

# Initial Application Part I

Received: 07/09/2019

*This application is placed in file for record. It MAY or MAY NOT have been reviewed to be determined Administratively Complete*

RECEIVED: 07/09/2019	REVIEWER:	TYPE: SWD	APP NO: pMAM1919134368
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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

<b>Applicant:</b> San Mateo Stebbins Water Management Company, LLC	<b>OGRID Number:</b> 328762
<b>Well Name:</b> Jim Pat SWD 4	<b>API:</b> 30-015-
<b>Pool:</b> SWD; Devonian	<b>Pool Code:</b> 96101

**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

**SWD-2186**

- 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

<b>FOR OCD ONLY</b>	
<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.**

Brian Wood  
 \_\_\_\_\_  
 Print or Type Name

*Brian Wood*  
 \_\_\_\_\_  
 Signature

7-6-19  
 \_\_\_\_\_  
 Date

505 466-8120  
 \_\_\_\_\_  
 Phone Number

brian@permitswest.com  
 \_\_\_\_\_  
 e-mail Address

Print

**State of New Mexico**  
**Energy, Minerals and Natural Resources Department**  
**Oil Conservation Division**

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## Receipt of Fee Application Payment

**PO Number: N5QWF-190710-C-1080**

Payment Date: 7/10/2019 8:12:18 AM

Payment Amount: \$500.00

Payment Type: Credit Card

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Application Type: Application for a fluid injection well permit.

Fee Amount: \$500.00

Application Status: Under OCD Review

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OGRID: 328762

First Name: Brian

Last Name: Wood

Email: brian@permitswest.com

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**IMPORTANT:** If you are mailing or delivering your application, you must print and include your receipt of payment as the first page on your application. All mailed and delivered applications must be sent to the following address: 1220 S. St. Francis Dr., Santa Fe, NM 87505. For inquiries, reference the PO Number listed above.

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance \_\_\_\_\_ XXX Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval? \_\_\_\_\_ XXX Yes \_\_\_\_\_ No
- II. OPERATOR: SAN MATEO STEBBINS WATER MANAGEMENT, LLC  
ADDRESS: 5400 LBJ FREEWAY, SUITE 1500, DALLAS TX 75240  
CONTACT PARTY: BRIAN WOOD (PERMITS WEST, INC.) PHONE: 505 466-8120
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.  
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? \_\_\_\_\_ Yes XXX No  
If yes, give the Division order number authorizing the project: \_\_\_\_\_
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.  
**Jim Pat SWD 4**  
**Devonian (96101)**
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
  2. Whether the system is open or closed;
  3. Proposed average and maximum injection pressure;
  4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
  5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- \*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- \*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- \*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: BRIAN WOOD  TITLE: CONSULTANT  
SIGNATURE: \_\_\_\_\_ DATE: JULY 2, 2019  
E-MAIL ADDRESS: brian@permitswest.com
- \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

### III. WELL DATA

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

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

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

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

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

### XIV. PROOF OF NOTICE

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

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

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

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

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

### INJECTION WELL DATA SHEET

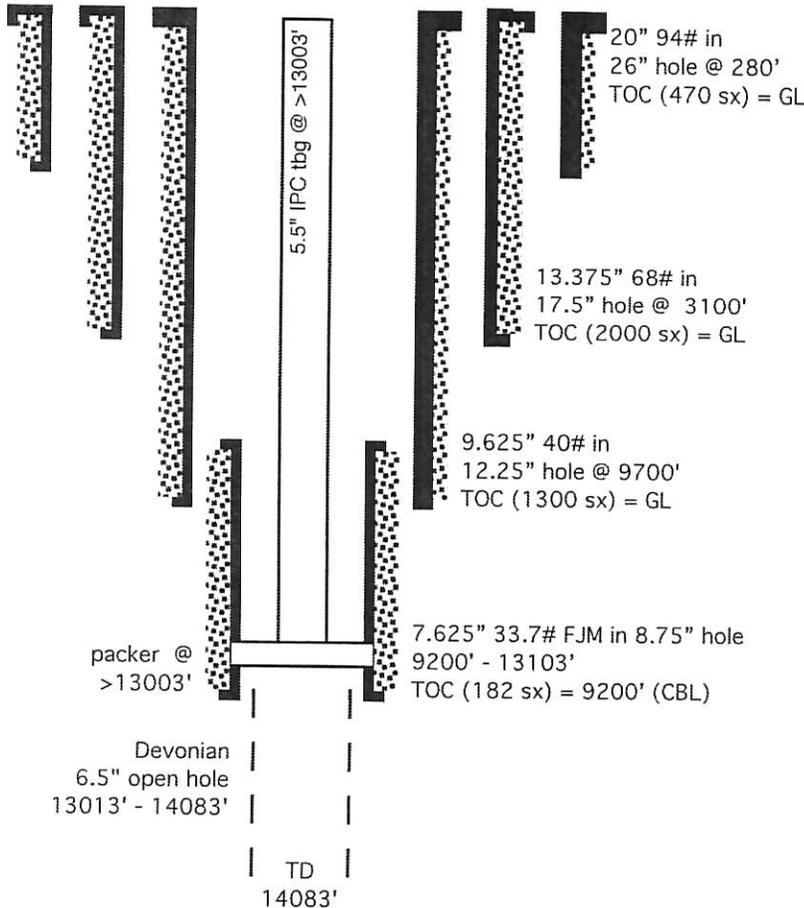
OPERATOR: SAN MATEO STEBBINS WATER MANAGEMENT, LLC

WELL NAME & NUMBER: JIM PAT SWD 4

WELL LOCATION: 2770' FSL & 1937' FEL      LOT 15      4      21 S      28 E  
 FOOTAGE LOCATION      UNIT LETTER      SECTION      TOWNSHIP      RANGE

**WELLBORE SCHEMATIC**

(not to scale)



**WELL CONSTRUCTION DATA**

Surface Casing

Hole Size: 26"      Casing Size: 20"  
 Cemented with: 470 sx.      *or* \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: SURFACE      Method Determined: VISUAL

Intermediate Casing

Hole Size: 17.5" & 12.25      Casing Size: 13.375" & 9.625"  
 Cemented with: 2000 & 1300 sx.      *or* \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: SURFACE FOR BOTH      Method Determined: VISUAL & CBL

Production Casing

Hole Size: 8.75"      Casing Size: 7.625" @ 13,103'  
 Cemented with: 182 sx.      *or* \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: 9,200'      Method Determined: CBL  
 Total Depth: 14,083'

Injection Interval 6.5" OPEN HOLE

13,103 feet to 14,083'

(Perforated or Open Hole; indicate which)



**INJECTION WELL DATA SHEET**

Tubing Size: 5.5" Lining Material: IPC

Type of Packer: STAINLESS STEEL &/OR NICKEL

Packer Setting Depth: 13,103' - 14,083'

Other Type of Tubing/Casing Seal (if applicable): \_\_\_\_\_

Additional Data

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

If no, for what purpose was the well originally drilled? \_\_\_\_\_

\_\_\_\_\_

2. Name of the Injection Formation: DEVONIAN

3. Name of Field or Pool (if applicable): SWD; DEVONIAN (POOL CODE 96101)

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. \_\_\_\_\_

NO

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

OVER: DELAWARE (4,182'), BONE SPRING (8,121'), WOLFCAMP (11,376')

\_\_\_\_\_

UNDER: none

\_\_\_\_\_

I. Goal is to drill a 14,083' deep commercial saltwater disposal well on fee land. Disposal interval will be 13,103' – 14,083' in the SWD; Devonian (96101). See Exhibit A for C-102 and map.

II. Operator: San Mateo Stebbins Water Management, LLC [OGRID 328762]  
Operator phone number: (972) 371-5420  
Operator address: 5400 LBJ Freeway, Suite 1500, Dallas TX 75240  
Contact for Application: Brian Wood (Permits West, Inc.)  
Phone: (505) 466-8120

III. A. (1) Lease (fee): Fenton patent (1922) Lease Size: 160 acres  
Lease Area: Lots 14-16 & NESE Sec. 4, T. 21 S., R 28 E.  
Well name and number: Jim Pat SWD 4  
Location: 2770' FSL & 1937' FEL Section 4, T. 21 S., R. 28 E.

A. (2) Surface casing (20", 94#, J-55, BTC) will be set at 280' in a 26" hole and cemented to GL with 470 sacks (based on 50% OH excess).

First intermediate casing (13.375", 68#, J-55, BTC) will be set at 3,100' in a 17.5" hole and cemented to GL with 2,000 sacks (based on 50% OH excess). (A DV/packer tool may be set at ≈1400' with 2-stage cement job.)

Second intermediate casing (9.625", 40#, P-110 HC, BTC) will be set at 9,700' in a 12.25" hole and cemented to GL with 1,300 sacks (based on 40% OH excess).

Production liner (7.625", 33.7#, P-110 HP, USS Liberty FJM) will be set from 9,200' to 13,103' in an 8.75" hole and cemented to 9,200' (CBL) with 182 sacks.

A 6.5" open hole will be drilled from 13,103' to 14,083'.

- A. (3) Tubing will be IPC lined, 5.5", 20#, P-110 IC, BTC. Setting depth will be  $\geq 13,003'$ . (Disposal interval will be 13,103' to 14,083'.)
- A. (4) A stainless steel and/or nickel packer will be set at  $\geq 13,003'$  (top of the open hole which will be at 13,103').
- B. (1) Disposal zone will be the Devonian (SWD; Devonian (96101) pool). Estimated fracture gradient is from  $\approx 0.62$  to  $\approx 0.68$  psi per foot. Variation depends on whether limestone or dolomite.
- B. (2) Disposal interval will be open hole from 13,103' to 14,083'.
- B. (3) Well has not been drilled. It will be drilled as a saltwater disposal well.
- B. (4) No perforated intervals are in the well.
- B. (5) Deepest of the two wells that have been drilled in the 1-mile area of review (Exhibit B) is 12,332' deep. It found production in the Atoka (10,998') and Morrow (11,367'). No oil or gas zone is below the Devonian in the area of review.

IV. This is not an expansion of an existing injection project. It is disposal only.

V. Exhibit B shows and tabulates the 2 wells and within a 1-mile radius. Deepest TVD is 12,332'. Closest approved SWD; Devonian well (30-015-45535) is 1.56 miles east in E-2-21s-28e. Closest Devonian oil or gas well is >6 miles away. Exhibit C shows the 32 existing wells (16 P&A, 11 oil or gas, 3 SWD, and 2 water) within a 2-mile radius.

All leases within a one-mile radius are BLM or fee. Exhibit D shows and tabulates all the leases within a mile. Exhibit E shows all lessors within a two-mile radius. Two-mile radius leases are BLM, fee, or NMSLO.

VI. No Devonian penetrator is within a mile. Deepest well within a mile is 12,332'. That well bottomed in the Morrow.

- VII.
1. Average injection rate will be  $\approx 40,000$  bwpd.  
Maximum injection rate will be 45,000 bwpd.
  2. System will be open and closed. Water will both be trucked and piped.
  3. Average injection pressure will be  $\approx 2,500$  psi  
Maximum injection pressure will be 2,620 psi ( $= 0.2$  psi/foot  $\times 13,103'$  (top of open hole)).
  4. Disposal water will be produced water, mainly from Bone Spring, Delaware, and Wolfcamp wells. There are 141 approved Bone Spring wells, 81 approved Delaware wells, and 10 approved Wolfcamp wells in T. 20 S., R. 29 E. and T. 21 S., R. 28 E. The well will also take other Permian Basin waters. A summary of produced water analyses from T. 20 S., R. 29 E. and T. 21 S., R. 28 E. is in Exhibit F. Compatibility problems are not expected. At least 2,051,695 barrels of water have been disposed in a Devonian SWD (30-015-20866) that is 3.43 miles southeast.
  5. No Devonian production is within  $>6$  miles.

VIII. The Devonian ( $\approx 1,000'$  thick) is comprised of limestone and dolomite. Closest possible underground source of drinking water above the proposed disposal interval is the Quaternary at the surface.

According to State Engineer Office (SEO) records (Exhibit G), two water wells are within 2 miles. One was drilled in 1890 and the other in 1905. Neither were found during a June 6-7, 2019 field inspection. C 03266, if SEO data is accurate, appears to have been obliterated by pipeline and US 62/180 construction. C 03267 is in Fenton Draw, but no evidence of it was found. Three windmills were found. One was turning, but not producing water. The other two windmills were toppled. No underground source of drinking water is below the proposed disposal interval.

Formation tops are:

Quaternary = 0'  
Rustler anhydrite = 246'  
Salado = 746'  
Base salt = 1054'  
Yates = 1196'  
Seven Rivers = 1478'  
Capitan = 1531'  
Cherry Canyon = 3056'  
Brushy Canyon = 4671'  
Bone Spring = 6050'  
Wolfcamp = 9410'  
Pennsylvania shale = 10028'  
Canyon = 10525'  
Strawn = 10607'  
Atoka = 10998'  
Morrow = 11367'  
Barnett = 11959'  
Mississippian limestone = 12435'  
Woodford shale = 12993'  
Devonian carbonate = 13093'  
*disposal interval = 13103' - 14083'*  
TD = 14083'  
(Montoya = 14093')

Two  $\geq 114$  year old water wells are within a 2-mile radius according to State Engineer records (Exhibit G). Neither were found during a June 6-7, 2019 inspection. There will be  $>2.4$  miles of vertical separation and shale, salt, and anhydrite intervals between the bottom of the only likely underground water source (Quaternary) and the top of the Devonian.

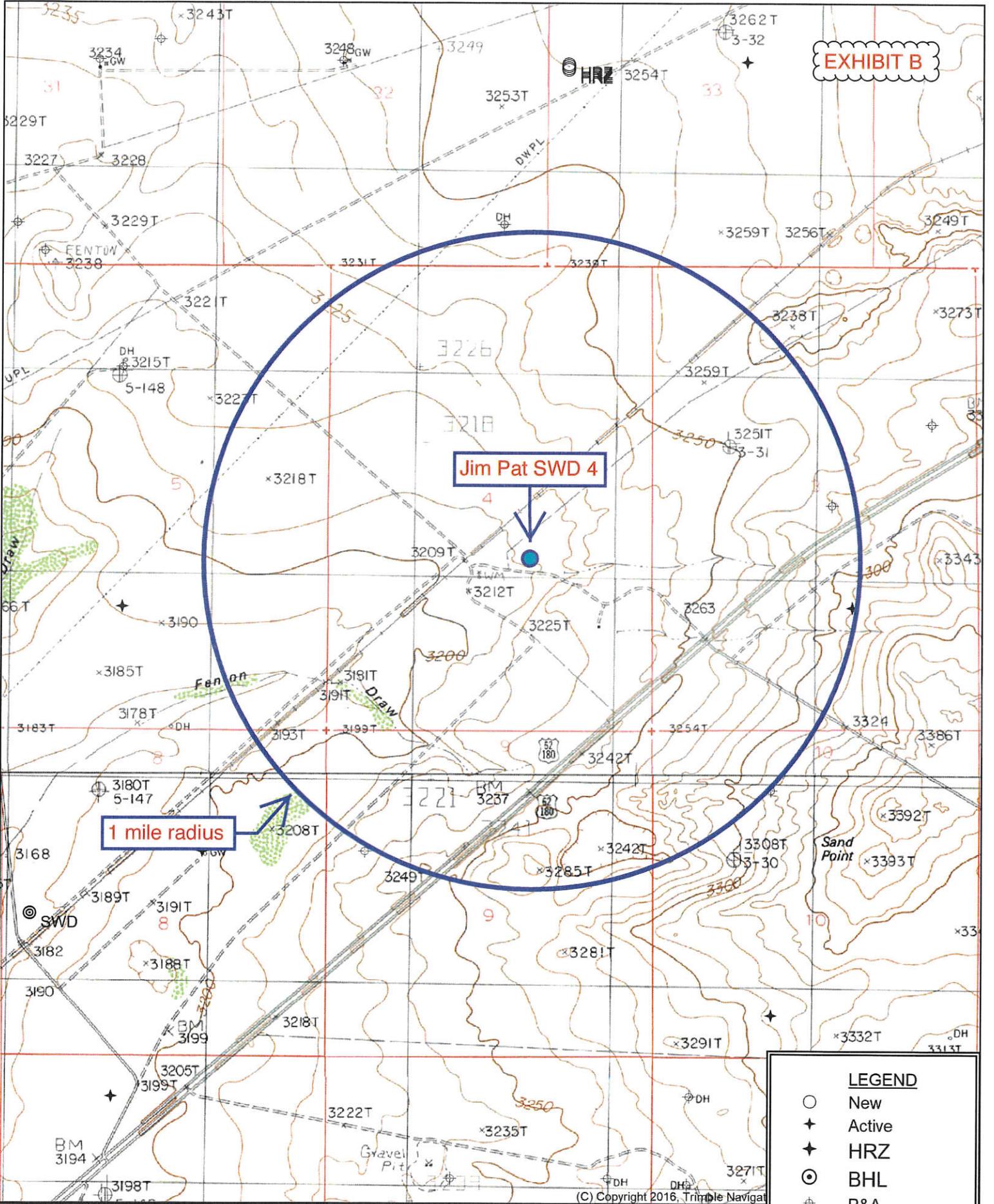
IX. The well will be stimulated with acid.

- X. Gamma MWD and CBL logs will be run. Triple/quad combo log may be run.
- XI. No water wells were found within 2 miles during a June 6-7, 2019 field inspection.
- XII. San Mateo Stebbins Management, LLC (Exhibit H) is not aware of any geologic or engineering data that may indicate the Devonian is in hydrologic connection with any underground sources of water. There are 152 active Devonian SWD wells and 9 active Devonian water injection wells in New Mexico. There are no faults within the immediate area.
- XIII. A legal ad (see Exhibit I) was published on May 11, 2019. Notice (this application) has been sent (Exhibit J) to the surface owner (Harley & Jan Ballard) and all operators, lessees, and unleased mineral interest owners within a mile who are required to receive notice.





**EXHIBIT B**



**Jim Pat SWD 4**

**1 mile radius**

**LEGEND**

- New
- ✦ Active
- ✦ HRZ
- ⊙ BHL
- ⊕ P&A
- ⊙ INJ
- ⊙ SWD
- ⊙ Brine



Quad: ILLINOIS CAMP SE  
Scale: 1 inch = 2,000 ft.

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SORTED BY DISTANCE FROM JIM PAT SWD 4

API	OPERATOR	WELL	TYPE WELL	UNIT-SECTION	TVD	ZONE @ TD	FEET FROM JIM PAT SWD 4
30-015-02460	Ross-Luck	Cowan 1	P&A	O-3	1340'	Yates	4981'
30-015-22859	Bopco	BEU 072	Gas	O-3	12332'	Morrow	5274'
30-015-20008	Huber	Yates Fed 1	P&A	P-32	12120'	Chester	5391'