 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, Mesquite SWD, Inc. (OGRID 161968), is hereby authorized to utilize its Mesa Verde SWD Well No. 3 (API 30-015-pending) with a location of 1030 feet from the South line and 2635 from the West line, Unit N of Section 13, Township 24 South, Range 31 East, NMPM, Eddy County, for disposal of oil field produced water (UIC Class II only) through an open hole interval consisting of the Devonian and Silurian formations from 16620 feet to approximately 17820 feet.

Injection will occur through either an internally-coated, 5-1/2-inch or smaller tubing inside the surface and intermediate casings, and a 4-1/2-inch or small tubing inside the liner. Further, a packer shall be set within 100 feet of the uppermost perforation.

This permit does not allow disposal into the Ellenburger formation (lower Ordovician) or lost circulation intervals directly on top and obviously connected to this 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.

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, if necessary, as modified by the District Supervisor.

The operator shall circulate the cement behind the casing to surface for all surface and intermediate casings.

The operator shall run a CBL (or equivalent) across the 7-5/8-inch liner from 500 feet above the liner to the bottom of the liner to demonstrate a good cement across to demonstrate a good cement across the liner and good cement bond across the 9-5/8-inch casing.

If significant hydrocarbon shows occur while drilling, the operator shall notify the Division's District II and the operator shall be required to receive written permission prior to commencing disposal.

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 3324 psi**, but may be modified by the Division Director following the completion of the initial Step-Rate Test. 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 formations. 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 II 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.

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.

This proposed salt water disposal well's location was selected with collaboration from OXY USA, Inc, to not interfere with future development in the vicinity. As a result, the proposed salt water disposal well is within 10 feet of a Unit boundary.

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.



DAVID R. CATANACH
Director

DRC/mam

cc: Oil Conservation Division – Artesia District Office
Bureau of Land Management - Carlsbad
Administrative Application – pMAM1726254295

Mesquite SWD, Inc.
Mesa Verde SWD #3
1030' FSL & 2635' FWL
Sec. 13, T24S-R31E Eddy County, NM

Original

API 30-025-NA

PROPOSED NEW WELL DIAGRAM

API: 30025xxxx
Operator: Mesquite SWD, Inc
Lease: Mesa Verde SWD
Location: Sec 13, T24S-R31E Eddy Co., NM
Footage: 1030 FSL & 2635 FWL

Well No: 3

KB: 3621' est
GL: 3601' (Google)
MSL of TD: -14199' est
32.21265N 103.735940W

Surface Csg

Size: 20" 133# J-55 BTC
Set @: 880
Sxs cmt: 1980
Circ: Yes
TOC: Surf
Hole Size: 26"

Intermediate Csg

Size: 13-3/8" 68# HCN-80 LTC
Set @: 4,400
Sxs cmt: 1000
Circ: Yes
TOC: Surf
Hole Size: 17-1/2"

Intermediate-2 Csg

Size: 9-5/8" 47# HCL
Set @: 11700
Sxs cmt: 1800
Circ: Yes
Hole Size: 12-1/4"

Liner

Size: 7-5/8" 39/42.8# P-110
Top: 11650
Set @: 16620
Sx cmt: 2880
Circ: Yes
Hole Size: 8-1/2"

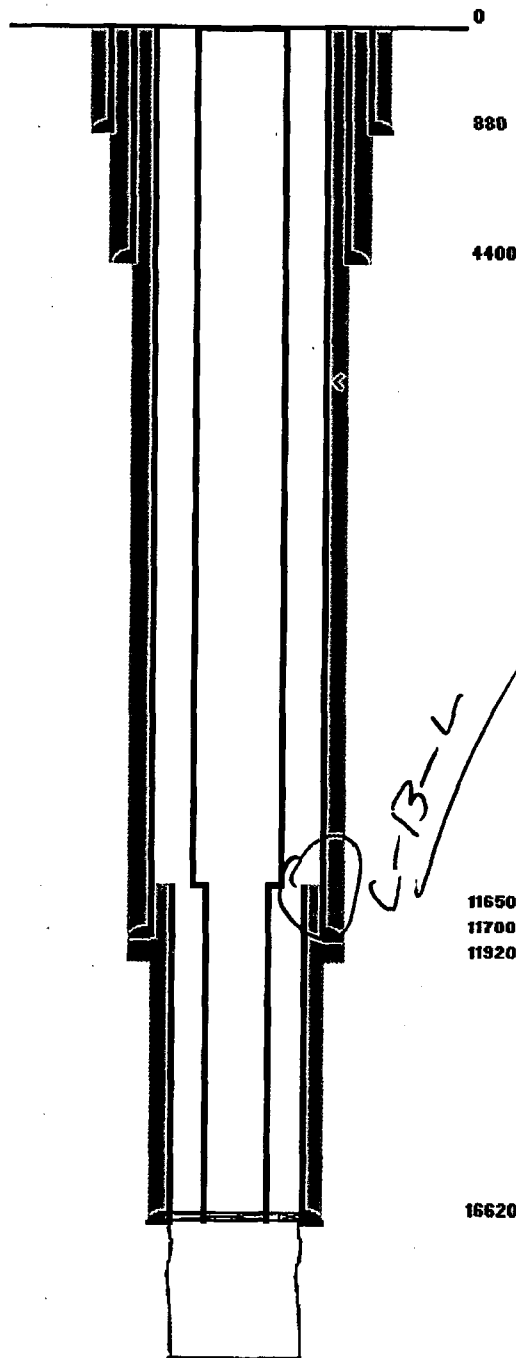
Open Hole

Size:
Interval: 16620-18010'
Hole Size: 6-1/4"

Tubular requirements (made-up): 5-1/2"
0-300' 17# N80 Butt, 330'-11,000' 17# N80 LTC,
11,000'-11,650' 20# N80 LTC, 4.5" 11,650'-12,800'
11.6# P110 LTC, 12,800'-14,400' 13.5# N80 LTC
14,400'-16,620' 31.5# P110 LTC

Lok-Set or equivalent approx 16,620'

Open hole acid if required.
Tubing annulus w/corrosion inhibitor
Complete surface head for disposal



Rustler est 720

T/salt est 1060

B/Salt est 4370'

Del Mtn Group est 4612'

DV @ approx 4800'

Bone Springs est 8400'

Wolfcamp est 11165'

Strawn est 13500'

Morrow est 14315'

Miss Ls est 16150'

Top Siluro-Devonian est

NOT TO SCALE

Mesquite SWD, Inc.
Mesa Verde SWD #3
1030' FSL & 2635' FWL
Sec. 13, T24S-R31E Eddy County, NM

API 30-025-NA

Original

Wells in AOR:

| API | WELL NAME | STATUS | SDIV | SEC | TWN | RANGE | FTG | NS | FTG | EW | OCD | OPERATOR | WELL LAND | PLUG DATE | SPUD | ELEVGL | TVD DEPTH |
|------------|----------------------------|------------|------|-----|-------|-------|-------|----|--------|----|-----|---------------------|-----------|-----------|-----------|--------|-----------|
| 3001540538 | CANVASBACK 13 FEDERAL 002H | drilled or | A | 13 | 24.05 | 31E | 330 N | | 480 E | A | | COG PRODUCTION, LLC | O | F | 10-Aug-12 | 3580 | 8415 |
| 3001541529 | CANVASBACK 13 FEDERAL 003H | drilled or | B | 13 | 24.05 | 31E | 190 N | | 1470 E | B | | COG PRODUCTION, LLC | O | F | 21-Aug-13 | 3582 | 8409 |
| 3001541552 | CANVASBACK 13 FEDERAL 004H | drilled or | B | 13 | 24.05 | 31E | 190 N | | 2130 E | B | | COG PRODUCTION, LLC | O | F | 15-Sep-13 | 3582 | 8385 |
| 3001539191 | CANVASBACK 13 FEDERAL 001H | drilled or | D | 13 | 24.05 | 31E | 330 N | | 480 W | D | | COG PRODUCTION, LLC | O | F | 13-Jan-12 | 3569 | 8388 |

No known wells in the AOR penetrate pre-Pennsylvanian formations.

Item VII:

1. The maximum injected volume anticipated is 25,000 BWPD. Average anticipated is 18,000 BWPD.
2. Injection will be through a closed system.
3. Maximum injection pressure is expected to be 3,900 psi, or as controlled by depth.
4. Disposal sources will be produced waters that, based upon regional experience, are compatible with known waters in the disposal zone.
5. Water sample analysis from Sundown Ballard (SWD-354) Sec. 27, T20S-R34E Lea Co., Seven Rivers (4000') reports 18,665 mg/l TDS.

API 30-015-44676 Application No. pMAM1806647382; increase to 5.5-inch x 7-inch tapered tubing set