Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM07966

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☐ DRILL ☑ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☑ Multiple Zone

7. If Unit or CA Agreement, Name and No.:

8. Lease Name and Well No.: WEST EUMONT UNIT 560

2. Name of Operator: FORTY ACRES ENERGY LLC

9. API Well No.:

3a. Address: 11777 B KATY FREEWAY SUITE 725, HOUSTON, TX 77

3b. Phone No. *(include area code)*: (918) 645-8287

10. Field and Pool, or Exploratory: EUMONT/E-K; YATES-7 RIVERS QUEEN

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: NWNW / 661 FNL / 660 FWL / LAT 32.53507 / LONG -103.331472

At proposed prod. zone: NWNW / 661 FNL / 660 FWL / LAT 32.53507 / LONG -103.331472

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 35/T20S/R26E/NMP

14. Distance in miles and direction from nearest town or post office*: 7 miles

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 660 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 40.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 1042 feet

19. Proposed Depth: 4200 feet / 4200 feet

20. BLM/BIA Bond No. in file: FED: NMB001380

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3577 feet

22. Approximate date work will start*: 02/01/2021

23. Estimated duration: 7 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature: (Electronic Submission)

Name *(Printed/Typed)*: BRIAN WOOD / Ph: (832) 706-0051

Date: 02/05/2021

Title: President

Approved by *(Signature)*: (Electronic Submission)

Name *(Printed/Typed)*: Cody Layton / Ph: (575) 234-5959

Date: 06/03/2022

Title: Assistant Field Manager Lands & Minerals

Office: Carlsbad Field Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

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

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 06/03/2022

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 Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

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-102
Revised August 1, 2011

Submit one copy to appropriate District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-025-04408	22800	EUMONT;YATES-7 RVRS-QUEEN (OIL)

Property Code	Property Name	Well Number
	WEST EUMONT UNIT	560

OGRID No.	Operator Name	Elevation
371416	FORTY ACRES ENERGY	3577'

Surface Location

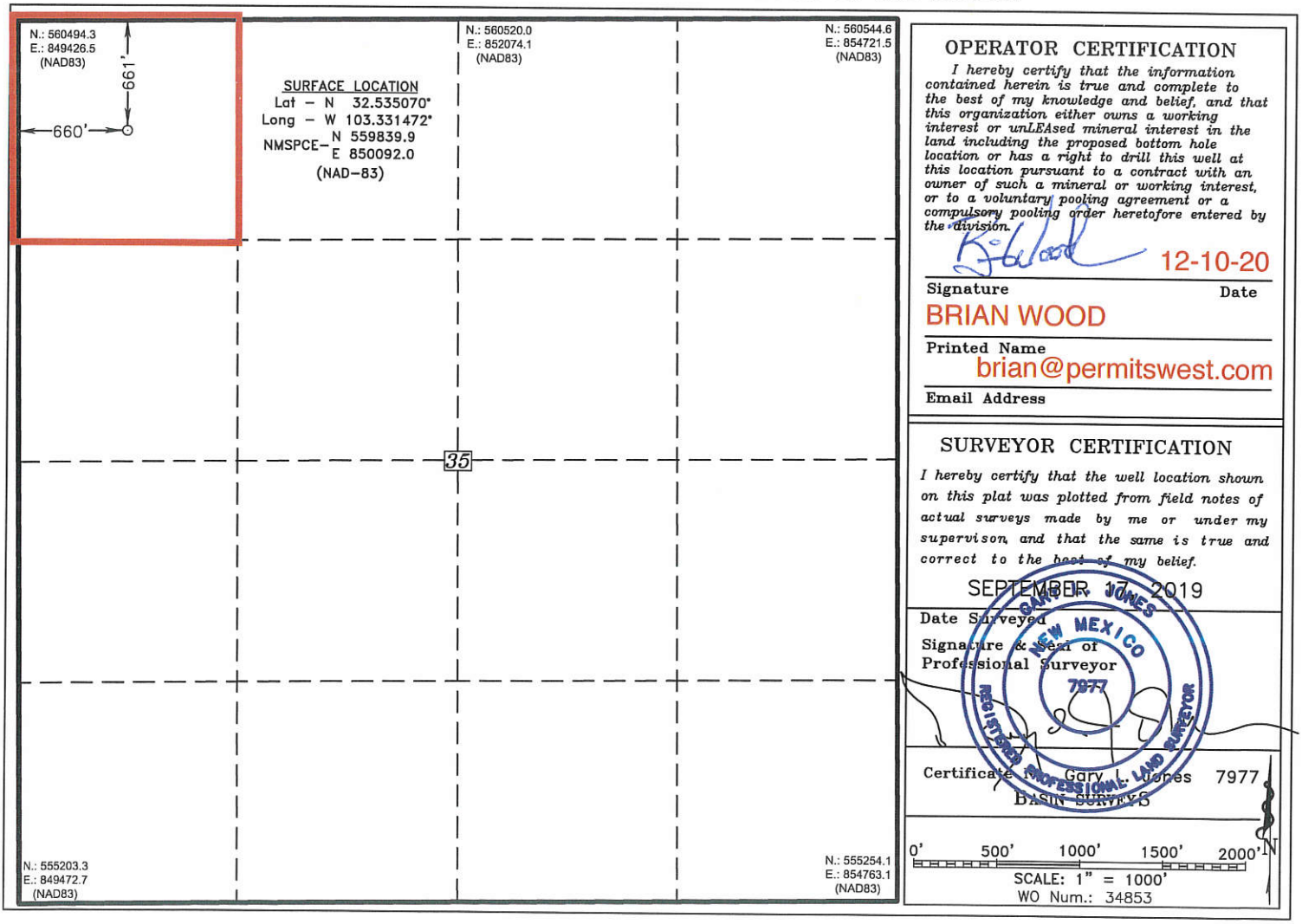
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	20 S	36 E		661	NORTH	660	WEST	LEA

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40.00		U	15792 (SU) & 15793 (WF)

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



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.

12-10-20
Signature Date

BRIAN WOOD
Printed Name

brian@permitswest.com
Email Address

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 supervison, and that the same is true and correct to the best of my belief.

SEPTEMBER 17, 2019
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR
BASIN SURVEYS

Certificate Gary L. Jones 7977

0' 500' 1000' 1500' 2000'
SCALE: 1" = 1000'
WO Num.: 34853

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: FORTY ACRES ENERGY, LLC **OGRID:** 371416 **Date:** 05/23/2022

II. Type: ☐ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☒ Other.

If Other, please describe: Re-enter WEST EUMONT UNIT #560 (formerly Bay Federal #3)

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
WEST EUMONT UNIT #560	30-025-04408	D-35-20S-36E	660 FNL & 660 FWL	6	35	5

IV. Central Delivery Point Name: BAY FEDERAL BATTERY [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
WEST EUMONT UNIT #560	30-025-04408	9/15/2022	9/18/2022	9/20/2022	9/23/2022	9/24/2022

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:
Printed Name: Vanessa Neal
Title: Sr. Reservoir Engineer
E-mail Address: vanessa@faenergyus.com
Date: 26 MAY 2022
Phone: 832-219-0990

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

FAE II Operating, LLC ("FAE")
Natural Gas Management Plan

VI. Separation Equipment

- Separation equipment is sized to allow for retention time and velocity to adequately separate oil, gas, and water at anticipated peak rates.
- Valves and meters are designed to service without flow interruption or venting of gas.
- Gas from treater and wellhead will be tied into the sales line.

VII. Operational Practices

19.15.27.8 (A)

FAE's field operations are designed with the goal of minimizing venting of natural gas. Wellhead and existing production equipment are tied into the gas sales line.

19.15.27.8 (B) Venting and Flaring during drilling operations

- Venting will only occur if there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety, public health, or the environment.
- Daily vented volumes during drilling operations will be estimated on the daily report.
- All equipment will be available to process wellhead production upon completion of the well.

19.15.27.8 (C) Venting and Flaring during completions or recompletions operations.

- During all phases of flowback, wells will flow through a sand separator, or other appropriate flowback separation equipment, and the well stream will be directed to a central tank battery (CTB) through properly sized flowlines.
- The CTB will have properly sized separation equipment for maximum anticipated flowrates.
- All gas from wellhead and treater will be routed to a sales outlet. Fluids will be routed to tanks; vented gas volumes from oil tanks will be estimated based on annual GOR since expected production from well is <60 MCFPD.

19.15.27.8 (D) Venting and Flaring during production operations.

- During production, the well stream will be routed to the CTB where multiple stages of separation will separate gas from liquids. All gas from wellhead and treater will be routed to a sales outlet. Fluids will be routed to tanks; vented gas volumes from oil tanks will be estimated based on annual GOR since expected production from will is <60 MCFPD.
- AVO inspections will be conducted on the well and facility as required (weekly or monthly) based on actual daily production from the well or facility. Records of inspections will be kept for no less than 5 years. Any active leaks or releases will be reported as required and repaired in a timely manner.
- Gas sales volumes are recorded and monitored via EFMS.

19.15.27.8 (E) Performance Standards

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- AVO inspections will be conducted on the well and facility as required (weekly or monthly) based on actual daily production from the well or facility. Records of inspections will be kept for no less than 5 years. Any active leaks or releases will be reported as required and repaired in a timely manner.
- Gas/H2S detectors will be installed throughout the facilities and wellheads to detect leaks and enable timely repairs.

19.15.27.8 (F) Measurement or estimation of vented and flared natural gas

- All gas from wellhead and treater will be routed to a sales outlet.
- When metering is not practical due to low pressure/low rate (<60 MCFPD), the vented volume will be estimated based on annual GOR.

VIII. Best Management Practices

- FAE will use best management practices to vent as minimally as possible during well intervention operations and downhole well maintenance.
- All gas from wellhead and treater will be routed to a sales outlet. Fluids will be routed to tanks; vented gas volumes from oil tanks will be estimated based on annual GOR since expected production from will is <60 MCFPD. All venting events will be recorded and all start-up, shutdown, maintenance logs will be kept for control equipment
- All equipment will be maintained to provide highest run-time possible.
- AVO inspections will be conducted on the well and facility as required (weekly or monthly) based on actual daily production from the well or facility. Records of inspections will be kept for no less than 5 years. Any active leaks or releases will be reported as required and repaired in a timely manner.
- Gas sales volumes are recorded and monitored via EFMS.
- All procedures are drafted to keep venting to the absolute minimum.

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report
06/03/2022

APD ID: 10400066598 **Submission Date:** 02/05/2021

Operator Name: FORTY ACRES ENERGY LLC

Well Name: WEST EUMONT UNIT **Well Number:** 560

Well Type: OIL WELL **Well Work Type:** Reenter

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
1280008	QUATERNARY	3577	0	0	OTHER : Caliche	USEABLE WATER	N
1280009	RUSTLER ANHYDRITE	2067	1510	1510	ANHYDRITE	NONE	N
1280010	SALADO	1962	1615	1615	SALT	NONE	N
1280011	YATES	522	3055	3055	SANDSTONE	NATURAL GAS, OIL, OTHER : Saltwater	N
1280012	SEVEN RIVERS	452	3125	3125	DOLOMITE	NATURAL GAS, OIL, OTHER : Saltwater	Y
1517575	YATES-SEVEN RIVERS	452	3125	3125	SANDSTONE	NATURAL GAS, OIL, OTHER : Saltwater	N
1280013	QUEEN	-283	3860	3860	DOLOMITE	NATURAL GAS, OIL, OTHER : Saltwater	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 2M **Rating Depth:** 10000

Equipment: Blowout preventer equipment (BOP) will include a 2000 psi rated, XLT type, NOV double ram preventer that will be tested to a maximum pressure of 2000 psi. Unit will be hydraulically operated. Ram type preventer will be equipped with pipe rams on top and blind pipe rams on bottom. The 2M BOP will be installed on the 8.625" surface casing and used continuously until TD is reached. All casing strings will be tested per Onshore Order #2. This also includes a 30-day test, should the rig still be operating on the same well for 30 days. BOP equipment will consist of the following: Double ram with blind ram and pipe ram Drilling spool, or blowout preventer with 2 side outlets (choke side and kill side will be >2 diameter) Kill line (>2 diameter) & kill line valve (>2 diameter) >2 diameter choke line with >2 diameter valves 2 chokes, at least one will be capable of remote operation Pressure gauge on choke manifold Upper Kelly cock valve with handle available Safety valve and subs to fit all drill string connections in use All BOPE connections subject to well pressure will be flanged, welded, or clamped A fill-up line above the uppermost preventer

Requesting Variance? NO

Variance request:

Testing Procedure: All casing strings will be tested per Onshore Order #2. This also includes a 30-day test, should the rig still be operating on the same well for 30 days. Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These function tests will be documented on the daily drilling logs.

Choke Diagram Attachment:

Operator Name: FORTY ACRES ENERGY LLC

Well Name: WEST EUMONT UNIT **Well Number:** 560

WE_560_BOP_Choke_20220115082723.pdf

BOP Diagram Attachment:

WE_560_BOP_Choke_20220115082735.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	11	8.625	USED	API	N	0	351	0	351	3577	3226	351	H-40	28	ST&C	10.57	15.92	DRY	27.66	DRY	27.66
2	PRODUCTION	7.875	5.5	USED	API	N	0	4070	0	4070	3577	-493	4070	J-55	14	LT&C	1.47	2.49	DRY	3.02	DRY	3.02
3	LINER	5.5	4.0	NEW	NON API	N	0	4200	0	4200	3577	-623	4200	J-55	9.5	LT&C	2.34	2.49	DRY	3.69	DRY	3.69

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

WE_560_Casing_Inspection_20220120142951.pdf

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

WE_560_Casing_Design_Assumptions_20220120143008.pdf

Operator Name: FORTY ACRES ENERGY LLC

Well Name: WEST EUMONT UNIT **Well Number:** 560

Casing Attachments

Casing ID: 2 **String** PRODUCTION

Inspection Document:

WE_560_Casing_Inspection_20220120104821.pdf

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

WE_560_Casing_Design_Assumptions_20220120143051.pdf

Casing ID: 3 **String** LINER

Inspection Document:

Spec Document:

4_9.50_J55_LIBERTY_FJM_20220407113316.PDF

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

WE_560_Casing_Design_Assumptions_20220120143107.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	351	225	1.36	14.7	306	100	Class A	2% bentonite
PRODUCTION	Lead	1461	669	1461	100	1.36	14.7	136	0	Class A	2% bentonite
PRODUCTION	Tail		1461	4070	300	1.36	14.7	408	0	Class A	2% bentonite
LINER	Lead		0	4200	110	2.36	11.8	259	30	Class C	Dispersant, thixotropic additive, retarder

Operator Name: FORTY ACRES ENERGY LLC

Well Name: WEST EUMONT UNIT **Well Number:** 560

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
LINER	Tail		0	4200	120	1.39	14.8	166	30	Class C	Dispersant, thixotropic additive, retarder

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Appropriate additives will be on site to manage any abnormal hole condition that could be encountered while drilling this well. A closed loop system will be used.

Describe the mud monitoring system utilized: Ten-pound brine will be used to drill out the plugs. A PVT/Pason/visual mud monitoring system will be used.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	351	OTHER : Brine	10	10							

Operator Name: FORTY ACRES ENERGY LLC

Well Name: WEST EUMONT UNIT **Well Number:** 560

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

A resistivity log is on file.

List of open and cased hole logs run in the well:

DUAL INDUCTION/MICRO-RESISTIVITY,

Coring operation description for the well:

No core, drill stem test, or log is planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 1762 **Anticipated Surface Pressure:** 837

Anticipated Bottom Hole Temperature(F): 105

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

WE_560_H2S_Plan_20210106105510.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Other proposed operations facets description:

Well was originally drilled in 1955 by The Bay Petroleum Corporation as the Bay Federal 3. It was plugged and abandoned (3 cement plugs + 2 CIBPs topped with cement) in 2011 by McDonnold Operating Inc. A 2019 survey found the well to be 1' further south than shown in NMOCD records.

Casing specs are based on contemporary (1955) nearby (Sec. 35) records (30-025-04415 & 30-025-04416) and are "best guesses."

Casing is not new. A liner may be necessary. See following liner decision tree table.T

wo String SHALLOW Producing Well:

1 Will run CBL (to determine TOC) and Casing Inspection Log. If remediations are "known" to be necessary before re-entry, then the Casing Inspection Log may be skipped and a liner will be run.

2 MIT must be performed. Liner does not need to be run if casing wall loss is <12.5% +/-3% and MIT passes. Remediate any issues.

Operator Name: FORTY ACRES ENERGY LLC

Well Name: WEST EUMONT UNIT **Well Number:** 560

3 Liner does not need to be run if casing wall loss is >12.5% +/- 3% over a significant interval OR the MIT failed.

4 Cement liner to surface.

5 MIT will be performed on liner.

Liner will be new. Forty Acres will collect the mill sheets before running casing and drift the pipe before running it into the hole. A casing integrity test will be run after the plugs are drilled out and liner run per NMAC 19.15.25.14.

Other proposed operations facets attachment:

WE_560_Well_Bore_20210105133629.pdf

WE_560_Drill_Plan_Revised_20220422144021.pdf

Other Variance attachment:

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Forty Acres Energy LLC**
LEASE NO.:	**NMNM07966**
LOCATION:	Section 35, T.20 S., R.36 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	**West Eumont Unit 560**
SURFACE HOLE FOOTAGE:	661'/N & 660'/W
BOTTOM HOLE FOOTAGE	661'/N & 660'/W
ATS/API ID:	**ATS-21-1719**
Sundry ID:	**N/A**

COA

H2S	◉ Yes	○ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	◉ None	○ Flex Hose	○ Other
Wellhead	◉ Conventional	○ Multibowl	○ Both
Wellhead Variance	○ Diverter		
Other	☐ 4 String	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Cementing	☐ Cement Squeeze	☐ EchoMeter	
Special Requirements	☐ Water Disposal	☐ COM	☑ Unit
Special Requirements Variance	☐ Break Testing	☐ Offline Cementing	

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Yates and Seven River** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

Approval Date: 06/03/2022

B. CASING

1. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:

    - Cement to surface.
      Cement remediation is not required.

2. The minimum required fill of cement behind the **5-1/2** inch intermediate casing is:

    - Cement to surface.
    - Cement remediation is required.
    - BLM estimated cement behind the 5.5" production casing to be 4070' to 1714' and from the DV tool at 1461' to 676'. There is no cement from 1714' to 1461' and 676' to surface.
    - Run CBL to determine cement behind the **5-1/2** inch intermediate casing. No casing inspection log required.
    - Mechanical Integrity Test must be performed after remediation. Remediate any issues.

3. The minimum required fill of cement behind the **4** inch production casing is cemented to surface. Casing is required.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.
    e. Casing pressure test as per Onshore Order 2.

C. PRESSURE CONTROL

1. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

D. SPECIAL REQUIREMENT (S)

Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Approval Date: 06/03/2022

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

Approval Date: 06/03/2022

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not

Approval Date: 06/03/2022

hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

forty acres energy

H_2S Drilling Operations Plan

a. All personnel will be trained in H_2S working conditions as required by Onshore Order 6 before drilling out of the surface casing.

b. Two briefing areas will be established. Each briefing area will be ≥150' from the wellhead, perpendicular from one another, and easily entered and exited. See H_2S page 5 for more details.

c. H_2S Safety Equipment/Systems:

i. Well Control Equipment

- Flare line will be ≥150' from the wellhead and ignited by a flare gun.
- Beware of SO_2 created by flaring.
- Choke manifold will have a remotely operated choke.
- Mud gas separator

ii. Protective Equipment for Personnel

- Every person on site will wear a personal H_2S and SO_2 monitor at all times while on site. Monitors will not be worn on hard hats. Monitors will be worn on the front of the waist or chest.
- One self-contained breathing apparatus (SCBA) 30-minute rescue pack will be at each briefing area. Two 30-minute SCBA packs will be stored in the safety trailer.
- Four work/escape packs will be on the rig floor. Each pack will have a sufficiently long hose to allow unimpaired work activity.
- Four emergency escape packs will be in the doghouse for emergency evacuation.
- Hand signals will be used when wearing protective breathing apparatus.
- Stokes litter or stretcher
- Two full OSHA compliant body harnesses
- A 100' long x 5/8" OSHA compliant rope
- One 20-pound ABC fire extinguisher

iii. H_2S Detection & Monitoring Equipment

- Every person on site will wear a personal H_2S and SO_2 monitor at all times while on site. Monitors will not be worn on hard hats. Monitors will be worn on the front of the waist or chest.

- A stationary detector with three sensors will be in the doghouse.
- Sensors will be installed on the rig floor, bell nipple, and at the end of the flow line or where drilling fluids are discharged.
- Visual alarm will be triggered at 10 ppm.
- Audible alarm will be triggered at 10 ppm.
- Calibration will occur at least every 30 days. Gas sample tubes will be kept in the safety trailer.

iv. Visual Warning System

- A color-coded H_2S condition sign will be set at each pad entrance.
- Color-coded condition flag will be installed to indicate current H_2S conditions.
- Two wind socks will be installed that will be visible from all sides.

v. Mud Program

- A water based mud with a pH of $\geq$10 will be maintained to control corrosion, H_2S gas returns to the surface, and minimize sulfide stress cracking and embrittlement.
- Drilling mud containing H_2S gas will be degassed at an optimum location for the rig configuration.
- This gas will be piped into the flare system.
- Enough mud additives will be on location to scavenge and/or neutralize H_2S where formation pressures are unknown.

vi. Metallurgy

- All equipment that has the potential to be exposed to H_2S will be suitable for H_2S service.
- Equipment that will meet these metallurgical standards include the drill string, casing, wellhead, BOP assembly, casing head and spool, rotating head, kill lines, choke, choke manifold and lines, valves, mud-gas separators, DST tools, test units, tubing, flanges, and other related equipment (elastomer packings and seals).

vii. Communication from well site

- Cell phones and/or two-way radios will be used to communicate from the well site.

d. A remote-controlled choke, mud-gas separator, and a rotating head will be installed before drilling or testing any formation expected to contain H_2S.

Company Personnel to be Notified

Jessica LaMarro, Geologist	Office: (832) 706-0051
	Mobile: (832) 877-2552
Garret Johnson, Engineer	Mobile: (918) 697-8311

Local & County Agencies

Monument Fire Department	911 or (575) 393-4339
Hobbs Fire Marshal	(575) 391-8185
Lea County Sheriff (Lovington)	911 or (575) 396-3611
Lea County Emergency Management (Lovington)	(575) 396-8602
Lea Regional Medical Center Hospital (Hobbs)	(575) 492-5000

State Agencies

NM State Police (Hobbs)	(575) 392-5588
NM Oil Conservation (Hobbs)	(575) 370-3186
NM Oil Conservation (Santa Fe)	(505) 476-3440
NM Dept. of Transportation (Roswell)	(575) 637-7201

Federal Agencies

BLM Carlsbad Field Office	(575) 234-5972
BLM Hobbs Field Station	(575) 393-3612
National Response Center	(800) 424-8802
US EPA Region 6 (Dallas)	(800) 887-6063
	(214) 665-6444

Veterinarians

Dal Paso Animal Hospital (Hobbs)	(575) 397-2286
Hobbs Animal Clinic & Pet Care (Hobbs)	(575) 392-5563
Great Plains Veterinary Clinic & Hospital (Hobbs)	(575) 392-5513

Residents within 2 miles

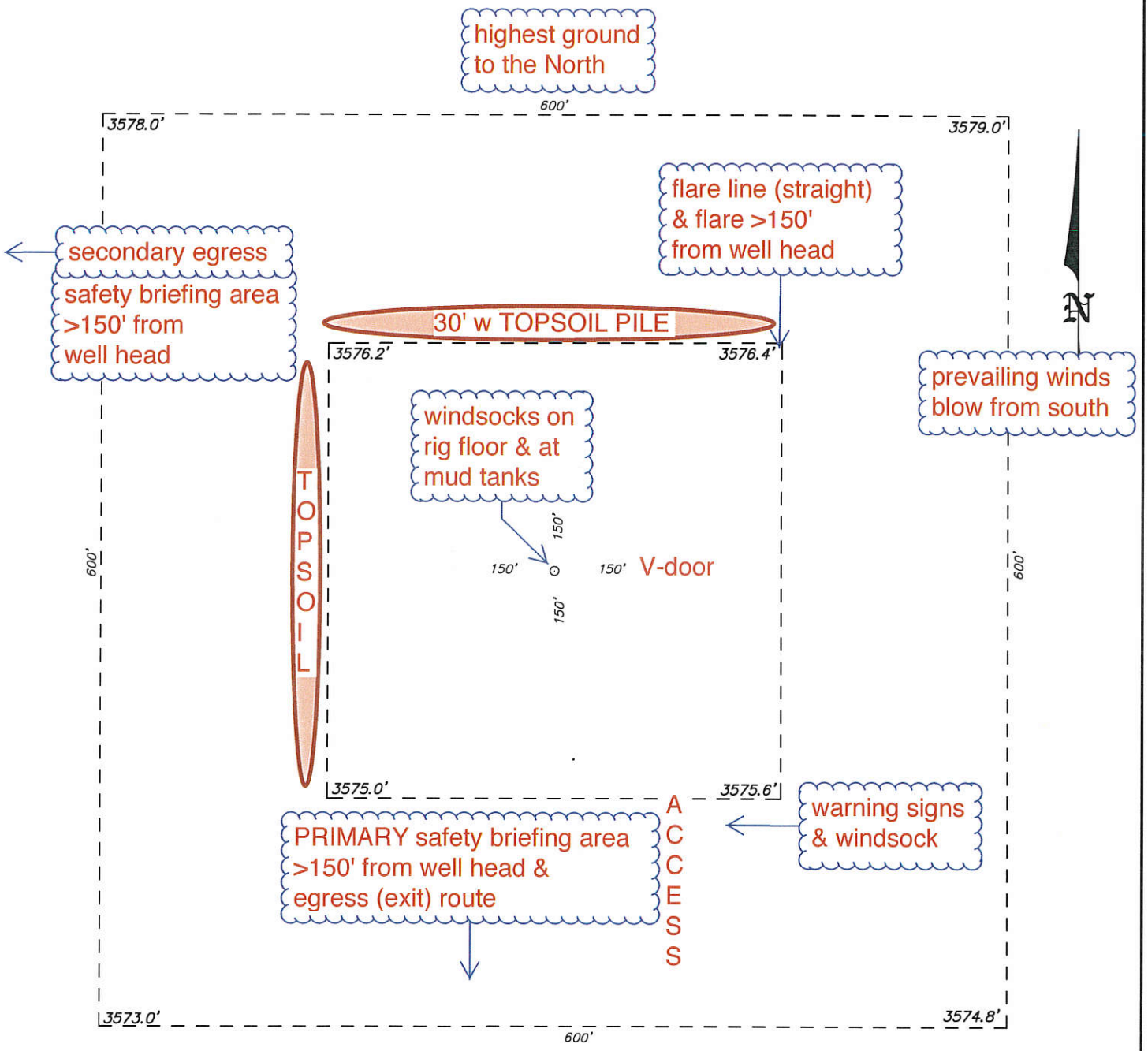
One house is within 2 miles. The resident is an elderly woman. Contact is Clay Cooper (575) 390-7996.

Air Evacuation

Med Flight Air Ambulance (Albuquerque)	(800) 842-4431
Lifeguard (Albuquerque)	(888) 866-7256

SECTION 35, TOWNSHIP 20 SOUTH, RANGE 36 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO.



100 0 100 200 FEET

SCALE: 1" = 100'

FORTY ACRES ENERGY

REF: WEST EUMONT UNIT 560 / WELL PAD TOPO

THE WEST EUMONT UNIT 560 LOCATED 661' FROM THE NORTH LINE AND 660' FROM THE WEST LINE OF SECTION 35, TOWNSHIP 20 SOUTH, RANGE 36 EAST. N.M.P.M., LEA COUNTY, NEW MEXICO.

basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 – Office
(575) 392-2206 – Fax
basinsurveys.com

W.O. Number: 34853	Drawn By: J GOAD	Date: 10-1-2019	Survey Date: 9-17-2019	Sheet 1 of 1 Sheets

Forty Acres Energy

West Eumont Unit #560
H2S Contingency Plan:
2 Mile Radius Map

Section 35, T.20S R.36E
Lea County, New Mexico

Surface Hole Location

1:30,000

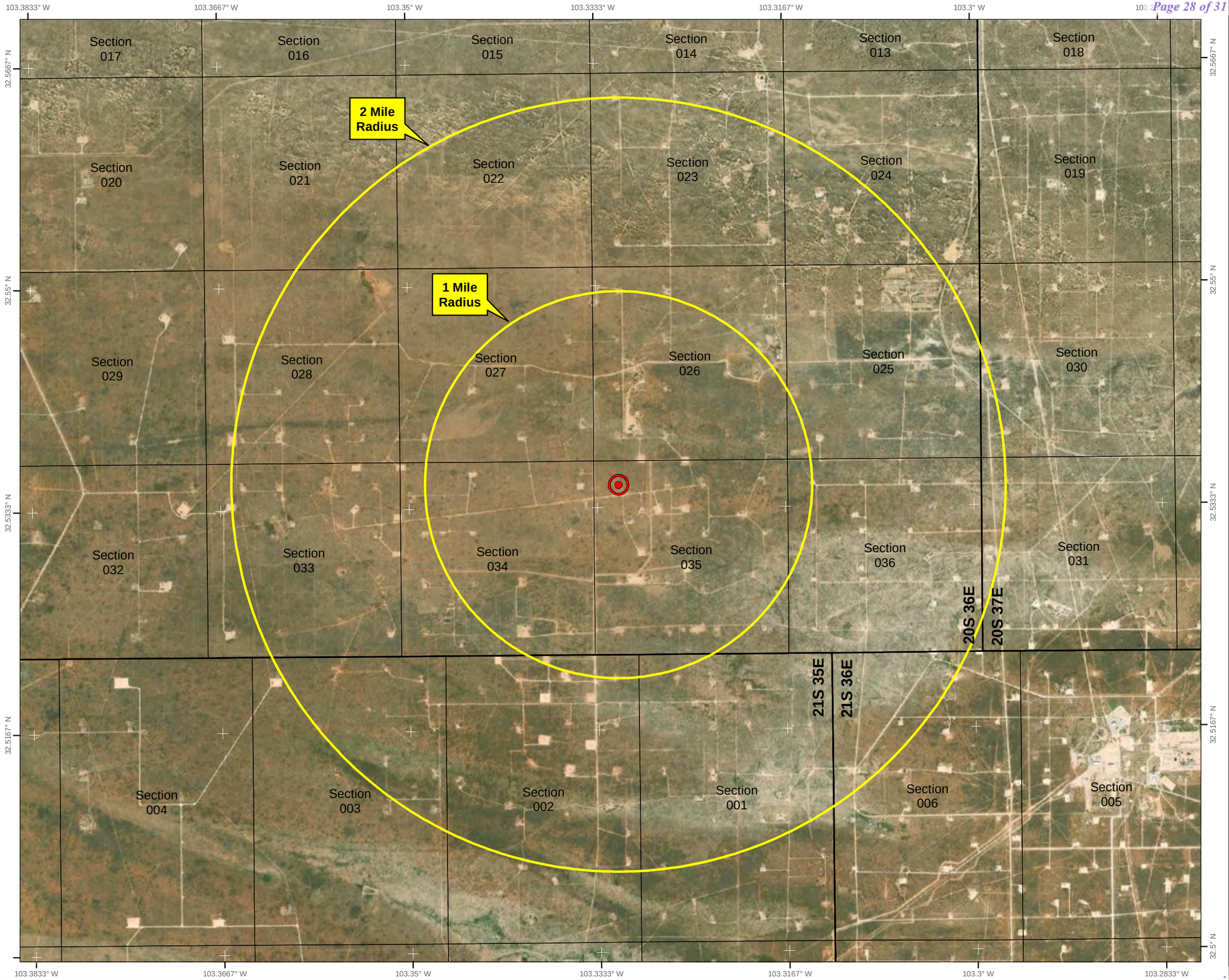
0 0.25 0.5 1
Miles

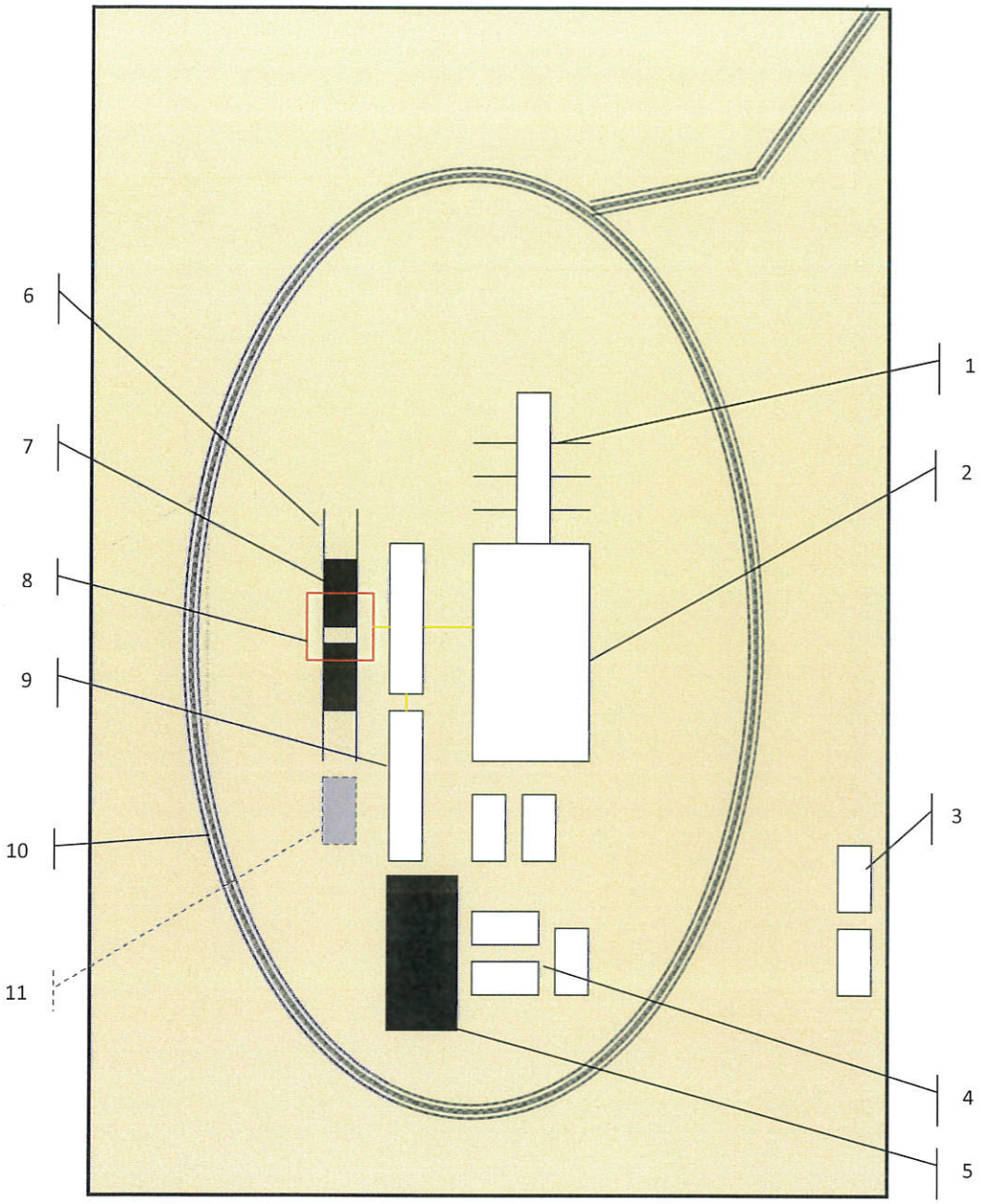
N

NAD 1983 New Mexico State Plane East
FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., January 5, 2021
for Forty Acres Energy





Schematic Closed Loop Drilling Rig*

1. Pipe Rack
2. Drill Rig
3. House Trailers/ Offices
4. Generator/Fuel/Storage
5. Overflow-Frac Tank
6. Skids
7. Roll Offs
8. Hopper or Centrifuge
9. Mud Tanks
10. Loop Drive
11. Generator (only for use with centrifuge)

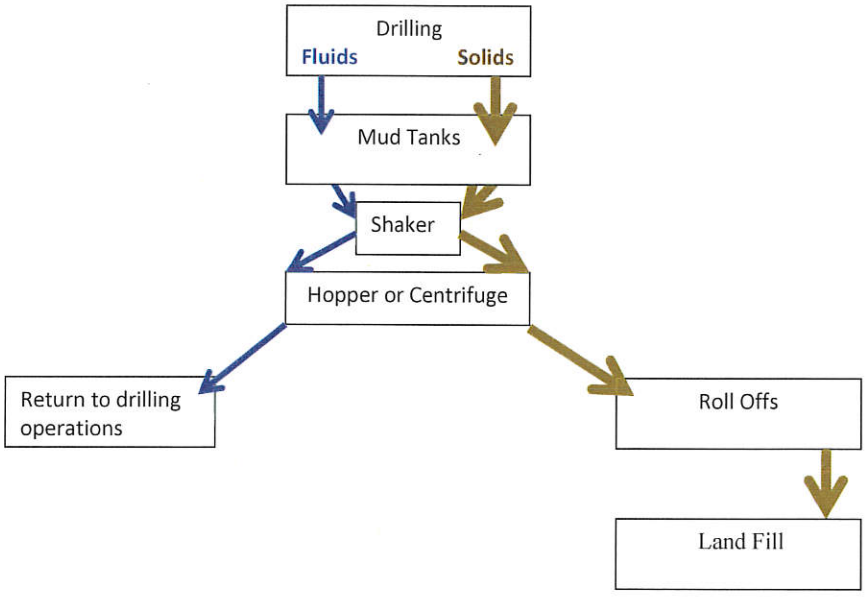
*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available

Above: Centrifugal Closed Loop System

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

Closed Loop Drilling System: Mud tanks to right (1)
Hopper in air to settle out solids (2)
Water return pipe (3)
Shaker between hopper and mud tanks (4)
Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil Field Service

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 113823

CONDITIONS

Operator: FORTY ACRES ENERGY, LLC 11757 Katy Frwy Houston, TX 77056	OGRID: 371416
	Action Number: 113823
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	NOTIFY OCD WITHIN TEN DAYS OF REENTRY	6/28/2022