Initial

Application

Recieved 1/26/2022

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

RECEIVED:	REVIEWER:	TYPE:	APP NO:

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: NGL WATER SOLUTIONS PERMIAN LLC **OGRID Number:** 372338
Well Name: MINUTEMAN SWD #1 **API:** TBD
Pool: SWD; DEVONIAN-SILURIAN **Pool Code:** 97869

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

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

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

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.

01/18/2022
Date

Joseph Vargo
Print or Type Name

303-815-1010
Phone Number

Signature

Joseph.Vargo@nglep.com
e-mail Address

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance ___X___Disposal _____Storage
Application qualifies for administrative approval? ___X___Yes _____No

II. OPERATOR: NGL WATER SOLUTIONS PERMIAN, LLC

ADDRESS: 865 NORTH ALBION STREET, SUITE 400, DENVER, CO 80220

CONTACT PARTY: JOSEPH VARGO PHONE: (303) 815-1010

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 ___X___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.

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).

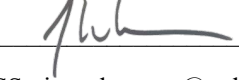
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

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: Joseph Vargo TITLE: Regulatory Director

SIGNATURE:  DATE: 01/18/2022

E-MAIL ADDRESS: joseph.vargo@nglep.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: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

Side 2

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.

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: NGL WATER SOLUTIONS PERMIAN, LLC

WELL NAME & NUMBER: MINUTEMAN SWD #1

SURFACE HOLE LOCATION:	659’ FSL & 592’ FWL	M	14	24S	33E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE
BOTTOM HOLE LOCATION:	659’ FSL & 650’ FWL	M	14	24S	33E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 24.000”

Casing Size: 20.000”

Cemented with: 1,730 sx. ***or*** _____ ft^3

Top of Cement: Surface

Method Determined: Circulation

1st Intermediate Casing

Hole Size: 17.500”

Casing Size: 13.375”

Cemented with: 2,600 sx. ***or*** _____ ft^3

Top of Cement: Surface

Method Determined: Circulation

2nd Intermediate Casing

Hole Size: 12.250”

Casing Size: 9.625”

Cemented with: 2,771 sx. ***or*** _____ ft^3

Top of Cement: Surface

Method Determined: Circulation

Production Liner

Hole Size: 8.500”

Casing Size: 7.625”

Cemented with: 325 sx.

or _____ ft^3

Top of Cement: 11,800’

Method Determined: Calculation

Total Depth: 18,326’

Injection Interval

16,691 feet to 18,326 feet

(Open Hole)

INJECTION WELL DATA SHEET

Tubing Size: 7", 26 lb/ft, P-110, TCPC from 0'- 11,700' and 5.500", 17 lb/ft, P-110 TCPC from 11,700'- 16,641'
Lining Material: Duoline

Type of Packer: 7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and Full Inconel 925 TRIM

Packer Setting Depth: 16,641'

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

Additional Data

1. Is this a new well drilled for injection? ___X___Yes _____No

   If no, for what purpose was the well originally drilled? N/A

2. Name of the Injection Formation: Devonian, Silurian, Fusselman and Montoya (Top 100')

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

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, new drill.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:
   Bone Spring: 9,130'
   Wolfcamp: 12,100'

NGL McCloy Minuteman SWD #1

Location - 23.2 miles west of Jal NM on Hwy 128.

TD: 18,326

Directions to Site - Lat/Long 32.211719/-103.550778

Vertical Injection - Devonian, Silurian, Fusselman

Lea County NM

GL/KB: 3593'/3617'

Geologic Tops (MD ft)	Section	Bit/BHA	Casing	Logging	Cement (HOLD)	Injection String
Triassic - 209 Permian Dewey Lake - 659 Rustler Anhydrite - 1234 **Surface TD - 1400**	**Surface** Drill 24" 0' - 1400 Set and Cement 20" Casing	24" Tricone 9-5/8" x 8" MM 9 jts: 8" DC 21 jts: 5" HWDP 5 " DP to surface	1400' of 20" 106.5# J55 BTC Centralizers - bottom 2 joints and every 3rd jt thereafter, Cement basket 5th jt from surface	No Logs	Thixotropic Cement 13.2 ppg Class C - 1,730 sks 3hr TT 25% Excess 1000psi CSD after 10hrs	11700' of 7" P110 26# TCPC 4941' of 5-1/2" P110 17# TCPC Duoline Internally Coated Injection Tubing
Base of Silicates 1494 Top Salt - 1,494' Castile - 3680 Base Salt - 5140 **ECP DV Tool - 5150** **1st Int TD - 5200**	**1st Intermediate** Drill 3800' of 17-1/2" Hole 1400' - 5200' Set and Cement 13-3/8" Casing	17-1/2" PDC 9-5/8" x 8" MM 9 jts: 8" DC 21 jts: 5" HWDP 5 " DP to surface	5M A Section Casing Bowl 5200' of 13-3/8" 68# HCL80 BTC Centralizers - bottom jt, every 3rd joint in open hole and 2 jt inside the surface casing	Mudlogger on site by 1250'	13.2 ppg Class C - 2,600 sks 4hr TT 10% Excess 1000psi CSD after 10 hrs Cement to Surface	
Delaware Mtn Group - 5232 Lamar Limestone - 5234 Bell Canyon - 5270 Cherry Canyon - 6265 Brushy Canyon - 7860 **DV Tool - 9000** Bone Spring - 9130 **3rd Int Liner Top - 11,800** Wolfcamp - 12100 **2nd Int TD - 12,300**	**2nd Intermediate** Drill 7100' of 12-1/4" Hole 5200' - 12300' Set 9-5/8" Intermediate Casing and Cement in 3 Stages	12-1/4" PDC 8" MM 9jts: 8" DC 8" Drilling Jars 21 jts: 5" HWDP 5" DP to Surface	10M B Section 12300' of 9-5/8" 53.5# P110 BTC **Special Drift to 8.535"** **Externally Coat 4000' Between DV Tools** DV tool at at 8940' ECP DV Tool 15' Inside Previous Casing Centralizers - bottom jt, 100' aside of DV tool, every 3rd joint in open hole and 5 within the surface casing	MWD GR Triple combo + CBL of 13-3/8" Casing	**Stage 3:** 13.2 ppg Class C - 981 sks 5hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface **Stage 2:** 13.2 ppg Class H - 964 sks 5hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface **Stage 1:** 13.2 ppg Class H - 827 sks 6hr TT 10% XS 1000psi CSD after 10 hrs Cement to Surface	
Penn - 13230 Strawn - 13470 Atoka - 13695 Morrow - 14425 Miss Lst - 14476 Woodford - 16481 **Perm Packer - 16641** **3rd Int TD - 16691**	**3rd Intermediate** Drill 4381' of 8-1/2" Hole 12300' - 16691' Set 7-5/8" Liner and Cement in Single Stage	8-1/2" PDC 6-3/4" MM 9 jts: 6" DC 21 jts: 5" HWDP 5" DP to Surface	4891' of 7-5/8" 39# Q125 - **DTL (FJ4) FJ (Gas Tight)** **VersaFlex Packer Hanger** Centralizers on and 1 jt above shoe jt and then every 2nd jt.	MWD GR Triple combo, CBL of 9-5/8" Casing	15.6 ppg Class H - 325 sks 8hr TT 10% Excess 1000psi CSD after 10hrs	7-5/8" x 5-1/2" TCPC Permanent Packer with High Temp Elastomer and full Inconel 925 trim
Devonian - 16,691 **Silurian - 17071** **Fusselman - 17651** **Montoya - 18,226'** **TD - 18,326'**	**Injection Interval** Drill 1635' of 6-1/2" hole 16691+L57' - 18,326'	6-1/2" PDC 4-3/4"MM 9 jts: 4-3/4" DC 4-3/4" Drilling Jars 18 jts: 4" FH HWDP 4" FH DP to Surface	Openhole completion	MWD GR Triple Combo with FMI, CBL of 7-5/8"	Displace with 3% KCl (or heavier brine if necessary)	

NGL Water Solutions Permian, LLC

Minuteman SWD No. 1

FORM C-108 Supplemental Information

III. Well Data

A. Wellbore Information

1.

Well information	
Lease Name	Minuteman SWD
Well No.	1
Location	S-14 T-24S R-33E
Footage Location (SHL)	659’ FSL & 592’ FWL
Footage Location (BHL)	659’ FSL & 650’ FWL

2.

a. Wellbore Description

Casing Information				
Type	Surface	Intermediate	Production	Liner
OD	20”	13.375”	9.625”	7.625”
WT	0.500”	0.480”	0.545”	0.500”
ID	19.000”	12.415”	8.535”	6.625”
Drift ID	18.812”	12.259”	8.535”	6.500”
COD	21.00”	14.375”	10.625”	7.625”
Weight	106.5 lb/ft	68 lb/ft	53.5 lb/ft	39 lb/ft
Grade	J-55	HCL-80	P-110	Q-125
Hole Size	24”	17.5"	12.25”	8.5"
Depth Set	1,400’	5,200’	12,300’	16,691’

b. Cementing Program

Cement Information				
Casing String	Surface	Intermediate	Production	Liner
Lead Cement	C	C	H,H,C	H
Lead Cement Volume	727	1,274	Stage 1: 443 sks Stage 2: 521 sks Stage 3: 709 sks	95
Tail Cement	C	C	H,H,C	H
Tail Cement Volume	1,004	1,327	Stage 1: 384 sks Stage 2: 443 sks Stage 3: 272 sks	230
Cement Excess	25%	10%	10%	10%
TOC	Surface	Surface	Surface	11,800’
Method	Circulate to Surface	Circulate to Surface	Circulate to Surface	Logged

3. Tubing Description

Tubing Information		
OD	7"	5.5”
WT	0.362”	0.304”
ID	6.276"	4.892”
Drift ID	7.875”	6.050”
COD	6.151"	4.767”
Weight	26 lb/ft	17 lb/ft
Grade	P-110 TCPC	P-110 TCPC
Depth Set	0’-11,700’	11,700’-16,641’

Tubing will be lined with Duoline.

4. Packer Description

7-5/8” x 5-1/2” TCPC Permanent Packer with High Temp Elastomer and Full Inconel 925 trim

B. Completion Information

1. Injection Formation: Devonian, Silurian, Fusselman, Montoya (Top 100’)

2. Gross Injection Interval: 16,691’ – 18,326’

Completion Type: Open Hole

3. Drilled for injection.

4. See the attached wellbore schematic.

5. Oil and Gas Bearing Zones within area of well:

Formation	Depth
Bone Spring	9,130’
Wolfcamp	12,100’

VI. Area of Review

No wells within the area of review penetrate the proposed injection zone.

VII. Proposed Operation Data

1. Proposed Daily Rate of Fluids to be Injection:

   Average Volume: 40,000 BPD
   Maximum Volume: 50,000 BPD

2. Closed System

3. Anticipated Injection Pressure:

   Average Injection Pressure: 2,504 PSI (surface pressure)
   Maximum Injection Pressure: 3,338 PSI (surface pressure)

4. The injection fluid is to be locally produced water. Attached are produced water sample analyses taken from the closest wells that feature samples from the Bone Spring and Wolfcamp formations.

5. The disposal interval is non-productive. No water samples are available from the surrounding area.

VIII. Geological Data

The Devonian formation is a dolomitic ramp carbonate that occurs below the Woodford shale and above the Fusselman formation. Strata found in the Devonian formation include two major groups, the Wristen Buildups and the Thirtyone Deepwater Chert, with the Wristen being more abundant. The Wristen Groups is composed of mixed limestone and dolomites with mudstone to grainstone and boundstone textures. Porosity in the Wristen group is a result of both primary and secondary development. Present are moldic, vugular, karstic (including collapse breccia) features that allow for higher porosities and permeabilities. The Thirtyone Formation contains two end-member reservoir facies, skeletal packstones/grainstones and spiculitic chert, with most of the porosity and permeability found in the coarsely crystalline cherty dolomite. These particular characteristics allow for this formation to be a tremendous Salt Water Disposal horizon.

A. Injection Zone: Siluro-Devonian Formation

Formation	**Depth**
Rustler	1,234’
Salado	1,494’
Delaware	5,232’
Cherry Canyon	6,265’
Brushy Canyon	7,860’
Bone Spring	9,130’
Wolfcamp	12,100’
Penn	13,230’
Atoka	13,695’
Morrow	14,425’
Mississippian Lime	16,111’
Woodford	16,481’
Devonian	16,691’
Fusselman	17,651’
Montoya	18,226’

B. Underground Sources of Drinking Water

Within 1-mile of the proposed Minuteman SWD #1 location, there are 9 reported water wells. The water wells have an average depth of 360 ft and an average water depth of 229 ft generally producing from the Santa Rosa. The upper Rustler may also be another USDW and will be protected.

IX. Proposed Stimulation Program

Stimulate with up to 50,000 gallons of acid.

X. Logging and Test Data on the Well

There are no logs or test data on the well. During the process of drilling and completion resistivity, gamma ray, and density logs will be run.

XI. Chemical Analysis of Fresh Water Wells

All water wells on the attached 1-mile water well map were researched and efforts were made to locate active water wells in the field. A 3rd party sampling and analysis company determined that all water wells were abandoned or plugged, so no samples could be obtained.

XII. Affirmative Statement of Examination of Geologic and Engineering Data

Based on the available engineering and geologic data we find no evidence of open faults or any other hydrologic connection between the disposal zone (in the proposed **Minuteman SWD #1**) and any underground sources of drinking water.

NAME: John C. Webb

TITLE: Sr. Geologist

SIGNATURE: John C. Webb

DATE: 8/22/2018

Minuteman SWD No. 1
Water Wells within 1 Mile
NGL Water Solutions Permian, LLC
Lea Co., NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)

Drawn by: ASG	Date: 8/21/2018	Approved by: ELR

LONQUIST & CO. LLC
PETROLEUM ENGINEERS | ENERGY ADVISORS
AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

C-03585-POD1
32.218361
-103.5635

C-03585-POD4
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C-03565-POD8
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C-03585-POD2
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MINUTEMAND SWD NO.1 BHL
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MINUTEMAND SWD NO.1 SHL
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C-04339-POD1
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C-04339-POD2
32.198086
-103.54875

1 " = 1,083
1:13,000
0 0.125 0.25 0.375 0.5 1 Miles

+ Minuteman SWD No. 1 SHL

× Minuteman SWD No. 1 BHL

1-Mile

Lateral

Water Well (15) [NM-OSE 2020]

QQ-Section (NM-PLSS 2nd Div.)

Section (NM-PLSS 1st Div.)

Township/Range (NM-PLSS)

Source: Well SHL Data - NM-OCD (2020)

Minuteman SWD #1: Offsetting Produced Water Analysis															
wellname	api	county	state	formation	ph	tds_mgL	sodium_mgL	calcium_mgL	iron_mgL	magnesium_mgL	manganese_mgL	chloride_mgL	bicarbonate_mgL	sulfate_mgL	co2_mgL
BELL LAKE 19 STATE #001H	3002541024	Lea	NM	BONE SPRING 2ND SAND	6.77	134649.2	44572.9	6215	37.9	759.3	0.93	81681.6	244	765	200
BELL LAKE 19 STATE #002H	3002541515	Lea	NM	BONE SPRING 2ND SAND	7.01	128413.3	44427.6	4207	41.9	705.9	0.78	77482.5	366	910	300
BELL LAKE 19 STATE #003H	3002541516	Lea	NM	BONE SPRING 2ND SAND	6.67	138617.2	46648.4	5778	41.1	731.5	1.1	84081	244	710	300
BELL LAKE 19 STATE #004H	3002541517	Lea	NM	BONE SPRING 2ND SAND	6.68	133460.5	44483.1	5917	30.5	718.2	0.83	80981.7	244	675	300
BELLOQ 2 STATE #002H	3001542895	EDDY	NM	WOLFCAMP	6.8	119471.8	37359.2	5659.1	22.4	746.1		73172.5		1035.5	250

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) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	97869	SWD; Silurian-Devonian

[4] Property Code	[5] Property Name	[6] Well Number
	MINUTEMAN SWD	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
372338	NGL WATER SOLUTIONS PERMIAN, LLC	3594.00"±

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	14	24 S	33 E	N/A	659'	SOUTH	592'	WEST	LEA

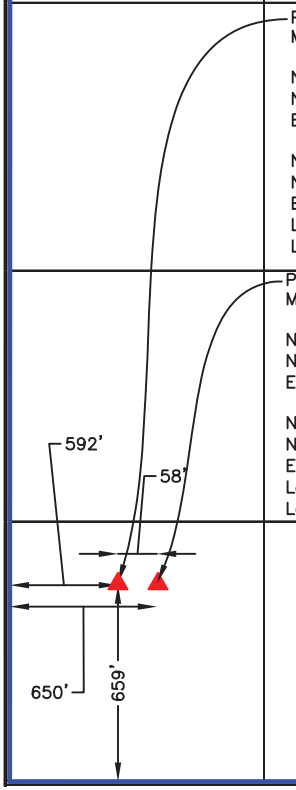
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	14	24 S	33 E	N/A	659'	SOUTH	650'	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

[16]



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — 01/17/2022 Date

Chris Weyand
Printed Name

chris@lonquist.com
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

10/18/2018
Date of Survey

Signature and Seal of Professional Surveyor:

CODY A. CLARK
NEW MEXICO
23001
PROFESSIONAL SURVEYOR

23001
Certificate Number

Minuteman SWD No. 1
2-Mile Area of Review
NGL Water Solutions Permian, LLC
Lea Co., NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)

Drawn by: ASG	Date: 1/13/2022	Approved by: ELR

LONQUIST & CO. LLC
PETROLEUM ENGINEERS | ENERGY ADVISORS
AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

- Minuteman SWD No. 1 BHL
- Minuteman SWD No. 1 SHL
- 1/2-Mile Buffer
- 1-Mile Buffer
- 2-Mile Buffer
- Property Boundary
- QQ-Section (NM-PLSS 2nd Div.)
- Section (NM-PLSS 1st Div.)
- Township/Range (NM-PLSS)
- Lateral

API (30-025-...) SHL Status - Type (Count)

- Horizontal Surface Location (359)
- Active - Gas (13)
- Active - Injection (1)
- Active - Salt Water Disposal (2)
- Cancelled Location (4)
- Plugged (site released) - Gas (7)
- Plugged (site released) - Oil (4)

API (30-025-...) BHL Status - Type (Count)

- Permitted - Oil (182)
- Active - Gas (2)
- Active - Oil (140)
- Cancelled - Oil (31)

Source: Well SHL Data - NM-OCD (2022)

MINUTEMAND SWD NO.1 BHL
32.212389
-103.54955,
MINUTEMAND SWD NO.1
SHL
32.21239
-103.549738

1 " = 3,167 '
1:38,000
0 ¼ ½ ¾ 1 2 Miles

Minuteman SWD No. 1

1-Mile Area of Review

NGL Water Solutions Permian, LLC

Lea Co., NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)

Drawn by: ASG	Date: 1/4/2022	Approved by: ELR

LONQUIST & CO. LLC

PETROLEUM ENGINEERS | ENERGY ADVISORS

AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

- Minuteman SWD No. 1 SHL
- Minuteman SWD No. 1 BHL
- 1/2-Mile Buffer
- 1-Mile Buffer
- QQ-Section (NM-PLSS 2nd Div.)
- Section (NM-PLSS 1st Div.)
- Township/Range (NM-PLSS)
- Lateral

API (30-025-...) SHL Status - Type (Count)

- Horizontal Surface Location (96)
- Active- Gas (5)
- Plugged (site released - Gas (1)

API (30-025-...) BHL Status - Type (Count)

- Permitted - Oil (23)
- Active - Gas (2)
- Active - Oil (36)
- Cancelled - Oil (12)
- Plugged (site released) - Oil (1)

Source: Well SHL Data - NM-OCD (2022)

1 " = 1,083 '

1:13,000

0 0.125 0.25 0.375 0.5 1 Miles

MINUTEMAND SWD NO.1 SHL 32.21239 -103.549738

MINUTEMAND SWD NO.1 BHL 32.212389 -103.54955

Minuteman SWD No. 1
1 Mile Area of Review List

API (30-025-...)	WELL NAME	WELL TYPE	STATUS	OPERATOR	TVD (FT.)	LATITUDE (NAD83 DD)	LONGITUDE (NAD83 DD)	DATE DRILLED
3002527223	JACKSON UNIT #001	Gas	Active	TAP ROCK OPERATING, LLC	15860	32.20493700000	-103.55804440000	1/29/1981
3002533238	JACKSON UNIT #003	Gas	Active	TAP ROCK OPERATING, LLC	13920	32.21219640000	-103.56231690000	2/9/1996
3002533299	JACKSON UNIT #004	Gas	Active	EOG RESOURCES INC	15534	32.22308350000	-103.55842590000	3/14/1996
3002534050	LELA MAE STEVENS FEDERAL COM #001	Gas	Plugged (site released)	EOG RESOURCES INC	13840	32.21944810000	-103.54556270000	10/23/1997
3002534687	JACKSON UNIT #007	Gas	Active	TAP ROCK OPERATING, LLC	13841	32.21582030000	-103.55804440000	10/16/1999
3002535328	JACKSON UNIT #008	Gas	Active	TAP ROCK OPERATING, LLC	13920	32.20493700000	-103.56231690000	3/28/2001
3002541026	TYRELL FEE #001H	Oil	Active	COG OPERATING LLC	10951	32.22437290000	-103.53671260000	4/24/2013
3002541086	JACKSON UNIT #015H	Oil	Active	TAP ROCK OPERATING, LLC	11184	32.22435000000	-103.56224060000	12/12/2013
3002541087	JACKSON UNIT #017H	Oil	Active	TAP ROCK OPERATING, LLC	11186	32.22434230000	-103.55477140000	3/11/2014
3002541093	JACKSON UNIT #024H	Oil	Active	TAP ROCK OPERATING, LLC	11102	32.19641110000	-103.55950930000	6/1/2013
3002541099	ROY BATTY FEDERAL COM #001H	Oil	Active	COG OPERATING LLC	10700	32.22579960000	-103.54949950000	6/24/2013
3002541167	JACKSON UNIT #016H	Oil	Active	TAP ROCK OPERATING, LLC	11180	32.22434620000	-103.55967710000	1/30/2014
3002541229	JACKSON UNIT #023H	Oil	Active	TAP ROCK OPERATING, LLC	11111	32.19641490000	-103.56332400000	6/23/2014
3002541230	JACKSON UNIT #025H	Oil	Active	TAP ROCK OPERATING, LLC	11121	32.19640730000	-103.55626680000	5/15/2014
3002541332	ROY BATTY FEDERAL COM #002H	Oil	Active	COG OPERATING LLC	11101	32.22541430000	-103.54553220000	11/1/2013
3002541711	JACKSON UNIT #040C	Oil	Cancelled	Murchison Oil and Gas, LLC	0	32.19641110000	-103.56132510000	12/31/9999
3002541766	JACKSON UNIT #041C	Oil	Cancelled	Murchison Oil and Gas, LLC	0	32.19668580000	-103.55641170000	12/31/9999
3002541768	JACKSON UNIT #039C	Oil	Cancelled	Murchison Oil and Gas, LLC	0	32.19641490000	-103.56381230000	12/31/9999
3002541769	JACKSON UNIT #042C	Oil	Cancelled	Murchison Oil and Gas, LLC	0	32.19640730000	-103.55252840000	12/31/9999
3002541790	JACKSON UNIT #035C	Oil	Cancelled	Murchison Oil and Gas, LLC	0	32.22435380000	-103.56556700000	12/31/9999
3002541791	JACKSON UNIT #036C	Oil	Cancelled	Murchison Oil and Gas, LLC	0	32.22435000000	-103.56130220000	12/31/9999
3002541792	JACKSON UNIT #037C	Oil	Cancelled	Murchison Oil and Gas, LLC	0	32.22434620000	-103.55703740000	12/31/9999
3002541793	JACKSON UNIT #038C	Oil	Cancelled	Murchison Oil and Gas, LLC	0	32.22434230000	-103.55413060000	12/31/9999
3002542322	NEPTUNE 10 STATE COM #501H	Oil	Active	EOG RESOURCES INC	11171	32.22557530000	-103.55517993000	1/31/2015
3002542323	NEPTUNE 10 STATE COM #502H	Oil	Active	EOG RESOURCES INC	11205	32.22557538000	-103.55527742000	2/17/2015
3002542578	NEPTUNE 10 STATE COM #503C	Oil	Cancelled	EOG RESOURCES INC	0	32.22557108000	-103.55342511000	12/31/9999
3002542579	NEPTUNE 10 STATE COM #701C	Oil	Cancelled	EOG RESOURCES INC	0	32.22557116000	-103.55352260000	12/31/9999
3002542789	TYRELL FEE #002H	Oil	Active	COG OPERATING LLC	9359	32.22433799000	-103.53780440000	11/4/2015
3002542920	BOOMSLANG 14 23 FEDERAL #001H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	9517	32.22431530000	-103.54100470000	7/28/2017
3002542933	BOOMSLANG 14 23 FEDERAL #004H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	11274	32.22431510000	-103.54084320000	7/5/2017
3002543011	BLUE KRAIT 23 14 FEDERAL #001H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	9370	32.19639980000	-103.54944480000	7/8/2017
3002543012	BLUE KRAIT 23 14 FEDERAL #005H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	9398	32.19639980000	-103.54934780000	7/12/2017
3002543032	BOOMSLANG 14 23 FEDERAL #009H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	10658	32.22431260000	-103.54313220000	8/13/2017
3002543051	BLUE KRAIT 23 FEDERAL #010H	Oil	New	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.19639980000	-103.54950950000	12/31/9999
3002543236	BLUE KRAIT 23 14 FEDERAL #002H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	11851	32.19639900000	-103.54524320000	6/18/2017
3002543237	BLUE KRAIT 23 FEDERAL #003H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	9399	32.19639820000	-103.53686120000	7/1/2017
3002543238	BLUE KRAIT 23 FEDERAL #004H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	11130	32.19639810000	-103.53662280000	6/21/2017
3002543239	BLUE KRAIT 23 FEDERAL #006H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	9408	32.19639800000	-103.53671980000	6/26/2017
3002543308	BOOMSLANG 14 23 FEDERAL #002H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	9485	32.22424690000	-103.54696970000	8/18/2017
3002543309	BOOMSLANG 14 23 FEDERAL #003H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	11451	32.22431250000	-103.55090420000	8/7/2017
3002543532	LEO THORSNESS 13 24 33 #211H	Gas	Active	MATADOR PRODUCTION COMPANY	12383	32.22324880000	-103.53404390000	12/10/2017
3002544442	STRONG 14 24 33 AR #214H	Gas	Active	MATADOR PRODUCTION COMPANY	12499	32.22337350000	-103.53461800000	7/31/2018
3002544461	NEPTUNE 10 STATE COM #604C	Oil	Cancelled	EOG RESOURCES INC	0	32.22519620000	-103.55740560000	12/31/9999
3002544466	NEPTUNE 10 STATE COM #709C	Oil	Cancelled	EOG RESOURCES INC	0	32.22574450000	-103.55485830000	12/31/9999
3002544468	NEPTUNE 10 STATE COM #101H	Oil	Active	EOG RESOURCES INC	9428	32.22542670000	-103.55305680000	2/7/2020
3002544469		Oil	New		0	0.00000000	0.00000000	18991230
3002545080	CHARLES LING FEDERAL COM #211H	Oil	Active	MATADOR PRODUCTION COMPANY	12485	32.23838330	-103.54995340	12/2/2018
3002545081	CHARLES LING FEDERAL COM #212H	Oil	Active	MATADOR PRODUCTION COMPANY	12434	32.23838900	-103.54568510	1/13/2019

Minuteman SWD No. 1
1 Mile Area of Review List

3002545294	CHARLES LING FEDERAL COM #132H	Oil	New	MATADOR PRODUCTION COMPANY	0	32.23838890	-103.54549110	12/31/9999
3002545297	CHARLES LING FEDERAL COM #201H	Oil	New	MATADOR PRODUCTION COMPANY	0	32.23838340	-103.54985640	12/31/9999
3002545298	CHARLES LING FEDERAL COM #202H	Oil	New	MATADOR PRODUCTION COMPANY	0	32.23838890	-103.54558810	12/31/9999
3002545301	CHARLES LING FEDERAL COM #131H	Oil	New	MATADOR PRODUCTION COMPANY	0	32.23838340	-103.54975930	12/31/9999
3002546154	LEO THORSNESS 13 24 33 #221H	Oil	Active	MATADOR PRODUCTION COMPANY	12,871	32.22337390	-103.53471530	8/13/2019
3002546282	LEO THORSNESS 13 24 33 AR #135H	Oil	Active	MATADOR PRODUCTION COMPANY	12,073	32.22329140	-103.53471560	8/24/2019
3002546430	BLUE KRAIT 23 14 FEDERAL #031H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	12,474	32.19652300	-103.54847500	1/17/2020
3002546463	BLUE KRAIT 23 14 FEDERAL #027H	Oil	New	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.19653300	-103.54353800	12/31/9999
3002546464	BLUE KRAIT 23 14 FEDERAL #028H	Oil	New	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.19653100	-103.54344100	12/31/9999
3002546465	BLUE KRAIT 23 14 FEDERAL #036H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	12,344	32.19652300	-103.54837800	1/16/2020
3002546466	BLUE KRAIT 23 14 FEDERAL #037H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	12,331	32.19639900	-103.53838200	3/2/2020
3002546540	BLUE KRAIT 23 FEDERAL #033H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	12,520	32.19639900	-103.53828500	3/1/2020
3002546832	BLUE KRAIT 23 FEDERAL #038H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.19639800	-103.53818800	2/28/2020
3002546833	BLUE KRAIT 23 14 FEDERAL #032H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	12,536	32.19652300	-103.54828100	2/8/2020
3002546834	BLUE KRAIT 23 14 FEDERAL #035H	Oil	Active	DEVON ENERGY PRODUCTION COMPANY, LP	12,319	32.19652300	-103.54857200	2/7/2020
3002546857	BLUE KRAIT 23 FEDERAL #021H	Oil	New	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.19694300	-103.53760600	12/31/9999
3002547030	BLUE KRAIT 23 FEDERAL #034H	Oil	Plugged (site released)	DEVON ENERGY PRODUCTION COMPANY, LP	0	32.19639800	-103.53809100	12/31/9999
3002547043	FALCON 25 FEDERAL #303H	Oil	New	EOG RESOURCES INC	0	32.18243040	-103.53425170	12/31/9999
3002547043		Oil	New		0	0.00000000	0.00000000	18991230
3002547044	FALCON 25 FEDERAL #304H	Oil	New	EOG RESOURCES INC	0	32.18235590	-103.53383800	12/31/9999
3002547794	FALCON 25 FEDERAL COM #704H	Oil	Active	EOG RESOURCES INC	0	32.18197730	-103.53438550	12/16/2020
3002548216	FALCON 36 FEDERAL COM #503H	Oil	Active	EOG RESOURCES INC	0	32.18114210	-103.52969340	12/27/2020
3002548725	PROMETHEUS STATE COM #101H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19902470	-103.56797520	12/31/9999
3002548726	PROMETHEUS STATE COM #102H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19822500	-103.56281630	12/31/9999
3002548728	PROMETHEUS STATE COM #132H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19815890	-103.56323710	12/31/9999
3002548731	PROMETHEUS STATE COM #142H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19815680	-103.56289760	12/31/9999
3002548732	PROMETHEUS STATE COM #151H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19902310	-103.56771650	12/31/9999
3002548733	PROMETHEUS STATE COM #152H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19815580	-103.56273600	12/31/9999
3002548735	PROMETHEUS STATE COM #172H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19822550	-103.56289710	12/31/9999
3002548736	PROMETHEUS STATE COM #181H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19895600	-103.56797570	12/31/9999
3002548737	PROMETHEUS STATE COM #182H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19822450	-103.56273540	12/31/9999
3002548739	PROMETHEUS STATE COM #202H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19815840	-103.56315630	12/31/9999
3002548740	PROMETHEUS STATE COM #205H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19822760	-103.56323650	12/31/9999
3002548743	PROMETHEUS STATE COM #222H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19822710	-103.56315570	12/31/9999
3002548759	PROMETHEUS STATE COM #103H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19820490	-103.55951600	12/31/9999
3002548760	PROMETHEUS STATE COM #104H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19818520	-103.55628560	12/31/9999
3002548761	PROMETHEUS STATE COM #133H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19820740	-103.55993630	12/31/9999
3002548762	PROMETHEUS STATE COM #134H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19818720	-103.55662500	12/31/9999
3002548763	PROMETHEUS STATE COM #136H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19813820	-103.55985600	10/30/2021
3002548764	PROMETHEUS STATE COM #143H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19813670	-103.55959740	12/31/9999
3002548765	PROMETHEUS STATE COM #144H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19811690	-103.55636700	12/31/9999
3002548766	PROMETHEUS STATE COM #153H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19820330	-103.55925740	12/31/9999
3002548767	PROMETHEUS STATE COM #154H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19811590	-103.55620540	12/31/9999
3002548768	PROMETHEUS STATE COM #173H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19820540	-103.55959680	12/31/9999
3002548769	PROMETHEUS STATE COM #174H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19818570	-103.55636640	12/31/9999
3002548770	PROMETHEUS STATE COM #183H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19813620	-103.55951660	12/31/9999
3002548771	PROMETHEUS STATE COM #184H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19818470	-103.55620480	12/31/9999
3002548772	PROMETHEUS STATE COM #203H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19820700	-103.55985550	12/31/9999
3002548773	PROMETHEUS STATE COM #204H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19811850	-103.55662560	12/31/9999

Minuteman SWD No. 1
1 Mile Area of Review List

3002548774	PROMETHEUS STATE COM #206H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19818770	-103.55670580	12/31/9999
3002548775	PROMETHEUS STATE COM #213H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19813870	-103.55993690	10/28/2021
3002548776	PROMETHEUS STATE COM #214H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19811900	-103.55670640	12/31/9999
3002548777	PROMETHEUS STATE COM #223H	Oil	New	TAP ROCK OPERATING, LLC	0	32.19813460	-103.55925800	12/31/9999

Minuteman SWD No. 1

1 Mile Offset Operators - OCD

NGL Water Solutions Permian, LLC

Lea Co., NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)

Drawn by: ASG	Date: 1/4/2022	Approved by: ELR

LONQUIST & CO. LLC

PETROLEUM ENGINEERS | ENERGY ADVISORS

AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

-EOG RESOURCES INC

-TAP ROCK OPERATING, LLC
-EOG RESOURCES INC

-COG OPERATING LLC
-MATADOR PRODUCTION COMPANY

MINUTEMAND SWD NO.1 SHL
32.21239
-103.549738

MINUTEMAND SWD NO.1 BHL
32.212389,
-103.54955

-TAP ROCK OPERATING, LLC

-DEVON ENERGY PRODUCTION COMPANY, LP

-EOG RESOURCES INC
-TAP ROCK OPERATING, LLC

1 " = 1,083 '

1:13,000

0 500 1,000 1,500 2,000 4,000 Feet

- Minuteman SWD No. 1 SHL
- Minuteman SWD No. 1 BHL
- Lateral
- QQ-Section (NM-PLSS 2nd Div.)
- Section (NM-PLSS 1st Div.)
- Township/Range (NM-PLSS)

API (30-025-...) SHL Status - Type (Count)

- Horizontal Surface Location (96)
- Active- Gas (5)
- Plugged (site released - Gas (1)

API (30-025-...) BHL Status - Type (Count)

- Permitted - Oil (41)
- Active Gas (2)
- Active - Oil (36)
- Cancelled - Oil (12)
- Plugged (site released) - Oil (1)

Offset Operators

OCD

- --TAP ROCK OPERATING, LLC; -EOG RESOURCES INC
- -COG OPERATING LLC; -MATADOR PRODUCTION COMPANY; -DEVON ENERGY PRODUCTION COMPANY, LP
- -COG OPERATING LLC; -MATADOR PRODUCTION COMPANY
- -DEVON ENERGY PRODUCTION COMPANY, LP
- -EOG RESOURCES INC
- -EOG RESOURCES INC; -TAP ROCK OPERATING, LLC
- -TAP ROCK OPERATING, LLC
- -NO ACTIVE WELLS
- -NO ACTIVE WELLS

Source: Well SHL Data - NM-OCD/NM-BLM/NM-SLO (2022)

Minuteman SWD No. 1

1 Mile Offset Lessee(s) - BLM & SLO

NGL Water Solutions Permian, LLC

Lea Co., NM

PCS: NAD 1983 SPCS NM-E FIPS 3001 (US Ft.)

Drawn by: ASG	Date: 1/14/2022	Approved by: ELR

LONQUIST & CO. LLC

PETROLEUM ENGINEERS | ENERGY ADVISORS

AUSTIN · HOUSTON · WICHITA · DENVER · CALGARY

-EOG RESOURCES
-DEVON ENERGY PROD. CO., L.P.
-VA-0730-0001

-TAP ROCK RESOURCES, LLC
-LG-6337-0000

-NON BLM/SLO LAND

-DEVON ENERGY PROD CO LP
-NMNM 0 063798

-CHAPARRAL ENERGY, LLC
- MURCHISON OIL & GAS
-LG-3176-0007

MINUTEMAND SWD NO.1 SHL
32.21239
-103.549738

MINUTEMAND SWD NO.1 BHL
32.212389
-103.54955

1 " = 1,125 '

1:13,500

0 500 1,000 1,500 2,000 4,000 Feet

- Minuteman SWD No. 1 SHL
- Minuteman SWD No. 1 BHL
- 1-Mile Buffer
- 1/2-Mile Buffer
- NM - SLO
- NM - BLM
- Lateral
- Horizontal Surface Location (96)
- Active- Gas (5)
- Plugged (site released - Gas (1)
- Permitted - Oil (23)
- Active - Gas (2)
- Active - Oil (36)
- Cancelled - Oil (12)
- Plugged (site released) - Oil (1)

Offset Lessee(s)

BLM & SLO

- -CHAPARRAL ENERGY, LLC; - MURCHISON OIL & GAS; - LG-3176-0007
- -DEVON ENERGY PROD CO LP; -NMNM 0 063798
- -EOG RESOURCES; -DEVON ENERGY PROD. CO., L.P.; -VA-0730-0001
- -TAP ROCK RESOURCES, LLC; -LG-6337-0000
- -NON BLM/SLO LAND

Source: Well SHL Data - NM-OCD/NM-BLM/NM-SLO (2022)

Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
January 19, 2022
and ending with the issue dated
January 19, 2022.

LEGAL NOTICE
January 19, 2022

NGL Water Solutions Permian, LLC, located at 865 North Albion Street, Suite 400, Denver, Colorado 80220, is filing Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division for administrative approval for its salt water disposal well Minuteman SWD No. 1. The proposed well will be located at 659' FSL and 592' FWL in Section 14, Township 24S, Range 33E in Lea County, New Mexico. The well will be drilled directionally to a proposed bottom hole location 659' FSL and 650' FWL in Section 14, Township 24S, Range 33E in Lea County, New Mexico. Disposal water will be sourced from area production, and will be injected into the Devonian and Silurian Formations (determined by offset log analysis) through an open hole completion between an applied for top of 16,691 feet to a maximum depth of 18,326 feet. The maximum surface injection pressure will not exceed 3,338 psi with a maximum rate of 50,000 BWPD. Interested parties opposing the action must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, within 15 days. Additional information can be obtained from the applicant, Joe Vargo, at (303) 815-1010, extension 3652.
#37231

Publisher

Sworn and subscribed to before me this
19th day of January 2022.

Business Manager

My commission expires
January 29, 2023
(Seal)

GUSSIE BLACK
Notary Public - State of New Mexico
Commission # 1087526
My Comm. Expires Jan 29, 2023

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

67112661 00262839

LONQUIST & CO., LLC
12912 HILL COUNTRY BLVD, STE F200
AUSTIN, TX 78738

DETERMINATION AND NOTICE OF AFFECTED PARTIES – NEW MEXICO

If an operator or mineral lessee has legal acreage or leases within one mile of the proposed salt water disposal well, their contact information is collected for notification purposes. Legal acreage of offset operators is gathered from the New Mexico Oil Conservation District's Permitting website. Minerals leased from the federal government are determined by referencing the Bureau of Land Management's Land and Mineral System Reports database. Minerals leased from the state government are determined by referencing the New Mexico State Land Office's Data Access database. Contact information for the affected parties is then extracted from the reports that were filed with the appropriate regulatory agency.

Notices were sent for the Minuteman SWD No. 1 application by mailing them a copy of Form C-108, C-108 supplemental information, and plat. The individual tracking numbers and delivery confirmations are documented in the subsequent pages.

Joseph Vargo
Regulatory Director

Project: NGL Water Solutions Permian, LLC
Minuteman SWD No. 1

Minuteman SWD No. 1 Notice List								
Legal Description	**Unit(s)**	**Notice Party Type**	**Notice Party**	**Address**	**Phone Number**	**Tracking No.**	**Carrier**	**Delivery Date**
			Oil Conservation Division District I - Hobbs	1625 N. French Drive, Hobbs, New Mexico 88240	(575) 393-6161	775782941550	FedEx	1/21/2022
Surface Owner								
			NGL WATER SOLUTIONS PERMIAN, LLC	1509 W Wall St., Ste. 306, Midland, TX 79701	(432) 685-0005		N/A	N/A
Mineral Owners								
S10, S15, S22-T24S-R33E		SURFACE TRACT MINERAL OWNER	BUREAU OF LAND MGMT	301 Dinosaur Trail, Santa Fe, NM 87508	(505) 954-2000	775782584437	FedEx	1/25/2022
S14, S23-T24S-R33E		ADJACENT TRACT MINERAL OWNER	NEW MEXICO STATE LAND OFFICE	P.O. Box 1148, Santa Fe, NM 87504	(505) 827-5760	9314869904300090808016	USPS	1/21/2022
Affected Parties - 1 Mile								
S14-T24S-R33E S23-T24S-R33E	W/2, B,G,J,O -	OPERATOR	DEVON ENERGY PRODUCTION COMPANY, LP	333 West Sheridan Ave., Oklahoma City, OK 73102	405-552-4660	775782799733	FedEx	1/21/2022
S10-T24S-R33E S15-T24S-R33E S22-T24S-R33E S24-T24S-R33E	- N/2 S/2 W/2	OPERATOR	EOG RESOURCES INC, ATTN.: KAY MADDOX	5509 CHAMPIONS DRIVE, MIDLAND, TX 79706	432-686-3689	775783764220	FedEx	1/21/2022
S11-T24S-R33E S14-T24S-R33E S13-T24S-R33E	- A,H,I,P D,E,L,M	OPERATOR	MATADOR PRODUCTION COMPANY	One Lincoln Centre, 5400 LBJ Freeway, Ste 1500, Dallas, TX 75240	972-371-5200	775782884137	FedEx	1/20/2022
S11-T24S-R33E S14-T24S-R33E S13-T24S-R33E	- A,H,I,P D,E,L,M	OPERATOR	COG OPERATING LLC	600 W Illinois Ave, Midland, TX 79701	432-683-7443	775782720876	FedEx	1/21/2022
S22-T24S-R33E S15-T24S-R33E	-	OPERATOR	TAP ROCK OPERATING, LLC	523 PARK POINT DRIVE, SUITE 200, GOLDEN, CO 80401	720-772-5093	775783014801	FedEx	1/25/2022

January 24, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 775782941550

Delivery Information:

Status:	Delivered	**Delivered To:**	
Signed for by:	DDIAZ	**Delivery Location:**	
Service type:	FedEx Ground		
Special Handling:	Direct Signature Required		Hobbs, NM,
		Delivery date:	Jan 21, 2022 09:56

Shipping Information:

Tracking number:	775782941550	**Ship Date:**	Jan 19, 2022
		Weight:	1.0 LB/0.45 KG

Recipient:	**Shipper:**
HOBBS, NM, US,	HOUSTON, TX, US,

Reference 1727-MINUTEMAN LEGAL NOTICE

Thank you for choosing FedEx

January 26, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 775782584437

Delivery Information:			
Status:	Delivered	**Delivered To:**	
Signed for by:	BDAVE	**Delivery Location:**	
Service type:	FedEx Ground		
Special Handling:	Direct Signature Required		Santa Fe, NM,
		Delivery date:	Jan 25, 2022 10:00

Shipping Information:			
Tracking number:	775782584437	**Ship Date:**	Jan 19, 2022
		Weight:	1.0 LB/0.45 KG

Recipient:	**Shipper:**
SANTA FE, NM, US,	HOUSTON, TX, US,

Reference 1727-MINUTEMAN LEGAL NOTICE

Signature image is available. In order to view image and detailed information, the shipper or payor account number of the shipment must be provided.

Thank you for choosing FedEx

Chris Weyand

From: auto-reply@usps.com
Sent: Friday, January 21, 2022 7:50 AM
To: Chris Weyand
Subject: USPS® Item Delivered, PO Box 9314869904300090808016

Follow Up Flag: Follow up
Flag Status: Flagged

UNITED STATES POSTAL SERVICE®

Hello **chris weyand**,

Your item has been delivered and is available at a PO Box at 6:39 am on January 21, 2022 in SANTA FE, NM 87501.

Tracking Number: **9314869904300090808016**

Delivered, PO Box

Tracking & Delivery Options

My Account

Visit USPS Tracking® to check the most up-to-date status of your package. Sign up for Informed Delivery® to digitally preview the address side of your incoming letter-sized mail and manage your packages scheduled to arrive soon! To update how frequently you receive emails from USPS, log in to your USPS.com account.

Want regular updates on your package? Set up text alerts.

INFORMED DELIVERY®
Sign up to view your mail online or via email.

January 24, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 775782799733

Delivery Information:			
Status:	Delivered	**Delivered To:**	
Signed for by:	MWELLA	**Delivery Location:**	
Service type:	FedEx Ground		
Special Handling:	Direct Signature Required		Oklahoma City, OK,
		Delivery date:	Jan 21, 2022 12:07

Shipping Information:			
Tracking number:	775782799733	**Ship Date:**	Jan 19, 2022
		Weight:	1.0 LB/0.45 KG

Recipient:	**Shipper:**
OKLAHOMA CITY, OK, US,	HOUSTON, TX, US,

Reference 1727-MINUTEMAN LEGAL NOTICE

Thank you for choosing FedEx

TRACK ANOTHER SHIPMENT

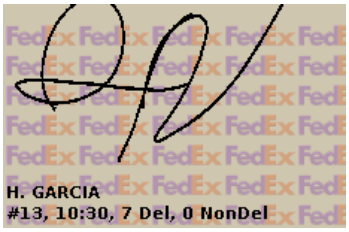
775783764220

ADD NICKNAME

Delivered
Friday, 1/21/2022 at 10:30 am

DELIVERED

Signed for by: HGARCIA



GET STATUS UPDATES

OBTAIN PROOF OF DELIVERY

Direct signature required

FROM

Lonquist Field Service

1415 LOUISIANA STRET
STE 3800
HOUSTON, TX US 77002
512-600-1764

TO

Kay Maddox
EOG RESOURCES

5509 CHAMPIONS DRIVE
Midland, TX US 79706
432-686-3689

Travel History

TIME ZONE
Local Scan Time

Friday, January 21, 2022		
10:30 AM	Midland, TX	Delivered
8:36 AM	MIDLAND, TX	On FedEx vehicle for delivery
7:52 AM	MIDLAND, TX	At local FedEx facility
12:26 AM	FORT WORTH, TX	Departed FedEx location

January 24, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 775782884137

Delivery Information:

Status:	Delivered	**Delivered To:**	
Signed for by:	LBROWN	**Delivery Location:**	
Service type:	FedEx Ground		
Special Handling:	Direct Signature Required		Dallas, TX,
		Delivery date:	Jan 20, 2022 09:21

Shipping Information:

Tracking number:	775782884137	**Ship Date:**	Jan 19, 2022
		Weight:	1.0 LB/0.45 KG

Recipient:	**Shipper:**
DALLAS, TX, US,	HOUSTON, TX, US,

Reference 1727-MINUTEMAN LEGAL NOTICE

Thank you for choosing FedEx

January 24, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 775782720876

Delivery Information:			
Status:	Delivered	**Delivered To:**	
Signed for by:	CCLINTON	**Delivery Location:**	
Service type:	FedEx Ground		
Special Handling:	Direct Signature Required		Midland, TX,
		Delivery date:	Jan 21, 2022 12:56

Shipping Information:			
Tracking number:	775782720876	**Ship Date:**	Jan 19, 2022
		Weight:	1.0 LB/0.45 KG

Recipient:	**Shipper:**
MIDLAND, TX, US,	HOUSTON, TX, US,

Reference	1727-MINUTEMAN LEGAL NOTICE

Thank you for choosing FedEx

January 26, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 775783014801

Delivery Information:			
Status:	Delivered	**Delivered To:**	
Signed for by:	WSPRINGMEYER	**Delivery Location:**	
Service type:	FedEx Ground		
Special Handling:	Direct Signature Required		Golden, CO,
		Delivery date:	Jan 25, 2022 15:32

Shipping Information:			
Tracking number:	775783014801	**Ship Date:**	Jan 19, 2022
		Weight:	1.0 LB/0.45 KG

Recipient:	**Shipper:**
GOLDEN, CO, US,	HOUSTON, TX, US,

Reference	1727-MINUTEMAN LEGAL NOTICE

Signature image is available. In order to view image and detailed information, the shipper or payor account number of the shipment must be provided.

Thank you for choosing FedEx

www.geoatx.com

January 21, 2022

RE: Application for Fluid Injection or Disposal Permit
NGL Water Solutions Permian, LLC
Minuteman SWD #1
Lea County, New Mexico

FSP Analysis (Fault slip potential)

The FSP software used for this analysis was jointly developed by Stanford University, Exxon Mobil and XTO Energy as a tool for estimating fault slip potential resulting from fluid injection.

I have reviewed the geology, seismic activity and injection history in the area and the future proposed injection into the Subject Well and the FSP analysis indicates a low likelihood of fault slip or induced seismicity. The primary risk reduction factor is that the mapped faults are not optimally oriented to slip, and significant pressure increases would be necessary to initiate slip on these faults analyzed. (Note the FSP analysis does not account for any potential unmapped faults in the area)

Historical earthquakes greater than 2.0 M are noted on **Map 1**.

FSP Analysis

- **Map 1 –** Shows the Area of Review including the points of past seismicity and possible mapped faults. Faults were interpreted from well logs in the area and previous published mapped faults.
- FSP input variables were determined from nearby wells in the review area and published data. (**FSP Exh.1**)
- Azimuth direction of Sh_{max} was derived from Snee/Zoback 2018. (**FSP Exh. 2**)
- Permeability was estimated

P.O. Box 300388 Austin, Texas 78703
512-791-8521 todd@geoATX.com

- Possible faults, existing injection wells and proposed injection wells are shown on **FSP Exh. 3 and Map 1.**

Assumptions

- Historical injection based on actual reported injection volumes (5 deep wells)
- Future injection volumes of existing wells was based on life-time monthly historical average and projected forward at that rate.
- The **Subject well** was held constant and projected into the future at the maximum daily allowable injection volume.

- **FSP Exh .4** shows the geomechanical properties of the mapped faults
- **FSP Exh. 5** shows the pressure to slip, ΔP, at each fault segment.
- **FSP Exh. 6** shows the probability of fault slip for the fault segments and shows that a ΔP 1250 psi increase shows a 10% probability of fault slip.
- **FSP Exh. 7** shows the calculated pressures at the fault segments as of 1/1/2020.
- **FSP Exh. 8** shows the calculated pressures at the fault segments as of 1/1/2030.
- **FSP Exh. 9** shows the calculated pressures at the fault segments as of 1/1/2040.
- **FSP Exh. 10** shows the calculated pressures at the fault segments as of 1/1/2050.

The FSP calculated pressure increases at the fault segments in the year 2050 still remain below the calculated values for fault slip. The fault nearest the Subject Well shows a calculated pressure increase of 409 psi in the year 2050 and this is below the pressure of 5,457 psi which is the calculated pressure for fault slip to occur.

The FSP analysis shows low potential for fault slip and/or induced seismicity along the mapped faults shown on Map 1.

Should you have any questions, please do not hesitate to call me at (512) 791-8521 or email me at twr@geoatx.com

Regards,

Todd W. Reynolds

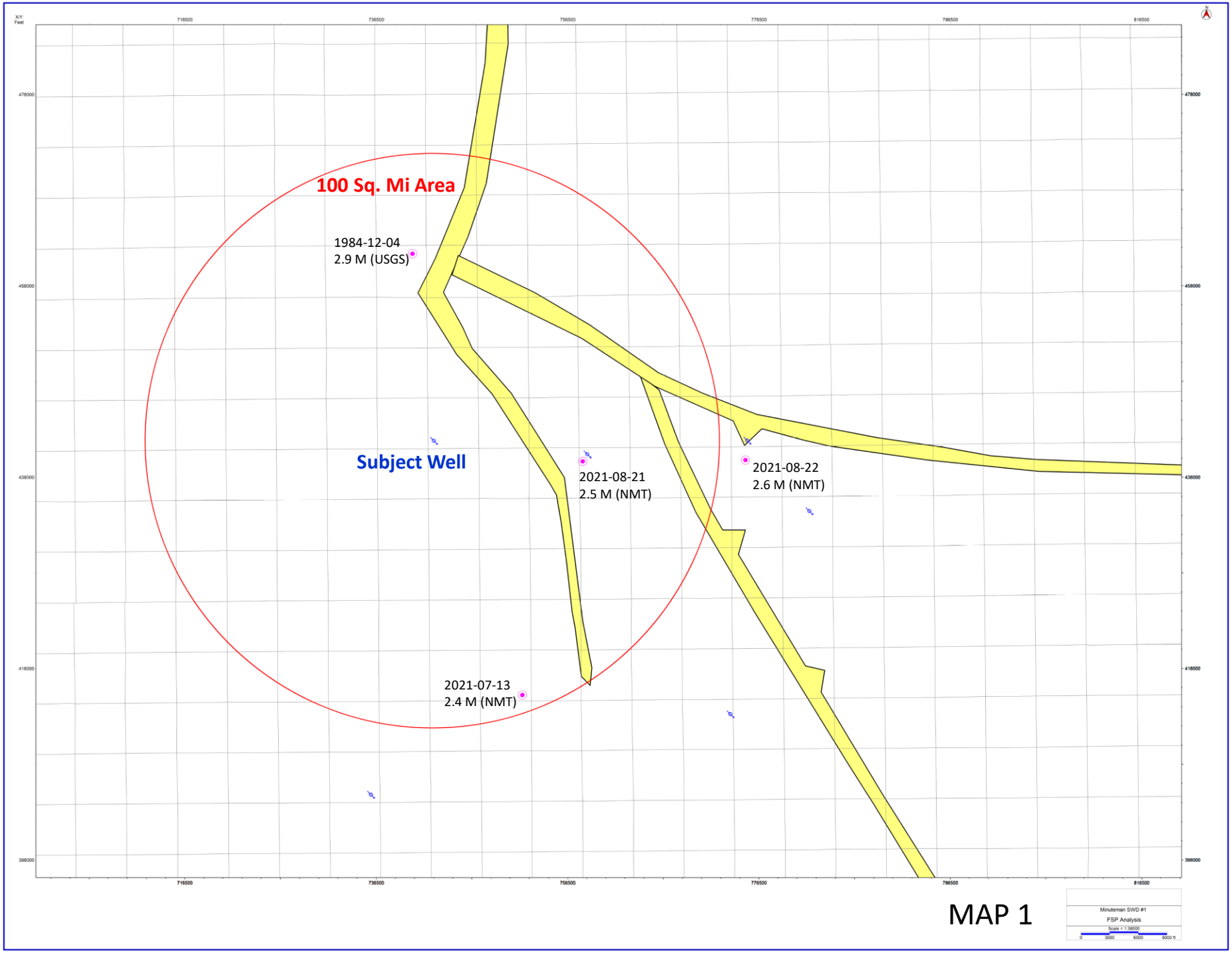
Managing Partner

Geologist/Geophysicist

GeoATX, LLC

twr@geoatx.com

512-791-8521

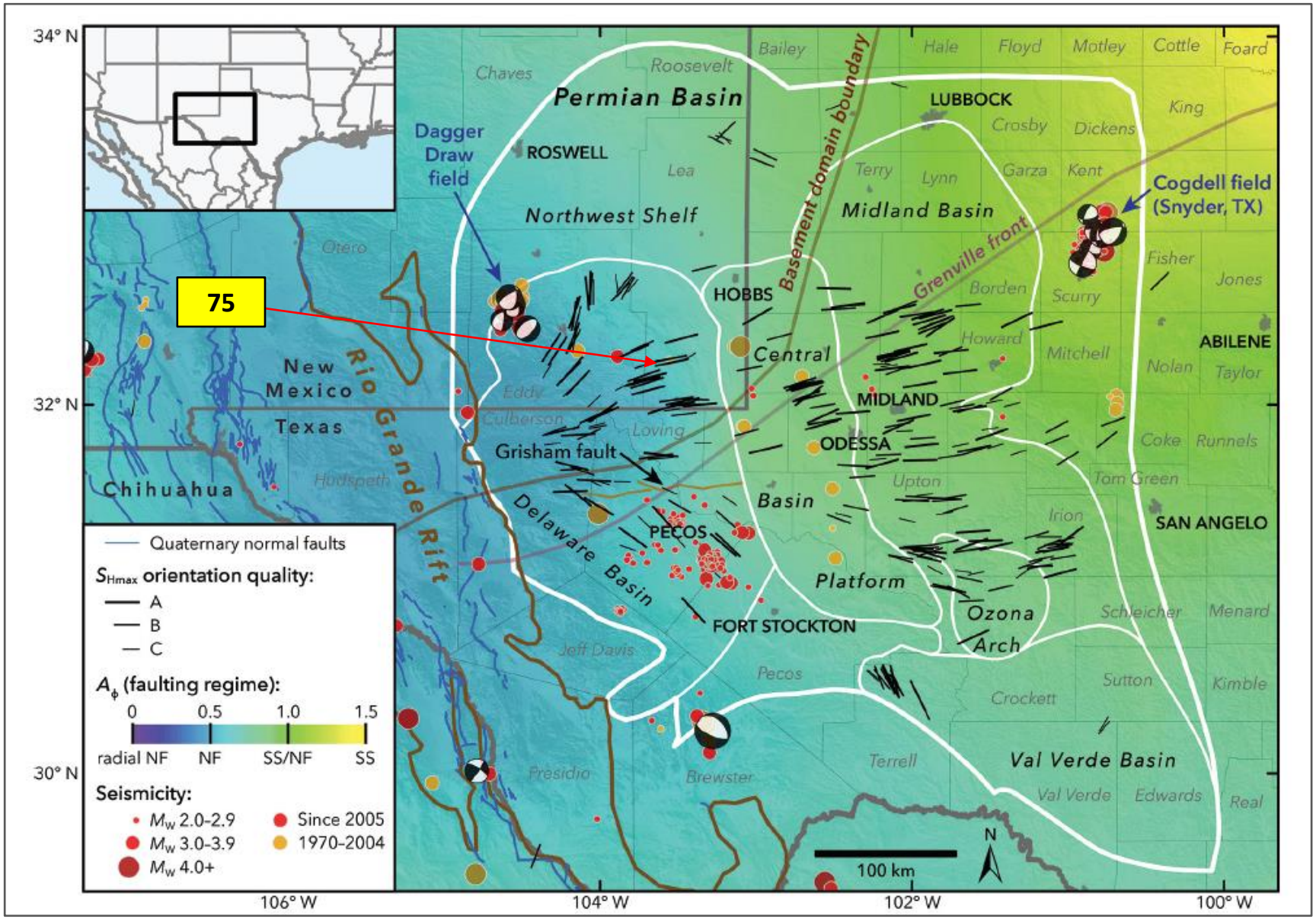

100 Sq. Mi Area
1984-12-04
2.9 M (USGS)
Subject Well
2021-08-21
2.5 M (NMT)
2021-08-22
2.6 M (NMT)
2021-07-13
2.4 M (NMT)
716500
736500
756500
776500
796500
816500
478000
458000
438000
418000
398000
Minuteman SWD #1
FSP Analysis

MAP 1

FSP DATA WORKSHEET (General information and Input data)

		Comments	Variance (+/-)
Well	**Minuteman SWD #1**		
Operator	NGL Water Solutions Permian, LLC		
Location	S-14 T-24S R-33E	659' FSL & 592' FWL	
Top Injection Depth (ft)	16,691		
Base Injection Depth(ft)	18,326		
Injection Formation(s)	Devonian, Silurian, Fusselman, Montoya (Top 100')		
Density (kg/m3)	1,020		10
Viscosity (Pa.s)	0.0008		0.00005
Compressibility-Formation (1/Pa)	1.08E-09		
Compressibility-Fluid (1/Pa)	3.60E-10		
Aquifer thickness (ft)	818		100
Porosity (%)	4.0	*Avg. porosity*	1
Perm (mD)	20		5
Vertical stress grad. (psi/ft)	1.1	*Calculated from density log*	0.03
Min. Horiz. Stress grad. (psi/ft)	0.65	*Determined from A Phi parameter (0.6)*	0.03
Max. Horiz. Stress grad. (psi/ft)	0.92	*Determined from A Phi parameter (0.6)*	0.03
Initial Pore Pressure grad. (psi/ft)	0.44		0.02
Azimuth of Max Horiz Stress (deg)	75		5
Fault Orientation (deg)	Dependent on Fault		5
Fault Dip (deg)	85		5
Friction of Coefficient	0.6	*typical for pre-existing fault/facture*	0.02
Max Injection rate (bbls/day)	50,000		

FSP Exh. 1



FSP Exh. 2

Stress Data Inputs

Azimuth S_{hmax}

Subject Area

Fault Slip Potential vFSP 2.0

File Data Inputs Export Image Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

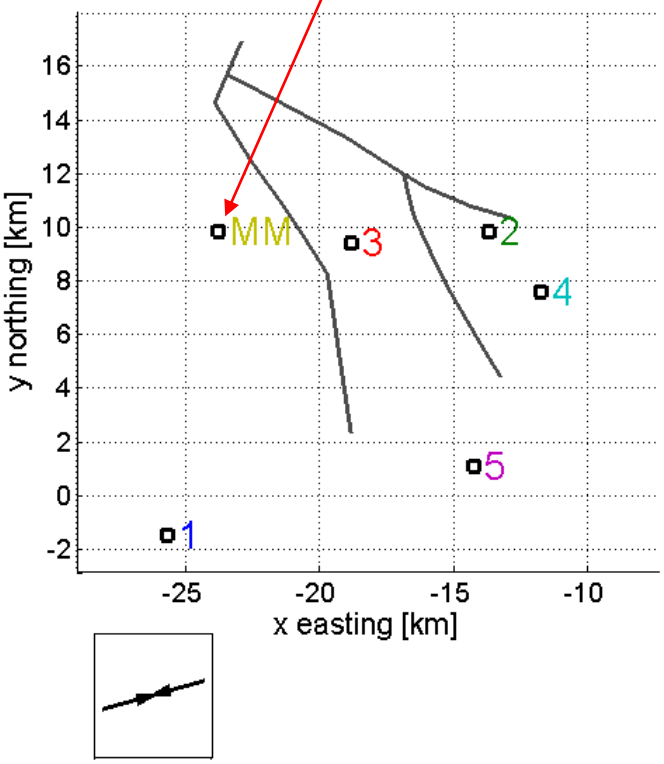
Fault Selector:

All Faults
Fault #1
Fault #2
Fault #3
Fault #4
Fault #5
Fault #6
Fault #7
Fault #8
Fault #9
Fault #10
Fault #11
Fault #12
Fault #13
Fault #14
Fault #15
Fault #16
Fault #17
Fault #18
Fault #19
Fault #20
Fault #21
Fault #22
Fault #23
Fault #24
Fault #25
Fault #26
Fault #27

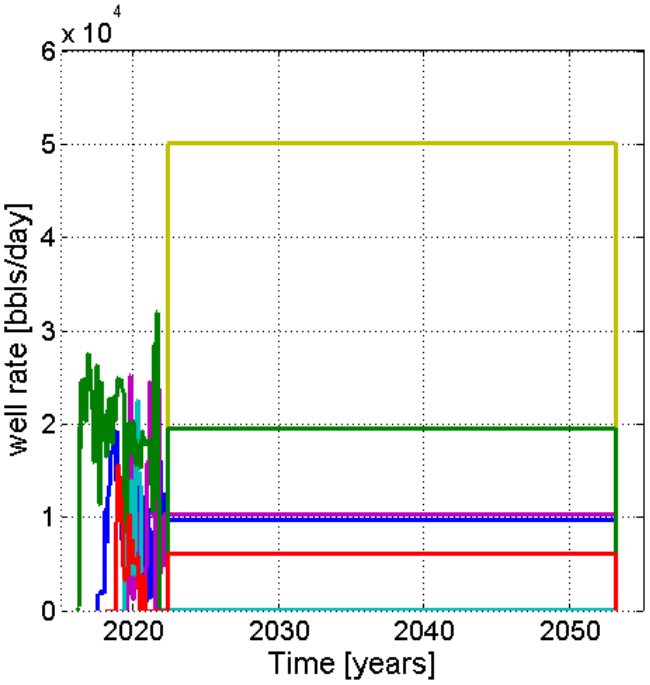
Calculate

Stress Regime: Normal Faulting

Subject Well: Minuteman SWD #1



Select Well: All



Subject Well input at 50,000 bbls/day
5 other injection wells in area of study

FSP Exh. 3

Fault Slip Potential vFSP 2.0

File Data Inputs Export Image Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHAN... | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

Fault Selector:

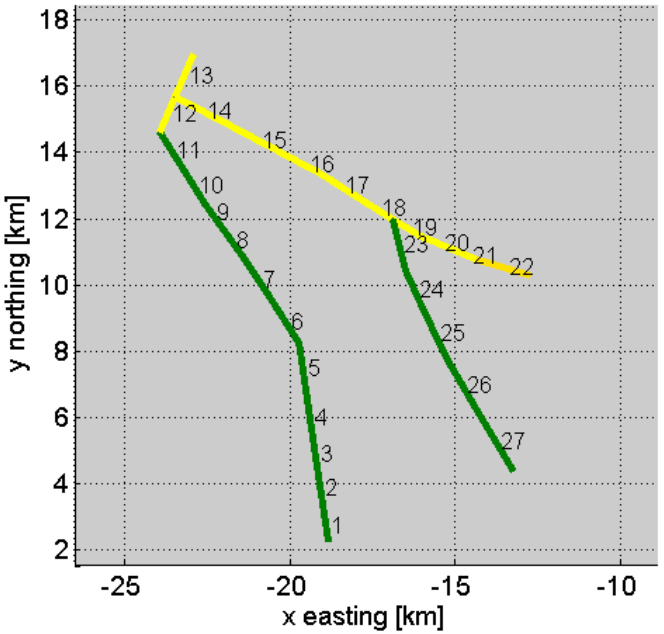
All Faults
Fault #1
Fault #2
Fault #3
Fault #4
Fault #5
Fault #6
Fault #7
Fault #8
Fault #9
Fault #10
Fault #11
Fault #12
Fault #13
Fault #14
Fault #15
Fault #16
Fault #17
Fault #18
Fault #19
Fault #20
Fault #21
Fault #22
Fault #23
Fault #24
Fault #25
Fault #26
Fault #27

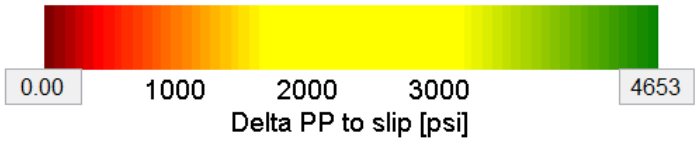
Calculate

FSP Exh. 4

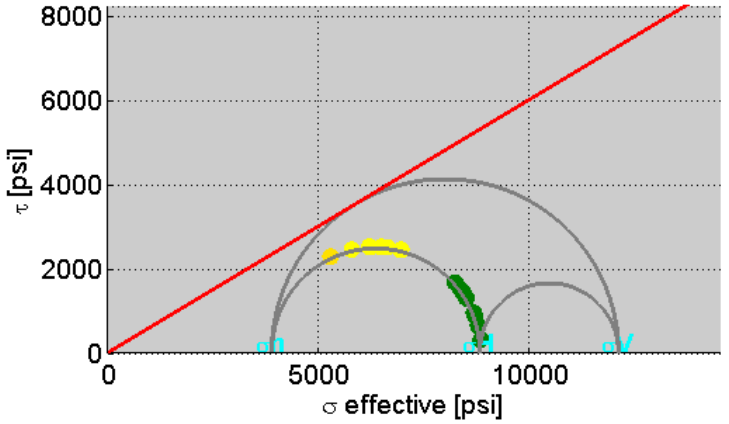
a) Fault Number

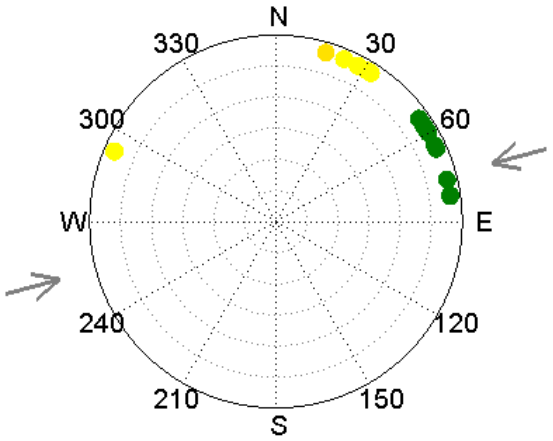
Help





Stress Regime: Normal Faulting





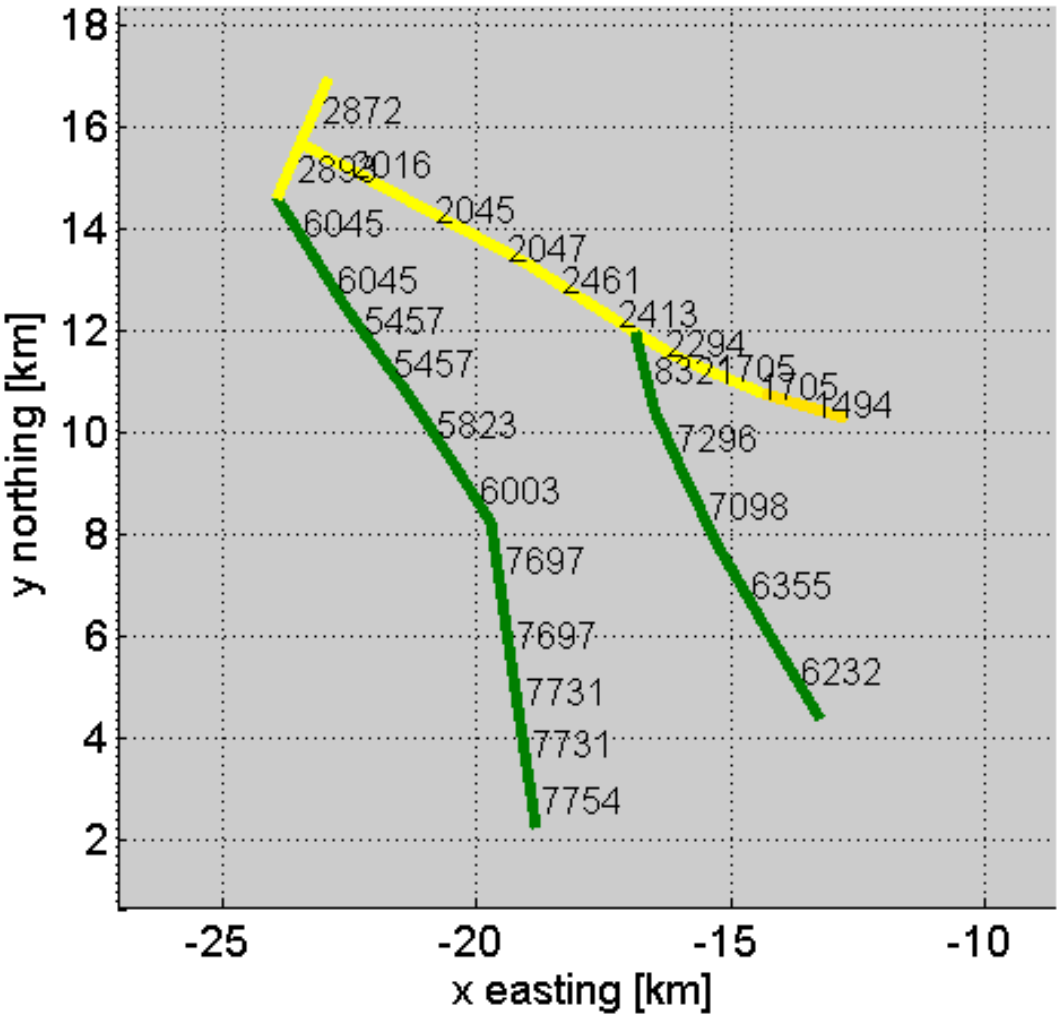
Stereonet Show: Fault Normals

Calculated Pore Pressure to Slip

ΔP

At each fault segment

ΔP ranges from 1494 to 8321



FSP Exh 5

Fault Slip Potential vFSP 2.0

File Data Inputs Export Image Zoom

Fault Slip Potential

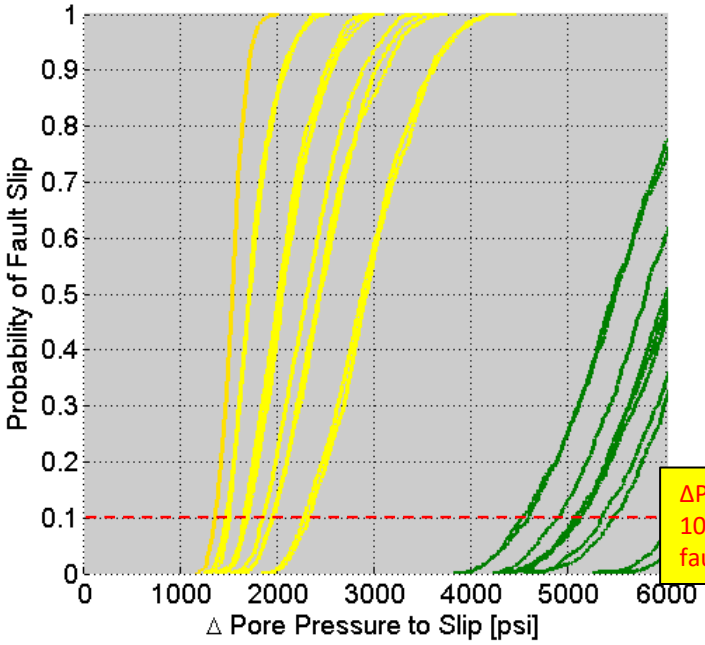
MODEL INPUTS | GEOMECHANICS | PROB. GEOM... | HYDROLOGY | PROB. HYDRO | INTEGRATED

Fault Selector:

All Faults
Fault #1
Fault #2
Fault #3
Fault #4
Fault #5
Fault #6
Fault #7
Fault #8
Fault #9
Fault #10
Fault #11
Fault #12
Fault #13
Fault #14
Fault #15
Fault #16
Fault #17
Fault #18
Fault #19
Fault #20
Fault #21
Fault #22
Fault #23
Fault #24
Fault #25
Fault #26
Fault #27

Calculate

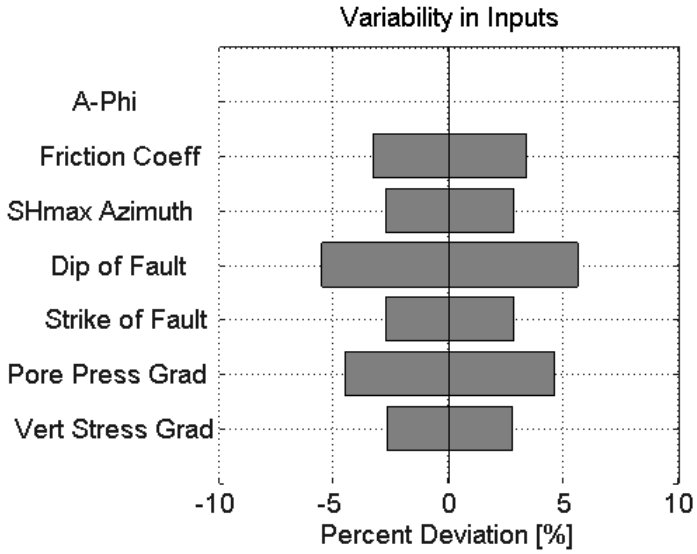
Load Distributions | Run Analysis

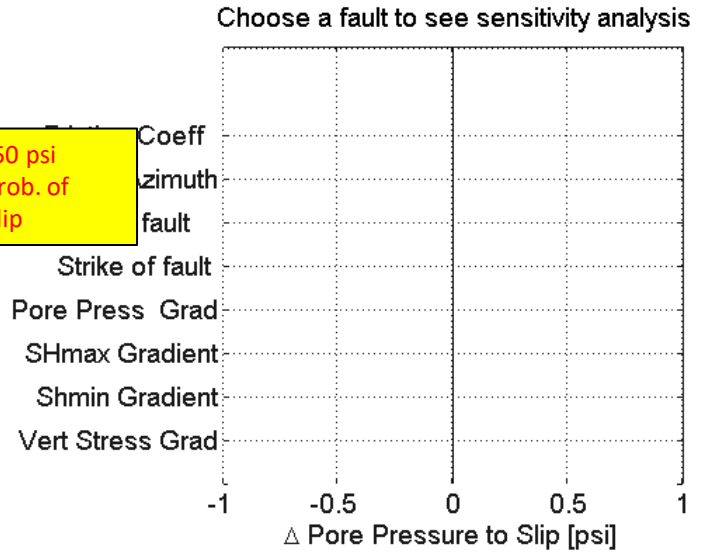


ΔP 1250 psi
10% prob. of fault slip

Max Delta PP [psi]: 6000

Export CDF data | Show Input Distributions





FSP Exh. 6

Fault Slip Potential vFSP 2.0

File Data Inputs Export Image Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

Fault Selector:

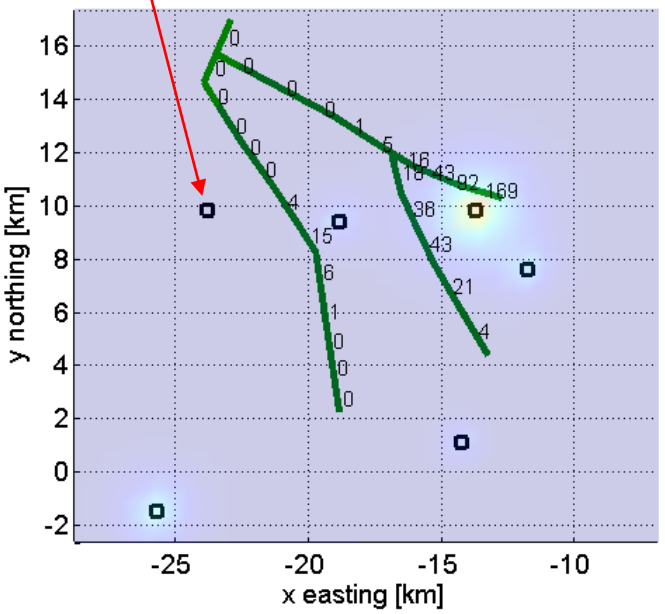
All Faults
Fault #1, 0.00 FSP
Fault #2, 0.00 FSP
Fault #3, 0.00 FSP
Fault #4, 0.00 FSP
Fault #5, 0.00 FSP
Fault #6, 0.00 FSP
Fault #7, 0.00 FSP
Fault #8, 0.00 FSP
Fault #9, 0.00 FSP
Fault #10, 0.00 FSP
Fault #11, 0.00 FSP
Fault #12, 0.00 FSP
Fault #13, 0.00 FSP
Fault #14, 0.00 FSP
Fault #15, 0.00 FSP
Fault #16, 0.00 FSP
Fault #17, 0.00 FSP
Fault #18, 0.00 FSP
Fault #19, 0.00 FSP
Fault #20, 0.00 FSP
Fault #21, 0.00 FSP
Fault #22, 0.00 FSP
Fault #23, 0.00 FSP
Fault #24, 0.00 FSP
Fault #25, 0.00 FSP
Fault #26, 0.00 FSP
Fault #27, 0.00 FSP

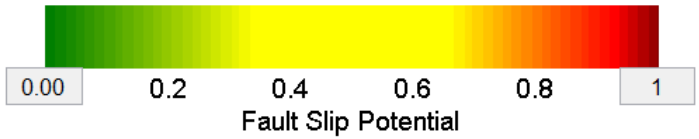
Calculate

Export

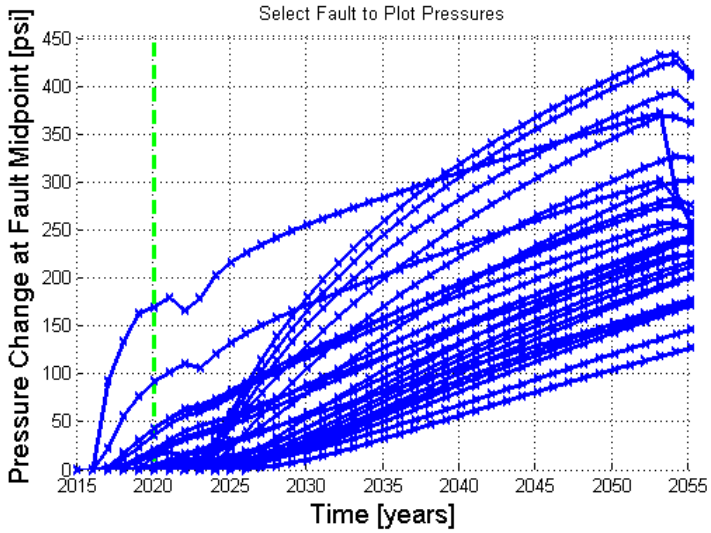
b) PP Change at fault [psi]

Subject Well: Minuteman SWD

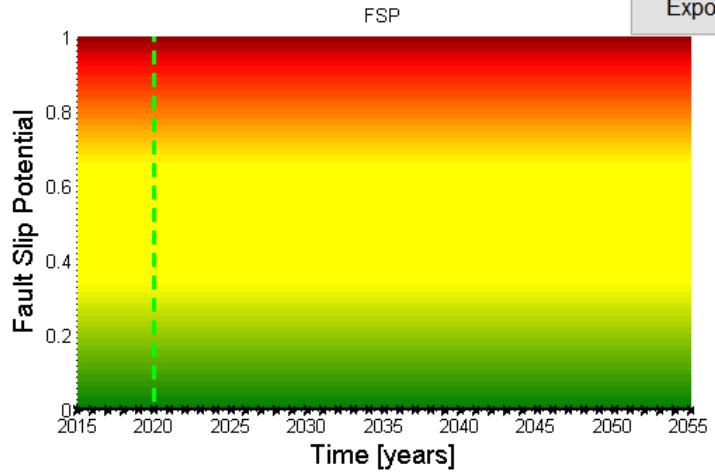




Year: 2020



Export



FSP Exh. 7

Fault Slip Potential vFSP 2.0

File Data Inputs Export Image Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

Fault Selector:

All Faults
Fault #1, 0.00 FSP
Fault #2, 0.00 FSP
Fault #3, 0.00 FSP
Fault #4, 0.00 FSP
Fault #5, 0.00 FSP
Fault #6, 0.00 FSP
Fault #7, 0.00 FSP
Fault #8, 0.00 FSP
Fault #9, 0.00 FSP
Fault #10, 0.00 FSP
Fault #11, 0.00 FSP
Fault #12, 0.00 FSP
Fault #13, 0.00 FSP
Fault #14, 0.00 FSP
Fault #15, 0.00 FSP
Fault #16, 0.00 FSP
Fault #17, 0.00 FSP
Fault #18, 0.00 FSP
Fault #19, 0.00 FSP
Fault #20, 0.00 FSP
Fault #21, 0.00 FSP
Fault #22, 0.00 FSP
Fault #23, 0.00 FSP
Fault #24, 0.00 FSP
Fault #25, 0.00 FSP
Fault #26, 0.00 FSP
Fault #27, 0.00 FSP

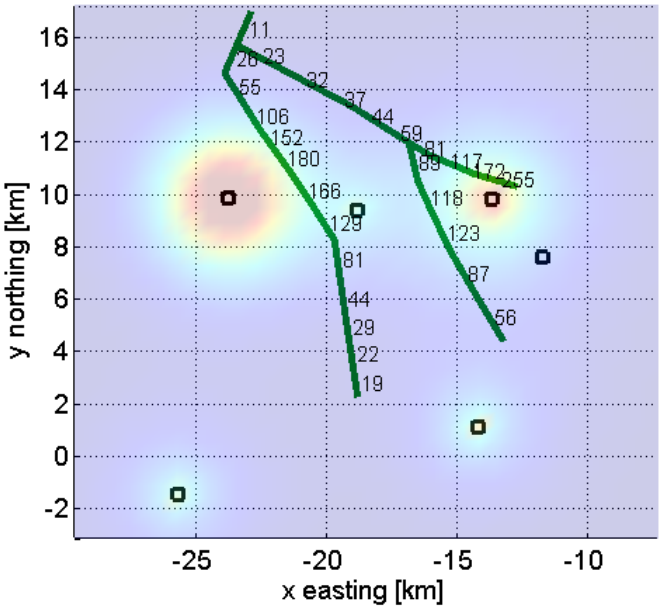
Calculate

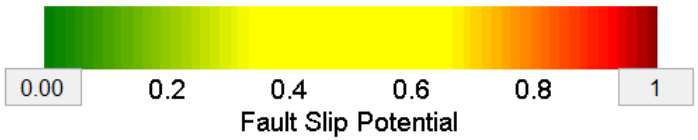
FSP Exh. 8

Export

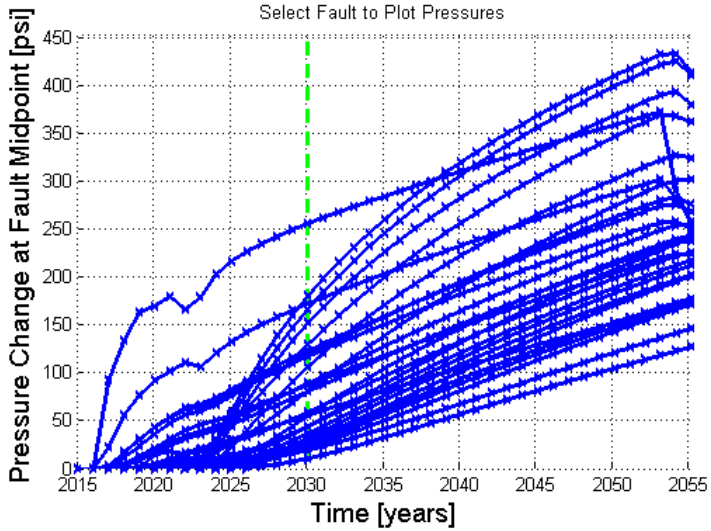
b) PP Change at fault [psi]

Summary Plots

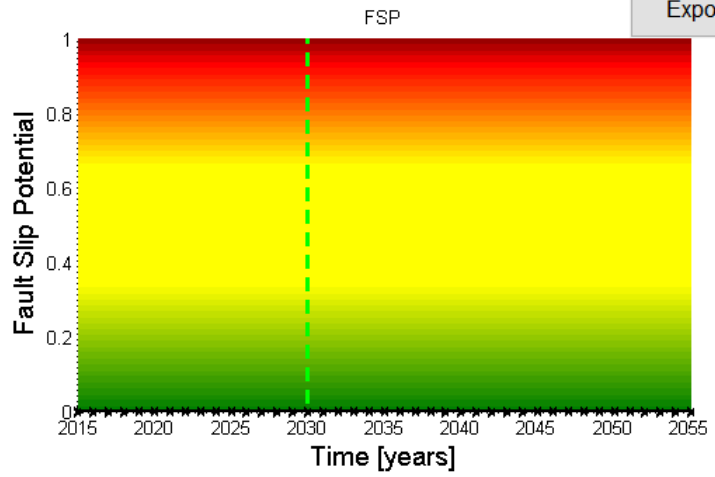




Year: 2030



Export



Fault Slip Potential vFSP 2.0

File Data Inputs Export Image Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

Fault Selector:

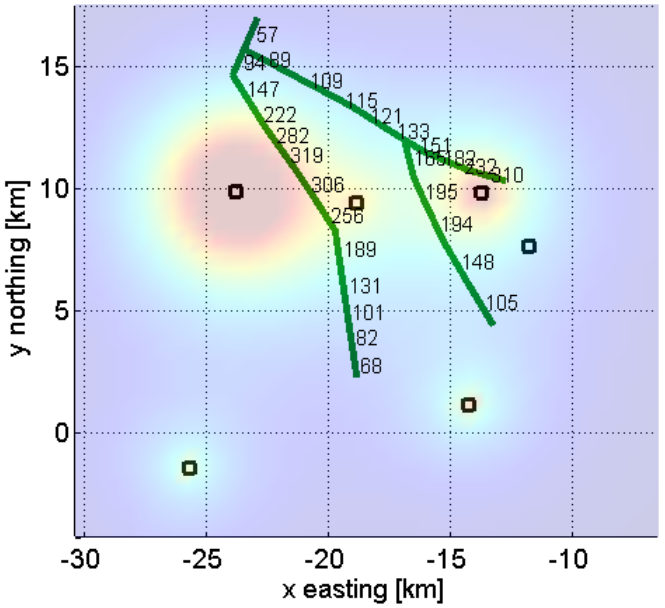
All Faults
Fault #1, 0.00 FSP
Fault #2, 0.00 FSP
Fault #3, 0.00 FSP
Fault #4, 0.00 FSP
Fault #5, 0.00 FSP
Fault #6, 0.00 FSP
Fault #7, 0.00 FSP
Fault #8, 0.00 FSP
Fault #9, 0.00 FSP
Fault #10, 0.00 FSP
Fault #11, 0.00 FSP
Fault #12, 0.00 FSP
Fault #13, 0.00 FSP
Fault #14, 0.00 FSP
Fault #15, 0.00 FSP
Fault #16, 0.00 FSP
Fault #17, 0.00 FSP
Fault #18, 0.00 FSP
Fault #19, 0.00 FSP
Fault #20, 0.00 FSP
Fault #21, 0.00 FSP
Fault #22, 0.00 FSP
Fault #23, 0.00 FSP
Fault #24, 0.00 FSP
Fault #25, 0.00 FSP
Fault #26, 0.00 FSP
Fault #27, 0.00 FSP

Calculate

FSP Exh. 9

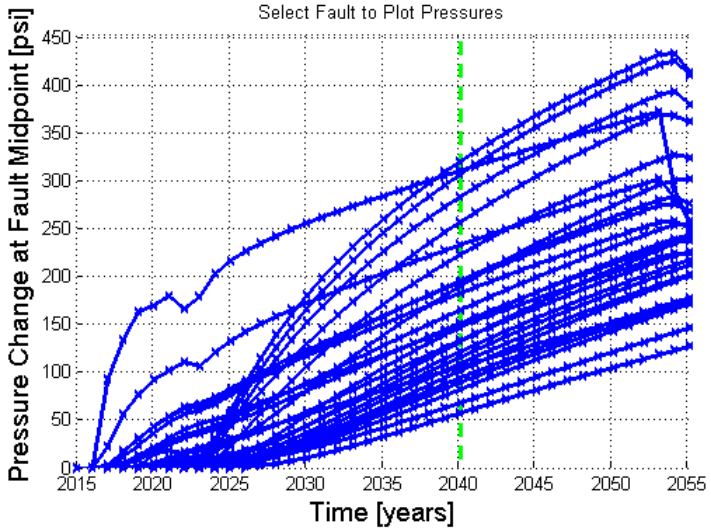
b) PP Change at fault [psi]

Summary Plots

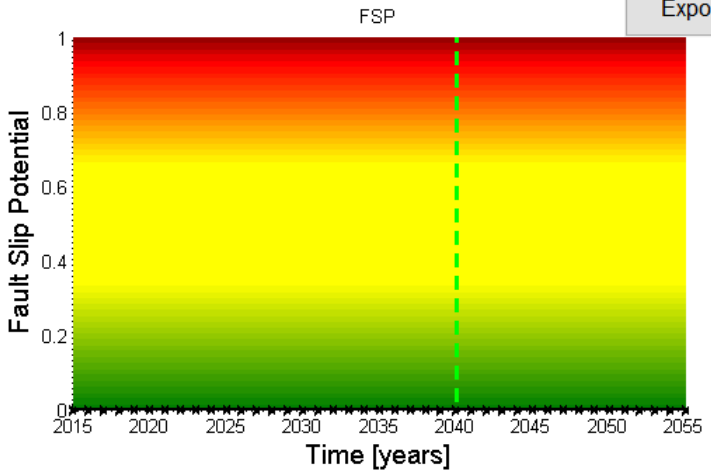


Year: 2040

Export



Export



Fault Slip Potential vFSP 2.0

File Data Inputs Export Image Zoom

Fault Slip Potential

MODEL INPUTS | GEOMECHANICS | PROB. GEOMECH | HYDROLOGY | PROB. HYDRO | INTEGRATED

Fault Selector:

- All Faults
- Fault #1, 0.00 FSP
- Fault #2, 0.00 FSP
- Fault #3, 0.00 FSP
- Fault #4, 0.00 FSP
- Fault #5, 0.00 FSP
- Fault #6, 0.00 FSP
- Fault #7, 0.00 FSP
- Fault #8, 0.00 FSP
- Fault #9, 0.00 FSP
- Fault #10, 0.00 FSP
- Fault #11, 0.00 FSP
- Fault #12, 0.00 FSP
- Fault #13, 0.00 FSP
- Fault #14, 0.00 FSP
- Fault #15, 0.00 FSP
- Fault #16, 0.00 FSP
- Fault #17, 0.00 FSP
- Fault #18, 0.00 FSP
- Fault #19, 0.00 FSP
- Fault #20, 0.00 FSP
- Fault #21, 0.00 FSP
- Fault #22, 0.00 FSP
- Fault #23, 0.00 FSP
- Fault #24, 0.00 FSP
- Fault #25, 0.00 FSP
- Fault #26, 0.00 FSP
- Fault #27, 0.00 FSP

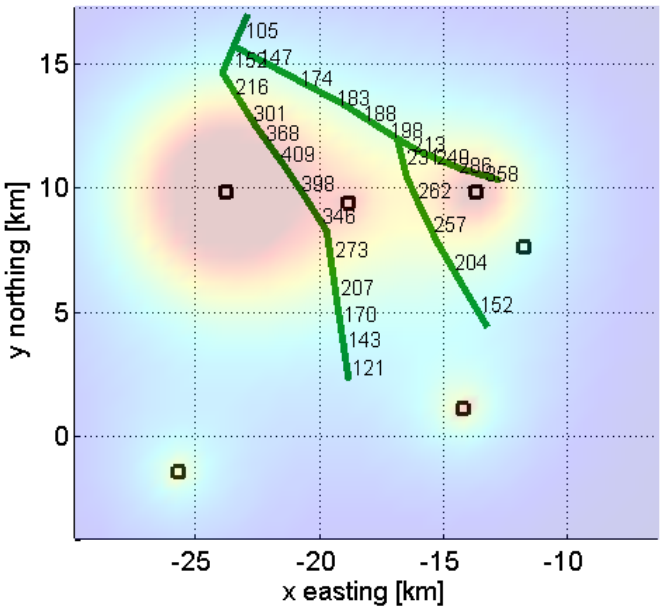
Calculate

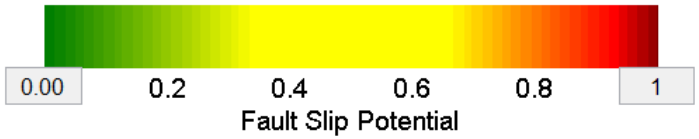
FSP Exh. 10

Export

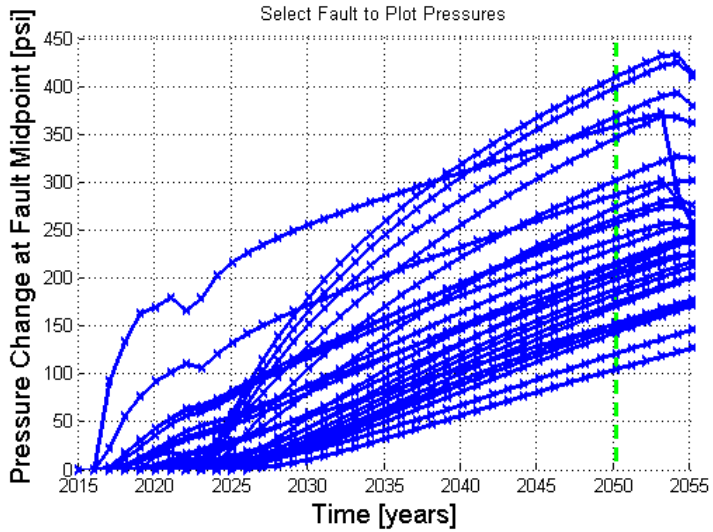
b) PP Change at fault [psi]

Summary Plots





Year: 2050



Export