

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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM110835
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator EOG RESOURCES INCORPORATED [7377]		8. Lease Name and Well No. MERCILESS 13 FED COM [328894] 742H
3a. Address 1111 BAGBY SKY LOBBY 2, HOUSTON, TX 77002	3b. Phone No. (include area code) (432) 686-3600	9. API Well No. 30-025-48882
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWNW / 200 FNL / 704 FWL / LAT 32.1372421 / LONG -103.6347658 At proposed prod. zone SWNW / 2544 FNL / 460 FWL / LAT 32.1162862 / LONG -103.6355964		10. Field and Pool, or Exploratory WC-025-G-09-S2433361-UPPER WOLEC 98180
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area SEC 13/T25S/R32E/NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 100 feet		12. County or Parish LEA
16. No of acres in lease		13. State NM
17. Spacing Unit dedicated to this well 480.0		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 33 feet		20. BLM/BIA Bond No. in file FED: NM2308
19. Proposed Depth 12740 feet / 20311 feet		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3480 feet	22. Approximate date work will start* 01/01/2021	23. Estimated duration 25 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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature (Electronic Submission)	Name (Printed/Typed) STAR HARRELL / Ph: (713) 651-7000	Date 07/06/2020
Title Regulatory Specialist		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575) 234-5959	Date 04/23/2021
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.

GCP Rec 04/27/2021



KZ
05/17/2021

SL

(Continued on page 2)

*(Instructions on page 2)

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 30-025-48882		² Pool Code 98180		³ Pool Name WC-025 G-09 S253309P; Upper Wolfcamp	
⁴ Property Code 328894		⁵ Property Name MERCILESS 13 FED COM			⁶ Well Number 742H
⁷ OGRID No. 7377		⁸ Operator Name EOG RESOURCES, INC.			⁹ Elevation 3480'

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	13	25-S	32-E	-	200'	NORTH	704'	WEST	LEA

¹¹Bottom 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
E	24	25-S	32-E	-	2544'	NORTH	460'	WEST	LEA

¹² Dedicated Acres 480.00	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

¹⁷OPERATOR 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.

Star L Harrell 7/16/2020
Signature Date

Star L Harrell
Printed Name

star_harrell@eogresources.com
E-mail Address

¹⁸SURVEYOR 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 to the best of my belief.

06/08/2020
Date of Survey

Ramon A. Dominguez
Signature and Seal of Professional Surveyor

24508
Certificate Number

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 3/29/2021

Original Operator & OGRID No.: EOG Resources, Inc. 7377
 Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Merciless 13 Fed Com 725H	30-025-	C-13-25S-32E	200' FNL & 2228' FWL	±3500	None Planned	APD Submission
Merciless 13 Fed Com 742H	30-025-48882	D-13-25S-32E	200' FNL & 704' FWL	±3500	None Planned	APD Submission
Merciless 13 Fed Com 743H	30-025-*****	D-13-25S-32E	200' FNL & 1222' FWL	±3500	None Planned	APD Submission
Merciless 13 Fed Com 744H	30-025-*****	B-13-25S-32E	483' FNL & 1389' FWL	±3500	None Planned	APD Submission
Merciless 13 Fed Com 745H	30-025-*****	A-13-25S-32E	250' FNL & 455' FEL	±3500	None Planned	APD Submission

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to **Lucid Energy, Enterprise & Regency Field Services** and will be connected to **EOG Resources** low/high pressure gathering system located in Lea County, New Mexico. **EOG Resources** provides (periodically) to **Lucid Energy, Enterprise & Regency Field Services** a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, **EOG Resources** and **Lucid Energy, Enterprise & Regency Field Services** have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at **Lucid Energy, Enterprise & Regency Field Services** Processing Plant located in Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on **Lucid Energy, Enterprise & Regency Field Services** system at that time. Based on current information, it is **EOG Resources'** belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared

- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	950'
Tamarisk Anhydrite	1,015'
Top of Salt	1,265'
Base of Salt	4,680'
Lamar	4,905'
Bell Canyon	4,930'
Cherry Canyon	5,793'
Brushy Canyon	7,452'
Bone Spring Lime	9,002'
Leonard Shale	9,078'
1 st Bone Spring Sand	9,967'
2 nd Bone Spring Shale	10,205'
2 nd Bone Spring Sand	10,415'
3 rd Bone Spring Carb	11,087'
3 rd Bone Spring Sand	11,715'
Wolfcamp	12,179'
TD	12,740'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	5,793'	Oil
Brushy Canyon	7,452'	Oil
Leonard	9,078'	Oil
1 st Bone Spring Sand	9,967'	Oil
2 nd Bone Spring Shale	10,205'	Oil
2 nd Bone Spring Sand	10,415'	Oil
3 rd Bone Spring Carb	11,087'	Oil
3 rd Bone Spring Sand	11,715'	Oil
Wolfcamp	12,179'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 9.625" casing at 1,040' and circulating cement back to surface.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
12.25"	0' – 1,040'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
8.75"	0' – 11,190'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' – 10,690'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60
6.75"	10,690'–11,190'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.60
6.75"	11,190' – 20,311'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60

Variance is requested to waive the centralizer requirements for the 7-5/8" casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 5-1/2" casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive the annular clearance requirements for the 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422" is acceptable for the production open hole section.

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /sk	Slurry Description
1,040' 9-5/8"	890	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	80	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 840')
11,190' 7-5/8"	490	14.2	1.11	1 st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 7,300')
	1,000	12.7	2.30	2 nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
20,311' 5-1/2"	590	14.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 10,690')

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

EOG requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (7,452') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 1,000 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Once cement circulates to surface drilling operations to drill out of the intermediate shoe will proceed (per clarification from BLM 4/21/2020). The final cement top will be verified by Echo-meter.

EOG will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

Cement integrity tests will be performed immediately following plug bump.

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5,000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

EOG will utilize wing unions on BOPE connections that can be isolated from wellbore pressure through means of a choke. All wing unions will be rated to a pressure that meets or exceeds the pressure rating of the BOPE system.

Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.

Pipe rams and blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows.

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,040'	Fresh - Gel	8.6-8.8	28-34	N/c
1,040' – 11,190'	Brine	10.0-10.2	28-34	N/c
11,190' – 12,266'	Oil Base	8.7-9.4	58-68	N/c - 6
12,266' – 20,311' Lateral	Oil Base	10.0-14.0	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to 14.0 ppg may be utilized.

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

GR-CCL Will be run in cased hole during completions phase of operations.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom-hole temperature (BHT) at TD is 197 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 9,274 psig and a maximum anticipated surface pressure of 6,472 psig (based on 14.0 ppg MW). No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from 7,452' to Intermediate casing point.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

(A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Surface Rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both "A" and "B" sections). The weld will be tested to 1000 psi. All valves will be closed and a wellhead cap will be installed (diagram attached). If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

11. WELLHEAD:

A multi-bowl wellhead system will be utilized.

After running the 9-5/8" surface casing, a 9-5/8" BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10,000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 10,000 psi.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Cactus Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. EOG Resources reserves the option to conduct BOPE testing during wait on cement periods provided a test plug is utilized.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

Casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

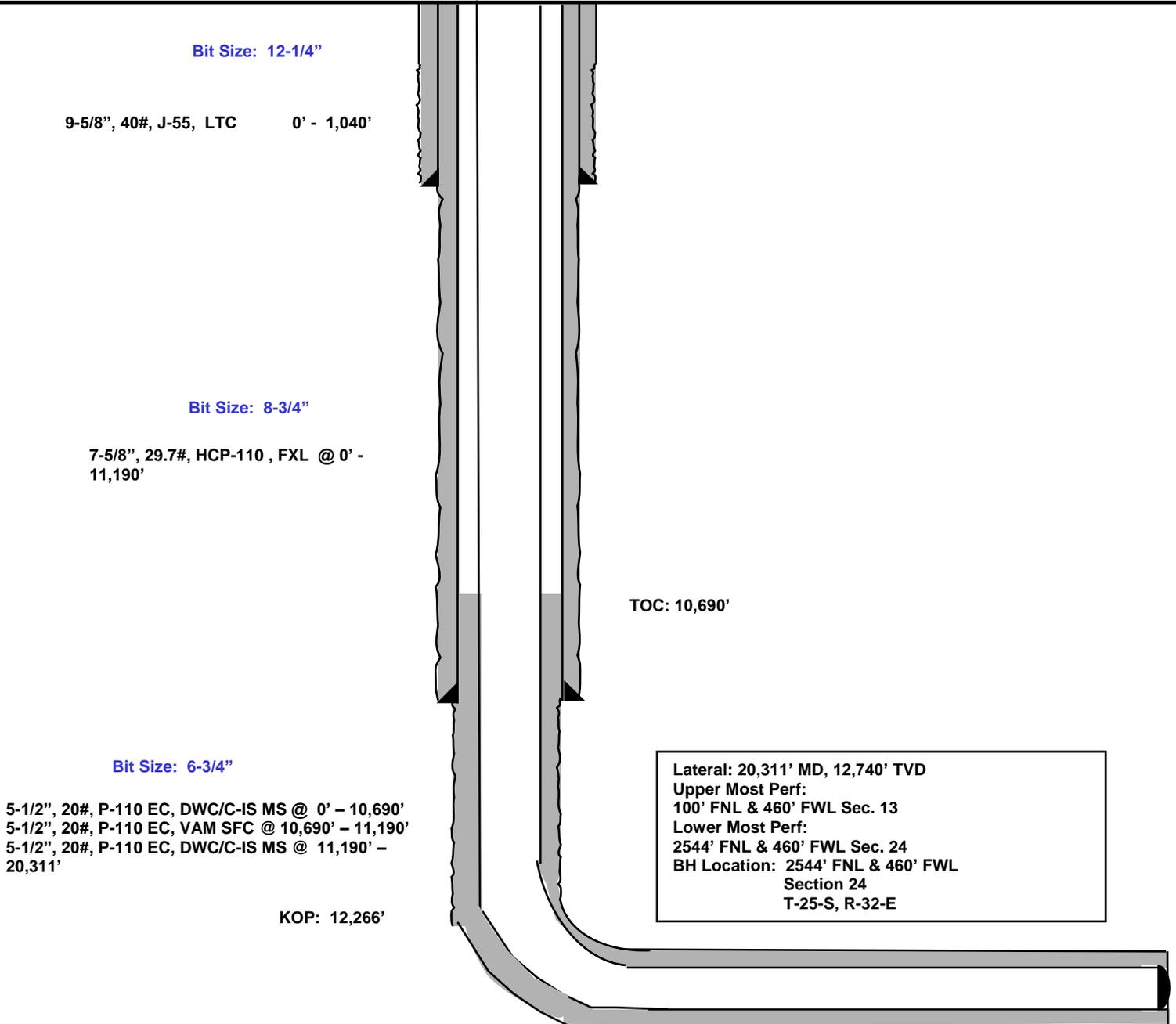
EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H

200' FNL
704' FWL
Section 13
T-25-S, R-32-E

Proposed Wellbore

KB: 3,505'
GL: 3,480'

API: 30-025-*****





EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Merciless 13 Fed Com

#742H

OH

Plan: Plan #0.1

Standard Planning Report

29 June, 2020



EOG Resources
Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #742H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#742H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Merciless 13 Fed Com				
Site Position:	Northing:	414,304.00 usft	Latitude:	32.1370757°N	
From: Map	Easting:	757,406.00 usft	Longitude:	103.6352783°W	
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.37 °

Well	#742H					
Well Position	+N/-S	62.0 usft	Northing:	414,366.00 usft	Latitude:	32.1372433°N
	+E/-W	158.0 usft	Easting:	757,564.00 usft	Longitude:	103.6347666°W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	3,480.0 usft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	6/29/2020	6.68	59.84	47,535.65086943

Design	Plan #0.1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	181.55

Plan Survey Tool Program	Date	6/29/2020			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	20,311.4 Plan #0.1 (OH)	EOG MWD+IFR1		
			MWD + IFR1		

Plan Sections											
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00		
66.9	1.34	301.07	66.9	0.4	-0.7	2.00	2.00	0.00	301.07		
12,198.9	1.34	301.07	12,195.6	146.6	-243.3	0.00	0.00	0.00	0.00		
12,265.8	0.00	360.00	12,262.5	147.0	-244.0	2.00	-2.00	0.00	180.00	KOP (Merciless 13 Fe	
13,015.8	90.00	179.74	12,740.0	-330.5	-241.8	12.00	12.00	23.97	179.74		
17,767.4	90.00	179.74	12,740.0	-5,082.0	-220.0	0.00	0.00	0.00	0.00	FPP (Merciless 13 Fe	
17,768.9	90.00	179.71	12,740.0	-5,083.5	-220.0	2.00	0.03	-2.00	-89.18		
20,311.4	90.00	179.71	12,740.0	-7,626.0	-207.0	0.00	0.00	0.00	0.00	LTP/PBHL (Merciless	



EOG Resources
Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #742H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#742H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
66.9	1.34	301.07	66.9	0.4	-0.7	-0.4	2.00	2.00	0.00
100.0	1.34	301.07	100.0	0.8	-1.3	-0.8	0.00	0.00	0.00
200.0	1.34	301.07	200.0	2.0	-3.3	-1.9	0.00	0.00	0.00
300.0	1.34	301.07	299.9	3.2	-5.3	-3.1	0.00	0.00	0.00
400.0	1.34	301.07	399.9	4.4	-7.3	-4.2	0.00	0.00	0.00
500.0	1.34	301.07	499.9	5.6	-9.3	-5.4	0.00	0.00	0.00
600.0	1.34	301.07	599.8	6.8	-11.3	-6.5	0.00	0.00	0.00
700.0	1.34	301.07	699.8	8.0	-13.3	-7.7	0.00	0.00	0.00
800.0	1.34	301.07	799.8	9.2	-15.3	-8.8	0.00	0.00	0.00
900.0	1.34	301.07	899.8	10.4	-17.3	-10.0	0.00	0.00	0.00
1,000.0	1.34	301.07	999.7	11.6	-19.3	-11.1	0.00	0.00	0.00
1,100.0	1.34	301.07	1,099.7	12.9	-21.3	-12.3	0.00	0.00	0.00
1,200.0	1.34	301.07	1,199.7	14.1	-23.3	-13.4	0.00	0.00	0.00
1,300.0	1.34	301.07	1,299.7	15.3	-25.3	-14.6	0.00	0.00	0.00
1,400.0	1.34	301.07	1,399.6	16.5	-27.3	-15.7	0.00	0.00	0.00
1,500.0	1.34	301.07	1,499.6	17.7	-29.3	-16.9	0.00	0.00	0.00
1,600.0	1.34	301.07	1,599.6	18.9	-31.3	-18.0	0.00	0.00	0.00
1,700.0	1.34	301.07	1,699.5	20.1	-33.3	-19.2	0.00	0.00	0.00
1,800.0	1.34	301.07	1,799.5	21.3	-35.3	-20.3	0.00	0.00	0.00
1,900.0	1.34	301.07	1,899.5	22.5	-37.3	-21.5	0.00	0.00	0.00
2,000.0	1.34	301.07	1,999.5	23.7	-39.3	-22.6	0.00	0.00	0.00
2,100.0	1.34	301.07	2,099.4	24.9	-41.3	-23.8	0.00	0.00	0.00
2,200.0	1.34	301.07	2,199.4	26.1	-43.3	-24.9	0.00	0.00	0.00
2,300.0	1.34	301.07	2,299.4	27.3	-45.3	-26.1	0.00	0.00	0.00
2,400.0	1.34	301.07	2,399.4	28.5	-47.3	-27.2	0.00	0.00	0.00
2,500.0	1.34	301.07	2,499.3	29.7	-49.3	-28.4	0.00	0.00	0.00
2,600.0	1.34	301.07	2,599.3	30.9	-51.3	-29.5	0.00	0.00	0.00
2,700.0	1.34	301.07	2,699.3	32.1	-53.3	-30.7	0.00	0.00	0.00
2,800.0	1.34	301.07	2,799.2	33.3	-55.3	-31.8	0.00	0.00	0.00
2,900.0	1.34	301.07	2,899.2	34.5	-57.3	-33.0	0.00	0.00	0.00
3,000.0	1.34	301.07	2,999.2	35.7	-59.3	-34.1	0.00	0.00	0.00
3,100.0	1.34	301.07	3,099.2	37.0	-61.3	-35.3	0.00	0.00	0.00
3,200.0	1.34	301.07	3,199.1	38.2	-63.3	-36.4	0.00	0.00	0.00
3,300.0	1.34	301.07	3,299.1	39.4	-65.3	-37.6	0.00	0.00	0.00
3,400.0	1.34	301.07	3,399.1	40.6	-67.3	-38.7	0.00	0.00	0.00
3,500.0	1.34	301.07	3,499.1	41.8	-69.3	-39.9	0.00	0.00	0.00
3,600.0	1.34	301.07	3,599.0	43.0	-71.3	-41.0	0.00	0.00	0.00
3,700.0	1.34	301.07	3,699.0	44.2	-73.3	-42.2	0.00	0.00	0.00
3,800.0	1.34	301.07	3,799.0	45.4	-75.3	-43.3	0.00	0.00	0.00
3,900.0	1.34	301.07	3,898.9	46.6	-77.3	-44.5	0.00	0.00	0.00
4,000.0	1.34	301.07	3,998.9	47.8	-79.3	-45.6	0.00	0.00	0.00
4,100.0	1.34	301.07	4,098.9	49.0	-81.3	-46.8	0.00	0.00	0.00
4,200.0	1.34	301.07	4,198.9	50.2	-83.3	-47.9	0.00	0.00	0.00
4,300.0	1.34	301.07	4,298.8	51.4	-85.3	-49.1	0.00	0.00	0.00
4,400.0	1.34	301.07	4,398.8	52.6	-87.3	-50.2	0.00	0.00	0.00
4,500.0	1.34	301.07	4,498.8	53.8	-89.3	-51.4	0.00	0.00	0.00
4,600.0	1.34	301.07	4,598.8	55.0	-91.3	-52.5	0.00	0.00	0.00
4,700.0	1.34	301.07	4,698.7	56.2	-93.3	-53.7	0.00	0.00	0.00
4,800.0	1.34	301.07	4,798.7	57.4	-95.3	-54.8	0.00	0.00	0.00
4,900.0	1.34	301.07	4,898.7	58.6	-97.3	-56.0	0.00	0.00	0.00
5,000.0	1.34	301.07	4,998.6	59.8	-99.3	-57.1	0.00	0.00	0.00
5,100.0	1.34	301.07	5,098.6	61.1	-101.3	-58.3	0.00	0.00	0.00
5,200.0	1.34	301.07	5,198.6	62.3	-103.3	-59.4	0.00	0.00	0.00



EOG Resources
Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #742H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#742H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,300.0	1.34	301.07	5,298.6	63.5	-105.3	-60.6	0.00	0.00	0.00	
5,400.0	1.34	301.07	5,398.5	64.7	-107.3	-61.7	0.00	0.00	0.00	
5,500.0	1.34	301.07	5,498.5	65.9	-109.3	-62.9	0.00	0.00	0.00	
5,600.0	1.34	301.07	5,598.5	67.1	-111.3	-64.0	0.00	0.00	0.00	
5,700.0	1.34	301.07	5,698.5	68.3	-113.3	-65.2	0.00	0.00	0.00	
5,800.0	1.34	301.07	5,798.4	69.5	-115.3	-66.3	0.00	0.00	0.00	
5,900.0	1.34	301.07	5,898.4	70.7	-117.3	-67.5	0.00	0.00	0.00	
6,000.0	1.34	301.07	5,998.4	71.9	-119.3	-68.6	0.00	0.00	0.00	
6,100.0	1.34	301.07	6,098.3	73.1	-121.3	-69.8	0.00	0.00	0.00	
6,200.0	1.34	301.07	6,198.3	74.3	-123.3	-70.9	0.00	0.00	0.00	
6,300.0	1.34	301.07	6,298.3	75.5	-125.3	-72.1	0.00	0.00	0.00	
6,400.0	1.34	301.07	6,398.3	76.7	-127.3	-73.2	0.00	0.00	0.00	
6,500.0	1.34	301.07	6,498.2	77.9	-129.3	-74.4	0.00	0.00	0.00	
6,600.0	1.34	301.07	6,598.2	79.1	-131.3	-75.5	0.00	0.00	0.00	
6,700.0	1.34	301.07	6,698.2	80.3	-133.3	-76.7	0.00	0.00	0.00	
6,800.0	1.34	301.07	6,798.2	81.5	-135.3	-77.8	0.00	0.00	0.00	
6,900.0	1.34	301.07	6,898.1	82.7	-137.3	-79.0	0.00	0.00	0.00	
7,000.0	1.34	301.07	6,998.1	83.9	-139.3	-80.1	0.00	0.00	0.00	
7,100.0	1.34	301.07	7,098.1	85.2	-141.3	-81.3	0.00	0.00	0.00	
7,200.0	1.34	301.07	7,198.0	86.4	-143.3	-82.4	0.00	0.00	0.00	
7,300.0	1.34	301.07	7,298.0	87.6	-145.3	-83.6	0.00	0.00	0.00	
7,400.0	1.34	301.07	7,398.0	88.8	-147.3	-84.7	0.00	0.00	0.00	
7,500.0	1.34	301.07	7,498.0	90.0	-149.3	-85.9	0.00	0.00	0.00	
7,600.0	1.34	301.07	7,597.9	91.2	-151.3	-87.0	0.00	0.00	0.00	
7,700.0	1.34	301.07	7,697.9	92.4	-153.3	-88.2	0.00	0.00	0.00	
7,800.0	1.34	301.07	7,797.9	93.6	-155.3	-89.3	0.00	0.00	0.00	
7,900.0	1.34	301.07	7,897.9	94.8	-157.3	-90.5	0.00	0.00	0.00	
8,000.0	1.34	301.07	7,997.8	96.0	-159.3	-91.6	0.00	0.00	0.00	
8,100.0	1.34	301.07	8,097.8	97.2	-161.3	-92.8	0.00	0.00	0.00	
8,200.0	1.34	301.07	8,197.8	98.4	-163.3	-93.9	0.00	0.00	0.00	
8,300.0	1.34	301.07	8,297.7	99.6	-165.3	-95.1	0.00	0.00	0.00	
8,400.0	1.34	301.07	8,397.7	100.8	-167.3	-96.2	0.00	0.00	0.00	
8,500.0	1.34	301.07	8,497.7	102.0	-169.3	-97.4	0.00	0.00	0.00	
8,600.0	1.34	301.07	8,597.7	103.2	-171.3	-98.5	0.00	0.00	0.00	
8,700.0	1.34	301.07	8,697.6	104.4	-173.3	-99.7	0.00	0.00	0.00	
8,800.0	1.34	301.07	8,797.6	105.6	-175.3	-100.8	0.00	0.00	0.00	
8,900.0	1.34	301.07	8,897.6	106.8	-177.3	-102.0	0.00	0.00	0.00	
9,000.0	1.34	301.07	8,997.6	108.0	-179.3	-103.1	0.00	0.00	0.00	
9,100.0	1.34	301.07	9,097.5	109.3	-181.3	-104.3	0.00	0.00	0.00	
9,200.0	1.34	301.07	9,197.5	110.5	-183.3	-105.4	0.00	0.00	0.00	
9,300.0	1.34	301.07	9,297.5	111.7	-185.3	-106.6	0.00	0.00	0.00	
9,400.0	1.34	301.07	9,397.4	112.9	-187.3	-107.7	0.00	0.00	0.00	
9,500.0	1.34	301.07	9,497.4	114.1	-189.3	-108.9	0.00	0.00	0.00	
9,600.0	1.34	301.07	9,597.4	115.3	-191.3	-110.0	0.00	0.00	0.00	
9,700.0	1.34	301.07	9,697.4	116.5	-193.3	-111.2	0.00	0.00	0.00	
9,800.0	1.34	301.07	9,797.3	117.7	-195.3	-112.3	0.00	0.00	0.00	
9,900.0	1.34	301.07	9,897.3	118.9	-197.3	-113.5	0.00	0.00	0.00	
10,000.0	1.34	301.07	9,997.3	120.1	-199.3	-114.6	0.00	0.00	0.00	
10,100.0	1.34	301.07	10,097.3	121.3	-201.3	-115.8	0.00	0.00	0.00	
10,200.0	1.34	301.07	10,197.2	122.5	-203.3	-116.9	0.00	0.00	0.00	
10,300.0	1.34	301.07	10,297.2	123.7	-205.3	-118.1	0.00	0.00	0.00	
10,400.0	1.34	301.07	10,397.2	124.9	-207.3	-119.2	0.00	0.00	0.00	
10,500.0	1.34	301.07	10,497.1	126.1	-209.3	-120.4	0.00	0.00	0.00	
10,600.0	1.34	301.07	10,597.1	127.3	-211.3	-121.5	0.00	0.00	0.00	

EOG Resources

Planning Report



Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #742H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#742H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,700.0	1.34	301.07	10,697.1	128.5	-213.3	-122.7	0.00	0.00	0.00	
10,800.0	1.34	301.07	10,797.1	129.7	-215.4	-123.8	0.00	0.00	0.00	
10,900.0	1.34	301.07	10,897.0	130.9	-217.4	-125.0	0.00	0.00	0.00	
11,000.0	1.34	301.07	10,997.0	132.1	-219.4	-126.1	0.00	0.00	0.00	
11,100.0	1.34	301.07	11,097.0	133.4	-221.4	-127.3	0.00	0.00	0.00	
11,200.0	1.34	301.07	11,197.0	134.6	-223.4	-128.4	0.00	0.00	0.00	
11,300.0	1.34	301.07	11,296.9	135.8	-225.4	-129.6	0.00	0.00	0.00	
11,400.0	1.34	301.07	11,396.9	137.0	-227.4	-130.8	0.00	0.00	0.00	
11,500.0	1.34	301.07	11,496.9	138.2	-229.4	-131.9	0.00	0.00	0.00	
11,600.0	1.34	301.07	11,596.8	139.4	-231.4	-133.1	0.00	0.00	0.00	
11,700.0	1.34	301.07	11,696.8	140.6	-233.4	-134.2	0.00	0.00	0.00	
11,800.0	1.34	301.07	11,796.8	141.8	-235.4	-135.4	0.00	0.00	0.00	
11,900.0	1.34	301.07	11,896.8	143.0	-237.4	-136.5	0.00	0.00	0.00	
12,000.0	1.34	301.07	11,996.7	144.2	-239.4	-137.7	0.00	0.00	0.00	
12,100.0	1.34	301.07	12,096.7	145.4	-241.4	-138.8	0.00	0.00	0.00	
12,198.9	1.34	301.07	12,195.6	146.6	-243.3	-139.9	0.00	0.00	0.00	
12,200.0	1.32	301.07	12,196.7	146.6	-243.4	-140.0	2.00	-2.00	0.00	
12,265.8	0.00	360.00	12,262.5	147.0	-244.0	-140.3	2.00	-2.00	0.00	
12,275.0	1.10	179.74	12,271.7	146.9	-244.0	-140.2	12.00	12.00	0.00	
12,300.0	4.10	179.74	12,296.7	145.8	-244.0	-139.1	12.00	12.00	0.00	
12,325.0	7.10	179.74	12,321.5	143.3	-244.0	-136.7	12.00	12.00	0.00	
12,350.0	10.10	179.74	12,346.2	139.6	-244.0	-132.9	12.00	12.00	0.00	
12,375.0	13.10	179.74	12,370.7	134.6	-243.9	-127.9	12.00	12.00	0.00	
12,400.0	16.10	179.74	12,394.9	128.3	-243.9	-121.6	12.00	12.00	0.00	
12,425.0	19.10	179.74	12,418.7	120.7	-243.9	-114.0	12.00	12.00	0.00	
12,450.0	22.10	179.74	12,442.1	111.9	-243.8	-105.3	12.00	12.00	0.00	
12,475.0	25.10	179.74	12,465.1	101.9	-243.8	-95.3	12.00	12.00	0.00	
12,500.0	28.10	179.74	12,487.4	90.7	-243.7	-84.1	12.00	12.00	0.00	
12,525.0	31.10	179.74	12,509.1	78.4	-243.7	-71.7	12.00	12.00	0.00	
12,550.0	34.10	179.74	12,530.2	64.9	-243.6	-58.3	12.00	12.00	0.00	
12,575.0	37.10	179.74	12,550.5	50.3	-243.6	-43.7	12.00	12.00	0.00	
12,600.0	40.10	179.74	12,570.1	34.8	-243.5	-28.1	12.00	12.00	0.00	
12,625.0	43.10	179.74	12,588.7	18.2	-243.4	-11.5	12.00	12.00	0.00	
12,650.0	46.10	179.74	12,606.5	0.6	-243.3	6.0	12.00	12.00	0.00	
12,675.0	49.10	179.74	12,623.4	-17.9	-243.2	24.5	12.00	12.00	0.00	
12,700.0	52.10	179.74	12,639.3	-37.2	-243.2	43.8	12.00	12.00	0.00	
12,725.0	55.10	179.74	12,654.1	-57.3	-243.1	63.9	12.00	12.00	0.00	
12,750.0	58.10	179.74	12,667.9	-78.2	-243.0	84.7	12.00	12.00	0.00	
12,775.0	61.10	179.74	12,680.5	-99.7	-242.9	106.3	12.00	12.00	0.00	
12,800.0	64.10	179.74	12,692.0	-121.9	-242.8	128.5	12.00	12.00	0.00	
12,825.0	67.10	179.74	12,702.3	-144.7	-242.7	151.2	12.00	12.00	0.00	
12,850.0	70.10	179.74	12,711.5	-168.0	-242.6	174.5	12.00	12.00	0.00	
12,875.0	73.10	179.74	12,719.3	-191.7	-242.4	198.2	12.00	12.00	0.00	
12,900.0	76.10	179.74	12,726.0	-215.8	-242.3	222.3	12.00	12.00	0.00	
12,925.0	79.10	179.74	12,731.4	-240.2	-242.2	246.7	12.00	12.00	0.00	
12,950.0	82.10	179.74	12,735.4	-264.8	-242.1	271.3	12.00	12.00	0.00	
12,975.0	85.10	179.74	12,738.2	-289.7	-242.0	296.1	12.00	12.00	0.00	
13,000.0	88.10	179.74	12,739.7	-314.6	-241.9	321.1	12.00	12.00	0.00	
13,015.8	90.00	179.74	12,740.0	-330.5	-241.8	336.9	12.00	12.00	0.00	
13,100.0	90.00	179.74	12,740.0	-414.6	-241.4	421.0	0.00	0.00	0.00	
13,200.0	90.00	179.74	12,740.0	-514.6	-241.0	521.0	0.00	0.00	0.00	
13,300.0	90.00	179.74	12,740.0	-614.6	-240.5	620.9	0.00	0.00	0.00	
13,400.0	90.00	179.74	12,740.0	-714.6	-240.0	720.9	0.00	0.00	0.00	
13,500.0	90.00	179.74	12,740.0	-814.6	-239.6	820.8	0.00	0.00	0.00	

EOG Resources

Planning Report



Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #742H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#742H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,600.0	90.00	179.74	12,740.0	-914.6	-239.1	920.8	0.00	0.00	0.00	
13,700.0	90.00	179.74	12,740.0	-1,014.6	-238.7	1,020.7	0.00	0.00	0.00	
13,800.0	90.00	179.74	12,740.0	-1,114.6	-238.2	1,120.7	0.00	0.00	0.00	
13,900.0	90.00	179.74	12,740.0	-1,214.6	-237.8	1,220.6	0.00	0.00	0.00	
14,000.0	90.00	179.74	12,740.0	-1,314.6	-237.3	1,320.6	0.00	0.00	0.00	
14,100.0	90.00	179.74	12,740.0	-1,414.6	-236.8	1,420.5	0.00	0.00	0.00	
14,200.0	90.00	179.74	12,740.0	-1,514.6	-236.4	1,520.5	0.00	0.00	0.00	
14,300.0	90.00	179.74	12,740.0	-1,614.6	-235.9	1,620.4	0.00	0.00	0.00	
14,400.0	90.00	179.74	12,740.0	-1,714.6	-235.5	1,720.4	0.00	0.00	0.00	
14,500.0	90.00	179.74	12,740.0	-1,814.6	-235.0	1,820.3	0.00	0.00	0.00	
14,600.0	90.00	179.74	12,740.0	-1,914.6	-234.5	1,920.3	0.00	0.00	0.00	
14,700.0	90.00	179.74	12,740.0	-2,014.6	-234.1	2,020.2	0.00	0.00	0.00	
14,800.0	90.00	179.74	12,740.0	-2,114.6	-233.6	2,120.2	0.00	0.00	0.00	
14,900.0	90.00	179.74	12,740.0	-2,214.6	-233.2	2,220.1	0.00	0.00	0.00	
15,000.0	90.00	179.74	12,740.0	-2,314.6	-232.7	2,320.1	0.00	0.00	0.00	
15,100.0	90.00	179.74	12,740.0	-2,414.6	-232.2	2,420.0	0.00	0.00	0.00	
15,200.0	90.00	179.74	12,740.0	-2,514.6	-231.8	2,520.0	0.00	0.00	0.00	
15,300.0	90.00	179.74	12,740.0	-2,614.6	-231.3	2,619.9	0.00	0.00	0.00	
15,400.0	90.00	179.74	12,740.0	-2,714.6	-230.9	2,719.9	0.00	0.00	0.00	
15,500.0	90.00	179.74	12,740.0	-2,814.6	-230.4	2,819.8	0.00	0.00	0.00	
15,600.0	90.00	179.74	12,740.0	-2,914.6	-229.9	2,919.8	0.00	0.00	0.00	
15,700.0	90.00	179.74	12,740.0	-3,014.6	-229.5	3,019.7	0.00	0.00	0.00	
15,800.0	90.00	179.74	12,740.0	-3,114.6	-229.0	3,119.7	0.00	0.00	0.00	
15,900.0	90.00	179.74	12,740.0	-3,214.6	-228.6	3,219.6	0.00	0.00	0.00	
16,000.0	90.00	179.74	12,740.0	-3,314.6	-228.1	3,319.6	0.00	0.00	0.00	
16,100.0	90.00	179.74	12,740.0	-3,414.6	-227.7	3,419.5	0.00	0.00	0.00	
16,200.0	90.00	179.74	12,740.0	-3,514.6	-227.2	3,519.5	0.00	0.00	0.00	
16,300.0	90.00	179.74	12,740.0	-3,614.6	-226.7	3,619.4	0.00	0.00	0.00	
16,400.0	90.00	179.74	12,740.0	-3,714.6	-226.3	3,719.4	0.00	0.00	0.00	
16,500.0	90.00	179.74	12,740.0	-3,814.6	-225.8	3,819.3	0.00	0.00	0.00	
16,600.0	90.00	179.74	12,740.0	-3,914.6	-225.4	3,919.3	0.00	0.00	0.00	
16,700.0	90.00	179.74	12,740.0	-4,014.6	-224.9	4,019.2	0.00	0.00	0.00	
16,800.0	90.00	179.74	12,740.0	-4,114.6	-224.4	4,119.2	0.00	0.00	0.00	
16,900.0	90.00	179.74	12,740.0	-4,214.6	-224.0	4,219.1	0.00	0.00	0.00	
17,000.0	90.00	179.74	12,740.0	-4,314.6	-223.5	4,319.1	0.00	0.00	0.00	
17,100.0	90.00	179.74	12,740.0	-4,414.6	-223.1	4,419.0	0.00	0.00	0.00	
17,200.0	90.00	179.74	12,740.0	-4,514.6	-222.6	4,519.0	0.00	0.00	0.00	
17,300.0	90.00	179.74	12,740.0	-4,614.6	-222.1	4,618.9	0.00	0.00	0.00	
17,400.0	90.00	179.74	12,740.0	-4,714.6	-221.7	4,718.9	0.00	0.00	0.00	
17,500.0	90.00	179.74	12,740.0	-4,814.6	-221.2	4,818.8	0.00	0.00	0.00	
17,600.0	90.00	179.74	12,740.0	-4,914.6	-220.8	4,918.8	0.00	0.00	0.00	
17,700.0	90.00	179.74	12,740.0	-5,014.6	-220.3	5,018.7	0.00	0.00	0.00	
17,767.4	90.00	179.74	12,740.0	-5,082.0	-220.0	5,086.1	0.00	0.00	0.00	
17,768.9	90.00	179.71	12,740.0	-5,083.5	-220.0	5,087.6	2.00	0.03	-2.00	
17,800.0	90.00	179.71	12,740.0	-5,114.6	-219.8	5,118.7	0.00	0.00	0.00	
17,900.0	90.00	179.71	12,740.0	-5,214.6	-219.3	5,218.6	0.00	0.00	0.00	
18,000.0	90.00	179.71	12,740.0	-5,314.6	-218.8	5,318.6	0.00	0.00	0.00	
18,100.0	90.00	179.71	12,740.0	-5,414.6	-218.3	5,418.5	0.00	0.00	0.00	
18,200.0	90.00	179.71	12,740.0	-5,514.6	-217.8	5,518.5	0.00	0.00	0.00	
18,300.0	90.00	179.71	12,740.0	-5,614.6	-217.3	5,618.4	0.00	0.00	0.00	
18,400.0	90.00	179.71	12,740.0	-5,714.6	-216.8	5,718.4	0.00	0.00	0.00	
18,500.0	90.00	179.71	12,740.0	-5,814.6	-216.3	5,818.3	0.00	0.00	0.00	
18,600.0	90.00	179.71	12,740.0	-5,914.6	-215.7	5,918.3	0.00	0.00	0.00	
18,700.0	90.00	179.71	12,740.0	-6,014.6	-215.2	6,018.2	0.00	0.00	0.00	



EOG Resources
Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #742H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#742H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
18,800.0	90.00	179.71	12,740.0	-6,114.6	-214.7	6,118.2	0.00	0.00	0.00	
18,900.0	90.00	179.71	12,740.0	-6,214.6	-214.2	6,218.1	0.00	0.00	0.00	
19,000.0	90.00	179.71	12,740.0	-6,314.6	-213.7	6,318.0	0.00	0.00	0.00	
19,100.0	90.00	179.71	12,740.0	-6,414.6	-213.2	6,418.0	0.00	0.00	0.00	
19,200.0	90.00	179.71	12,740.0	-6,514.6	-212.7	6,517.9	0.00	0.00	0.00	
19,300.0	90.00	179.71	12,740.0	-6,614.6	-212.2	6,617.9	0.00	0.00	0.00	
19,400.0	90.00	179.71	12,740.0	-6,714.6	-211.7	6,717.8	0.00	0.00	0.00	
19,500.0	90.00	179.71	12,740.0	-6,814.6	-211.1	6,817.8	0.00	0.00	0.00	
19,600.0	90.00	179.71	12,740.0	-6,914.6	-210.6	6,917.7	0.00	0.00	0.00	
19,700.0	90.00	179.71	12,740.0	-7,014.6	-210.1	7,017.7	0.00	0.00	0.00	
19,800.0	90.00	179.71	12,740.0	-7,114.6	-209.6	7,117.6	0.00	0.00	0.00	
19,900.0	90.00	179.71	12,740.0	-7,214.6	-209.1	7,217.6	0.00	0.00	0.00	
20,000.0	90.00	179.71	12,740.0	-7,314.6	-208.6	7,317.5	0.00	0.00	0.00	
20,100.0	90.00	179.71	12,740.0	-7,414.6	-208.1	7,417.5	0.00	0.00	0.00	
20,200.0	90.00	179.71	12,740.0	-7,514.6	-207.6	7,517.4	0.00	0.00	0.00	
20,300.0	90.00	179.71	12,740.0	-7,614.6	-207.1	7,617.4	0.00	0.00	0.00	
20,311.4	90.00	179.71	12,740.0	-7,626.0	-207.0	7,628.8	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
KOP (Merciless 13 Fed C - plan hits target center - Point	0.00	0.01	12,262.5	147.0	-244.0	414,513.00	757,320.00	32.1376517°N	103.6355518°W	
FPP (Merciless 13 Fed C - plan hits target center - Point	0.00	0.00	12,740.0	-5,082.0	-220.0	409,284.00	757,344.00	32.1232781°N	103.6355837°W	
LTP/PBHL (Merciless 13 - plan hits target center - Point	0.00	0.00	12,740.0	-7,626.0	-207.0	406,740.00	757,357.00	32.1162851°N	103.6355949°W	
FTP (Merciless 13 Fed C - plan misses target center by 163.4usft at 12668.8usft MD (12619.3 TVD, -13.2 N, -243.3 E) - Point	0.00	0.00	12,740.0	97.0	-244.0	414,463.00	757,320.00	32.1375143°N	103.6355528°W	

**Application for Permit to Drill****APD Package Report**

Date Printed: 04/26/2021 09:36 AM

APD ID: 10400058748

Well Status: AAPD

APD Received Date: 07/06/2020 03:08 PM

Well Name: MERCILESS 13 FED COM

Operator: EOG RESOURCES INCORPORATED Well Number: 742H

APD Package Report Contents

- Form 3160-3
- Operator Certification Report
- Application Report
- Application Attachments
 - Well Plat: 1 file(s)
- Drilling Plan Report
- Drilling Plan Attachments
 - Blowout Prevention Choke Diagram Attachment: 3 file(s)
 - Blowout Prevention BOP Diagram Attachment: 2 file(s)
 - Casing Design Assumptions and Worksheet(s): 9 file(s)
 - Hydrogen sulfide drilling operations plan: 1 file(s)
 - Proposed horizontal/directional/multi-lateral plan submission: 2 file(s)
 - Other Facets: 6 file(s)
 - Other Variances: 4 file(s)
- SUPO Report
- SUPO Attachments
 - Existing Road Map: 1 file(s)
 - Attach Well map: 1 file(s)
 - Production Facilities map: 12 file(s)
 - Water source and transportation map: 1 file(s)
 - Construction Materials source location attachment: 1 file(s)
 - Well Site Layout Diagram: 3 file(s)
 - Recontouring attachment: 1 file(s)
 - Other SUPO Attachment: 2 file(s)
- PWD Report
- PWD Attachments
 - None

- Bond Report
- Bond Attachments
 - None

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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM110835
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator EOG RESOURCES INCORPORATED		8. Lease Name and Well No. MERCILESS 13 FED COM 743H
3a. Address 1111 BAGBY SKY LOBBY 2, HOUSTON, TX 77002	3b. Phone No. (include area code) (432) 686-3600	9. API Well No.
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWNW / 200 FNL / 1222 FWL / LAT 32.1372497 / LONG -103.633095 At proposed prod. zone SENW / 2543 FNL / 1780 FWL / LAT 32.1163072 / LONG -103.6313329		10. Field and Pool, or Exploratory WC-025 G-09 S243336I; UPPER WOLFC
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area SEC 13/T25S/R32E/NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 100 feet		12. County or Parish LEA
16. No of acres in lease		13. State NM
17. Spacing Unit dedicated to this well 480.0		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 33 feet		20. BLM/BIA Bond No. in file FED:
19. Proposed Depth 12740 feet / 20320 feet		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3485 feet	22. Approximate date work will start* 01/01/2021	23. Estimated duration 25 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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature (Electronic Submission)	Name (Printed/Typed) STAR HARRELL / Ph: (713) 651-7000	Date 07/06/2020
Title Regulatory Specialist		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575) 234-5959	Date 04/23/2021
Title Assistant Field Manager Lands & Minerals 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.



(Continued on page 2)

*(Instructions on page 2)

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM connects this information to a new evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

0. SHL: NWNW / 200 FNL / 1222 FWL / TWSP: 25S / RANGE: 32E / SECTION: 13 / LAT: 32.1372497 / LONG: -103.633095 (TVD: 0 feet, MD: 0 feet)
PPP: SESW / 0 FSL / 1780 FWL / TWSP: 25S / RANGE: 32E / SECTION: 24 / LAT: 32.1232972 / LONG: -103.6311318 (TVD: 12740 feet, MD: 17777 feet)
PPP: NENW / 100 FNL / 1780 FWL / TWSP: 25S / RANGE: 32E / SECTION: 13 / LAT: 32.1375328 / LONG: -103.6312899 (TVD: 12475 feet, MD: 12497 feet)
BHL: SENW / 2543 FNL / 1780 FWL / TWSP: 25S / RANGE: 32E / SECTION: 24 / LAT: 32.1163072 / LONG: -103.6313329 (TVD: 12740 feet, MD: 20320 feet)

BLM Point of Contact

Name: Tanja Baca
Title: Land Law Examiner
Phone: (575) 234-5940
Email: tabaca@blm.gov

CONFIDENTIAL

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

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PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

Table 1: Legal Lands Descriptions

Well Name	Surface Hole Legal Location* T25 R32 sec 13	Bottom Hole Legal Location* T25 R32 sec 24
Well Pad A – Center of Pad: 250' FNL and 609' FWL		
Merciless 13 Fed Com #501H	260' FNL and 546' FWL	2,542' FNL and 790' FWL
Merciless 13 Fed Com #502H	260' FNL and 579' FWL	2,542' FNL and 1,250' FWL
Merciless 13 Fed Com #510H	260' FNL and 513' FWL	2,541' FNL and 331' FWL
Merciless 13 Fed Com #701H	200' FNL and 638' FWL	2,541' FNL and 331' FWL
Merciless 13 Fed Com #721H	200' FNL and 671' FWL	2,542' FNL and 660' FWL
Merciless 13 Fed Com #742H	200' FNL and 704' FWL	2,541' FNL and 461' FWL
Well Pad B – Center of Pad: 250' FNL and 1,272' FWL		
Merciless 13 Fed Com #702H	200' FNL and 1,255' FWL	2,542' FNL and 1,010' FWL
Merciless 13 Fed Com #740H	200' FNL and 1,288' FWL	2,542' FNL and 1,310' FWL
Merciless 13 Fed Com #743H	200' FNL and 1,222' FWL	2,542' FNL and 1,781' FWL
Well Pad C – Center of Pad: 250' FNL and 2,099' FWL		
Merciless 13 Fed Com #503H	260' FNL and 2,004' FWL	2,542' FNL and 1,710' FWL
Merciless 13 Fed Com #504H	260' FNL and 2,037' FWL	2,542' FNL and 2,170' FWL
Merciless 13 Fed Com #505H	260' FNL and 2,070' FWL	2,543' FNL and 2,590' FWL
Merciless 13 Fed Com #703H	200' FNL and 2,129' FWL	2,542' FNL and 1,669' FWL
Merciless 13 Fed Com #704H	200' FNL and 2,195' FWL	2,542' FNL and 2,328' FWL
Merciless 13 Fed Com #722H	200' FNL and 2,162' FWL	2,542' FNL and 1,980' FWL
Merciless 13 Fed Com #725H	200' FNL and 2,228' FWL	2,543' FNL and 2,591' FWL
Well Pad D – Center of Pad: 339' FNL and 2,205' FEL		
Merciless 13 Fed Com #506H	349' FNL and 2,284' FEL	2,541' FNL and 1,711' FEL
Merciless 13 Fed Com #507H	349' FNL and 2,251' FEL	2,541' FNL and 1,251' FEL
Merciless 13 Fed Com #511H	349' FNL and 2,317' FEL	2,542' FNL and 2,171' FEL
Merciless 13 Fed Com #705H	289' FNL and 2,191' FEL	2,542' FNL and 2,330' FEL
Merciless 13 Fed Com #706H	290' FNL and 2,125' FEL	2,541' FNL and 1,670' FEL
Merciless 13 Fed Com #723H	290' FNL and 2,158' FEL	2,542' FNL and 1,981' FEL
Well Pad E – Center of Pad: 550' FNL and 1,366' FWL		
Merciless 13 Fed Com #707H	512' FNL and 1,329' FEL	2,540' FNL and 1,011' FEL
Merciless 13 Fed Com #741H	498' FNL and 1,359' FEL	2,541' FNL and 1,311' FEL
Merciless 13 Fed Com #744H	483' FNL and 1,389' FEL	2,541' FNL and 1,781' FEL
Well Pad F – Center of Pad: 300' FNL and 517' FEL		
Merciless 13 Fed Com #508H	311' FNL and 579' FEL	2,540' FNL and 791' FEL
Merciless 13 Fed Com #509H	311' FNL and 546' FEL	2,539' FNL and 331' FEL

Well Name	Surface Hole Legal Location* T25 R32 sec 13	Bottom Hole Legal Location* T25 R32 sec 24
Merciless 13 Fed Com #708H	250' FNL and 471' FEL	2,539' FNL and 331' FEL
Merciless 13 Fed Com #724H	251' FNL and 486' FEL	2,540' FNL and 661' FEL
Merciless 13 Fed Com #745H	250' FNL and 455' FEL	2,540' FNL and 461' FEL

*FNL = from north line; FWL = from west line; FEL = from east line

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- General Provisions**
- Permit Expiration**
- Archaeology, Paleontology, and Historical Sites**
- Noxious Weeds**
- Special Requirements**
 - Lesser Prairie-Chicken Timing Stipulations
 - Ground-level Abandoned Well Marker
 - Hydrology
- Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- Road Section Diagram**
- Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- Interim Reclamation**
- Final Abandonment & Reclamation**

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Timing Limitation Exceptions:

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Hydrology:

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects

within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

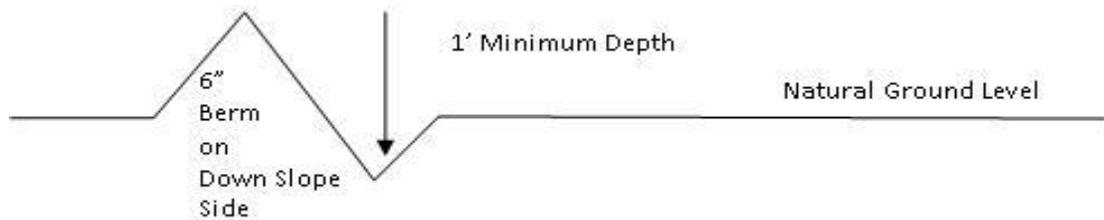
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

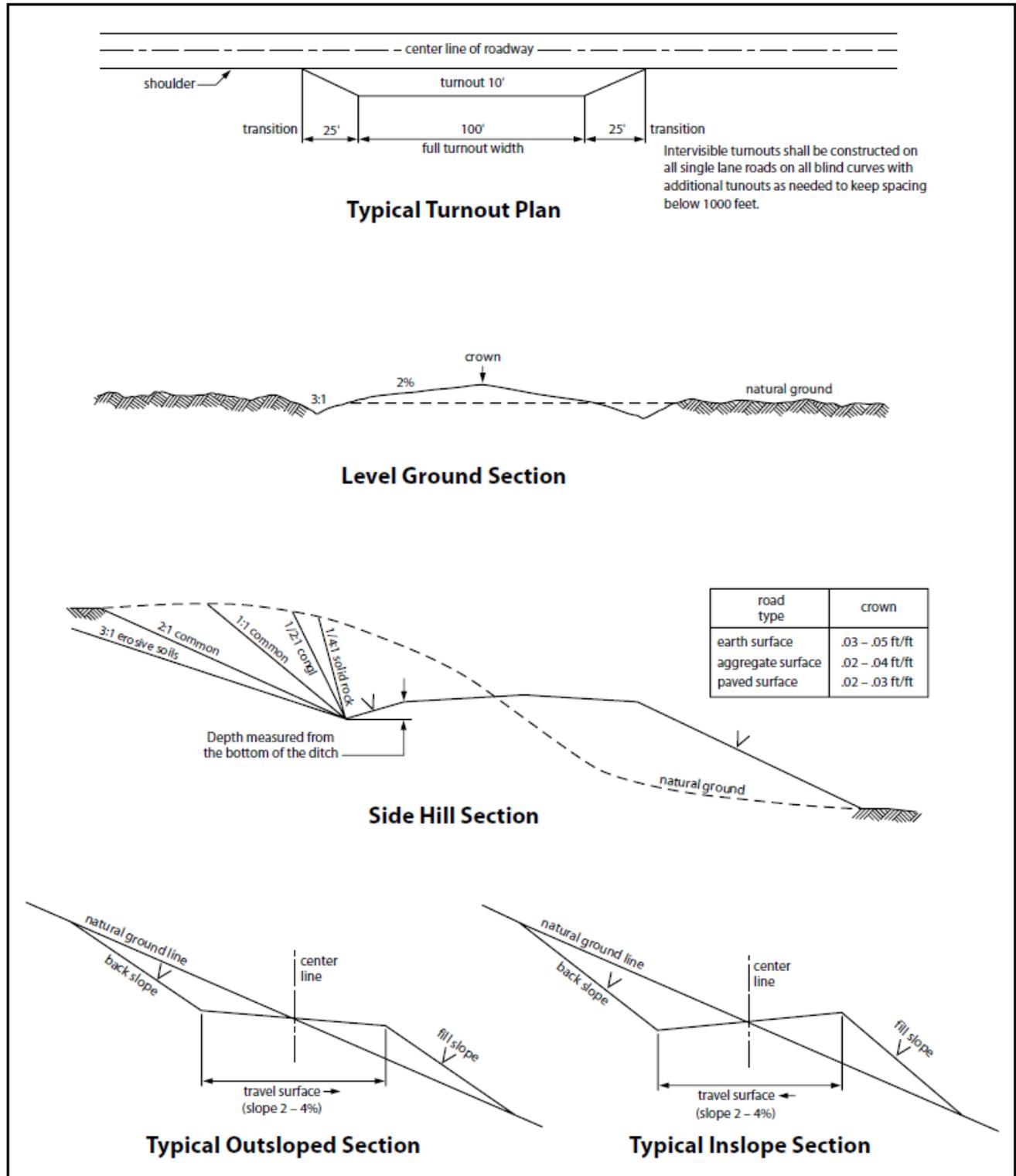


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to

repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 30 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

- | | |
|---|--|
| <input type="checkbox"/> seed mixture 1 | <input type="checkbox"/> seed mixture 3 |
| <input type="checkbox"/> seed mixture 2 | <input type="checkbox"/> seed mixture 4 |
| <input checked="" type="checkbox"/> seed mixture 2/LP | <input type="checkbox"/> Aplomado Falcon Mixture |

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.
- c.

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the application (Grant, Sundry Notice, APD) and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:
 - a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
 - b. Activities of other parties including, but not limited to:
 - (1) Land clearing.

- (2) Earth-disturbing and earth-moving work.
 - (3) Blasting.
 - (4) Vandalism and sabotage.
- c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of 20 feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline must be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline must be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity will be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky or dune areas, the pipeline will be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

16. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, powerline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

17. Surface pipelines must be less than or equal to 4 inches and a working pressure below 125 psi.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 *et seq.* (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, *et seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq.*) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.
5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The

holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:

- For reclamation remove poles, lines, transformer, etc. and dispose of properly.

- Fill in any holes from the poles removed.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	EOG RESOURCES
LEASE NO.:	NMNM110835
WELL NAME & NO.:	MERCILESS 13 FED COM 742H
SURFACE HOLE FOOTAGE:	200'/N & 704'/W
BOTTOM HOLE FOOTAGE:	2544'/N & 460'/W
LOCATION:	Section 13, T.25 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

COA

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input type="checkbox"/> Fluid Filled	<input checked="" type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

A. HYDROGEN SULFIDE

1. Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **9-5/8** inch surface casing shall be set at approximately **1,040** feet (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - 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.
2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage.

First Stage

- Operator will cement to **7,452** feet with intent to reach the top of Brushy Canyon.

Second Stage

- Operator will perform bradenhead squeeze. Cement to surface. If cement does not circulate see B.1.a, c-d above.

Operator has proposed to pump down 9-5/8" X 7-5/8" annulus. Operator must run Echo-meter to verify fluid top and the volume of displacement fluid above the cement slurry in the annulus.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification. **Excess cement calculates to negative 5%, additional cement will be required.**

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**
 - 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. 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.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

JJP03202021

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)
393-3612

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.

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 integrity 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 integrity 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 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.



Operator Certification Data Report

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

04/26/2021



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

Application Data Report

04/26/2021

APD ID: 10400058748

Submission Date: 07/06/2020

Highlighted data
reflects the most
recent changes

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

APD ID: 10400058748

Tie to previous NOS? N

Submission Date: 07/06/2020

BLM Office: CARLSBAD

User: STAR HARRELL

Title: Regulatory Specialist

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM110835

Lease Acres:

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? Y

Permitting Agent? NO

APD Operator: EOG RESOURCES INCORPORATED

Operator letter of designation:

Operator Info

Operator Organization Name: EOG RESOURCES INCORPORATED

Operator Address: 1111 BAGBY SKY LOBBY 2

Zip: 77002

Operator PO Box:

Operator City: HOUSTON

State: TX

Operator Phone: (713)651-7000

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: WC-025 G-09
S243336I; UPPER WOLFCAMPPool Name: WC-025 G-09
S253309P; UPPER
WOLFCAMP

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Is the proposed well in a Helium production area? N

Use Existing Well Pad? N

New surface disturbance?

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name:
MERCILESS 13 FED COM

Number: 701H/721H/742H

Well Class: HORIZONTAL

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town:

Distance to nearest well: 33 FT

Distance to lease line: 100 FT

Reservoir well spacing assigned acres Measurement: 480 Acres

Well plat: MERCILESS_13_FED_COM_742H_C_102_20200706125954.pdf

Well work start Date: 01/01/2021

Duration: 25 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

Reference Datum: KELLY BUSHING

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	200	FNL	704	FW L	25S	32E	13	Aliquot NWN W	32.13724 21	- 103.6347 658	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 110835	348 0	0	0	Y
KOP Leg #1	50	FNL	460	FW L	25S	32E	13	Aliquot NWN W	32.13765 17	- 103.6355 518	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 110835	- 878 3	122 66	122 63	Y
PPP Leg #1-1	100	FNL	460	FW L	25S	32E	13	Aliquot NWN W	32.13751 33	- 103.6355 541	LEA	NEW MEXI CO	NEW MEXI CO	F	NMLC0 71986	- 899 5	124 86	124 75	Y

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
EXIT Leg #1	254	FNL	460	FW L	25S	32E	24	Aliquot SWN W	32.1162862	-103.6355964	LEA	NEW MEXI CO	NEW MEXI CO	F	NMLC071986	-9260	20311	12740	Y
BHL Leg #1	254	FNL	460	FW L	25S	32E	24	Aliquot SWN W	32.1162862	-103.6355964	LEA	NEW MEXI CO	NEW MEXI CO	F	NMLC071986	-9260	20311	12740	Y

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 30-025-		² Pool Code 98180		³ Pool Name WC-025 G-09 S253309P; Upper Wolfcamp	
⁴ Property Code		⁵ Property Name MERCILESS 13 FED COM			⁶ Well Number 742H
⁷ OGRID No. 7377		⁸ Operator Name EOG RESOURCES, INC.			⁹ Elevation 3480'

¹⁰Surface Location

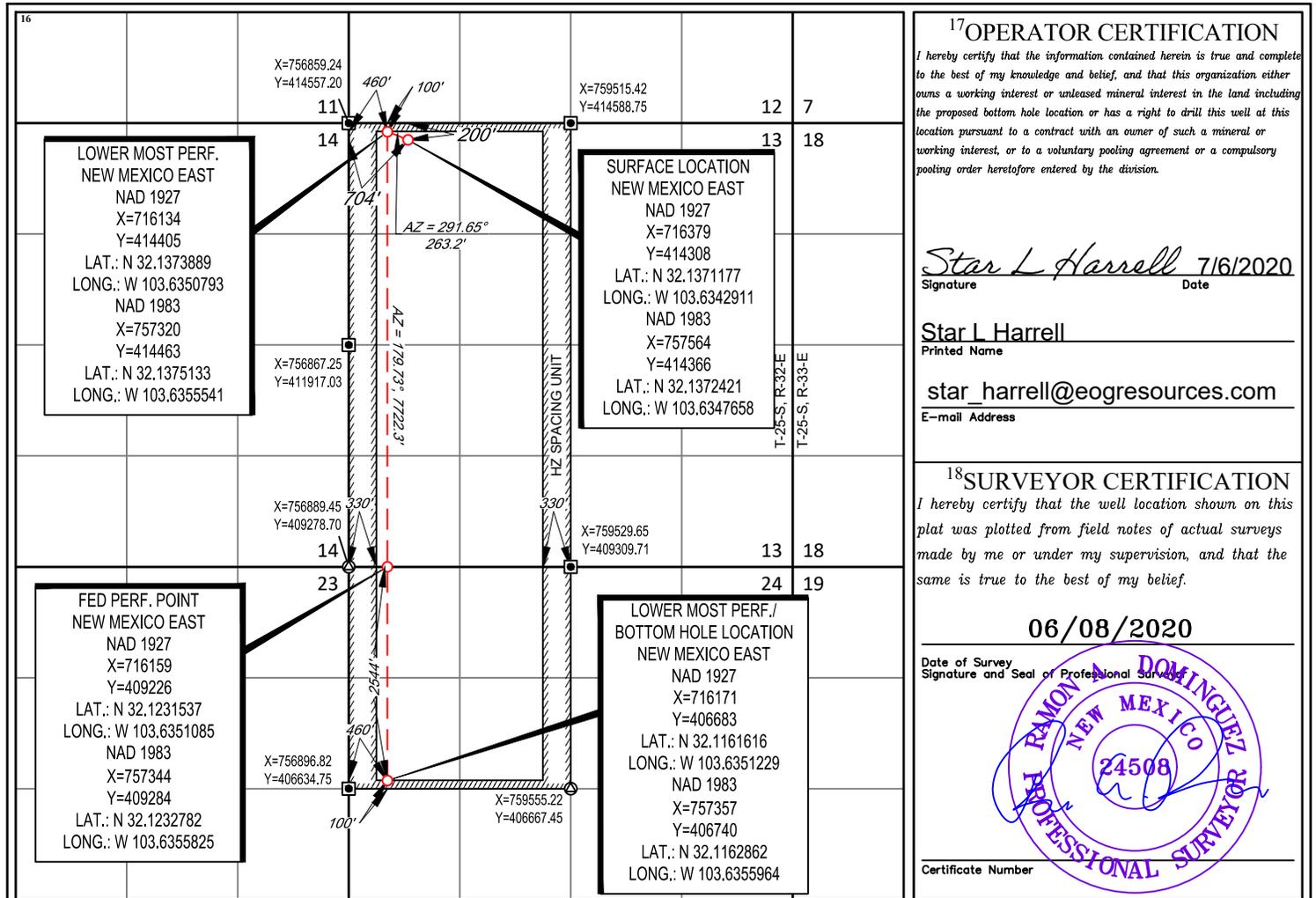
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	13	25-S	32-E	-	200'	NORTH	704'	WEST	LEA

¹¹Bottom 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
E	24	25-S	32-E	-	2544'	NORTH	460'	WEST	LEA

¹² Dedicated Acres 480.00	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.



¹⁷OPERATOR 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.

Star L Harrell 7/16/2020
Signature Date

Star L Harrell
Printed Name

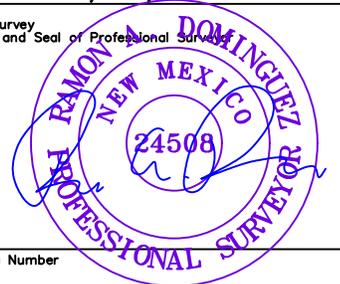
star_harrell@eogresources.com
E-mail Address

¹⁸SURVEYOR 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 to the best of my belief.

06/08/2020

Date of Survey
Signature and Seal of Professional Surveyor



Certificate Number



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

Drilling Plan Data Report

04/26/2021

APD ID: 10400058748

Submission Date: 07/06/2020

Highlighted data
reflects the most
recent changes

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
779130	PERMIAN	3480	0	0	ALLUVIUM	NONE	N
779131	RUSTLER	2530	950	950	ANHYDRITE	NONE	N
779132	TOP SALT	2215	1265	1265	SALT	NONE	N
779134	BASE OF SALT	-1200	4680	4680	SALT	NONE	N
779135	LAMAR	-1425	4905	4905	LIMESTONE	NONE	N
779136	BELL CANYON	-1450	4930	4930	SANDSTONE	NATURAL GAS, OIL	N
779137	CHERRY CANYON	-2313	5793	5793	SANDSTONE	NATURAL GAS, OIL	N
779138	BRUSHY CANYON	-3972	7452	7452	SANDSTONE	NATURAL GAS, OIL	N
779133	BONE SPRING LIME	-5522	9002	9002	LIMESTONE	NONE	N
779139	FIRST BONE SPRING SAND	-6487	9967	9967	SANDSTONE	NATURAL GAS, OIL	N
779140	BONE SPRING 2ND	-6935	10415	10415	SANDSTONE	NATURAL GAS, OIL	N
779141	BONE SPRING 3RD	-8235	11715	11715	SANDSTONE	NATURAL GAS, OIL	N
779142	WOLFCAMP	-8699	12179	12179	SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** MERCILESS 13 FED COM**Well Number:** 742H**Pressure Rating (PSI):** 10M**Rating Depth:** 12740

Equipment: The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5,000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. EOG will utilize wing unions on BOPE connections that can be isolated from wellbore pressure through means of a choke. All wing unions will be rated to a pressure that meets or exceeds the pressure rating of the BOPE system. A multi-bowl wellhead system will be utilized. After running the 9-5/8 surface casing, a 9-5/8 BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10,000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2 The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 10,000 psi. The multi-bowl wellhead will be installed by vendors representative(s). A copy of the installation instructions for the Cactus Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM. The wellhead will be installed by a third party welder while being monitored by WH vendors representative. All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. EOG Resources reserves the option to conduct BOPE testing during wait on cement periods provided a test plug is utilized. A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi. Casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

Requesting Variance? YES

Variance request: Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line). Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack. Variance is requested to waive the centralizer requirements for the 7-5/8" casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation. Variance is also requested to waive any centralizer requirements for the 5-1/2" casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation. Variance is also requested to waive the annular clearance requirements for the 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement. EOG requests permission to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions: - Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings. - Annular clearance less than 0.422" is acceptable for the production open hole section.

Testing Procedure: Pipe rams and blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

Choke Diagram Attachment:

Co_Flex_Hose_Test_Chart_20190814145501.pdf

Co_Flex_Hose_Certification_20190814145500.pdf

10_M_Choke_Manifold_20190814145501.pdf

BOP Diagram Attachment:

10_M_BOP_Diagram_9.675_in_20190814145511.pdf

EOG_BLM_10M_Annular_Variance___9.675_in_20190814145512.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

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	12.25	9.625	NEW	API	N	0	1040	0	1040	3480	2440	1040	J-55	40	LT&C	1.125	1.25	BUOY	1.6	BUOY	1.6
2	PRODUCTION	6.75	5.5	NEW	API	N	0	10690	0	10690		-7210	10690	OTHER	20	OTHER - DW/C-ISM	1.125	1.25	BUOY	1.6	BUOY	1.6
3	PRODUCTION	6.75	5.5	NEW	API	N	10690	11190	10690	11190	-7210	-7710	500	OTHER	20	OTHER - VAM SFC	1.125	1.25	BUOY	1.6	BUOY	1.6
4	INTERMEDIATE	8.75	7.625	NEW	API	N	0	11190	0	11190		-7710	11190	HCP-110	29.7	OTHER - FXL	1.125	1.25	BUOY	1.6	BUOY	1.6
5	PRODUCTION	6.75	5.5	NEW	API	N	11190	20311	11190	12740	-7690	-9260	9121	OTHER	20	OTHER - DW/C-ISM	1.125	1.25	BUOY	1.6	BUOY	1.6

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Merciless_13_Fed_Com_742H_Permit_Info__Single__20200706133005.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Casing Attachments

Casing ID: 2 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

5.500in_20.00_VST_P110EC_DWC_C_IS_MS_Spec_Sheet_20200706133700.pdf

See_previously_attached_Drill_Plan_20200706133708.pdf

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

See_previously_attached_Drill_Plan_20200706123949.pdf

7.625in_29.70_P110HC_FXL_20200706133020.pdf

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

5.500in_20.00_VST_P110EC_VAM_SFC_20200706133820.pdf

See_previously_attached_Drill_Plan_20200706133827.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Casing Attachments

Casing ID: 5 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

See_previously_attached_Drill_Plan_20200706133755.pdf

5.500in_20.00_VST_P110EC_DWC_C_IS_MS_Spec_Sheet_20200706133759.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
PRODUCTION	Lead		0	0	0	0	0	0	0	n/a	n/a

PRODUCTION	Lead		0	0	0	0	0	0	0	N/A	N/A
------------	------	--	---	---	---	---	---	---	---	-----	-----

SURFACE	Lead		0	840	890	1.73	13.5	1539.7	25	Class C	Class C + 4.0% Bentonite + 0.5% CaCl2 + 0.25 lb/sk Cello-Flake (TOC @ Surface)
SURFACE	Tail		840	1040	80	1.34	14.8	107.2	25	Class C	Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 840')
INTERMEDIATE	Lead		0	7300	1000	2.3	12.7	2300	25	Class C	Lead: Bradenhead Squeeze Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ Surface)

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		7300	11190	490	1.11	14.2	543.9	25	Class C	Tail: Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 7,300')
PRODUCTION	Lead		10690	20311	590	1.31	14.2	772.9	25	Class H	Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 10,690')

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: (A) A kelly cock will be kept in the drill string at all times. (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times. (C) H2S monitoring and detection equipment will be utilized from surface casing point to TD.

Describe the mud monitoring system utilized: The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to 14.0 ppg may be utilized. An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate. Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

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
1040	11190	SALT SATURATED	10	10.2							
0	1040	WATER-BASED MUD	8.6	8.8							
11190	12266	OIL-BASED MUD	8.7	9.4							

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

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
1226 6	1274 0	OIL-BASED MUD	10	14							

Section 6 - Test, Logging, Coring

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

Open-hole logs are not planned for this well.

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

DIRECTIONAL SURVEY,

Coring operation description for the well:

None

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 9274

Anticipated Surface Pressure: 6471

Anticipated Bottom Hole Temperature(F): 197

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

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Merciless_13_Fed_Com_742H_H2S_Plan_Summary_20200706140441.pdf

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** MERCILESS 13 FED COM**Well Number:** 742H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Merciless_13_Fed_Com_742H_Wall_Plot_20200706140733.pdf

Merciless_13_Fed_Com_742H_Planning_Report_20200706140733.pdf

Other proposed operations facets description:

(A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Surface Rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both A and B sections). The weld will be tested to 1000 psi. All valves will be closed and a wellhead cap will be installed (diagram attached). If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

EOG requests to pump a two stage cement job on the 7-5/8 intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (7,452) and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 1,000 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Once cement circulates to surface drilling operations to drill out of the intermediate shoe will proceed (per clarification from BLM 4/21/2020). The final cement top will be verified by Echo-meter.

EOG will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

Other proposed operations facets attachment:

5.500in_20.00_VST_P110EC_DWC_C_IS_MS_Spec_Sheet_20190815162546.pdf

5.500in_20.00_VST_P110EC_VAM_SFC_20190815162546.pdf

7.625in_29.70_P110HC_FXL_20190815162546.pdf

Wellhead_9.675_in_20190815162546.pdf

Merciless_13_Fed_Com_742H_Rig_Layout_20200706140827.pdf

Merciless_13_Fed_Com_742H_Permit_Info__Single__20200706140827.pdf

Other Variance attachment:

10_M_BOP_Diagram_9.675_in_20190815162638.pdf

Co_Flex_Hose_Certification_20190815162638.pdf

Co_Flex_Hose_Test_Chart_20190815162638.pdf

EOG_BLM_10M_Annular_Variance___9.675_in_20190815162638.pdf

CONFIDENTIAL

Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740021604	COM906112	A. Jaimes	10/17/2016

Hose Manufacturer	Contitech Rubber Industrial
--------------------------	-----------------------------

Hose Serial #	62429	Date of Manufacture	05/2012
Hose I.D.	3"	Working Pressure	10000PSI
Hose Type	Choke and Kill	Test Pressure	15000PSI
Manufacturing Standard	API 16C		

Connections

End A: 3.1/16" 10Kpsi API Spec 6A Type 6BX Flange	End B: 3.1/16" 10Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	Material: Carbon Steel
Seal Face: BX154	Seal Face: BX154
Length Before Hydro Test: 16'	Length After Hydro test: 16'

Conclusion: Hose #62429 passed the external inspection with no notable damages to the hose armor. Internal borescope of the hose showed no damage to the hose liner. Hose #62429 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. **Hose #62429 is suitable for continued service.**

Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

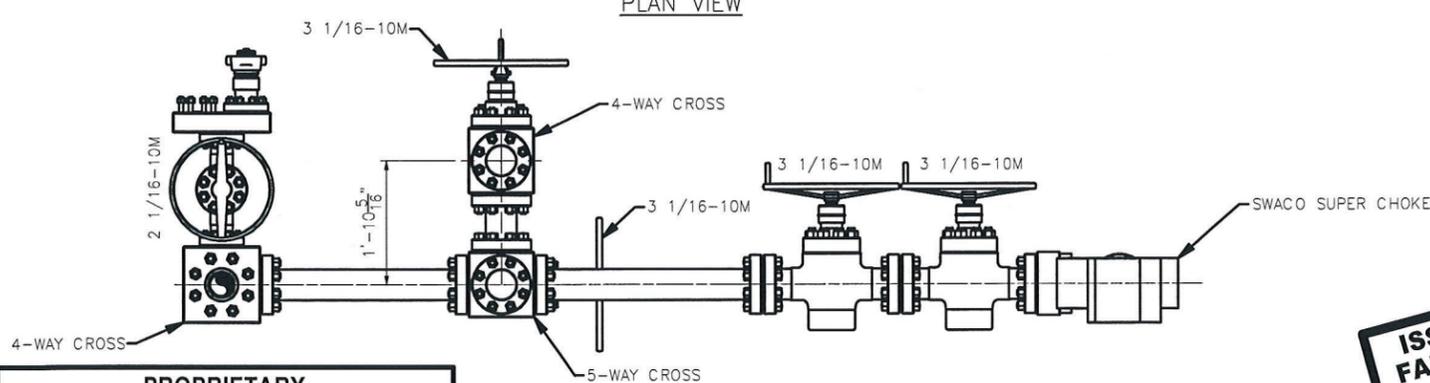
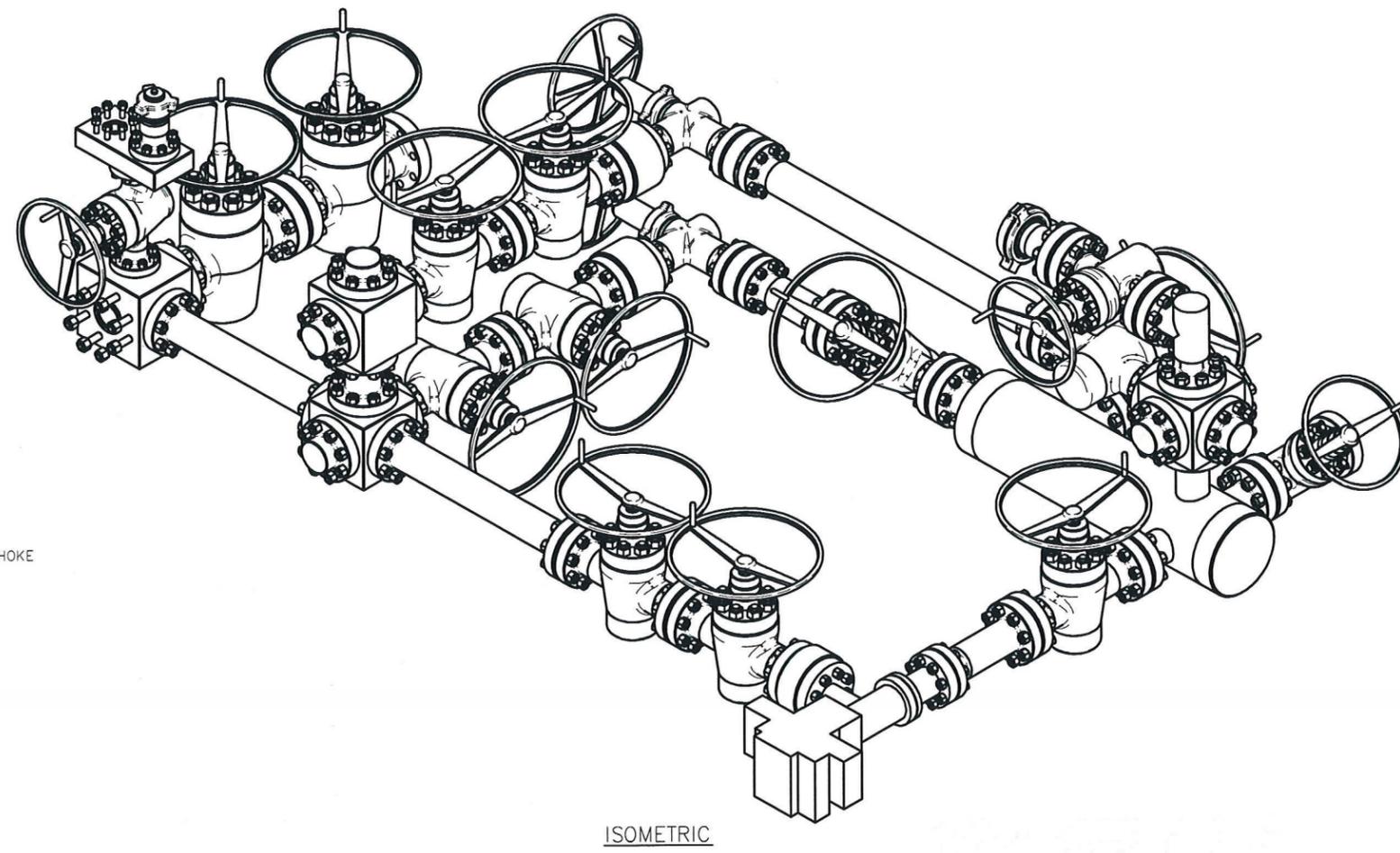
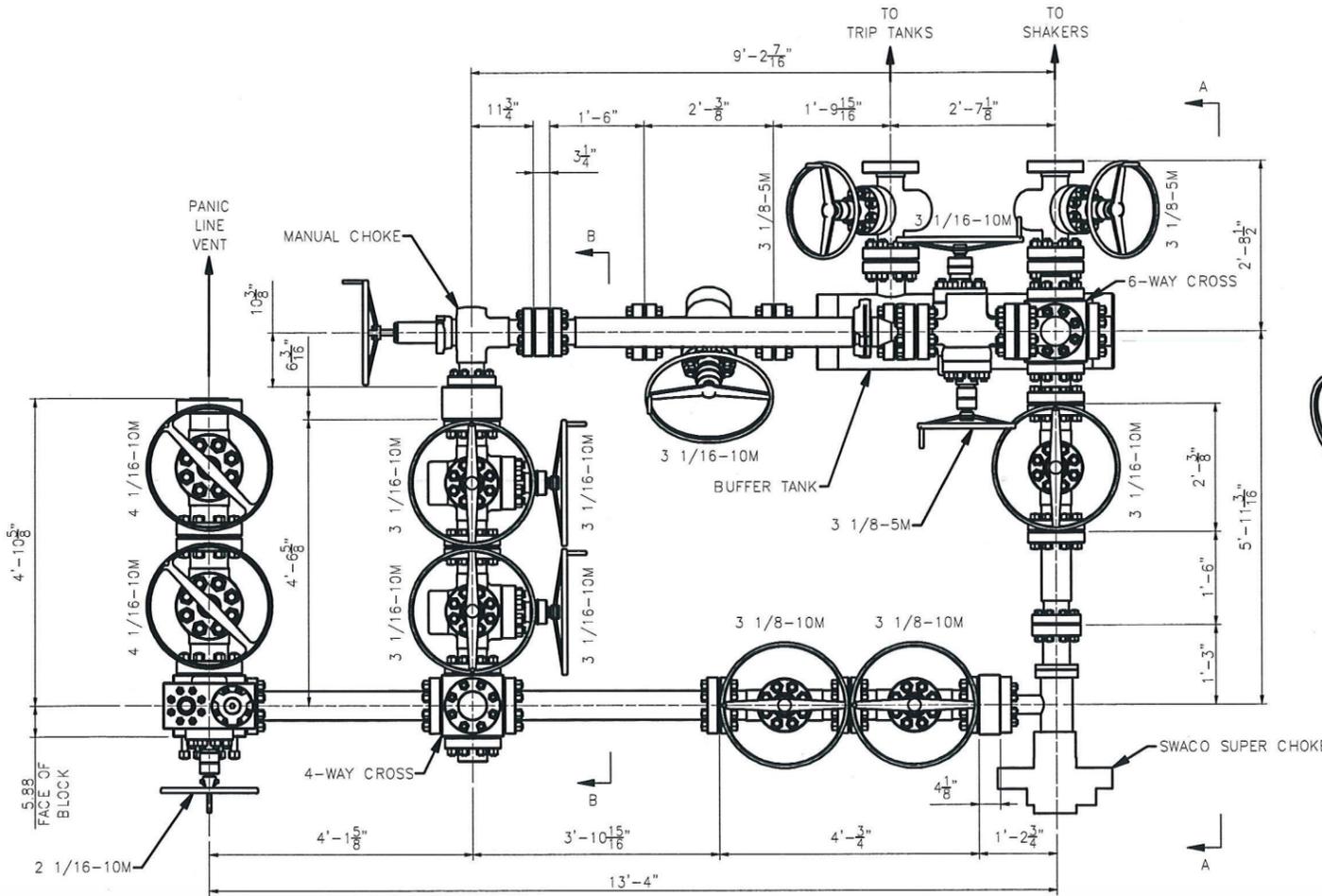
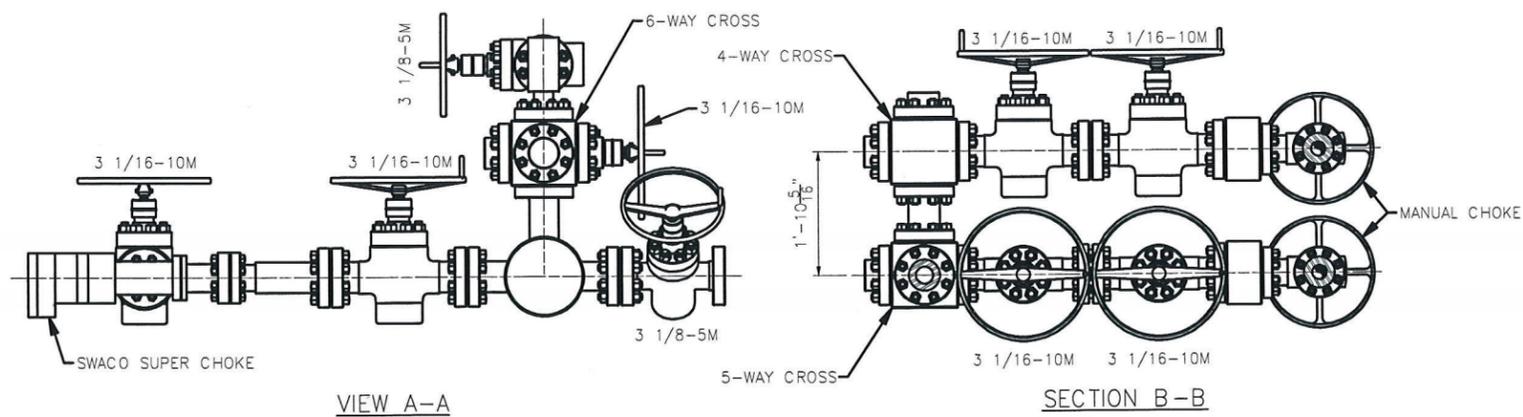
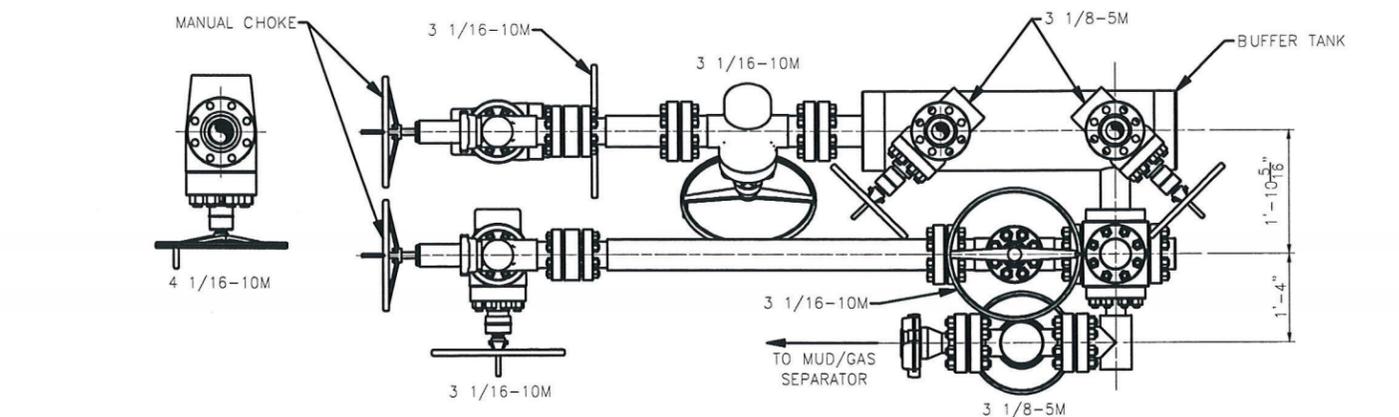
Visual inspection: Every 3 months (or during installation/removal)
 Annual: In-situ pressure test
 Initial 5 years service: Major inspection
 2nd Major inspection: 8 / 10 years of service
 (Detailed description of test regime available upon request, ISS-059 Rev 04)

****NOTE:** There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

Issued By: Alejandro Jaimes
Date: 10/25/2016

Checked By: Jeremy Mckay
Date: 10/25/2016
 QF97

Page 1 of 1



PROPRIETARY
 THIS DRAWING AND THE IDEAS AND INFORMATION INCLUDED IN THIS DRAWING ARE PROPRIETARY AND ARE NOT TO BE REPRODUCED, DISTRIBUTED OR DISCLOSED IN ANY MANNER, WITHOUT THE PRIOR, WRITTEN CONSENT OF A DULY AUTHORIZED OFFICER OF HELMERICH & PAYNE INTL DRILLING CO.

ISSUED FOR FABRICATION
 February-10-2014
 DRAFTSMAN *MWL*
 ENGINEER *[Signature]*

STANDARD TOLERANCES (UNLESS NOTED)			
1. FABRICATION DIMENSIONS:		A-0" TO 24"	± 1/16"
		B-24" TO 120"	± 1/8"
		C-OVER 120"	± 1/4"
2. MACHINED DIMENSIONS:		A-ANGULAR	± .30"
		B-LINEAR (EXPRESSED AS FRACTION)	± .015
		LINEAR (EXPRESSED TO ONE DECIMAL)	± .1
		LINEAR (EXPRESSED TO TWO DECIMALS)	± .015
		LINEAR (EXPRESSED TO THREE DECIMALS)	± .005

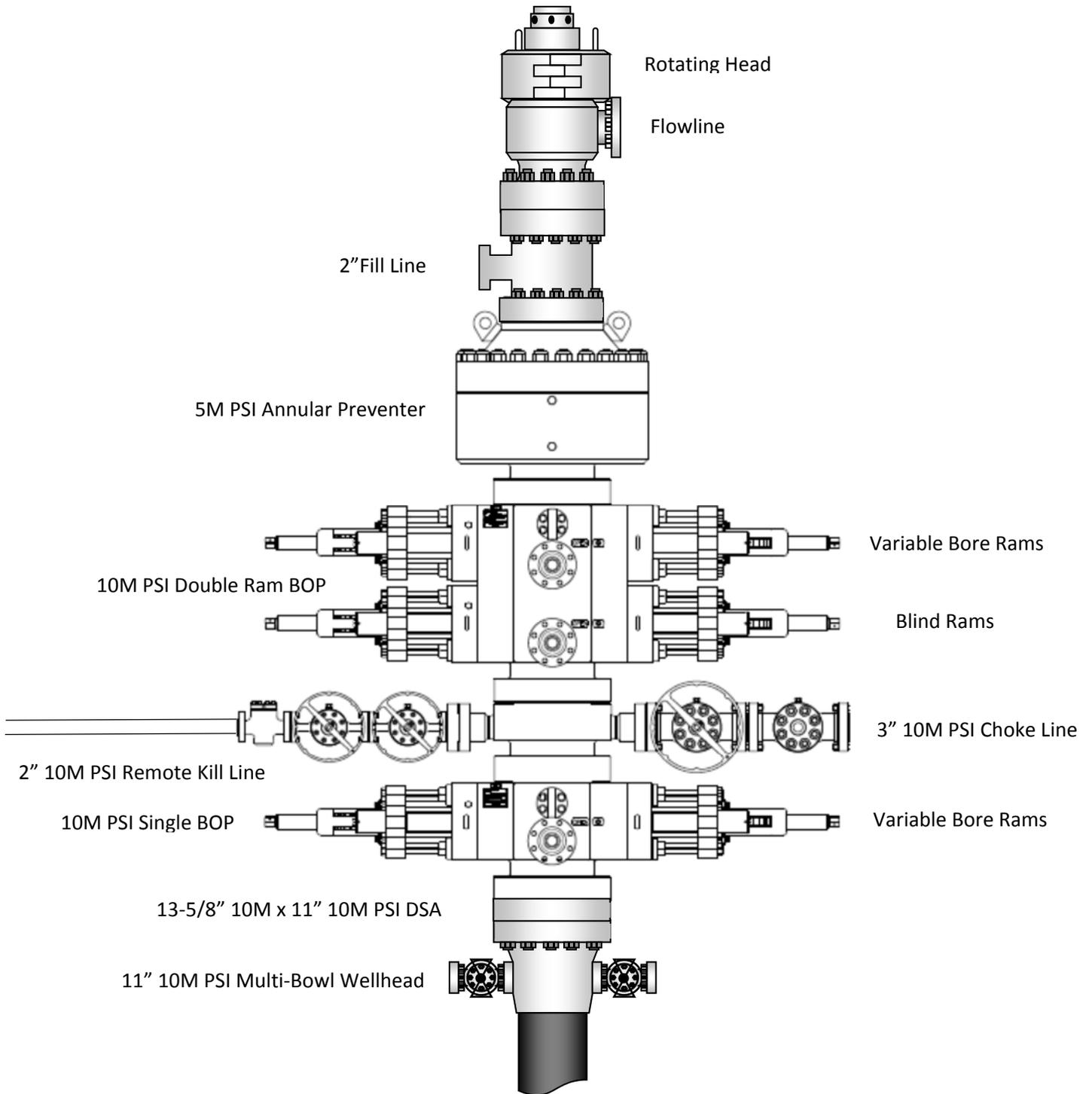
HELMERICH & PAYNE INTERNATIONAL DRILLING CO.	
TITLE: 3 CHOKE, 3 LEVEL, 10M CHOKE MANIFOLD G.A.	
CUSTOMER: H&P	
PROJECT:	
DRAWN: MWL	DATE: 2/10/2014
SCALE: 3/4"=1'-0"	SHEET: 1 OF 1
DWG. NO.: HP-D1254	REV: -

REV	DATE	DESCRIPTION	BY

Exhibit 1

EOG Resources

11" 10M PSI BOP Stack



10,000 PSI BOP Annular Variance Request

EOG Resources request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOP).

1. Component and Preventer Compatibility Tables

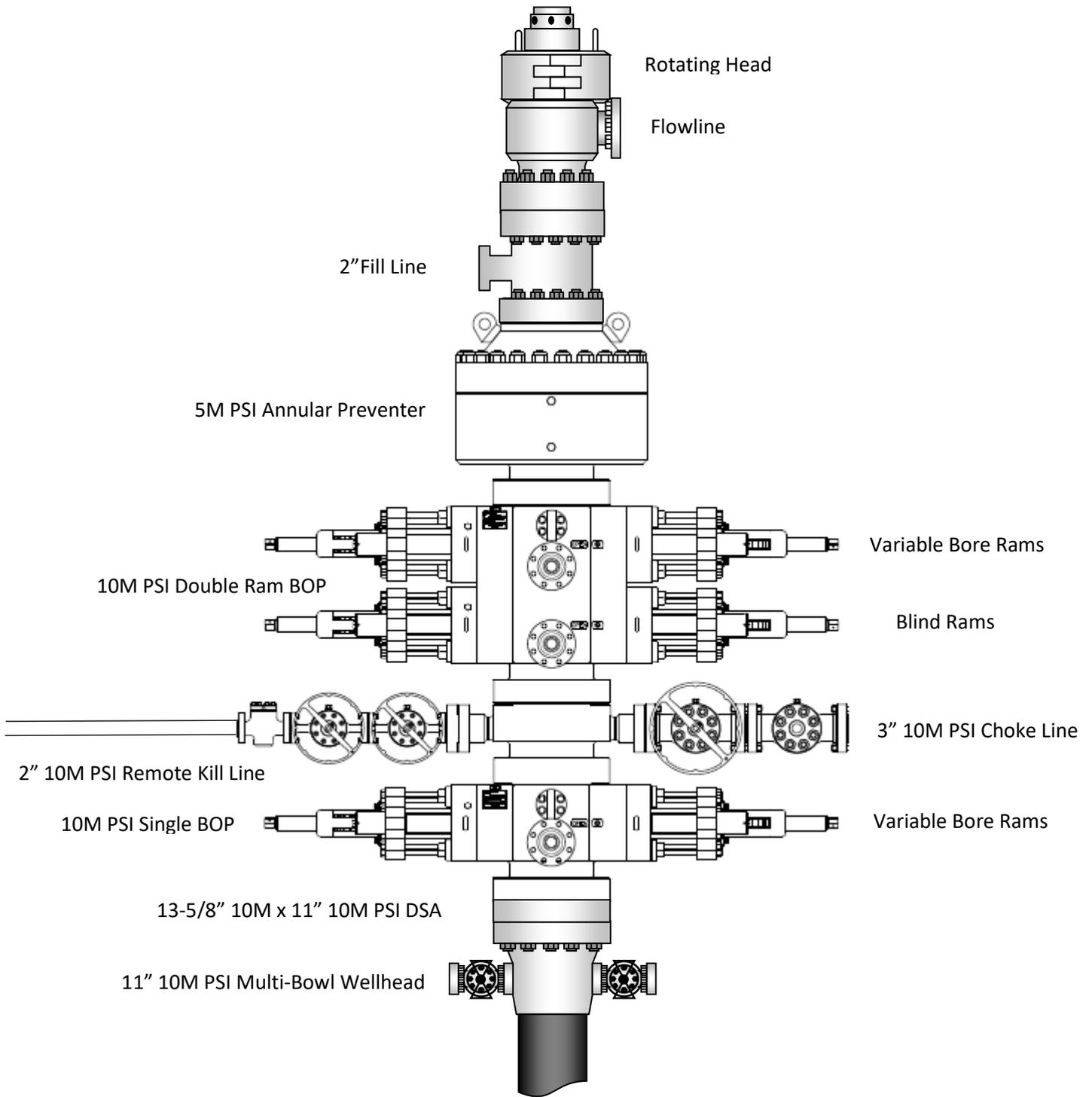
The tables below outlines the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

9-7/8" & 8-3/4" Intermediate Hole Section					
10M psi requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Jars	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	6.500 – 8.000"	Annular	5M	-	-
Mud Motor	6.750 – 8.000"	Annular	5M	-	-
Intermediate casing	7.625"	Annular	5M	-	-
Open-hole	-	Blind Rams	10M	-	-

6-3/4" Production Hole Section					
10M psi requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	4.750 – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Mud Motor	4.750 – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Mud Motor	5.500 – 5.750"	Annular	5M	-	-
Production casing	5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Open-hole	-	Blind Rams	10M	-	-

VBR = Variable Bore Ram

EOG Resources 11" 10M PSI BOP Stack



2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the EOG Resources drilling supervisor's office on location, and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 100% of its RWP.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out drill string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Running Production Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string

4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams. (HCR and choke will already be in the closed position.)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
 - a. SICP
 - b. Pit gain
 - c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA thru Stack

1. PRIOR to pulling last joint of drillpipe thru the stack.
 - a. Perform flowcheck, if flowing:
 - b. Sound alarm (alert crew)
 - c. Stab full opening safety valve and close
 - d. Space out drill string with tool joint just beneath the upper variable bore rams.
 - e. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
 - f. Confirm shut-in
 - g. Notify toolpusher/company representative
 - h. Read and record the following:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
 - i. Regroup and identify forward plan
2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
 - a. Sound alarm (alert crew)
 - b. Stab crossover and full opening safety valve and close
 - c. Space out drill string with upset just beneath the upper variable bore rams.
 - d. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
 - e. Confirm shut-in
 - f. Notify toolpusher/company representative
 - g. Read and record the following:
 - i. SIDPP and SICP

- ii. Pit gain
 - iii. Time
 - h. Regroup and identify forward plan
- 3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
 - a. Sound alarm (alert crew)
 - b. If possible to pick up high enough, pull string clear of the stack and follow “Open Hole” scenario.
 - c. If impossible to pick up high enough to pull the string clear of the stack:
 - d. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
 - e. Space out drill string with tooljoint just beneath the upper variable bore ram.
 - f. Shut-in using upper variable bore ram. (HCR and choke will already be in the closed position.)
 - g. Confirm shut-in
 - h. Notify toolpusher/company representative
 - i. Read and record the following:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
 - j. Regroup and identify forward plan

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	950'
Tamarisk Anhydrite	1,015'
Top of Salt	1,265'
Base of Salt	4,680'
Lamar	4,905'
Bell Canyon	4,930'
Cherry Canyon	5,793'
Brushy Canyon	7,452'
Bone Spring Lime	9,002'
Leonard Shale	9,078'
1 st Bone Spring Sand	9,967'
2 nd Bone Spring Shale	10,205'
2 nd Bone Spring Sand	10,415'
3 rd Bone Spring Carb	11,087'
3 rd Bone Spring Sand	11,715'
Wolfcamp	12,179'
TD	12,740'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	5,793'	Oil
Brushy Canyon	7,452'	Oil
Leonard	9,078'	Oil
1 st Bone Spring Sand	9,967'	Oil
2 nd Bone Spring Shale	10,205'	Oil
2 nd Bone Spring Sand	10,415'	Oil
3 rd Bone Spring Carb	11,087'	Oil
3 rd Bone Spring Sand	11,715'	Oil
Wolfcamp	12,179'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 9.625" casing at 1,040' and circulating cement back to surface.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
12.25"	0' – 1,040'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
8.75"	0' – 11,190'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' – 10,690'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60
6.75"	10,690'–11,190'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.60
6.75"	11,190' – 20,311'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60

Variance is requested to waive the centralizer requirements for the 7-5/8" casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 5-1/2" casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive the annular clearance requirements for the 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422" is acceptable for the production open hole section.

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /sk	Slurry Description
1,040' 9-5/8"	890	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	80	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 840')
11,190' 7-5/8"	490	14.2	1.11	1 st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 7,300')
	1,000	12.7	2.30	2 nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
20,311' 5-1/2"	590	14.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 10,690')

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

EOG requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (7,452') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 1,000 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Once cement circulates to surface drilling operations to drill out of the intermediate shoe will proceed (per clarification from BLM 4/21/2020). The final cement top will be verified by Echo-meter.

EOG will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

Cement integrity tests will be performed immediately following plug bump.

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5,000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

EOG will utilize wing unions on BOPE connections that can be isolated from wellbore pressure through means of a choke. All wing unions will be rated to a pressure that meets or exceeds the pressure rating of the BOPE system.

Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.

Pipe rams and blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows.

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,040'	Fresh - Gel	8.6-8.8	28-34	N/c
1,040' – 11,190'	Brine	10.0-10.2	28-34	N/c
11,190' – 12,266'	Oil Base	8.7-9.4	58-68	N/c - 6
12,266' – 20,311' Lateral	Oil Base	10.0-14.0	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to 14.0 ppg may be utilized.

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

GR-CCL Will be run in cased hole during completions phase of operations.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom-hole temperature (BHT) at TD is 197 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 9,274 psig and a maximum anticipated surface pressure of 6,472 psig (based on 14.0 ppg MW). No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from 7,452' to Intermediate casing point.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

(A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Surface Rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both "A" and "B" sections). The weld will be tested to 1000 psi. All valves will be closed and a wellhead cap will be installed (diagram attached). If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

11. WELLHEAD:

A multi-bowl wellhead system will be utilized.

After running the 9-5/8" surface casing, a 9-5/8" BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10,000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 10,000 psi.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Cactus Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. EOG Resources reserves the option to conduct BOPE testing during wait on cement periods provided a test plug is utilized.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

Casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

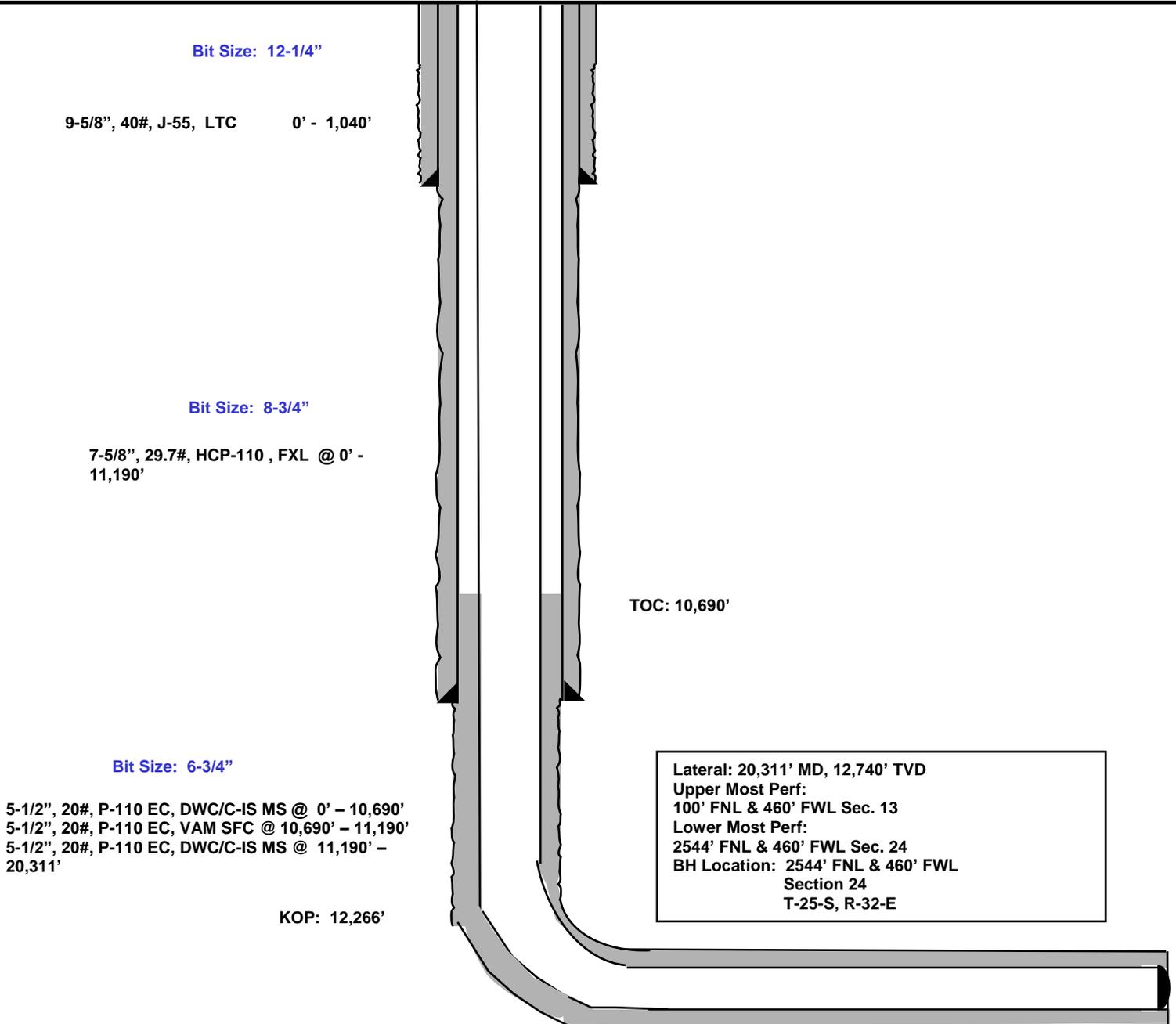
EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H

200' FNL
704' FWL
Section 13
T-25-S, R-32-E

Proposed Wellbore

KB: 3,505'
GL: 3,480'

API: 30-025-*****



See previously attached Drill Plan

Metal One Corp. <i>Metal One</i>	MO-FXL Connection Data Sheet		Page	MCTP	
			Date	3-Nov-16	
				Rev.	0

Geometry	Imperial		S.I.	
Pipe Body				
Grade	P110HC *1		P110HC *1	
Pipe OD (D)	7 5/8	in	193.68	mm
Weight	29.70	lb/ft	44.25	kg/m
Actual weight	29.04		43.26	kg/m
Wall Thickness (t)	0.375	in	9.53	mm
Pipe ID (d)	6.875	in	174.63	mm
Pipe body cross section	8.537	in ²	5,508	mm ²
Drift Dia.	6.750	in	171.45	mm
Connection				
Box OD (W)	7.625	in	193.68	mm
PIN ID	6.875	in	174.63	mm
Make up Loss	4.219	in	107.16	mm
Box Critical Area	5.714	in ²	3686	mm ²
Joint load efficiency	70	%	70	%
Thread Taper	1 / 10 (1.2" per ft)			
Number of Threads	5 TPI			
Performance				
Performance Properties for Pipe Body				
S.M.Y.S. *1	1,067	kips	4,747	kN
M.I.Y.P. *1	10,760	psi	74.21	MPa
Collapse Strength *1	7,360	psi	50.76	MPa
Note S.M.Y.S.= Specified Minimum YIELD Strength of Pipe body M.I.Y.P. = Minimum Internal Yield Pressure of Pipe body *1 Based on VSB P110HC (YS=125~140ksi)				
Performance Properties for Connection				
Tensile Yield load	747 kips (70% of S.M.Y.S.)			
Min. Compression Yield	747 kips (70% of S.M.Y.S.)			
Internal Pressure	8,610 psi (80% of M.I.Y.P.)			
External Pressure	100% of Collapse Strength			
Max. DLS (deg. /100ft)	40			
Recommended Torque				
Min.	15,500	ft-lb	21,000	N-m
Opti.	17,200	ft-lb	23,300	N-m
Max.	18,900	ft-lb	25,600	N-m
Operational Max.	23,600	ft-lb	32,000	N-m
Note : Operational Max. torque can be applied for high torque application				

The diagram illustrates the MO-FXL connection geometry. It shows a vertical pipe section with a threaded end. Key dimensions and areas are labeled: 'Make up loss' is the length of the threaded section; 'Box critical area' is the area of the pipe body within the box; 'Pin critical area' is the area of the pipe body at the pin end; 'd' is the pipe ID; and 'D' is the pipe OD.

MO-FXL

See previously attached Drill Plan

See previously attached Drill Plan

See previously attached Drill Plan

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

Hydrogen Sulfide Plan Summary

- A. All personnel shall receive proper H₂S training in accordance with Onshore Order III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:

- Well control equipment
 - a. Flare line 150' from wellhead to be ignited by flare gun.
 - b. Choke manifold with a remotely operated choke.
 - c. Mud/gas separator

- Protective equipment for essential personnel.

Breathing apparatus:

- a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- b. Work/Escapes packs — 4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
- c. Emergency Escape Packs — 4 packs shall be stored in the doghouse for emergency evacuation.

Auxiliary Rescue Equipment:

- a. Stretcher
- b. Two OSHA full body harness
- c. 100 ft 5/8 inch OSHA approved rope
- d. 1-20# class ABC fire extinguisher

- H₂S detection and monitoring equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.

(Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
 - a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
 - b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
 - c. Two wind socks will be placed in strategic locations, visible from all angles.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

- **Mud program:**
The mud program has been designed to minimize the volume of H₂S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H₂S bearing zones.

- **Metallurgy:**
All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.

- **Communication:**
Communication will be via cell phones and land lines where available.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

Emergency Assistance Telephone List

PUBLIC SAFETY: **911 or**

Lea County Sheriff's Department	(575) 396-3611
Rod Coffman	
Fire Department:	
Carlsbad	(575) 885-3125
Artesia	(575) 746-5050
Hospitals:	
Carlsbad	(575) 887-4121
Artesia	(575) 748-3333
Hobbs	(575) 392-1979
Dept. of Public Safety/Carlsbad	(575) 748-9718
Highway Department	(575) 885-3281
New Mexico Oil Conservation	(575) 476-3440
U.S. Dept. of Labor	(575) 887-1174

EOG Resources, Inc.

EOG / Midland	Office (432) 686-3600
---------------	-----------------------

Company Drilling Consultants:

Jett Dueitt	Cell (432) 230-4840
Blake Burney	

Drilling Engineer

Steve Munsell	Office (432) 686-3609
	Cell (432) 894-1256

Drilling Manager

Aj Dach	Office (432) 686-3751
	Cell (817) 480-1167

Drilling Superintendent

Jason Townsend	Office (432) 848-9209
	Cell (210) 776-5131

H&P Drilling

H&P Drilling	Office (432) 563-5757
H&P 415 Drilling Rig	Rig (432) 230-4840

Tool Pusher:

Johnathan Craig	Cell (817) 760-6374
Brad Garrett	

Safety

Brian Chandler (HSE Manager)	Office (432) 686-3695
	Cell (817) 239-0251

Lea County, NM (NAD 83 NME)

Merciless 13 Fed Com #742H

Plan #0.1



To convert a Magnetic Direction to a Grid Direction, Add 6.31°
 To convert a Magnetic Direction to a True Direction, Add 6.68° East
 To convert a True Direction to a Grid Direction, Subtract 0.37°

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level

WELL DETAILS: #742H

KB = 25° @ 3505.0usft 3480.0
 Northing 414366.00 Easting 757564.00 Latitude 32.1372433°N Longitude 103.6347666°W

SECTION DETAILS

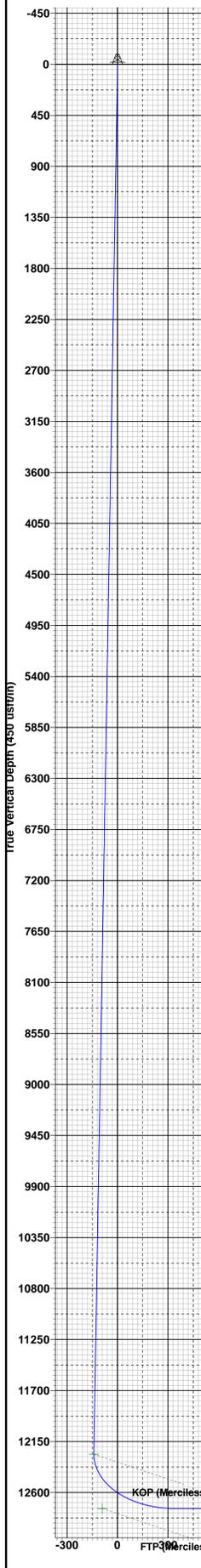
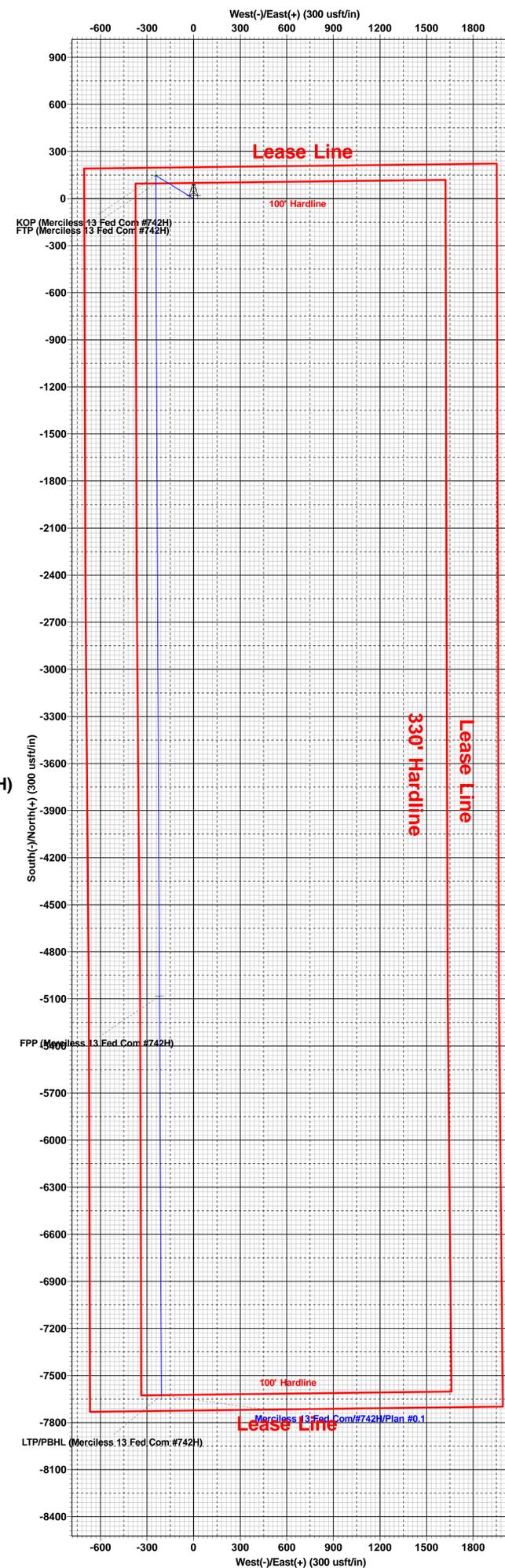
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	66.9	1.34	301.07	66.9	0.4	-0.7	2.00	301.07	-0.4	
3	12198.9	1.34	301.07	12195.6	146.6	-243.3	0.00	0.00	-139.9	KOP (Merciless 13 Fed Com #742H)
4	12265.8	0.00	360.00	12262.5	147.0	-244.0	2.00	180.00	-140.3	
5	13015.8	90.00	179.74	12740.0	-330.5	-241.8	12.00	179.74	336.9	FPP (Merciless 13 Fed Com #742H)
6	17767.4	90.00	179.74	12740.0	-5082.0	-220.0	0.00	0.00	5086.1	
7	17768.9	90.00	179.74	12740.0	-5083.5	-220.0	2.00	-89.18	5087.6	
8	20311.4	90.00	179.71	12740.0	-7626.0	-207.0	0.00	0.00	7628.8	LTP/PBHL (Merciless 13 Fed Com #742H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP (Merciless 13 Fed Com #742H)	12262.5	147.0	-244.0	414513.00	757320.00
FPP (Merciless 13 Fed Com #742H)	12740.0	-5082.0	-220.0	409284.00	757344.00
LTP/PBHL (Merciless 13 Fed Com #742H)	12740.0	-7626.0	-207.0	406740.00	757357.00
FTP (Merciless 13 Fed Com #742H)	12740.0	97.0	-244.0	414463.00	757320.00



Vertical Section at 181.55° (300 usft/in)



EOG Resources - Midland

Lea County, NM (NAD 83 NME)

Merciless 13 Fed Com

#742H

OH

Plan: Plan #0.1

Standard Planning Report

29 June, 2020



EOG Resources
Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #742H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#742H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Merciless 13 Fed Com				
Site Position:	Northing:	414,304.00 usft	Latitude:	32.1370757°N	
From: Map	Easting:	757,406.00 usft	Longitude:	103.6352783°W	
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.37 °

Well	#742H					
Well Position	+N/-S	62.0 usft	Northing:	414,366.00 usft	Latitude:	32.1372433°N
	+E/-W	158.0 usft	Easting:	757,564.00 usft	Longitude:	103.6347666°W
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level:	3,480.0 usft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	6/29/2020	6.68	59.84	47,535.65086943

Design	Plan #0.1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	181.55

Plan Survey Tool Program	Date	6/29/2020			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	20,311.4 Plan #0.1 (OH)	EOG MWD+IFR1	MWD + IFR1	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
66.9	1.34	301.07	66.9	0.4	-0.7	2.00	2.00	0.00	301.07	
12,198.9	1.34	301.07	12,195.6	146.6	-243.3	0.00	0.00	0.00	0.00	
12,265.8	0.00	360.00	12,262.5	147.0	-244.0	2.00	-2.00	0.00	180.00	KOP (Merciless 13 Fe
13,015.8	90.00	179.74	12,740.0	-330.5	-241.8	12.00	12.00	23.97	179.74	
17,767.4	90.00	179.74	12,740.0	-5,082.0	-220.0	0.00	0.00	0.00	0.00	FPP (Merciless 13 Fe
17,768.9	90.00	179.71	12,740.0	-5,083.5	-220.0	2.00	0.03	-2.00	-89.18	
20,311.4	90.00	179.71	12,740.0	-7,626.0	-207.0	0.00	0.00	0.00	0.00	LTP/PBHL (Merciless

EOG Resources

Planning Report



Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #742H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#742H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
66.9	1.34	301.07	66.9	0.4	-0.7	-0.4	2.00	2.00	0.00
100.0	1.34	301.07	100.0	0.8	-1.3	-0.8	0.00	0.00	0.00
200.0	1.34	301.07	200.0	2.0	-3.3	-1.9	0.00	0.00	0.00
300.0	1.34	301.07	299.9	3.2	-5.3	-3.1	0.00	0.00	0.00
400.0	1.34	301.07	399.9	4.4	-7.3	-4.2	0.00	0.00	0.00
500.0	1.34	301.07	499.9	5.6	-9.3	-5.4	0.00	0.00	0.00
600.0	1.34	301.07	599.8	6.8	-11.3	-6.5	0.00	0.00	0.00
700.0	1.34	301.07	699.8	8.0	-13.3	-7.7	0.00	0.00	0.00
800.0	1.34	301.07	799.8	9.2	-15.3	-8.8	0.00	0.00	0.00
900.0	1.34	301.07	899.8	10.4	-17.3	-10.0	0.00	0.00	0.00
1,000.0	1.34	301.07	999.7	11.6	-19.3	-11.1	0.00	0.00	0.00
1,100.0	1.34	301.07	1,099.7	12.9	-21.3	-12.3	0.00	0.00	0.00
1,200.0	1.34	301.07	1,199.7	14.1	-23.3	-13.4	0.00	0.00	0.00
1,300.0	1.34	301.07	1,299.7	15.3	-25.3	-14.6	0.00	0.00	0.00
1,400.0	1.34	301.07	1,399.6	16.5	-27.3	-15.7	0.00	0.00	0.00
1,500.0	1.34	301.07	1,499.6	17.7	-29.3	-16.9	0.00	0.00	0.00
1,600.0	1.34	301.07	1,599.6	18.9	-31.3	-18.0	0.00	0.00	0.00
1,700.0	1.34	301.07	1,699.5	20.1	-33.3	-19.2	0.00	0.00	0.00
1,800.0	1.34	301.07	1,799.5	21.3	-35.3	-20.3	0.00	0.00	0.00
1,900.0	1.34	301.07	1,899.5	22.5	-37.3	-21.5	0.00	0.00	0.00
2,000.0	1.34	301.07	1,999.5	23.7	-39.3	-22.6	0.00	0.00	0.00
2,100.0	1.34	301.07	2,099.4	24.9	-41.3	-23.8	0.00	0.00	0.00
2,200.0	1.34	301.07	2,199.4	26.1	-43.3	-24.9	0.00	0.00	0.00
2,300.0	1.34	301.07	2,299.4	27.3	-45.3	-26.1	0.00	0.00	0.00
2,400.0	1.34	301.07	2,399.4	28.5	-47.3	-27.2	0.00	0.00	0.00
2,500.0	1.34	301.07	2,499.3	29.7	-49.3	-28.4	0.00	0.00	0.00
2,600.0	1.34	301.07	2,599.3	30.9	-51.3	-29.5	0.00	0.00	0.00
2,700.0	1.34	301.07	2,699.3	32.1	-53.3	-30.7	0.00	0.00	0.00
2,800.0	1.34	301.07	2,799.2	33.3	-55.3	-31.8	0.00	0.00	0.00
2,900.0	1.34	301.07	2,899.2	34.5	-57.3	-33.0	0.00	0.00	0.00
3,000.0	1.34	301.07	2,999.2	35.7	-59.3	-34.1	0.00	0.00	0.00
3,100.0	1.34	301.07	3,099.2	37.0	-61.3	-35.3	0.00	0.00	0.00
3,200.0	1.34	301.07	3,199.1	38.2	-63.3	-36.4	0.00	0.00	0.00
3,300.0	1.34	301.07	3,299.1	39.4	-65.3	-37.6	0.00	0.00	0.00
3,400.0	1.34	301.07	3,399.1	40.6	-67.3	-38.7	0.00	0.00	0.00
3,500.0	1.34	301.07	3,499.1	41.8	-69.3	-39.9	0.00	0.00	0.00
3,600.0	1.34	301.07	3,599.0	43.0	-71.3	-41.0	0.00	0.00	0.00
3,700.0	1.34	301.07	3,699.0	44.2	-73.3	-42.2	0.00	0.00	0.00
3,800.0	1.34	301.07	3,799.0	45.4	-75.3	-43.3	0.00	0.00	0.00
3,900.0	1.34	301.07	3,898.9	46.6	-77.3	-44.5	0.00	0.00	0.00
4,000.0	1.34	301.07	3,998.9	47.8	-79.3	-45.6	0.00	0.00	0.00
4,100.0	1.34	301.07	4,098.9	49.0	-81.3	-46.8	0.00	0.00	0.00
4,200.0	1.34	301.07	4,198.9	50.2	-83.3	-47.9	0.00	0.00	0.00
4,300.0	1.34	301.07	4,298.8	51.4	-85.3	-49.1	0.00	0.00	0.00
4,400.0	1.34	301.07	4,398.8	52.6	-87.3	-50.2	0.00	0.00	0.00
4,500.0	1.34	301.07	4,498.8	53.8	-89.3	-51.4	0.00	0.00	0.00
4,600.0	1.34	301.07	4,598.8	55.0	-91.3	-52.5	0.00	0.00	0.00
4,700.0	1.34	301.07	4,698.7	56.2	-93.3	-53.7	0.00	0.00	0.00
4,800.0	1.34	301.07	4,798.7	57.4	-95.3	-54.8	0.00	0.00	0.00
4,900.0	1.34	301.07	4,898.7	58.6	-97.3	-56.0	0.00	0.00	0.00
5,000.0	1.34	301.07	4,998.6	59.8	-99.3	-57.1	0.00	0.00	0.00
5,100.0	1.34	301.07	5,098.6	61.1	-101.3	-58.3	0.00	0.00	0.00
5,200.0	1.34	301.07	5,198.6	62.3	-103.3	-59.4	0.00	0.00	0.00

EOG Resources

Planning Report



Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #742H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#742H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,300.0	1.34	301.07	5,298.6	63.5	-105.3	-60.6	0.00	0.00	0.00	
5,400.0	1.34	301.07	5,398.5	64.7	-107.3	-61.7	0.00	0.00	0.00	
5,500.0	1.34	301.07	5,498.5	65.9	-109.3	-62.9	0.00	0.00	0.00	
5,600.0	1.34	301.07	5,598.5	67.1	-111.3	-64.0	0.00	0.00	0.00	
5,700.0	1.34	301.07	5,698.5	68.3	-113.3	-65.2	0.00	0.00	0.00	
5,800.0	1.34	301.07	5,798.4	69.5	-115.3	-66.3	0.00	0.00	0.00	
5,900.0	1.34	301.07	5,898.4	70.7	-117.3	-67.5	0.00	0.00	0.00	
6,000.0	1.34	301.07	5,998.4	71.9	-119.3	-68.6	0.00	0.00	0.00	
6,100.0	1.34	301.07	6,098.3	73.1	-121.3	-69.8	0.00	0.00	0.00	
6,200.0	1.34	301.07	6,198.3	74.3	-123.3	-70.9	0.00	0.00	0.00	
6,300.0	1.34	301.07	6,298.3	75.5	-125.3	-72.1	0.00	0.00	0.00	
6,400.0	1.34	301.07	6,398.3	76.7	-127.3	-73.2	0.00	0.00	0.00	
6,500.0	1.34	301.07	6,498.2	77.9	-129.3	-74.4	0.00	0.00	0.00	
6,600.0	1.34	301.07	6,598.2	79.1	-131.3	-75.5	0.00	0.00	0.00	
6,700.0	1.34	301.07	6,698.2	80.3	-133.3	-76.7	0.00	0.00	0.00	
6,800.0	1.34	301.07	6,798.2	81.5	-135.3	-77.8	0.00	0.00	0.00	
6,900.0	1.34	301.07	6,898.1	82.7	-137.3	-79.0	0.00	0.00	0.00	
7,000.0	1.34	301.07	6,998.1	83.9	-139.3	-80.1	0.00	0.00	0.00	
7,100.0	1.34	301.07	7,098.1	85.2	-141.3	-81.3	0.00	0.00	0.00	
7,200.0	1.34	301.07	7,198.0	86.4	-143.3	-82.4	0.00	0.00	0.00	
7,300.0	1.34	301.07	7,298.0	87.6	-145.3	-83.6	0.00	0.00	0.00	
7,400.0	1.34	301.07	7,398.0	88.8	-147.3	-84.7	0.00	0.00	0.00	
7,500.0	1.34	301.07	7,498.0	90.0	-149.3	-85.9	0.00	0.00	0.00	
7,600.0	1.34	301.07	7,597.9	91.2	-151.3	-87.0	0.00	0.00	0.00	
7,700.0	1.34	301.07	7,697.9	92.4	-153.3	-88.2	0.00	0.00	0.00	
7,800.0	1.34	301.07	7,797.9	93.6	-155.3	-89.3	0.00	0.00	0.00	
7,900.0	1.34	301.07	7,897.9	94.8	-157.3	-90.5	0.00	0.00	0.00	
8,000.0	1.34	301.07	7,997.8	96.0	-159.3	-91.6	0.00	0.00	0.00	
8,100.0	1.34	301.07	8,097.8	97.2	-161.3	-92.8	0.00	0.00	0.00	
8,200.0	1.34	301.07	8,197.8	98.4	-163.3	-93.9	0.00	0.00	0.00	
8,300.0	1.34	301.07	8,297.7	99.6	-165.3	-95.1	0.00	0.00	0.00	
8,400.0	1.34	301.07	8,397.7	100.8	-167.3	-96.2	0.00	0.00	0.00	
8,500.0	1.34	301.07	8,497.7	102.0	-169.3	-97.4	0.00	0.00	0.00	
8,600.0	1.34	301.07	8,597.7	103.2	-171.3	-98.5	0.00	0.00	0.00	
8,700.0	1.34	301.07	8,697.6	104.4	-173.3	-99.7	0.00	0.00	0.00	
8,800.0	1.34	301.07	8,797.6	105.6	-175.3	-100.8	0.00	0.00	0.00	
8,900.0	1.34	301.07	8,897.6	106.8	-177.3	-102.0	0.00	0.00	0.00	
9,000.0	1.34	301.07	8,997.6	108.0	-179.3	-103.1	0.00	0.00	0.00	
9,100.0	1.34	301.07	9,097.5	109.3	-181.3	-104.3	0.00	0.00	0.00	
9,200.0	1.34	301.07	9,197.5	110.5	-183.3	-105.4	0.00	0.00	0.00	
9,300.0	1.34	301.07	9,297.5	111.7	-185.3	-106.6	0.00	0.00	0.00	
9,400.0	1.34	301.07	9,397.4	112.9	-187.3	-107.7	0.00	0.00	0.00	
9,500.0	1.34	301.07	9,497.4	114.1	-189.3	-108.9	0.00	0.00	0.00	
9,600.0	1.34	301.07	9,597.4	115.3	-191.3	-110.0	0.00	0.00	0.00	
9,700.0	1.34	301.07	9,697.4	116.5	-193.3	-111.2	0.00	0.00	0.00	
9,800.0	1.34	301.07	9,797.3	117.7	-195.3	-112.3	0.00	0.00	0.00	
9,900.0	1.34	301.07	9,897.3	118.9	-197.3	-113.5	0.00	0.00	0.00	
10,000.0	1.34	301.07	9,997.3	120.1	-199.3	-114.6	0.00	0.00	0.00	
10,100.0	1.34	301.07	10,097.3	121.3	-201.3	-115.8	0.00	0.00	0.00	
10,200.0	1.34	301.07	10,197.2	122.5	-203.3	-116.9	0.00	0.00	0.00	
10,300.0	1.34	301.07	10,297.2	123.7	-205.3	-118.1	0.00	0.00	0.00	
10,400.0	1.34	301.07	10,397.2	124.9	-207.3	-119.2	0.00	0.00	0.00	
10,500.0	1.34	301.07	10,497.1	126.1	-209.3	-120.4	0.00	0.00	0.00	
10,600.0	1.34	301.07	10,597.1	127.3	-211.3	-121.5	0.00	0.00	0.00	

EOG Resources

Planning Report



Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #742H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#742H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,700.0	1.34	301.07	10,697.1	128.5	-213.3	-122.7	0.00	0.00	0.00	
10,800.0	1.34	301.07	10,797.1	129.7	-215.4	-123.8	0.00	0.00	0.00	
10,900.0	1.34	301.07	10,897.0	130.9	-217.4	-125.0	0.00	0.00	0.00	
11,000.0	1.34	301.07	10,997.0	132.1	-219.4	-126.1	0.00	0.00	0.00	
11,100.0	1.34	301.07	11,097.0	133.4	-221.4	-127.3	0.00	0.00	0.00	
11,200.0	1.34	301.07	11,197.0	134.6	-223.4	-128.4	0.00	0.00	0.00	
11,300.0	1.34	301.07	11,296.9	135.8	-225.4	-129.6	0.00	0.00	0.00	
11,400.0	1.34	301.07	11,396.9	137.0	-227.4	-130.8	0.00	0.00	0.00	
11,500.0	1.34	301.07	11,496.9	138.2	-229.4	-131.9	0.00	0.00	0.00	
11,600.0	1.34	301.07	11,596.8	139.4	-231.4	-133.1	0.00	0.00	0.00	
11,700.0	1.34	301.07	11,696.8	140.6	-233.4	-134.2	0.00	0.00	0.00	
11,800.0	1.34	301.07	11,796.8	141.8	-235.4	-135.4	0.00	0.00	0.00	
11,900.0	1.34	301.07	11,896.8	143.0	-237.4	-136.5	0.00	0.00	0.00	
12,000.0	1.34	301.07	11,996.7	144.2	-239.4	-137.7	0.00	0.00	0.00	
12,100.0	1.34	301.07	12,096.7	145.4	-241.4	-138.8	0.00	0.00	0.00	
12,198.9	1.34	301.07	12,195.6	146.6	-243.3	-139.9	0.00	0.00	0.00	
12,200.0	1.32	301.07	12,196.7	146.6	-243.4	-140.0	2.00	-2.00	0.00	
12,265.8	0.00	360.00	12,262.5	147.0	-244.0	-140.3	2.00	-2.00	0.00	
12,275.0	1.10	179.74	12,271.7	146.9	-244.0	-140.2	12.00	12.00	0.00	
12,300.0	4.10	179.74	12,296.7	145.8	-244.0	-139.1	12.00	12.00	0.00	
12,325.0	7.10	179.74	12,321.5	143.3	-244.0	-136.7	12.00	12.00	0.00	
12,350.0	10.10	179.74	12,346.2	139.6	-244.0	-132.9	12.00	12.00	0.00	
12,375.0	13.10	179.74	12,370.7	134.6	-243.9	-127.9	12.00	12.00	0.00	
12,400.0	16.10	179.74	12,394.9	128.3	-243.9	-121.6	12.00	12.00	0.00	
12,425.0	19.10	179.74	12,418.7	120.7	-243.9	-114.0	12.00	12.00	0.00	
12,450.0	22.10	179.74	12,442.1	111.9	-243.8	-105.3	12.00	12.00	0.00	
12,475.0	25.10	179.74	12,465.1	101.9	-243.8	-95.3	12.00	12.00	0.00	
12,500.0	28.10	179.74	12,487.4	90.7	-243.7	-84.1	12.00	12.00	0.00	
12,525.0	31.10	179.74	12,509.1	78.4	-243.7	-71.7	12.00	12.00	0.00	
12,550.0	34.10	179.74	12,530.2	64.9	-243.6	-58.3	12.00	12.00	0.00	
12,575.0	37.10	179.74	12,550.5	50.3	-243.6	-43.7	12.00	12.00	0.00	
12,600.0	40.10	179.74	12,570.1	34.8	-243.5	-28.1	12.00	12.00	0.00	
12,625.0	43.10	179.74	12,588.7	18.2	-243.4	-11.5	12.00	12.00	0.00	
12,650.0	46.10	179.74	12,606.5	0.6	-243.3	6.0	12.00	12.00	0.00	
12,675.0	49.10	179.74	12,623.4	-17.9	-243.2	24.5	12.00	12.00	0.00	
12,700.0	52.10	179.74	12,639.3	-37.2	-243.2	43.8	12.00	12.00	0.00	
12,725.0	55.10	179.74	12,654.1	-57.3	-243.1	63.9	12.00	12.00	0.00	
12,750.0	58.10	179.74	12,667.9	-78.2	-243.0	84.7	12.00	12.00	0.00	
12,775.0	61.10	179.74	12,680.5	-99.7	-242.9	106.3	12.00	12.00	0.00	
12,800.0	64.10	179.74	12,692.0	-121.9	-242.8	128.5	12.00	12.00	0.00	
12,825.0	67.10	179.74	12,702.3	-144.7	-242.7	151.2	12.00	12.00	0.00	
12,850.0	70.10	179.74	12,711.5	-168.0	-242.6	174.5	12.00	12.00	0.00	
12,875.0	73.10	179.74	12,719.3	-191.7	-242.4	198.2	12.00	12.00	0.00	
12,900.0	76.10	179.74	12,726.0	-215.8	-242.3	222.3	12.00	12.00	0.00	
12,925.0	79.10	179.74	12,731.4	-240.2	-242.2	246.7	12.00	12.00	0.00	
12,950.0	82.10	179.74	12,735.4	-264.8	-242.1	271.3	12.00	12.00	0.00	
12,975.0	85.10	179.74	12,738.2	-289.7	-242.0	296.1	12.00	12.00	0.00	
13,000.0	88.10	179.74	12,739.7	-314.6	-241.9	321.1	12.00	12.00	0.00	
13,015.8	90.00	179.74	12,740.0	-330.5	-241.8	336.9	12.00	12.00	0.00	
13,100.0	90.00	179.74	12,740.0	-414.6	-241.4	421.0	0.00	0.00	0.00	
13,200.0	90.00	179.74	12,740.0	-514.6	-241.0	521.0	0.00	0.00	0.00	
13,300.0	90.00	179.74	12,740.0	-614.6	-240.5	620.9	0.00	0.00	0.00	
13,400.0	90.00	179.74	12,740.0	-714.6	-240.0	720.9	0.00	0.00	0.00	
13,500.0	90.00	179.74	12,740.0	-814.6	-239.6	820.8	0.00	0.00	0.00	



EOG Resources
Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #742H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#742H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,600.0	90.00	179.74	12,740.0	-914.6	-239.1	920.8	0.00	0.00	0.00	
13,700.0	90.00	179.74	12,740.0	-1,014.6	-238.7	1,020.7	0.00	0.00	0.00	
13,800.0	90.00	179.74	12,740.0	-1,114.6	-238.2	1,120.7	0.00	0.00	0.00	
13,900.0	90.00	179.74	12,740.0	-1,214.6	-237.8	1,220.6	0.00	0.00	0.00	
14,000.0	90.00	179.74	12,740.0	-1,314.6	-237.3	1,320.6	0.00	0.00	0.00	
14,100.0	90.00	179.74	12,740.0	-1,414.6	-236.8	1,420.5	0.00	0.00	0.00	
14,200.0	90.00	179.74	12,740.0	-1,514.6	-236.4	1,520.5	0.00	0.00	0.00	
14,300.0	90.00	179.74	12,740.0	-1,614.6	-235.9	1,620.4	0.00	0.00	0.00	
14,400.0	90.00	179.74	12,740.0	-1,714.6	-235.5	1,720.4	0.00	0.00	0.00	
14,500.0	90.00	179.74	12,740.0	-1,814.6	-235.0	1,820.3	0.00	0.00	0.00	
14,600.0	90.00	179.74	12,740.0	-1,914.6	-234.5	1,920.3	0.00	0.00	0.00	
14,700.0	90.00	179.74	12,740.0	-2,014.6	-234.1	2,020.2	0.00	0.00	0.00	
14,800.0	90.00	179.74	12,740.0	-2,114.6	-233.6	2,120.2	0.00	0.00	0.00	
14,900.0	90.00	179.74	12,740.0	-2,214.6	-233.2	2,220.1	0.00	0.00	0.00	
15,000.0	90.00	179.74	12,740.0	-2,314.6	-232.7	2,320.1	0.00	0.00	0.00	
15,100.0	90.00	179.74	12,740.0	-2,414.6	-232.2	2,420.0	0.00	0.00	0.00	
15,200.0	90.00	179.74	12,740.0	-2,514.6	-231.8	2,520.0	0.00	0.00	0.00	
15,300.0	90.00	179.74	12,740.0	-2,614.6	-231.3	2,619.9	0.00	0.00	0.00	
15,400.0	90.00	179.74	12,740.0	-2,714.6	-230.9	2,719.9	0.00	0.00	0.00	
15,500.0	90.00	179.74	12,740.0	-2,814.6	-230.4	2,819.8	0.00	0.00	0.00	
15,600.0	90.00	179.74	12,740.0	-2,914.6	-229.9	2,919.8	0.00	0.00	0.00	
15,700.0	90.00	179.74	12,740.0	-3,014.6	-229.5	3,019.7	0.00	0.00	0.00	
15,800.0	90.00	179.74	12,740.0	-3,114.6	-229.0	3,119.7	0.00	0.00	0.00	
15,900.0	90.00	179.74	12,740.0	-3,214.6	-228.6	3,219.6	0.00	0.00	0.00	
16,000.0	90.00	179.74	12,740.0	-3,314.6	-228.1	3,319.6	0.00	0.00	0.00	
16,100.0	90.00	179.74	12,740.0	-3,414.6	-227.7	3,419.5	0.00	0.00	0.00	
16,200.0	90.00	179.74	12,740.0	-3,514.6	-227.2	3,519.5	0.00	0.00	0.00	
16,300.0	90.00	179.74	12,740.0	-3,614.6	-226.7	3,619.4	0.00	0.00	0.00	
16,400.0	90.00	179.74	12,740.0	-3,714.6	-226.3	3,719.4	0.00	0.00	0.00	
16,500.0	90.00	179.74	12,740.0	-3,814.6	-225.8	3,819.3	0.00	0.00	0.00	
16,600.0	90.00	179.74	12,740.0	-3,914.6	-225.4	3,919.3	0.00	0.00	0.00	
16,700.0	90.00	179.74	12,740.0	-4,014.6	-224.9	4,019.2	0.00	0.00	0.00	
16,800.0	90.00	179.74	12,740.0	-4,114.6	-224.4	4,119.2	0.00	0.00	0.00	
16,900.0	90.00	179.74	12,740.0	-4,214.6	-224.0	4,219.1	0.00	0.00	0.00	
17,000.0	90.00	179.74	12,740.0	-4,314.6	-223.5	4,319.1	0.00	0.00	0.00	
17,100.0	90.00	179.74	12,740.0	-4,414.6	-223.1	4,419.0	0.00	0.00	0.00	
17,200.0	90.00	179.74	12,740.0	-4,514.6	-222.6	4,519.0	0.00	0.00	0.00	
17,300.0	90.00	179.74	12,740.0	-4,614.6	-222.1	4,618.9	0.00	0.00	0.00	
17,400.0	90.00	179.74	12,740.0	-4,714.6	-221.7	4,718.9	0.00	0.00	0.00	
17,500.0	90.00	179.74	12,740.0	-4,814.6	-221.2	4,818.8	0.00	0.00	0.00	
17,600.0	90.00	179.74	12,740.0	-4,914.6	-220.8	4,918.8	0.00	0.00	0.00	
17,700.0	90.00	179.74	12,740.0	-5,014.6	-220.3	5,018.7	0.00	0.00	0.00	
17,767.4	90.00	179.74	12,740.0	-5,082.0	-220.0	5,086.1	0.00	0.00	0.00	
17,768.9	90.00	179.71	12,740.0	-5,083.5	-220.0	5,087.6	2.00	0.03	-2.00	
17,800.0	90.00	179.71	12,740.0	-5,114.6	-219.8	5,118.7	0.00	0.00	0.00	
17,900.0	90.00	179.71	12,740.0	-5,214.6	-219.3	5,218.6	0.00	0.00	0.00	
18,000.0	90.00	179.71	12,740.0	-5,314.6	-218.8	5,318.6	0.00	0.00	0.00	
18,100.0	90.00	179.71	12,740.0	-5,414.6	-218.3	5,418.5	0.00	0.00	0.00	
18,200.0	90.00	179.71	12,740.0	-5,514.6	-217.8	5,518.5	0.00	0.00	0.00	
18,300.0	90.00	179.71	12,740.0	-5,614.6	-217.3	5,618.4	0.00	0.00	0.00	
18,400.0	90.00	179.71	12,740.0	-5,714.6	-216.8	5,718.4	0.00	0.00	0.00	
18,500.0	90.00	179.71	12,740.0	-5,814.6	-216.3	5,818.3	0.00	0.00	0.00	
18,600.0	90.00	179.71	12,740.0	-5,914.6	-215.7	5,918.3	0.00	0.00	0.00	
18,700.0	90.00	179.71	12,740.0	-6,014.6	-215.2	6,018.2	0.00	0.00	0.00	



EOG Resources
Planning Report

Database:	EDM 5000.14	Local Co-ordinate Reference:	Well #742H
Company:	EOG Resources - Midland	TVD Reference:	KB = 25' @ 3505.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	KB = 25' @ 3505.0usft
Site:	Merciless 13 Fed Com	North Reference:	Grid
Well:	#742H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.1		

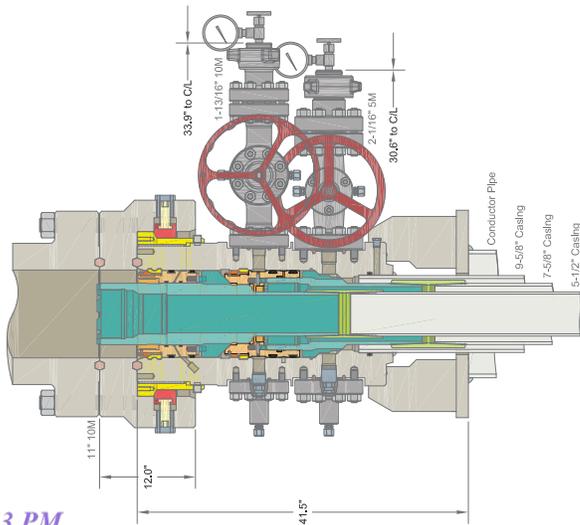
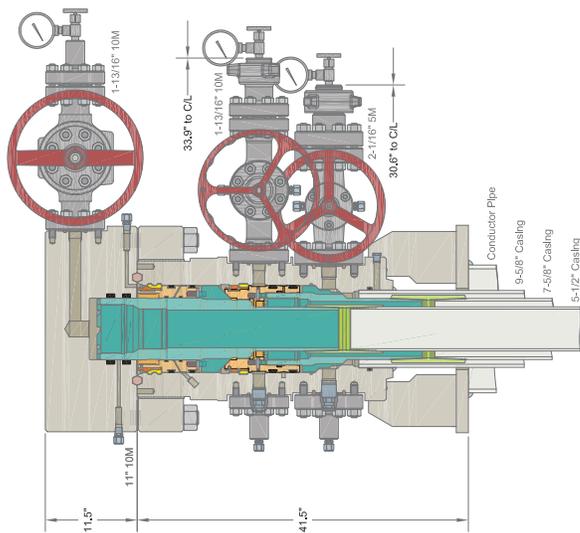
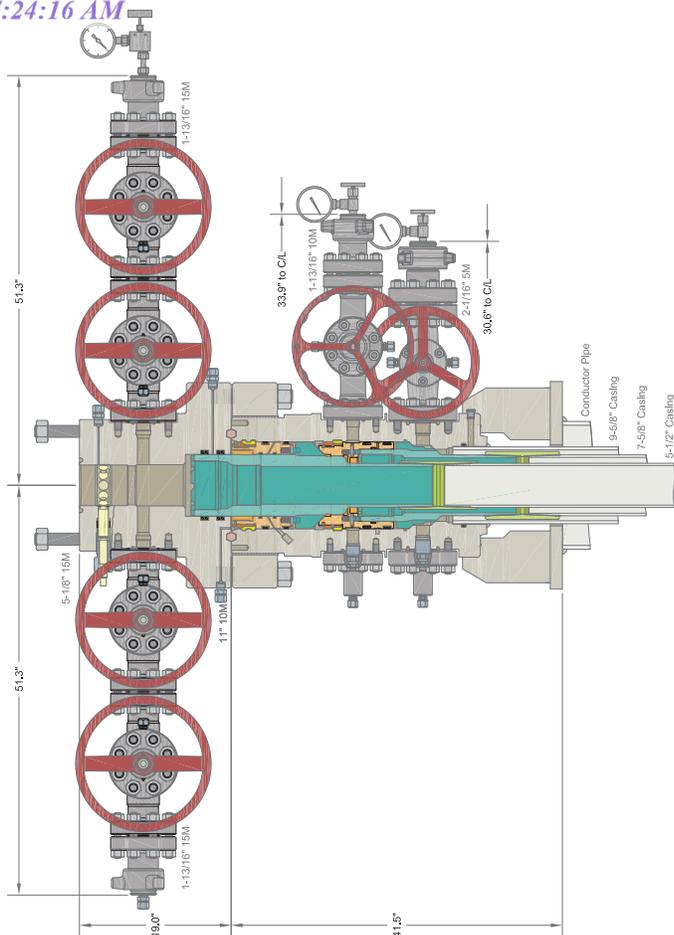
Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
18,800.0	90.00	179.71	12,740.0	-6,114.6	-214.7	6,118.2	0.00	0.00	0.00	
18,900.0	90.00	179.71	12,740.0	-6,214.6	-214.2	6,218.1	0.00	0.00	0.00	
19,000.0	90.00	179.71	12,740.0	-6,314.6	-213.7	6,318.0	0.00	0.00	0.00	
19,100.0	90.00	179.71	12,740.0	-6,414.6	-213.2	6,418.0	0.00	0.00	0.00	
19,200.0	90.00	179.71	12,740.0	-6,514.6	-212.7	6,517.9	0.00	0.00	0.00	
19,300.0	90.00	179.71	12,740.0	-6,614.6	-212.2	6,617.9	0.00	0.00	0.00	
19,400.0	90.00	179.71	12,740.0	-6,714.6	-211.7	6,717.8	0.00	0.00	0.00	
19,500.0	90.00	179.71	12,740.0	-6,814.6	-211.1	6,817.8	0.00	0.00	0.00	
19,600.0	90.00	179.71	12,740.0	-6,914.6	-210.6	6,917.7	0.00	0.00	0.00	
19,700.0	90.00	179.71	12,740.0	-7,014.6	-210.1	7,017.7	0.00	0.00	0.00	
19,800.0	90.00	179.71	12,740.0	-7,114.6	-209.6	7,117.6	0.00	0.00	0.00	
19,900.0	90.00	179.71	12,740.0	-7,214.6	-209.1	7,217.6	0.00	0.00	0.00	
20,000.0	90.00	179.71	12,740.0	-7,314.6	-208.6	7,317.5	0.00	0.00	0.00	
20,100.0	90.00	179.71	12,740.0	-7,414.6	-208.1	7,417.5	0.00	0.00	0.00	
20,200.0	90.00	179.71	12,740.0	-7,514.6	-207.6	7,517.4	0.00	0.00	0.00	
20,300.0	90.00	179.71	12,740.0	-7,614.6	-207.1	7,617.4	0.00	0.00	0.00	
20,311.4	90.00	179.71	12,740.0	-7,626.0	-207.0	7,628.8	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
KOP (Merciless 13 Fed C - plan hits target center - Point	0.00	0.01	12,262.5	147.0	-244.0	414,513.00	757,320.00	32.1376517°N	103.6355518°W	
FPP (Merciless 13 Fed C - plan hits target center - Point	0.00	0.00	12,740.0	-5,082.0	-220.0	409,284.00	757,344.00	32.1232781°N	103.6355837°W	
LTP/PBHL (Merciless 13 - plan hits target center - Point	0.00	0.00	12,740.0	-7,626.0	-207.0	406,740.00	757,357.00	32.1162851°N	103.6355949°W	
FTP (Merciless 13 Fed C - plan misses target center by 163.4usft at 12668.8usft MD (12619.3 TVD, -13.2 N, -243.3 E) - Point	0.00	0.00	12,740.0	97.0	-244.0	414,463.00	757,320.00	32.1375143°N	103.6355528°W	

Metal One Corp. Metal One	MO-FXL Connection Data Sheet		Page	MCTP	
			Date	3-Nov-16	
	Rev.	0			

Geometry		Imperial		S.I.	
Pipe Body					
Grade	P110HC *1		P110HC *1		
Pipe OD (D)	7 5/8	in	193.68	mm	
Weight	29.70	lb/ft	44.25	kg/m	
Actual weight	29.04		43.26	kg/m	
Wall Thickness (t)	0.375	in	9.53	mm	
Pipe ID (d)	6.875	in	174.63	mm	
Pipe body cross section	8.537	in ²	5,508	mm ²	
Drift Dia.	6.750	in	171.45	mm	
Connection					
Box OD (W)	7.625	in	193.68	mm	
PIN ID	6.875	in	174.63	mm	
Make up Loss	4.219	in	107.16	mm	
Box Critical Area	5.714	in ²	3686	mm ²	
Joint load efficiency	70	%	70	%	
Thread Taper	1 / 10 (1.2" per ft)				
Number of Threads	5 TPI				
Performance					
Performance Properties for Pipe Body					
S.M.Y.S. *1	1,067	kips	4,747	kN	
M.I.Y.P. *1	10,760	psi	74.21	MPa	
Collapse Strength *1	7,360	psi	50.76	MPa	
Note S.M.Y.S.= Specified Minimum YIELD Strength of Pipe body M.I.Y.P. = Minimum Internal Yield Pressure of Pipe body *1 Based on VSB P110HC (YS=125~140ksi)					
Performance Properties for Connection					
Tensile Yield load	747 kips (70% of S.M.Y.S.)				
Min. Compression Yield	747 kips (70% of S.M.Y.S.)				
Internal Pressure	8,610 psi (80% of M.I.Y.P.)				
External Pressure	100% of Collapse Strength				
Max. DLS (deg. /100ft)	40				
Recommended Torque					
Min.	15,500	ft-lb	21,000	N-m	
Opti.	17,200	ft-lb	23,300	N-m	
Max.	18,900	ft-lb	25,600	N-m	
Operational Max.	23,600	ft-lb	32,000	N-m	
Note : Operational Max. torque can be applied for high torque application					

MO-FXL



INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY AUTHORIZED BY CACTUS WELLHEAD, LLC.

ALL DIMENSIONS APPROXIMATE

EOG RESOURCES
DELAWARE

DRAWN DLE
APPRV

23OCT18

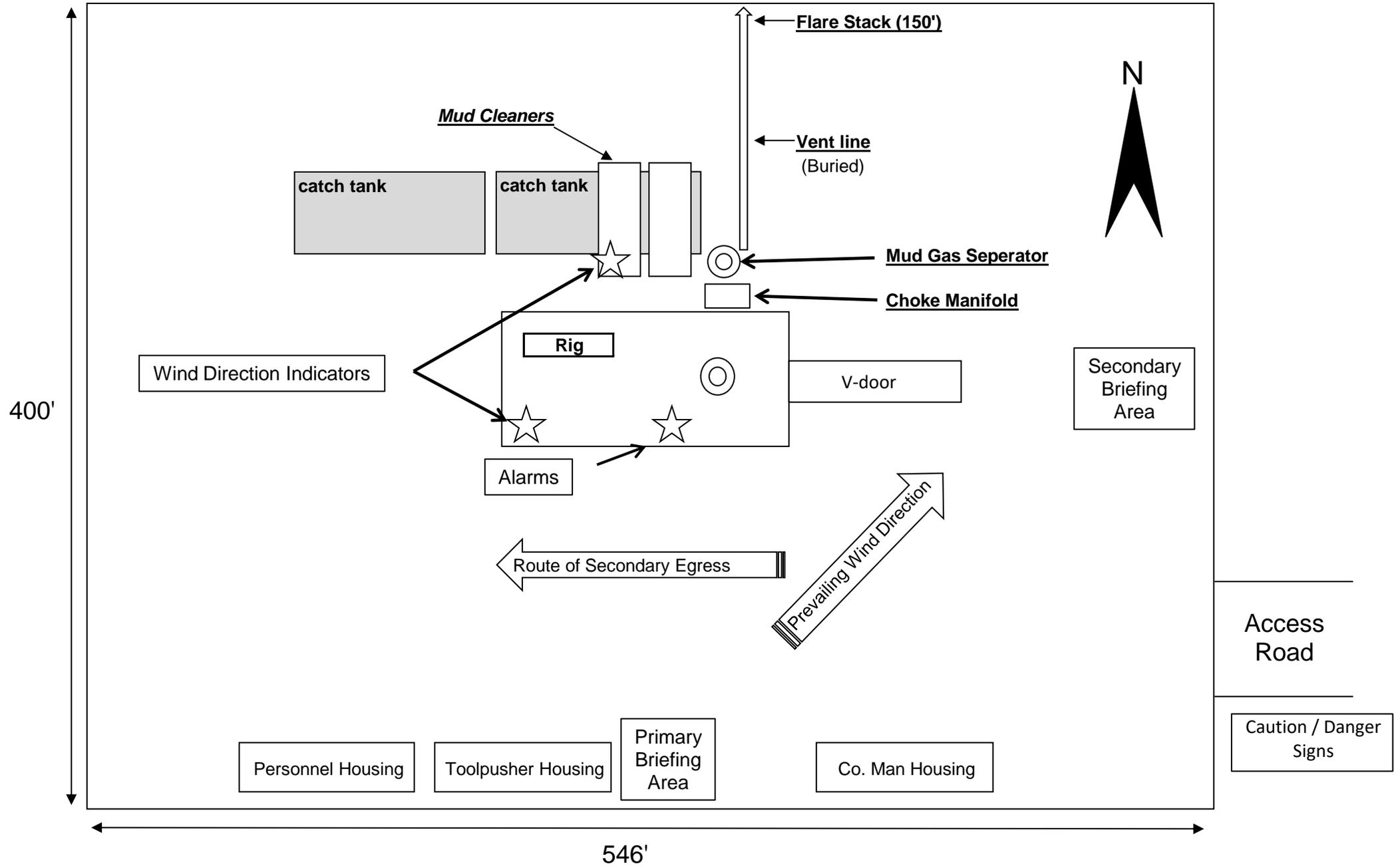
CACTUS WELLHEAD LLC

20" x 9-5/8" x 7-5/8" x 5-1/2" MBU-T-SF SOW Wellhead System
With 11" 10M x 5-1/8" 15M CMT-DBLHPS-SB Tubing Head,
Mandrel Hangers, Quick Connect Drilling Adapter And TA Cap

DRAWING NO. HBE0000010

Exhibit 4
EOG Resources
Merciless 13 Fed Com #742H

Well Site Diagram



**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	950'
Tamarisk Anhydrite	1,015'
Top of Salt	1,265'
Base of Salt	4,680'
Lamar	4,905'
Bell Canyon	4,930'
Cherry Canyon	5,793'
Brushy Canyon	7,452'
Bone Spring Lime	9,002'
Leonard Shale	9,078'
1 st Bone Spring Sand	9,967'
2 nd Bone Spring Shale	10,205'
2 nd Bone Spring Sand	10,415'
3 rd Bone Spring Carb	11,087'
3 rd Bone Spring Sand	11,715'
Wolfcamp	12,179'
TD	12,740'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 400'	Fresh Water
Cherry Canyon	5,793'	Oil
Brushy Canyon	7,452'	Oil
Leonard	9,078'	Oil
1 st Bone Spring Sand	9,967'	Oil
2 nd Bone Spring Shale	10,205'	Oil
2 nd Bone Spring Sand	10,415'	Oil
3 rd Bone Spring Carb	11,087'	Oil
3 rd Bone Spring Sand	11,715'	Oil
Wolfcamp	12,179'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 9.625" casing at 1,040' and circulating cement back to surface.

EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H

4. CASING PROGRAM - NEW

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF _{min} Collapse	DF _{min} Burst	DF _{min} Tension
12.25"	0' – 1,040'	9.625"	40#	J-55	LTC	1.125	1.25	1.60
8.75"	0' – 11,190'	7.625"	29.7#	HCP-110	FXL	1.125	1.25	1.60
6.75"	0' – 10,690'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60
6.75"	10,690'–11,190'	5.5"	20#	P-110EC	VAM SFC	1.125	1.25	1.60
6.75"	11,190' – 20,311'	5.5"	20#	P-110EC	DWC/C-IS MS	1.125	1.25	1.60

Variance is requested to waive the centralizer requirements for the 7-5/8" casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 5-1/2" casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive the annular clearance requirements for the 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422" is acceptable for the production open hole section.

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft ³ /sk	Slurry Description
1,040' 9-5/8"	890	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	80	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 840')
11,190' 7-5/8"	490	14.2	1.11	1 st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 7,300')
	1,000	12.7	2.30	2 nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
20,311' 5-1/2"	590	14.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 10,690')

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MERCILESS 13 FED COM #742H**

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

EOG requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (7,452') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 1,000 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Once cement circulates to surface drilling operations to drill out of the intermediate shoe will proceed (per clarification from BLM 4/21/2020). The final cement top will be verified by Echo-meter.

EOG will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

Cement integrity tests will be performed immediately following plug bump.

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5,000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

EOG will utilize wing unions on BOPE connections that can be isolated from wellbore pressure through means of a choke. All wing unions will be rated to a pressure that meets or exceeds the pressure rating of the BOPE system.

Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.

Pipe rams and blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows.

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,040'	Fresh - Gel	8.6-8.8	28-34	N/c
1,040' – 11,190'	Brine	10.0-10.2	28-34	N/c
11,190' – 12,266'	Oil Base	8.7-9.4	58-68	N/c - 6
12,266' – 20,311' Lateral	Oil Base	10.0-14.0	58-68	3 - 6

The highest mud weight needed to balance formation is expected to be 11.5 ppg. In order to maintain hole stability, mud weights up to 14.0 ppg may be utilized.

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) H₂S monitoring and detection equipment will be utilized from surface casing point to TD.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

8. LOGGING, TESTING AND CORING PROGRAM:

Open-hole logs are not planned for this well.

GR-CCL Will be run in cased hole during completions phase of operations.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom-hole temperature (BHT) at TD is 197 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 9,274 psig and a maximum anticipated surface pressure of 6,472 psig (based on 14.0 ppg MW). No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from 7,452' to Intermediate casing point.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

(A) EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Surface Rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both "A" and "B" sections). The weld will be tested to 1000 psi. All valves will be closed and a wellhead cap will be installed (diagram attached). If the timing between rigs is such that EOG Resources would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

11. WELLHEAD:

A multi-bowl wellhead system will be utilized.

After running the 9-5/8" surface casing, a 9-5/8" BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10,000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 10,000 psi.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Cactus Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. EOG Resources reserves the option to conduct BOPE testing during wait on cement periods provided a test plug is utilized.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

Casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater.

EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H

200' FNL
704' FWL
Section 13
T-25-S, R-32-E

Proposed Wellbore

KB: 3,505'
GL: 3,480'

API: 30-025-*****

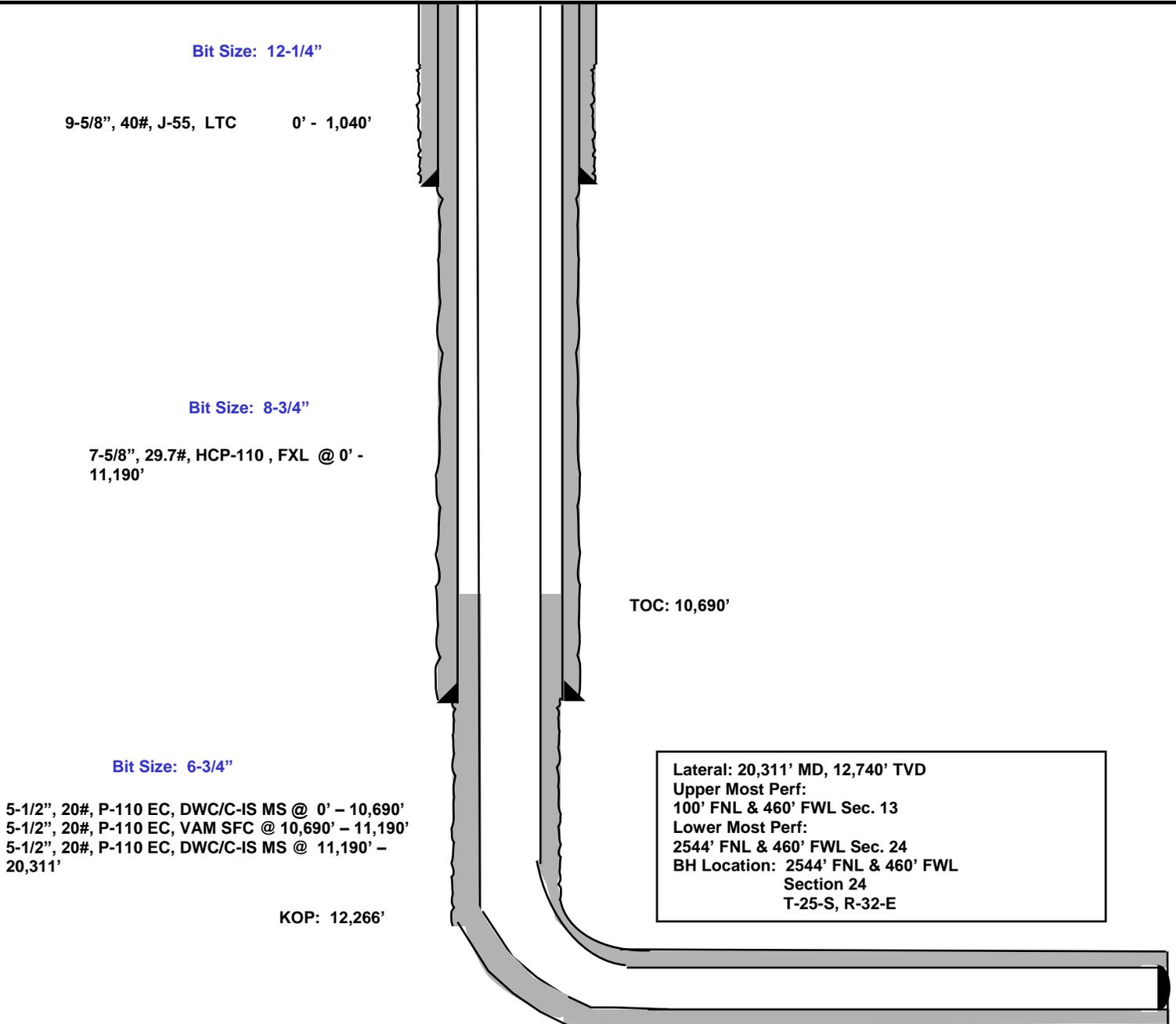
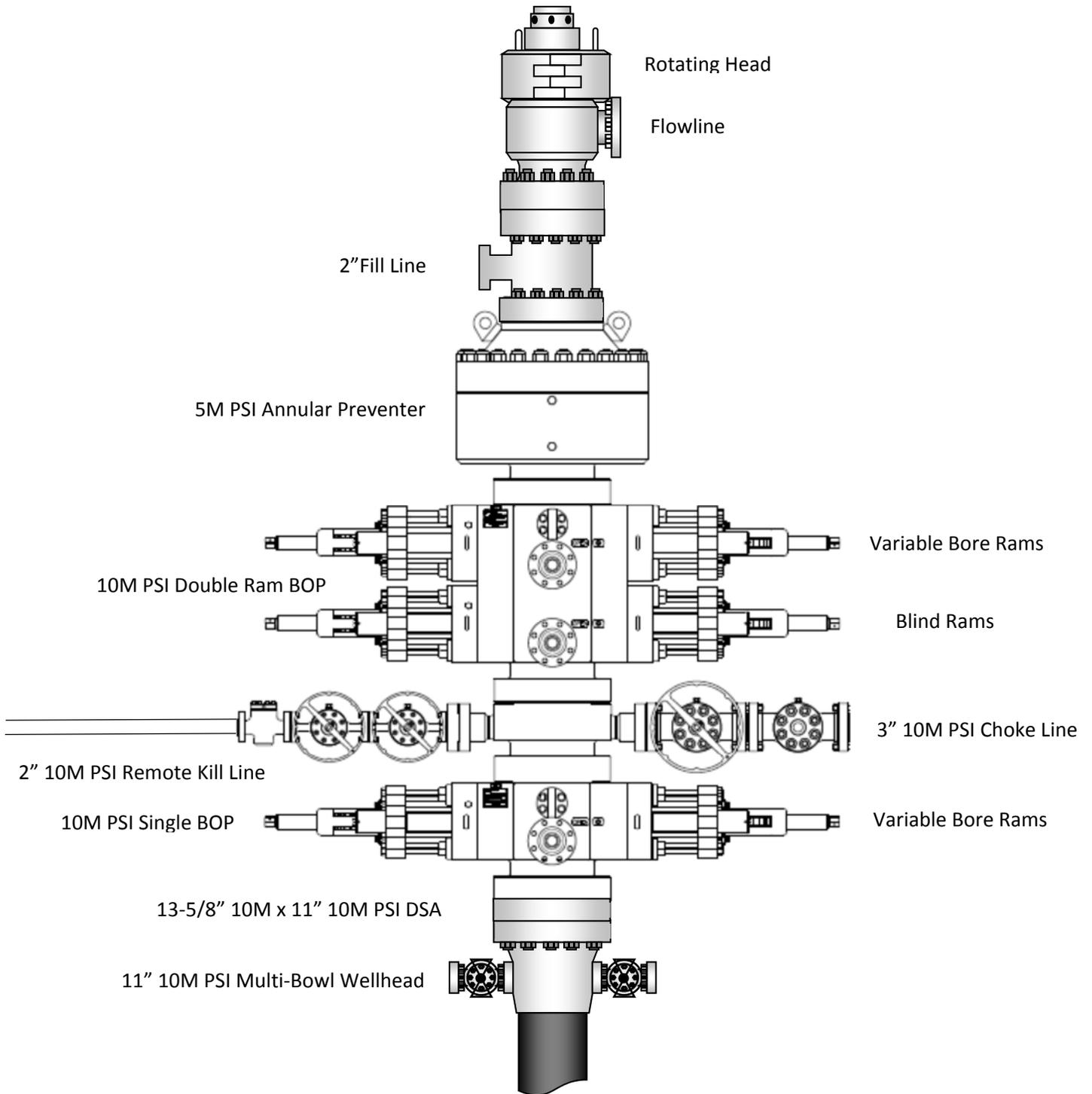


Exhibit 1

EOG Resources

11" 10M PSI BOP Stack



Hose Inspection Report

ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	CBC Inspector	Date of Inspection
H&P Drilling	740021604	COM906112	A. Jaimes	10/17/2016

Hose Manufacturer	Contitech Rubber Industrial
--------------------------	-----------------------------

Hose Serial #	62429	Date of Manufacture	05/2012
Hose I.D.	3"	Working Pressure	10000PSI
Hose Type	Choke and Kill	Test Pressure	15000PSI
Manufacturing Standard	API 16C		

Connections

End A: 3.1/16" 10Kpsi API Spec 6A Type 6BX Flange	End B: 3.1/16" 10Kpsi API Spec 6A Type 6BX Flange
• No damage	• No damage
Material: Carbon Steel	Material: Carbon Steel
Seal Face: BX154	Seal Face: BX154
Length Before Hydro Test: 16'	Length After Hydro test: 16'

Conclusion: Hose #62429 passed the external inspection with no notable damages to the hose armor. Internal borescope of the hose showed no damage to the hose liner. Hose #62429 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. **Hose #62429 is suitable for continued service.**

Recommendations: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

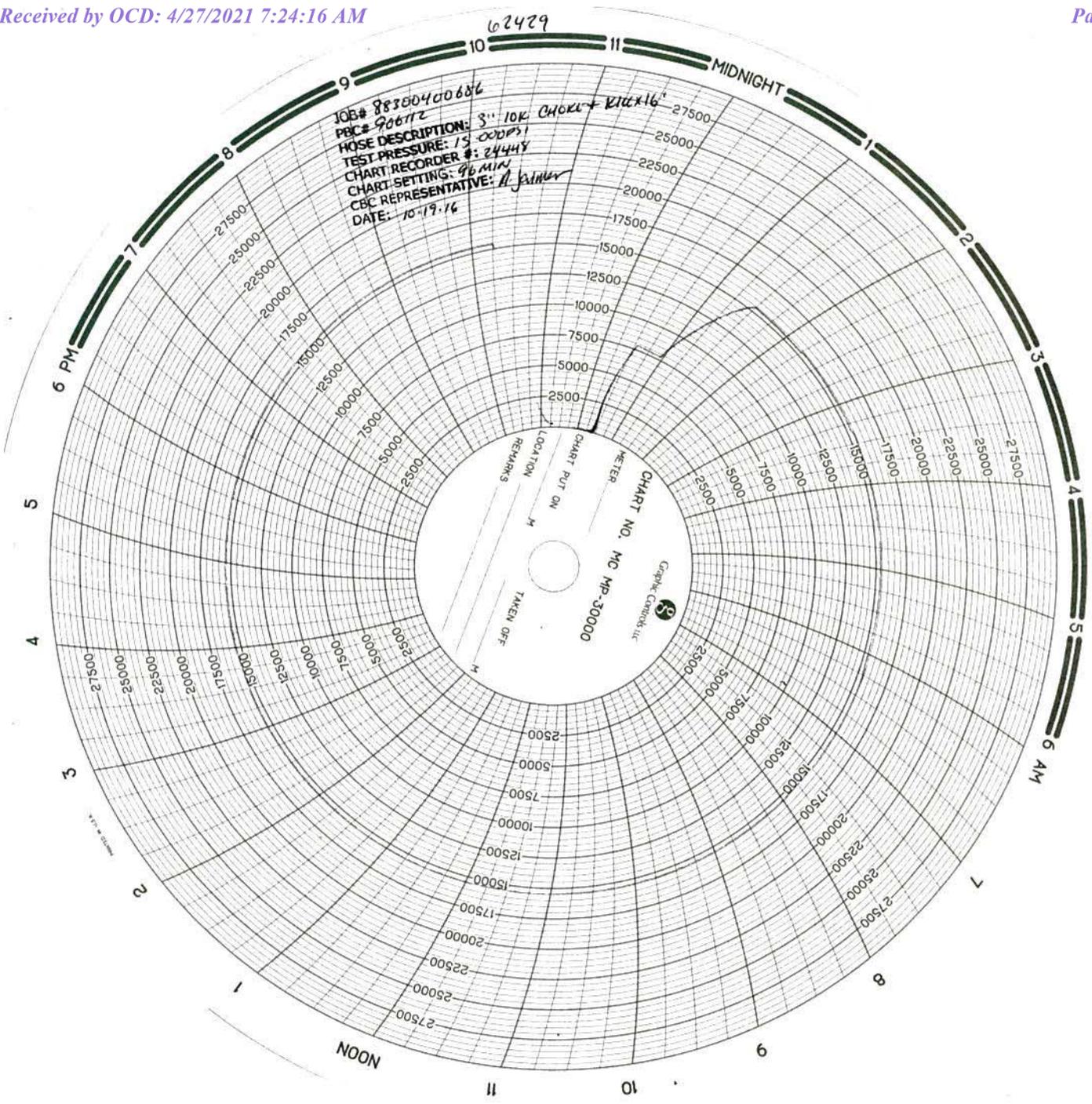
Visual inspection: Every 3 months (or during installation/removal)
 Annual: In-situ pressure test
 Initial 5 years service: Major inspection
 2nd Major inspection: 8 / 10 years of service
 (Detailed description of test regime available upon request, ISS-059 Rev 04)

****NOTE:** There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

Issued By: Alejandro Jaimes
Date: 10/25/2016

Checked By: Jeremy Mckay
Date: 10/25/2016
 QF97

Page 1 of 1



10,000 PSI BOP Annular Variance Request

EOG Resources request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOP).

1. Component and Preventer Compatibility Tables

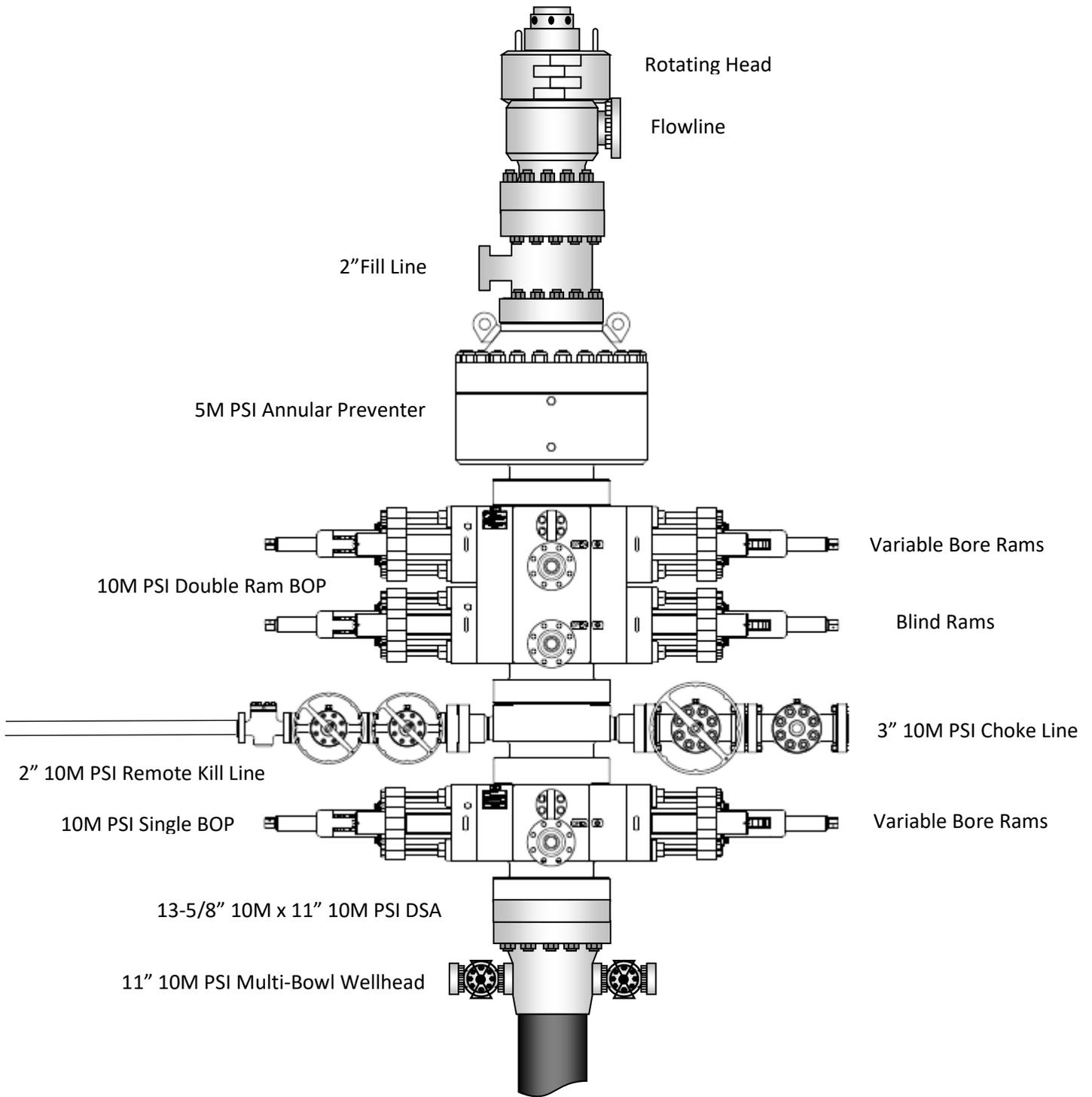
The tables below outlines the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

9-7/8" & 8-3/4" Intermediate Hole Section					
10M psi requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Jars	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	6.500 – 8.000"	Annular	5M	-	-
Mud Motor	6.750 – 8.000"	Annular	5M	-	-
Intermediate casing	7.625"	Annular	5M	-	-
Open-hole	-	Blind Rams	10M	-	-

6-3/4" Production Hole Section					
10M psi requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
DCs and MWD tools	4.750 – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Mud Motor	4.750 – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Mud Motor	5.500 – 5.750"	Annular	5M	-	-
Production casing	5.500"	Annular	5M	Upper 3.5 - 5.5" VBR Lower 3.5 - 5.5" VBR	10M 10M
Open-hole	-	Blind Rams	10M	-	-

VBR = Variable Bore Ram

EOG Resources 11" 10M PSI BOP Stack



2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the EOG Resources drilling supervisor's office on location, and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 100% of its RWP.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out drill string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Running Production Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string

4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP and SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams. (HCR and choke will already be in the closed position.)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
 - a. SICP
 - b. Pit gain
 - c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA thru Stack

1. PRIOR to pulling last joint of drillpipe thru the stack.
 - a. Perform flowcheck, if flowing:
 - b. Sound alarm (alert crew)
 - c. Stab full opening safety valve and close
 - d. Space out drill string with tool joint just beneath the upper variable bore rams.
 - e. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
 - f. Confirm shut-in
 - g. Notify toolpusher/company representative
 - h. Read and record the following:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
 - i. Regroup and identify forward plan
2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
 - a. Sound alarm (alert crew)
 - b. Stab crossover and full opening safety valve and close
 - c. Space out drill string with upset just beneath the upper variable bore rams.
 - d. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
 - e. Confirm shut-in
 - f. Notify toolpusher/company representative
 - g. Read and record the following:
 - i. SIDPP and SICP

- ii. Pit gain
 - iii. Time
 - h. Regroup and identify forward plan
- 3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
 - a. Sound alarm (alert crew)
 - b. If possible to pick up high enough, pull string clear of the stack and follow “Open Hole” scenario.
 - c. If impossible to pick up high enough to pull the string clear of the stack:
 - d. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
 - e. Space out drill string with tooljoint just beneath the upper variable bore ram.
 - f. Shut-in using upper variable bore ram. (HCR and choke will already be in the closed position.)
 - g. Confirm shut-in
 - h. Notify toolpusher/company representative
 - i. Read and record the following:
 - i. SIDPP and SICP
 - ii. Pit gain
 - iii. Time
 - j. Regroup and identify forward plan



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

SUPO Data Report

04/26/2021

APD ID: 10400058748

Submission Date: 07/06/2020

Highlighted data reflects the most recent changes

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

MERCILESS_13_FED_COM_742H_VICINITY_20200706140907.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

MERCILESS_13_FED_COM_742H_RADIUS_20200706140925.pdf

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Merciless 13 Fed Com CTB is located in the NE/4 of Section 13.

Production Facilities map:

- MERCILESS_13FC_ELECTRIC_S13_S_20191210083022.PDF
- MERCILESS_13FC_ELECTRIC_S18_S_20191210083022.PDF
- MERCILESS_13FC_GAS_S13_S_20191210083022.PDF
- MERCILESS_13FC_GAS_S18_S_20191210083022.PDF
- MERCILESS_13FC_GL_S13_S_20191210083022.PDF
- MERCILESS_13FC_ROAD_S13_S_20191210083022.PDF
- MERCILESS_13FC_ROAD_S18_S_20191210083023.PDF
- MERCILESS_13FC_WATER_S13_S_20191210083023.PDF
- MERCILESS_13FC_WATER_S18_S_20191210083023.PDF
- MERCILESS_13_FED_COM_INFRASTRUCTURE_2_20191210083021.pdf
- Merciless_13_Fed_Com_CTB_20191210083021.pdf
- EP_MERCILESS_13FC_701H_721H_742H_FL_S_20200706141025.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: RECYCLED

Water source use type: OTHER

Describe use type: The source and location of the water location will be drilled using a combination of water muc program. (i) Water will be obtained from commercial wa to location by trucks using existing and proposed roads attached. (ii) Water may as be supplied from frac ponds temporary above ground surface lines a shown on the n 5-inch polyethylene and or layflat lines for the purpose of Freshwater is defined as containing less than 10,000 m exhibiting no petroleum sheen when standing, and not p processes that expose it to heavy metals or other poten to five 12-inch layflat lines for the purpose of transporting defined as the reconditioning of produced water to a reu mechanical and chemical processes. Freshwater Source Gulch Frac Pond located in Section 8, Township 26-S, Mexico. 2. Texas Pacific Land Trust Frac Pond located Loving County, Texas Treated Produced Water Sources Reuse Pit located in Section 16, Section 8, Township 26 New Mexico. Temporary surface lines would originate fr or multiple water source locations in the surrounding are temporarily laid above ground with minimal disturbance. laid no more than 10 feet from the edge of the existing c

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

OTHER

ditch, road surface or two-track road or other man-made off arm or other mechanism will be used. All vehicle equipment existing disturbance. Map or maps showing the location be provided with the APD and will be included in the En map file (shape file or KMZ file) shall be submitted with Merciless 13 Fed Com Water & Caliche Map depicts the temporary above ground surface lines and maybe installed days). Temporary above ground surface lines shall support completions operations.

Source latitude:

Source longitude:

Source datum:

Water source permit type: WATER RIGHT

Water source transport method: TRUCKING

PIPELINE

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 1

Source volume (acre-feet): 0.00012889

Source volume (gal): 42

Water source and transportation map:

Merciless_13_Fed_Com_Water_and_Caliche_20191210083216.pdf

Water source comments:

New water well? N

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

Aquifer comments:

Aquifer documentation:

Well depth (ft):

Well casing type:

Well casing outside diameter (in.):

Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Operator Name: EOG RESOURCES INCORPORATED**Well Name:** MERCILESS 13 FED COM**Well Number:** 742H**Casing length (ft.):****Casing top depth (ft.):****Well Production type:****Completion Method:****Water well additional information:****State appropriation permit:****Additional information attachment:**

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Caliche will be supplied from pits shown on the attached caliche source map. Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by "Flipping" the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for "Flipping" a well location is as follows: * -An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat. -An area will be used within the proposed well site dimensions to excavate caliche. Subsoil will be removed and stockpiled within the surveyed well pad dimensions. -Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions. -Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available). -Neither caliche, nor subsoil will be stock piled outside of the well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat. * In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or federal land.

Construction Materials source location attachment:

Merciless_13_Fed_Com_Water_and_Caliche_20191210083234.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drill fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly. Human waste and grey water will be properly contained of and disposed of properly. After drilling and completion operations; trash, chemicals, salts, frac sand, and other waste material will be removed and disposed of properly at a state approved disposal facility.

Amount of waste: 0 barrels**Waste disposal frequency :** Daily**Safe containment description:** Steel Tanks**Safe containmant attachment:****Waste disposal type:** HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL**Disposal type description:****Disposal location description:** Trucked to NMOCD approved disposal facility

Reserve Pit

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Closed Loop System. Drill cuttings will be disposed of into steel tanks and taken to an NMOCD approved disposal facility.

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

- Merciless_13_Fed_Com_742H_Rig_Layout_20200706141150.pdf
- MERCILESS_13_FED_COM_742H_PADSITE_20200706141157.pdf
- MERCILESS_13_FED_COM_742H_WELLSITE_20200706141207.pdf

Comments: Exhibit 2A-Wellsite & Exhibit 2B-Padsite Exhibit 4-Rig Layout

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: MERCILESS 13 FED COM

Multiple Well Pad Number: 701H/721H/742H

Recontouring attachment:

MERCILESS_13_FED_COM_742H_RECLAMATION_20200706141222.pdf

Drainage/Erosion control construction: Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.

Drainage/Erosion control reclamation: The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

Well pad proposed disturbance (acres): 0

Road proposed disturbance (acres): 0

Powerline proposed disturbance (acres): 0

Pipeline proposed disturbance (acres): 0

Other proposed disturbance (acres): 0

Total proposed disturbance: 0

Well pad interim reclamation (acres): 0

Road interim reclamation (acres): 0

Powerline interim reclamation (acres): 0

Pipeline interim reclamation (acres): 0

Other interim reclamation (acres): 0

Total interim reclamation: 0

Well pad long term disturbance (acres): 0

Road long term disturbance (acres): 0

Powerline long term disturbance (acres): 0

Pipeline long term disturbance (acres): 0

Other long term disturbance (acres): 0

Total long term disturbance: 0

Disturbance Comments: All Interim and Final reclamation must be within 6 months. Interim must be within 6 months of completion and final within 6 months of abandonment plugging. Dual pad operations may alter timing.

Reconstruction method: In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads. Areas planned for interim reclamation will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

Topsoil redistribution: Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts and fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

Soil treatment: Re-seed according to BLM standards. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

Existing Vegetation at the well pad: Grass, forbs, and small woody vegetation, such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respreads evenly on the site following topsoil resspreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape.

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary	
Seed Type	Pounds/Acre

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name:

Last Name:

Phone:

Email:

Seedbed prep:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds. Weeds will be treated if found.

Weed treatment plan attachment:

Monitoring plan description: Reclamation will be completed within 6 months of well plugging. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds.

Monitoring plan attachment:

Success standards: N/A

Pit closure description: NA

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Section 12 - Other Information

Right of Way needed? N

Use APD as ROW?

ROW Type(s):

ROW Applications

SUPO Additional Information: Poly lines are planned to transport water for operations. Will truck if necessary. See attached SUPO Plan.

Use a previously conducted onsite? N

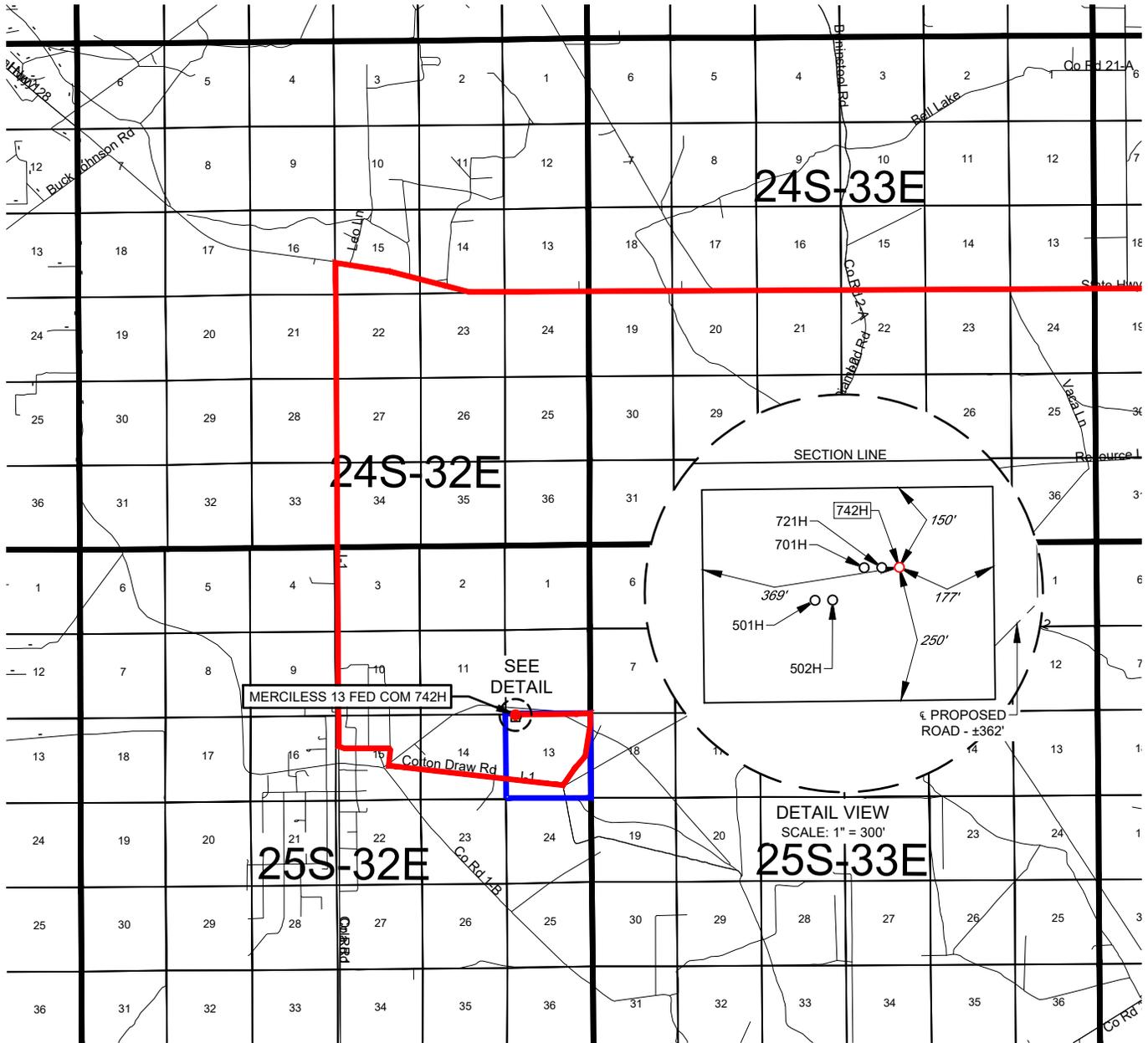
Previous Onsite information:

Other SUPO Attachment

MERCILESS_13_FED_COM_742H_LOCATION_20200706141250.pdf

SUPO_Merciless_13_Fed_Com_742H_20200706141259.pdf

EXHIBIT 2
VICINITY MAP



LEASE NAME & WELL NO.: MERCILESS 13 FED COM 742H

SECTION 13 TWP 25-S RGE 32-E SURVEY N.M.P.M.
 COUNTY LEA STATE NM
 DESCRIPTION 200' FNL & 704' FWL

DISTANCE & DIRECTION
 FROM INT. OF NM-18 S. & NM-128 W. GO WEST ON NM-128 W ±30.0 MILES,
 THENCE SOUTH (LEFT) ON ORLA RD./J-2 ±5.7 MILES, THENCE EAST (LEFT)
 ON COTTON DRAW RD. ±2.7 MILES, THENCE NORTHEAST (LEFT) ON
 PROPOSED RD. ±0.8MILES, THENCE WEST (LEFT) ON PROPOSED RD. ±0.9
 MILES, THENCE SOUTHWEST (LEFT) ON PROPOSED RD. ±362 FEET TO A
 POINT ±232 FEET SOUTHEAST OF THE LOCATION.

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

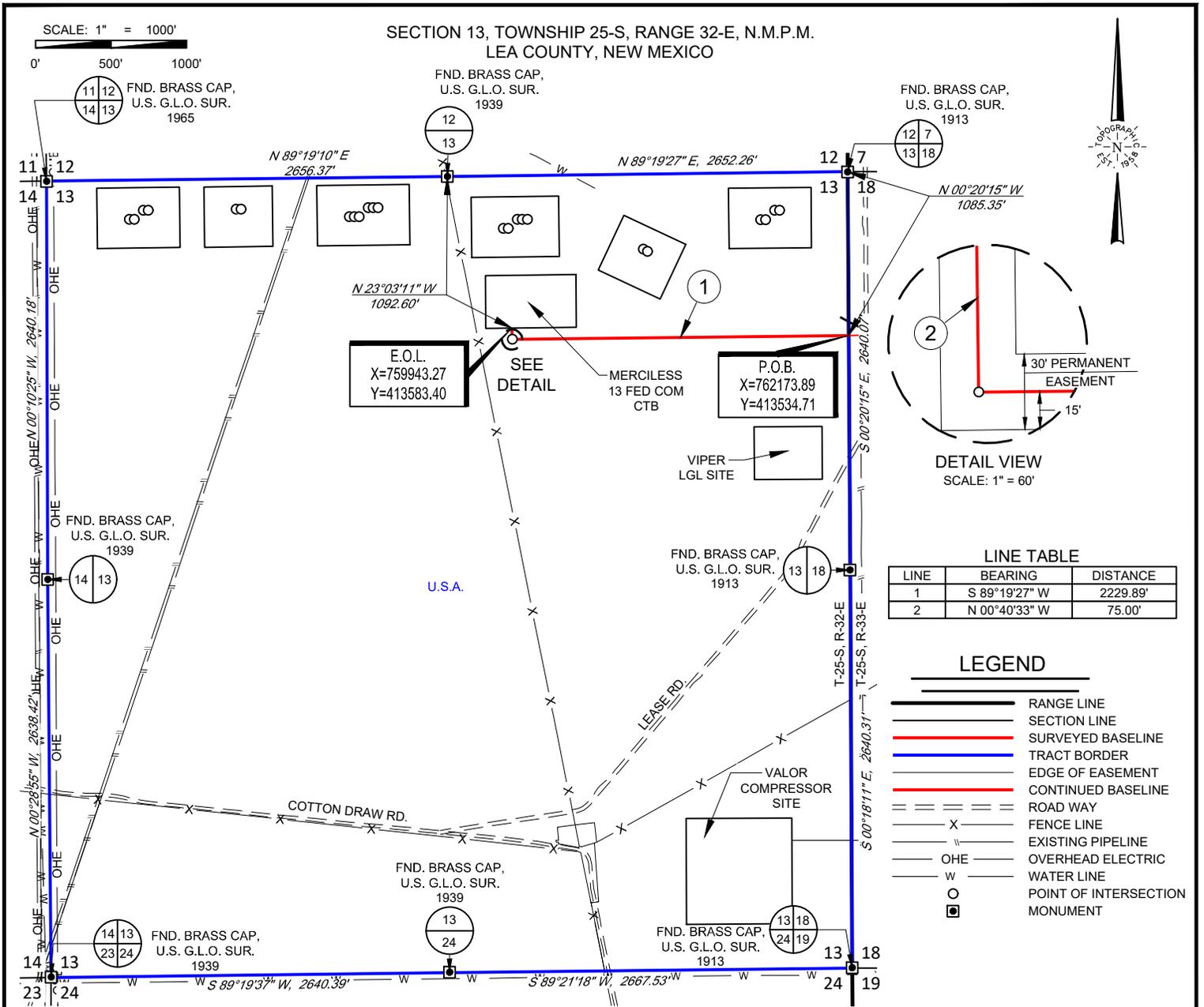
ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.



SCALE: 1" = 10000'
 0' 5000' 10000'



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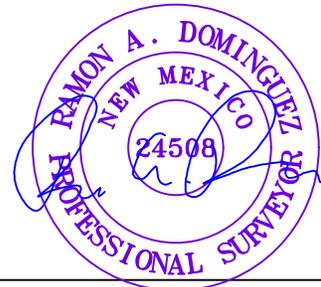


MERCILESS 13 FED COM ELECTRIC LINE

Being a proposed electric line easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 2304.89 feet or 139.69 rods, containing 1.59 acres more or less.



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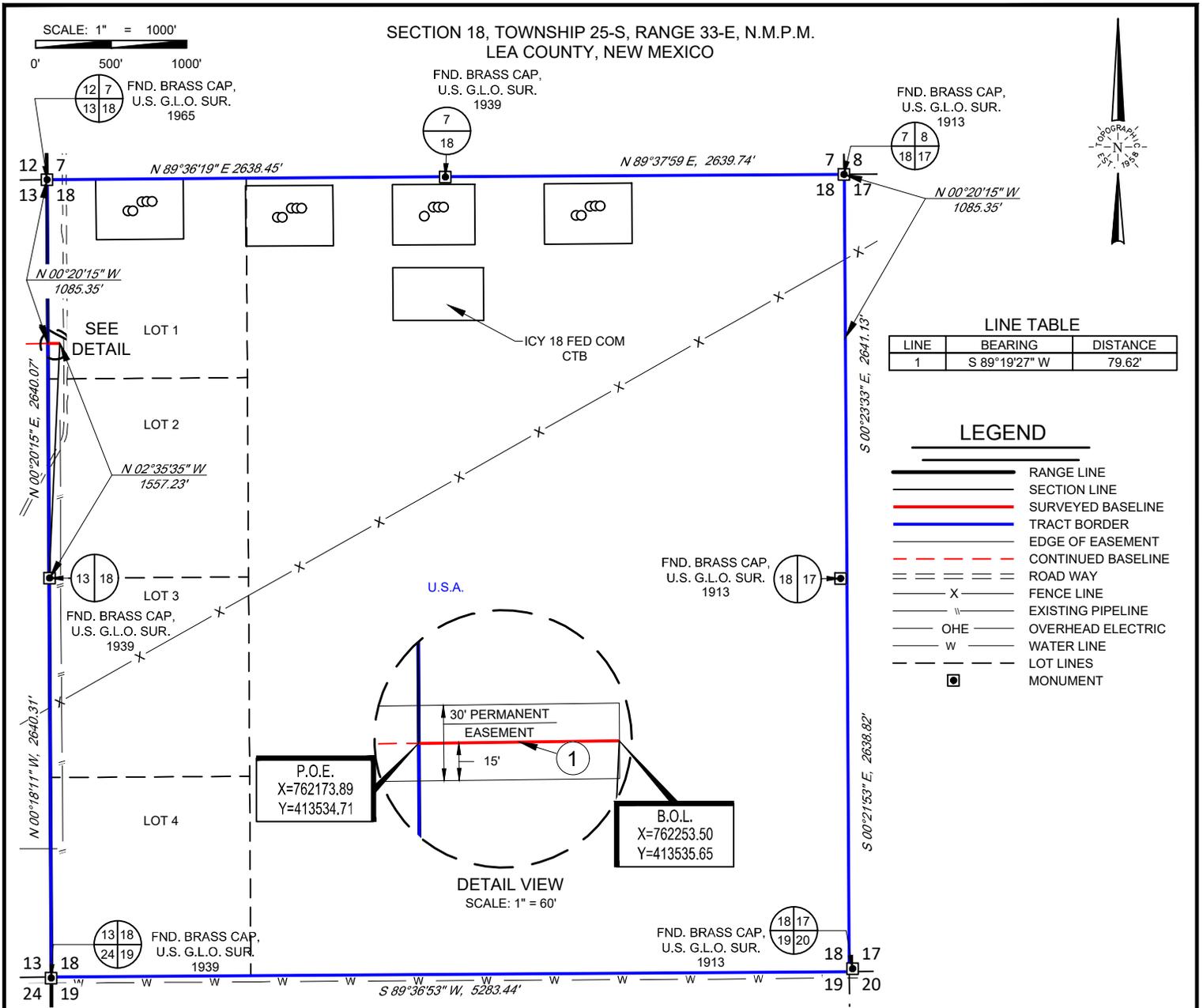


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MERCILESS 13 FED COM ELECTRIC LINE

Being a proposed electric line easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 79.62 feet or 4.83 rods, containing 0.05 acres more or less.



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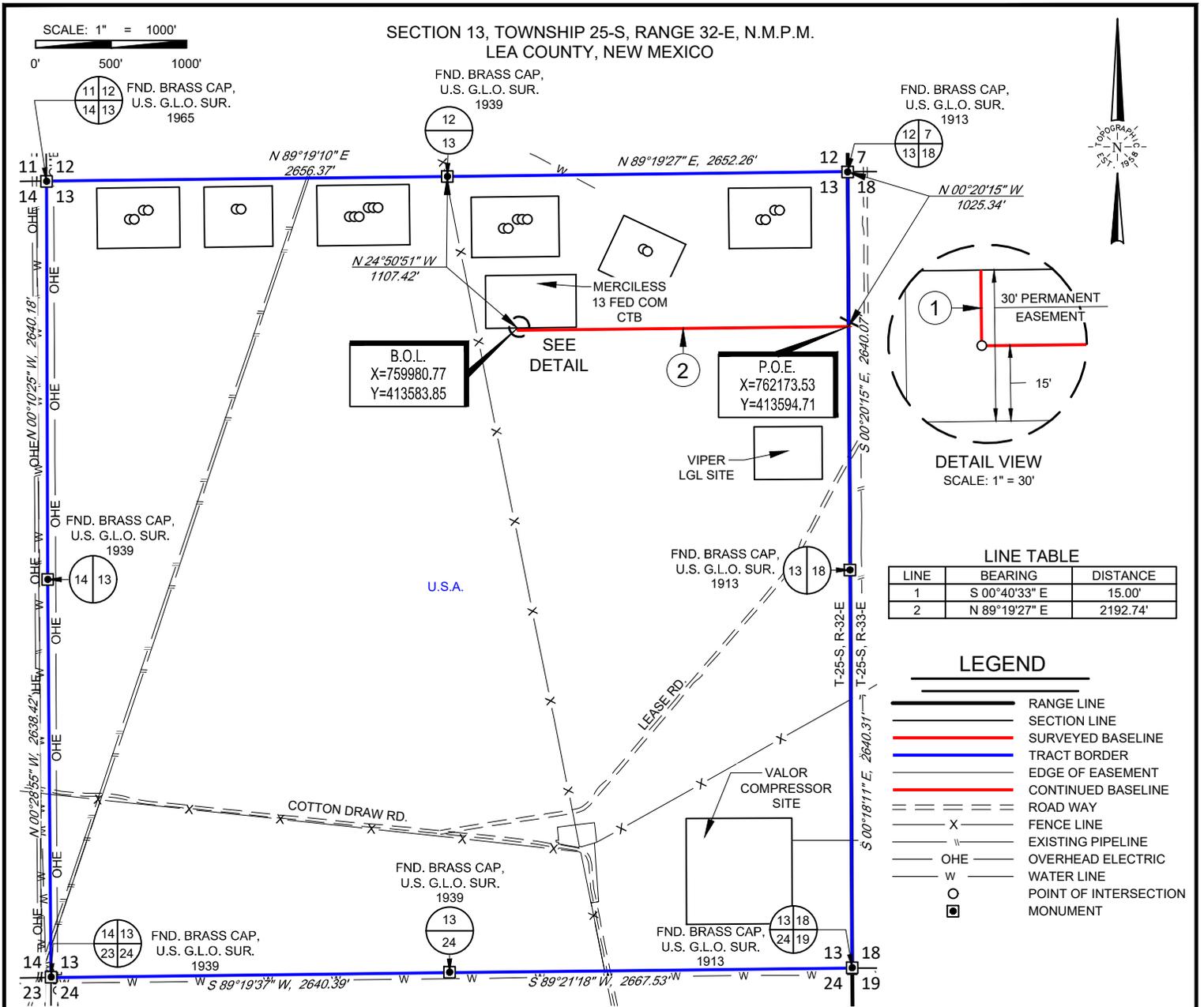


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LINE TABLE

LINE	BEARING	DISTANCE
1	S 00°40'33" E	15.00'
2	N 89°19'27" E	2192.74'

LEGEND

- RANGE LINE
- SECTION LINE
- SURVEYED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- CONTINUED BASELINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- WATER LINE
- POINT OF INTERSECTION
- MONUMENT

MERCILESS 13 FED COM GAS LINE

Being a proposed gas line easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 2207.74 feet or 133.80 rods, containing 1.52 acres more or less.

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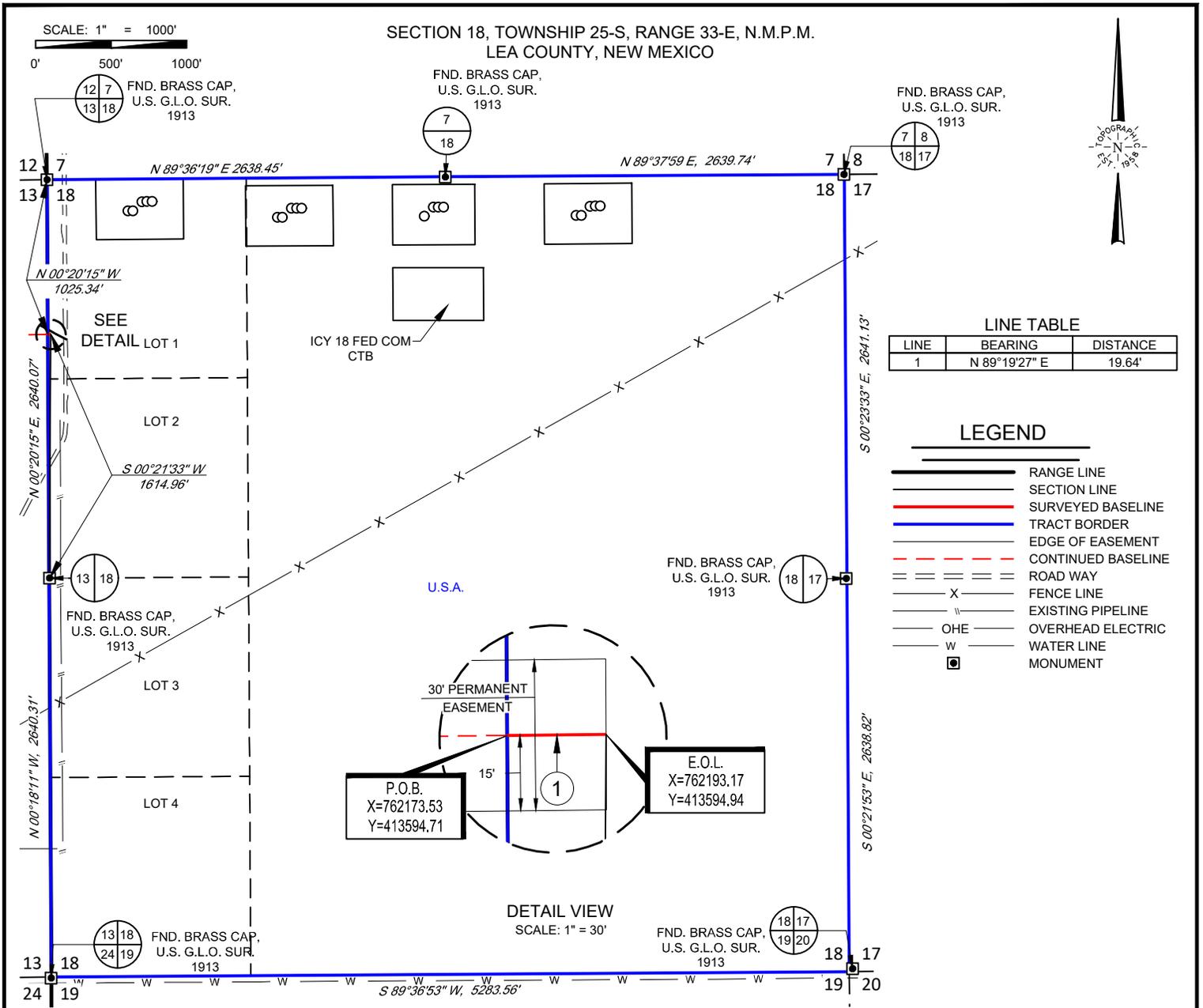


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LINE TABLE

LINE	BEARING	DISTANCE
1	N 89°19'27" E	19.64'

LEGEND

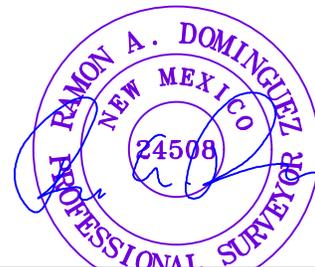
- RANGE LINE
- SECTION LINE
- SURVEYED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- CONTINUED BASELINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OHE OVERHEAD ELECTRIC
- WATER LINE
- MONUMENT

MERCILESS 13 FED COM GAS LINE

Being a proposed gas line easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 19.64 feet or 1.19 rods, containing 0.01 acres more or less.



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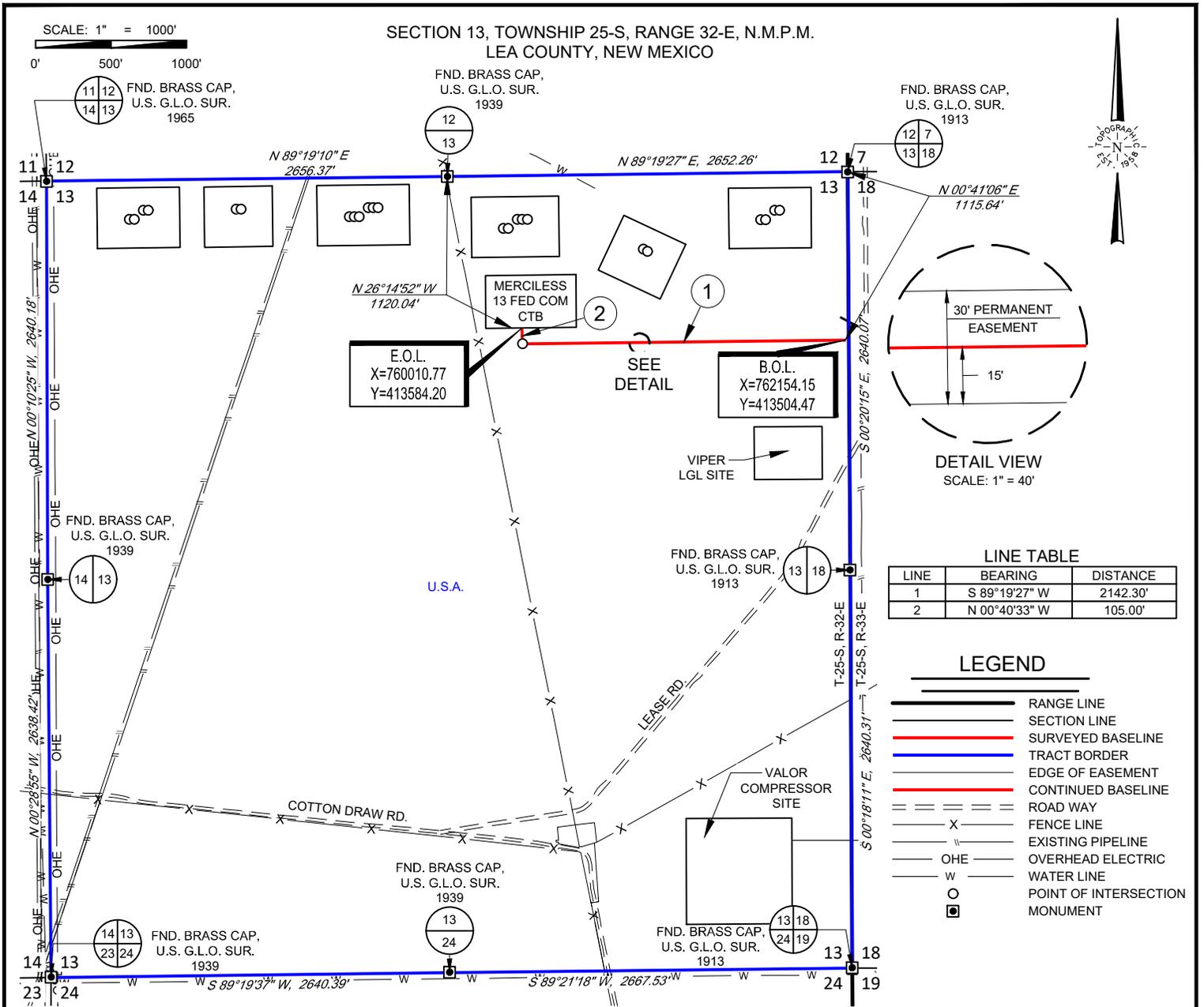


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VIPER LGL TO MERCILESS 13 FED COM CTB GAS LIFT LINE

Being a proposed electric line easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 2,247.30 feet or 136.20 rods, containing 1.55 acres more or less.



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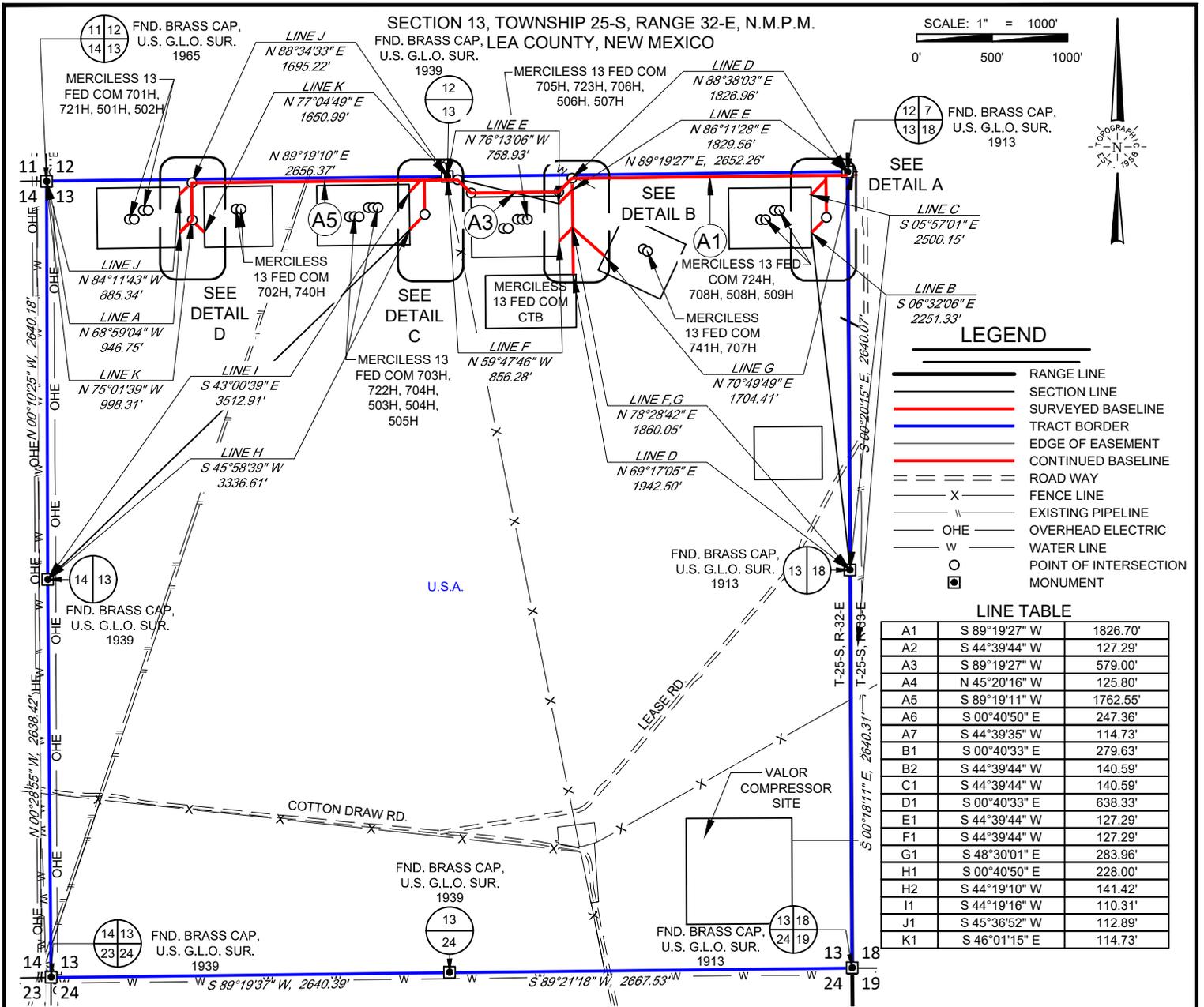


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VIPER LGL TO MERCILESS 13 FED COM CTB GAS LIFT LINE	REVISION:	
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SCALE: 1" = 1000'
0' 500' 1000'

LEGEND

- RANGE LINE
- SECTION LINE
- SURVEYED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- CONTINUED BASELINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- WATER LINE
- POINT OF INTERSECTION
- MONUMENT

LINE TABLE

Point	Bearing	Distance
A1	S 89°19'27" W	1826.70'
A2	S 44°39'44" W	127.29'
A3	S 89°19'27" W	579.00'
A4	N 45°20'16" W	125.80'
A5	S 89°19'11" W	1762.55'
A6	S 00°40'50" E	247.36'
A7	S 44°39'35" W	114.73'
B1	S 00°40'33" E	279.63'
B2	S 44°39'44" W	140.59'
C1	S 44°39'44" W	140.59'
D1	S 00°40'33" E	638.33'
E1	S 44°39'44" W	127.29'
F1	S 44°39'44" W	127.29'
G1	S 48°30'01" E	283.96'
H1	S 00°40'50" E	228.00'
H2	S 44°19'10" W	141.42'
I1	S 44°19'16" W	110.31'
J1	S 45°36'52" W	112.89'
K1	S 46°01'15" E	114.73'

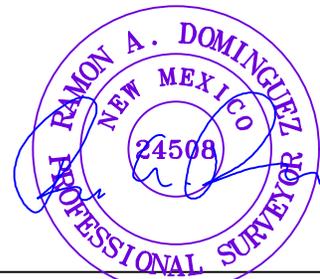
MERCILESS 13 FED COM ROAD

Being a proposed road easement being 24 feet in width, 12 feet left, and 12 feet right of the above platted centerline total line footage containing 7,228.46 feet or 438.09 rods, containing 3.98 acres more or less.

SEE SHEETS 2-4 FOR DETAILS

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MERCILESS 13 FED COM ROADS	REVISION:		NOTES:
	INT	DATE	
DATE:	10/08/19		1. ORIGINAL DOCUMENT SIZE: 8.5" X 11" 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET. 3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY EOG RESOURCES, INC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY. 4. B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING 5. E.O.L./P.O.E. = END OF LINE/POINT OF EXIT 6. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.
FILE:	EP_MERCILESS_13FC_ROAD_S13		
DRAWN BY:	JJF		
SHEET:	1 OF 4		

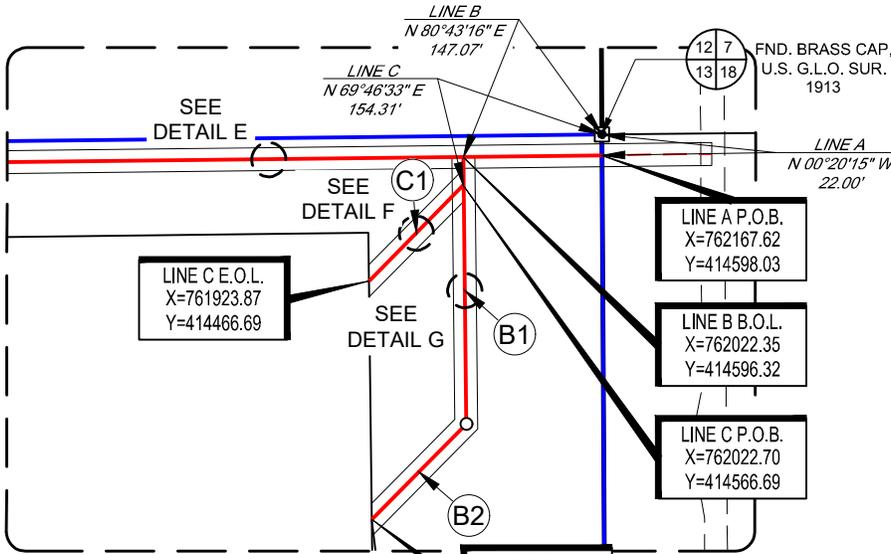
SECTION 13, TOWNSHIP 25-S, RANGE 32-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

LEGEND

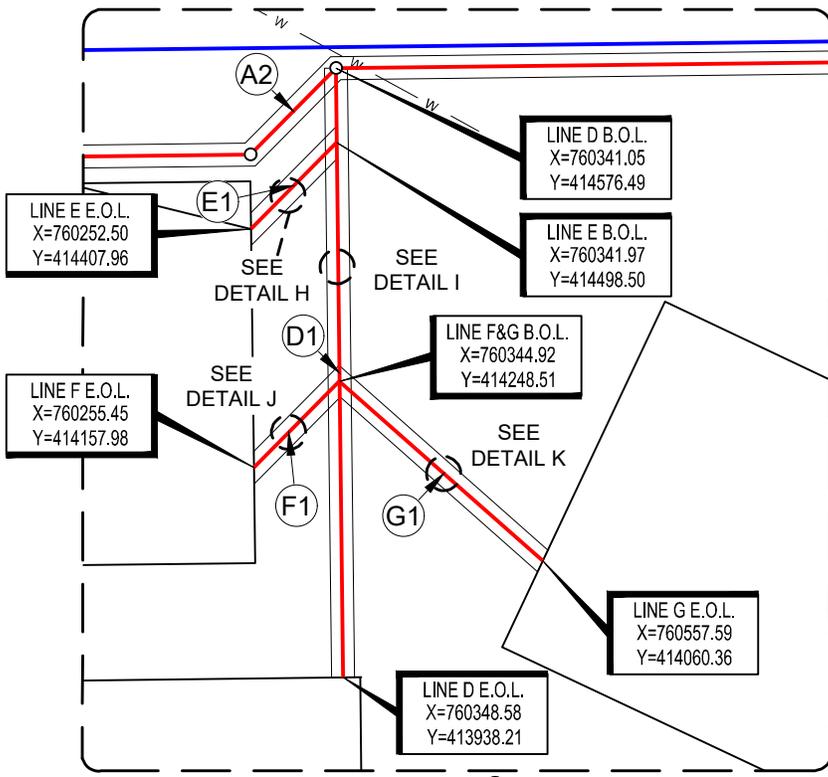
	RANGE LINE
	SECTION LINE
	SURVEYED BASELINE
	TRACT BORDER
	EDGE OF EASEMENT
	CONTINUED BASELINE
	ROAD WAY
	FENCE LINE
	EXISTING PIPELINE
	OVERHEAD ELECTRIC
	WATER LINE
	POINT OF INTERSECTION
	MONUMENT

LINE TABLE

LINE	BEARING	LENGTH
A1	S 89°19'27" W	1826.70'
A2	S 44°39'44" W	127.29'
A3	S 89°19'27" W	579.00'
A4	N 45°20'16" W	125.80'
A5	S 89°19'11" W	1762.55'
A6	S 00°40'50" E	247.36'
A7	S 44°39'35" W	114.73'
B1	S 00°40'33" E	279.63'
B2	S 44°39'44" W	140.59'
C1	S 44°39'44" W	140.59'
D1	S 00°40'33" E	638.33'
E1	S 44°39'44" W	127.29'
F1	S 44°39'44" W	127.29'
G1	S 48°30'01" E	283.96'
H1	S 00°40'50" E	228.00'
H2	S 44°19'10" W	141.42'
I1	S 44°19'16" W	110.31'
J1	S 45°36'52" W	112.89'
K1	S 46°01'15" E	114.73'



DETAIL VIEW A
SCALE: 1" = 200'



DETAIL VIEW B
SCALE: 1" = 200'

MERCILESS 13 FED COM ROAD

Being a proposed road easement being 24 feet in width, 12 feet left, and 12 feet right of the above platted centerline total line footage containing 7,228.46 feet or 438.09 rods, containing 3.98 acres more or less.



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2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
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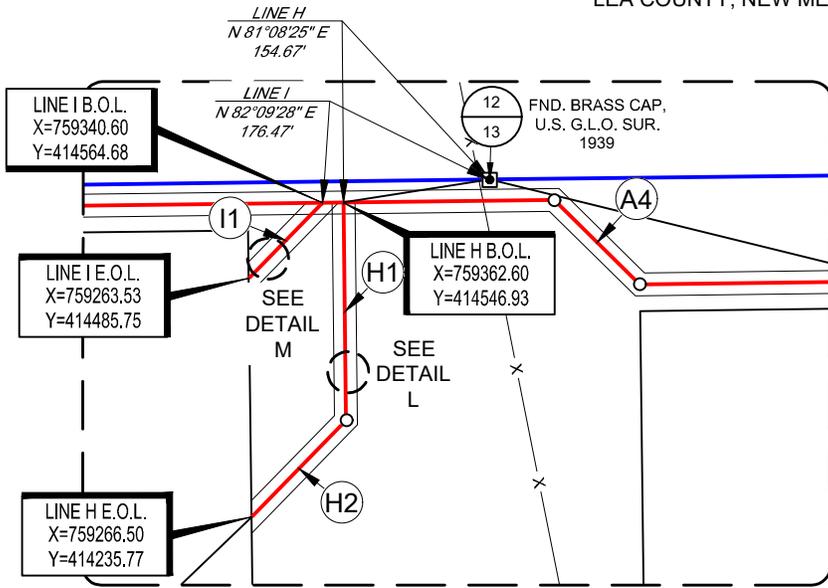


MERCILESS 13 FED COM ROADS	REVISION:	
	INT	DATE
DATE:	10/08/19	
FILE:	EP_MERCILESS_13FC_ROAD_S13	
DRAWN BY:	JJF	
SHEET :	2 OF 4	

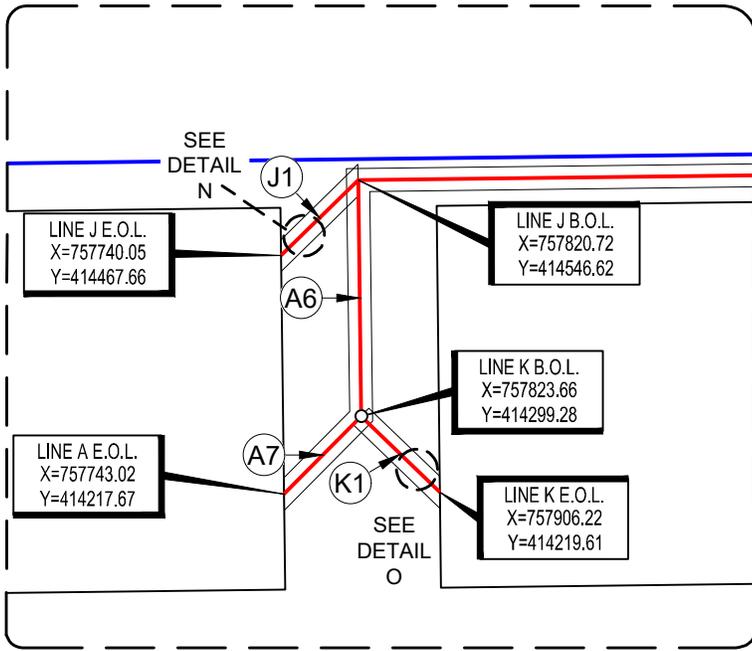
NOTES:

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SECTION 13, TOWNSHIP 25-S, RANGE 32-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



DETAIL VIEW C
SCALE: 1" = 200'



DETAIL VIEW D
SCALE: 1" = 200'

LEGEND

- RANGE LINE
- SECTION LINE
- SURVEYED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- CONTINUED BASELINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OHE OVERHEAD ELECTRIC
- WATER LINE
- POINT OF INTERSECTION
- MONUMENT

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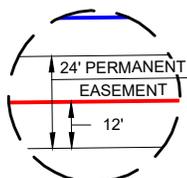
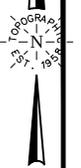


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	INT	DATE
DATE:	10/08/19	
FILE:	EP_MERCILESS_13FC_ROAD_S13	
DRAWN BY:	JJF	
SHEET :	3 OF 4	

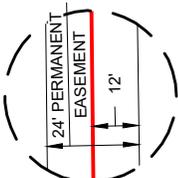
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SECTION 13, TOWNSHIP 25-S, RANGE 32-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



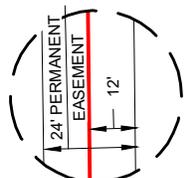
DETAIL VIEW E
SCALE: 1" = 50'



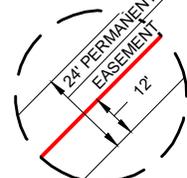
DETAIL VIEW F
SCALE: 1" = 50'



DETAIL VIEW G
SCALE: 1" = 50'



DETAIL VIEW H
SCALE: 1" = 50'



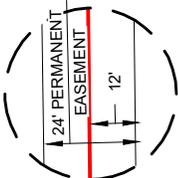
DETAIL VIEW I
SCALE: 1" = 50'



DETAIL VIEW J
SCALE: 1" = 50'



DETAIL VIEW K
SCALE: 1" = 50'



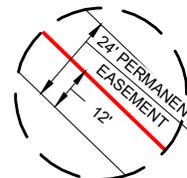
DETAIL VIEW L
SCALE: 1" = 50'



DETAIL VIEW M
SCALE: 1" = 50'



DETAIL VIEW N
SCALE: 1" = 50'



DETAIL VIEW O
SCALE: 1" = 50'

LEGEND

- RANGE LINE
- SECTION LINE
- SURVEYED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- CONTINUED BASELINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
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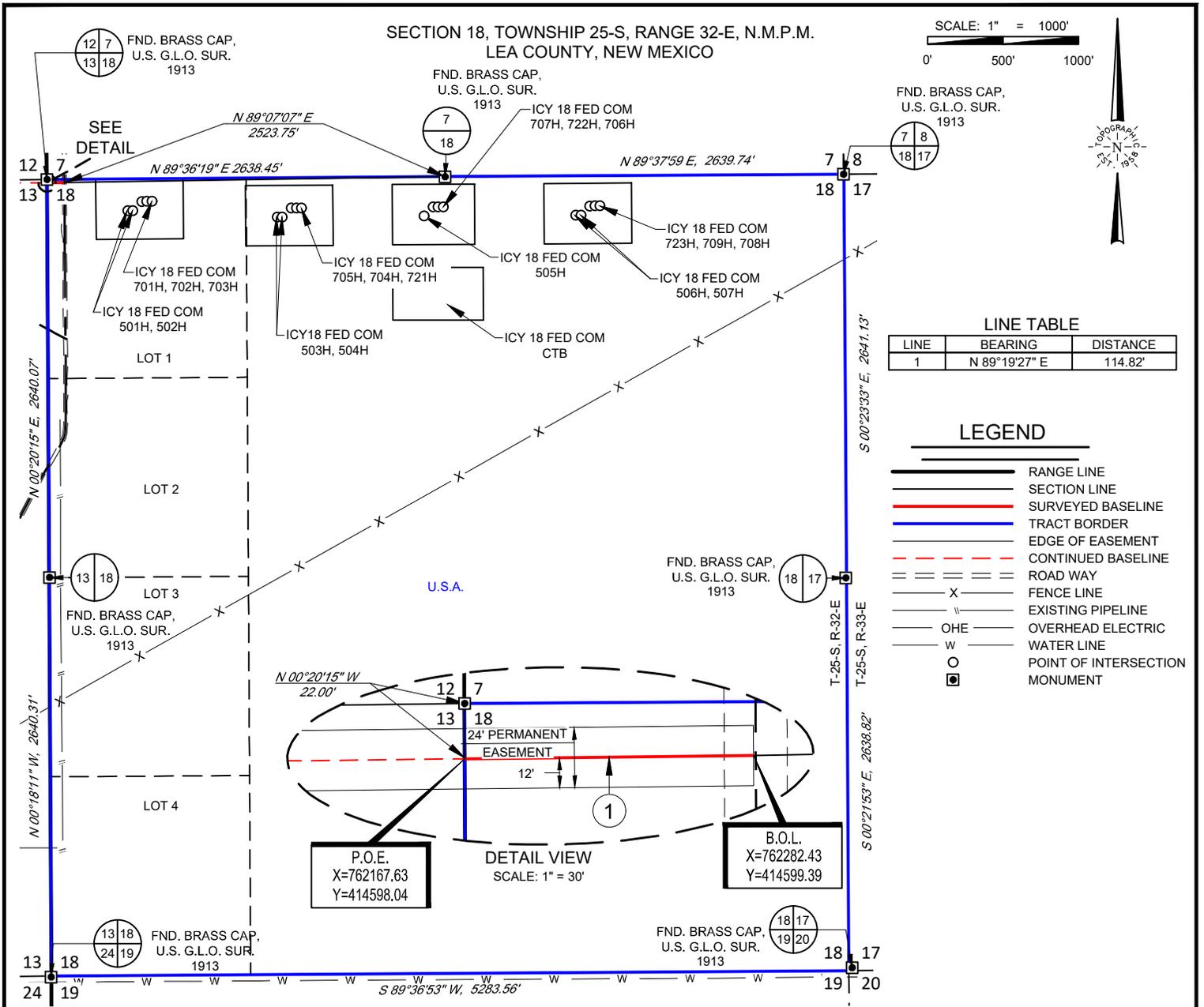
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MERCILESS 13 FED COM ROADS	REVISION:		NOTES:
	INT	DATE	
DATE: 10/08/19			1. ORIGINAL DOCUMENT SIZE: 8.5" X 11" 2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET. 3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY EOG RESOURCES, INC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY. 4. B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING 5. E.O.L./P.O.E. = END OF LINE/POINT OF EXIT 6. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.
FILE: EP_MERCILESS_13FC_ROAD_S13			
DRAWN BY: JJF			
SHEET: 4 OF 4			



LINE TABLE

LINE	BEARING	DISTANCE
1	N 89°19'27\"	114.82'

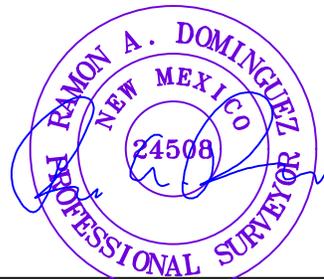
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- SECTION LINE
- SURVEYED BASELINE
- TRACT BORDER
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- CONTINUED BASELINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- WATER LINE
- POINT OF INTERSECTION
- MONUMENT

MERCILESS 13 FED COM ROAD

Being a proposed road easement being 24 feet in width, 12 feet left, and 12 feet right of the above platted centerline total line footage containing 114.82 feet or 6.96 rods, containing 0.06 acres more or less.

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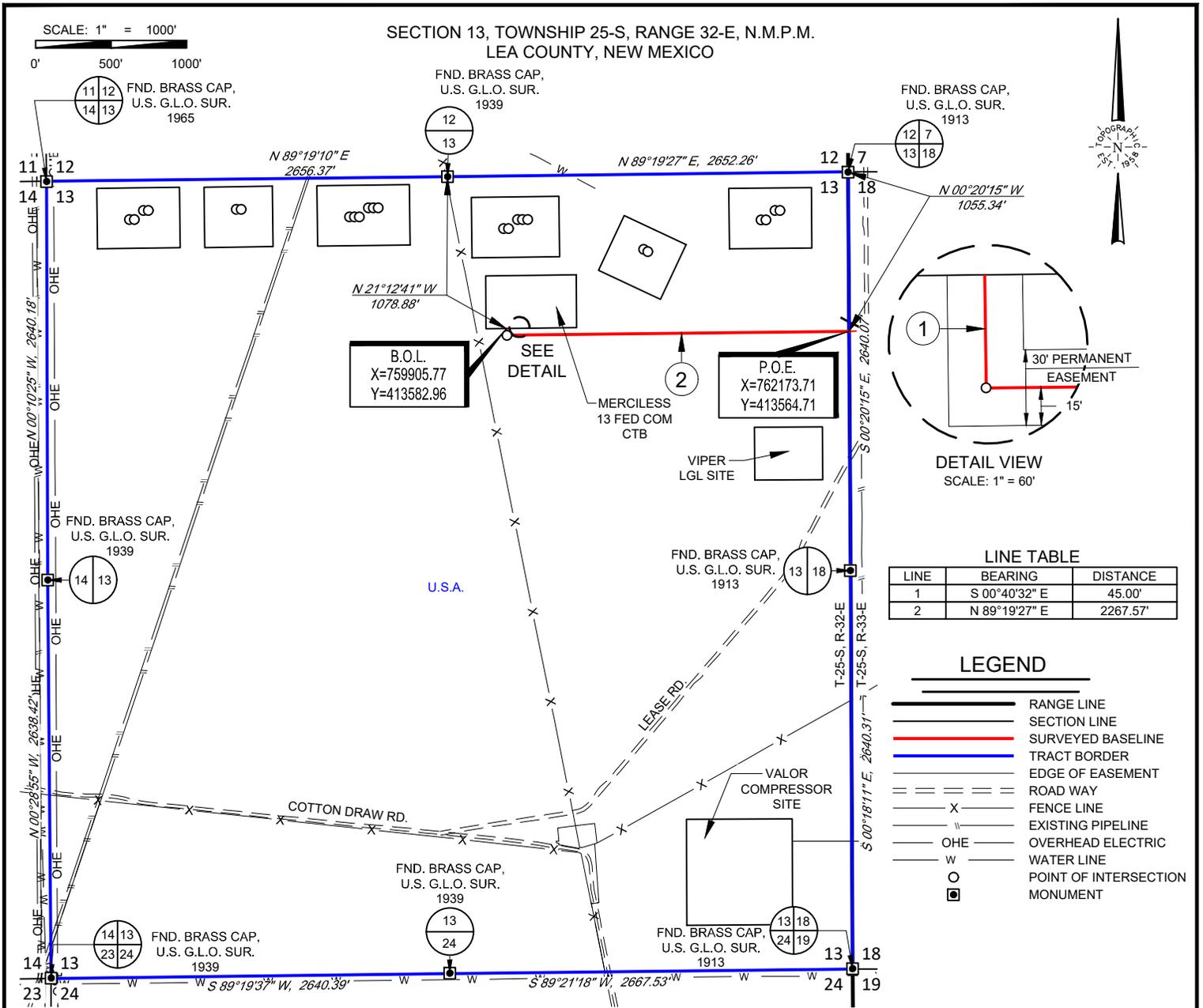


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MERCILESS 13 FED COM ROAD	REVISION:	
	INT	DATE
DATE:	10/07/19	
FILE:	EP_MERCILESS_13FC_ROAD_S18	
DRAWN BY:	JJF	
SHEET :	1 OF 1	

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MERCILESS 13 FED COM WATER LINE

Being a proposed water line easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 2312.57 feet or 140.16 rods, containing 1.59 acres more or less.



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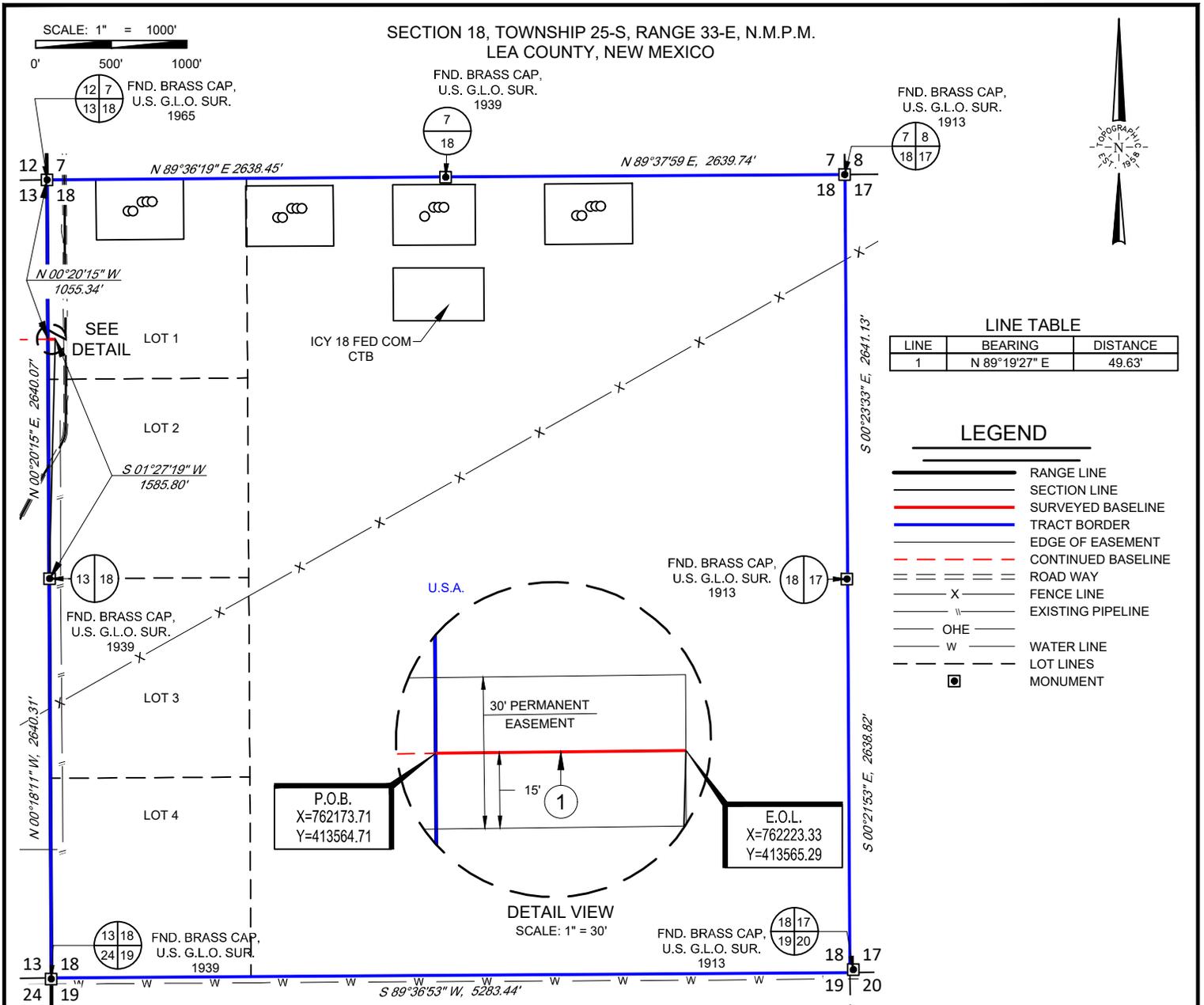
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MERCILESS 13 FED COM WATER LINE	REVISION:	
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DRAWN BY: JJF		
SHEET: 1 OF 1		

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LINE TABLE

LINE	BEARING	DISTANCE
1	N 89°19'27" E	49.63'

LEGEND

- RANGE LINE
- SECTION LINE
- SURVEYED BASELINE
- TRACT BORDER
- EDGE OF EASEMENT
- CONTINUED BASELINE
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OHE
- WATER LINE
- LOT LINES
- MONUMENT

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MERCILESS 13 FED COM WATER LINE	REVISION:	
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FILE: EP_MERCILESS_13FC_WATER_S18		
DRAWN BY: JJF		
SHEET: 1 OF 1		

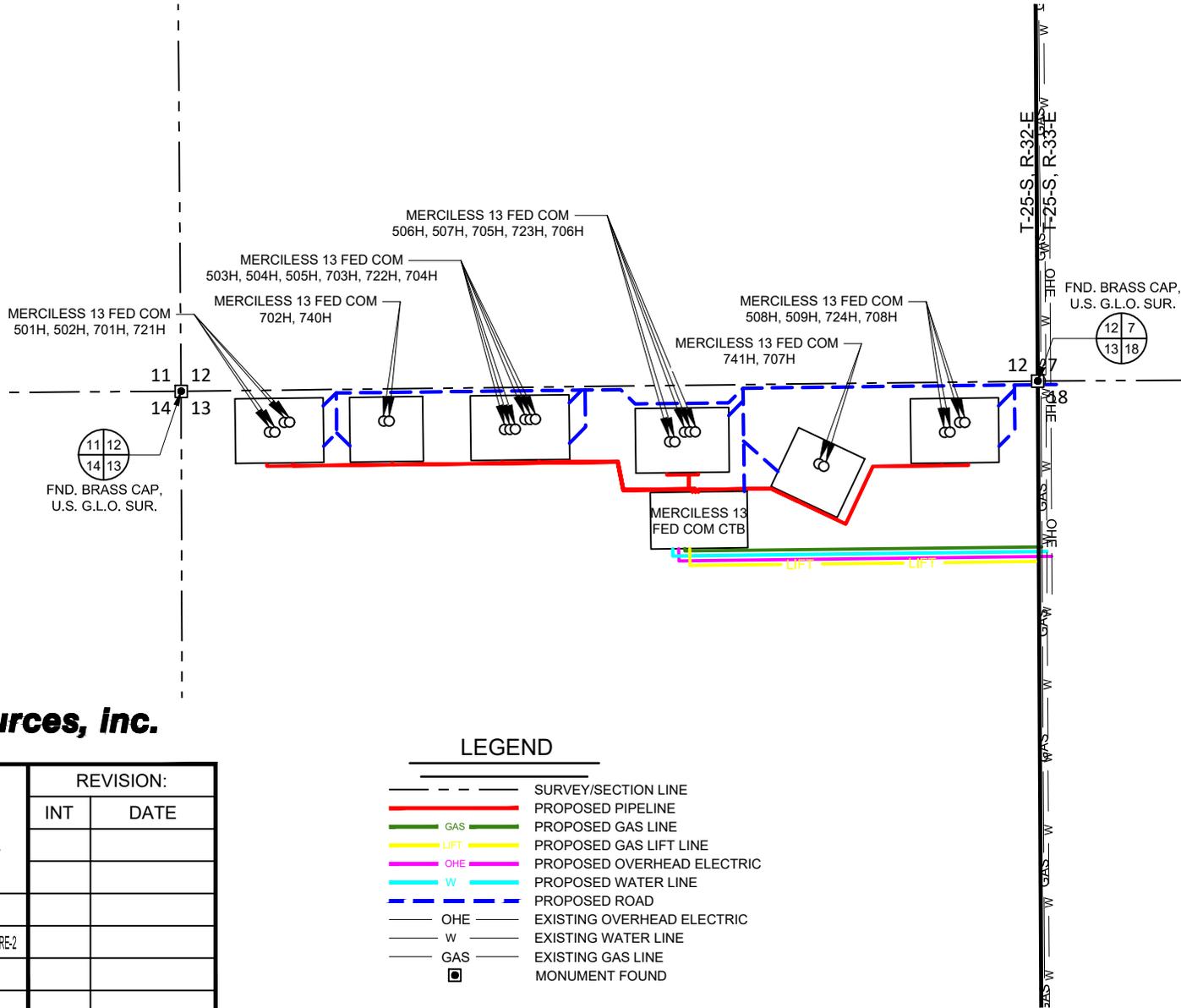
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EXHIBIT 5

SECTION 13, TOWNSHIP 25-S, RANGE 32-E, N.M.P.M.
 SECTION 18, TOWNSHIP 25-S, RANGE 33-E, N.M.P.M.
 EDDY COUNTY, NEW MEXICO

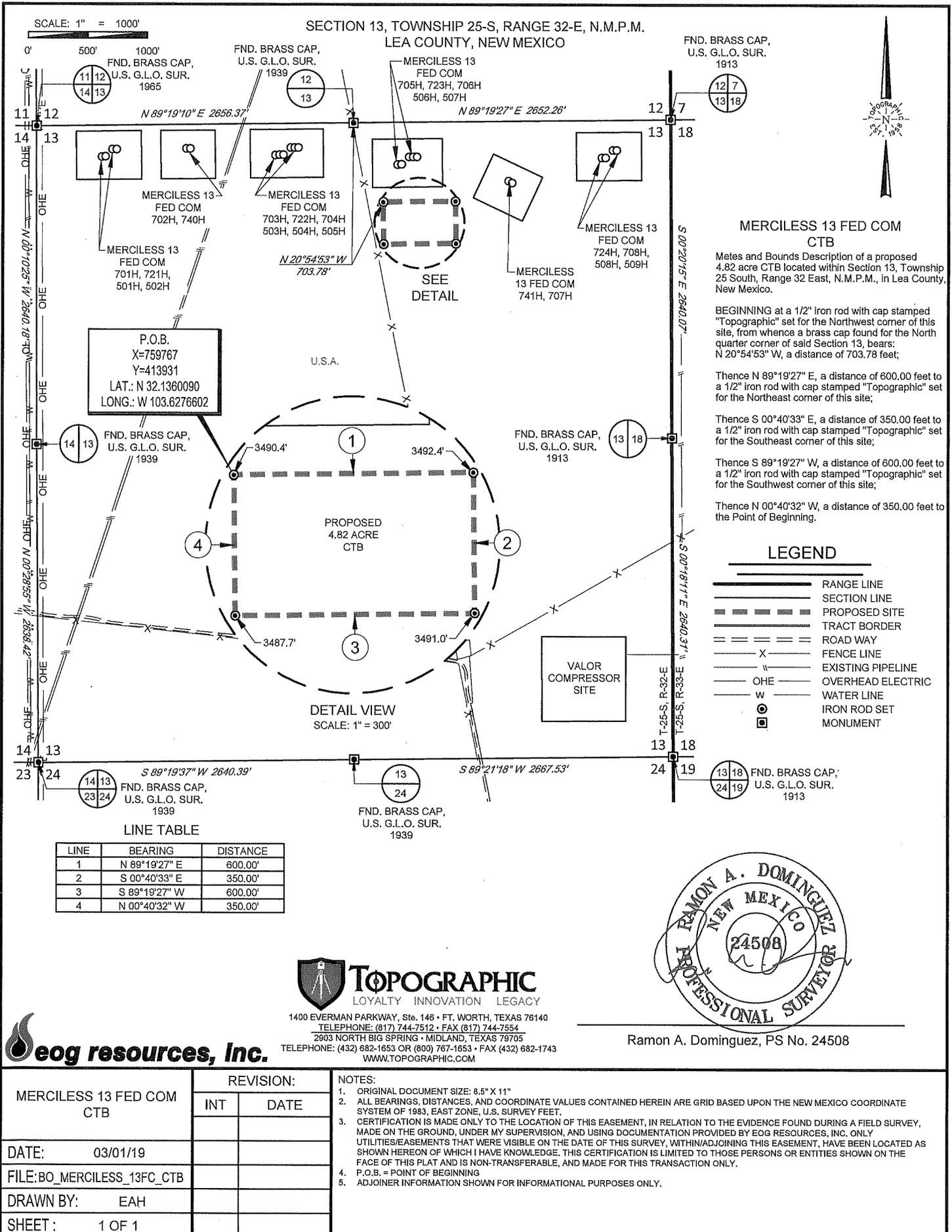
MERCILESS 13 FED COM INFRASTRUCTURE MAP

SCALE: 1" = 1000'
 0' 500' 1000'



MERCILESS 13 FED COM INFRASTRUCTURE MAP	REVISION:	
	INT	DATE
DATE: 10/04/19		
FILE: SK_MERCILESS_13_FED_COM_INFRASTRUCTURE-2		
DRAWN BY: TRG		
SHEET: 1 OF 1		

- LEGEND**
- SURVEY/SECTION LINE
 - PROPOSED PIPELINE
 - GAS PROPOSED GAS LINE
 - LIFT PROPOSED GAS LIFT LINE
 - OHE PROPOSED OVERHEAD ELECTRIC
 - W PROPOSED WATER LINE
 - PROPOSED ROAD
 - OHE EXISTING OVERHEAD ELECTRIC
 - W EXISTING WATER LINE
 - GAS EXISTING GAS LINE
 - MONUMENT FOUND



MERCILESS 13 FED COM CTB

Mets and Bounds Description of a proposed 4.82 acre CTB located within Section 13, Township 25 South, Range 32 East, N.M.P.M., in Lea County, New Mexico.

BEGINNING at a 1/2" iron rod with cap stamped "Topographic" set for the Northwest corner of this site, from whence a brass cap found for the North quarter corner of said Section 13, bears:

N 20°54'53" W, a distance of 703.78 feet;

Thence N 89°19'27" E, a distance of 600.00 feet to a 1/2" iron rod with cap stamped "Topographic" set for the Northeast corner of this site;

Thence S 00°40'33" E, a distance of 350.00 feet to a 1/2" iron rod with cap stamped "Topographic" set for the Southeast corner of this site;

Thence S 89°19'27" W, a distance of 600.00 feet to a 1/2" iron rod with cap stamped "Topographic" set for the Southwest corner of this site;

Thence N 00°40'32" W, a distance of 350.00 feet to the Point of Beginning.

LEGEND

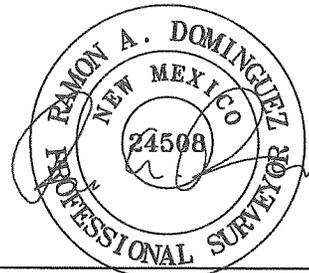
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- SECTION LINE
- PROPOSED SITE
- TRACT BORDER
- ROAD WAY
- FENCE LINE
- EXISTING PIPELINE
- OVERHEAD ELECTRIC
- WATER LINE
- IRON ROD SET
- MONUMENT

LINE TABLE

LINE	BEARING	DISTANCE
1	N 89°19'27" E	600.00'
2	S 00°40'33" E	350.00'
3	S 89°19'27" W	600.00'
4	N 00°40'32" W	350.00'

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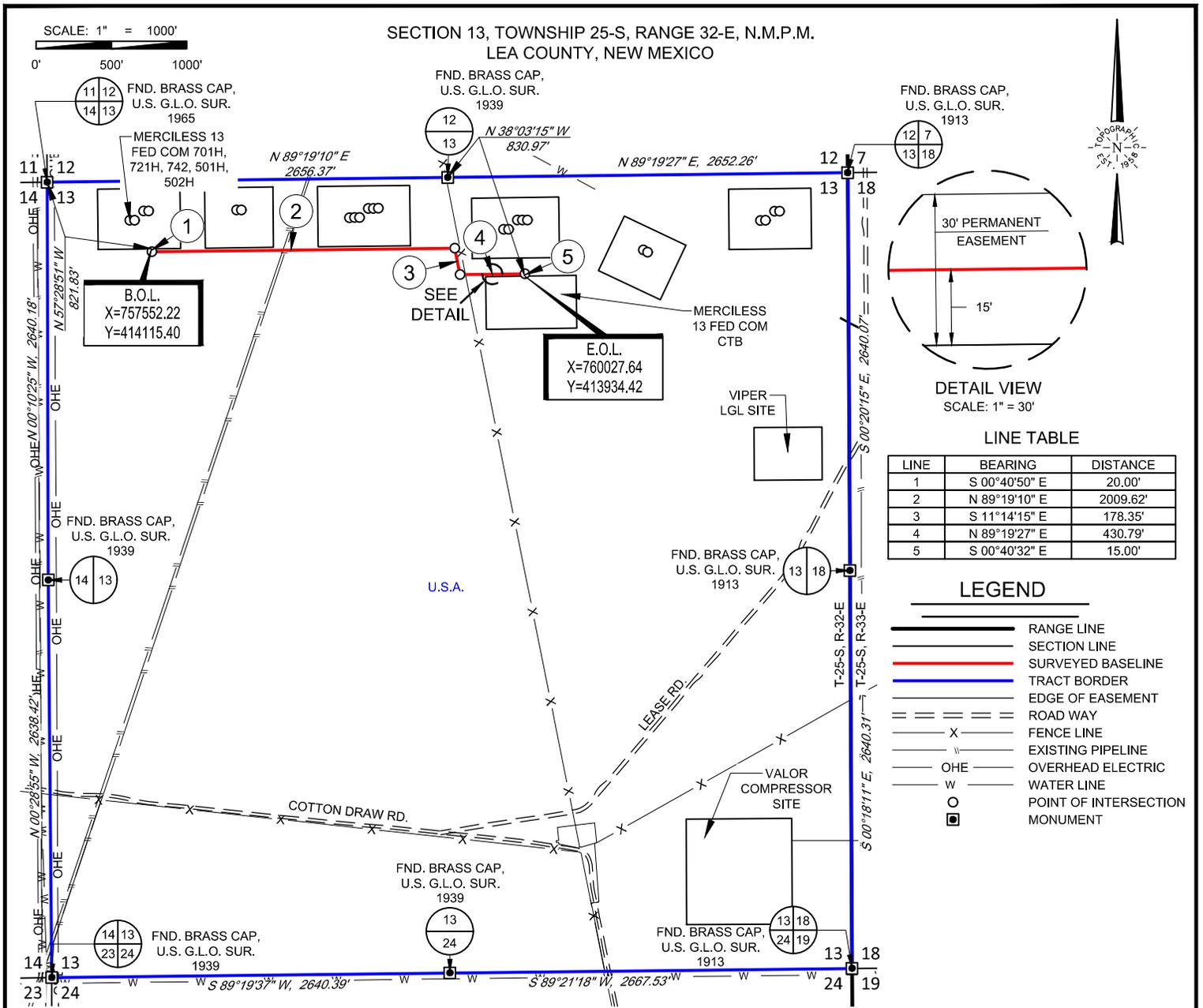
Ramon A. Dominguez, PS No. 24508



MERCILESS 13 FED COM CTB	REVISION:	
	INT	DATE
DATE: 03/01/19		
FILE:BO_MERCILESS_13FC_CTB		
DRAWN BY: EAH		
SHEET: 1 OF 1		

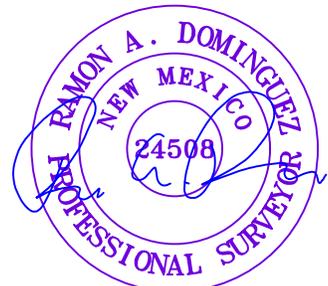
NOTES:

1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
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4. P.O.B. = POINT OF BEGINNING
5. ADJOINER INFORMATION SHOWN FOR INFORMATIONAL PURPOSES ONLY.



MERCILESS 13 FED COM 701H-721H-742H FLOWLINE

Being a proposed flowline easement being 30 feet in width, 15 feet left, and 15 feet right of the above platted centerline total line footage containing 2653.76 feet or 160.83 rods, containing 1.83 acres more or less.



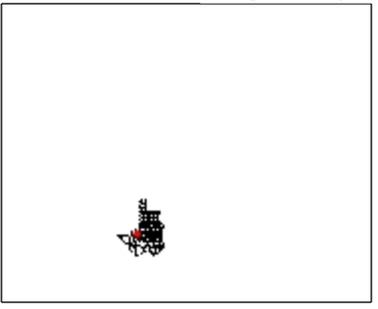
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MERCILESS 13 FED COM 701H-721H-742H FLOWLINE	REVISION:	
	INT	DATE
DATE:	10/01/19	
FILE:	EP_MERCILESS_13FC_701H-721H-742H_FL	
DRAWN BY:	MML	
SHEET :	1 OF 1	

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 4. B.O.L./P.O.B. = BEGINNING OF LINE/POINT OF BEGINNING
 5. E.O.L./P.O.E. = END OF LINE/POINT OF EXIT
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Legend

- Stage Midpoint - MID
- Stage Midpoint - MID



Merciless Water and Caliche

Author:



1: 60,000
 Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

Date: 10/17/2019



Legend

- Stage Midpoint - MID
- Stage Midpoint - MID



1: 60,000
 Projection: WGS_1984_Web_Mercator_Auxiliary_Sphere

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THIS MAP IS NOT TO BE USED FOR NAVIGATION

Date: 10/17/2019

Merciless Water and Caliche

Author:

Exhibit 4
EOG Resources
Merciless 13 Fed Com #742H

Well Site Diagram

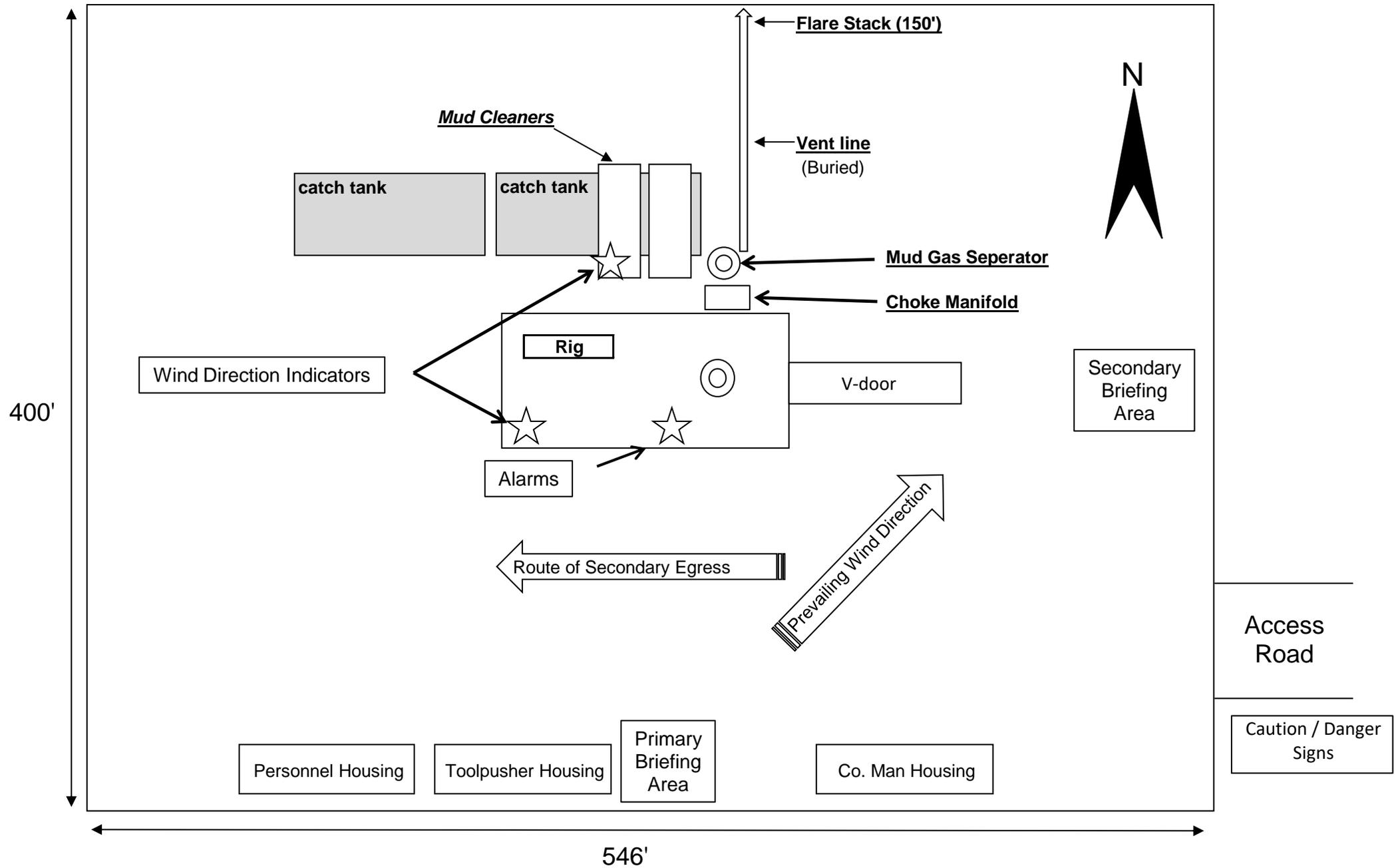


EXHIBIT 2B

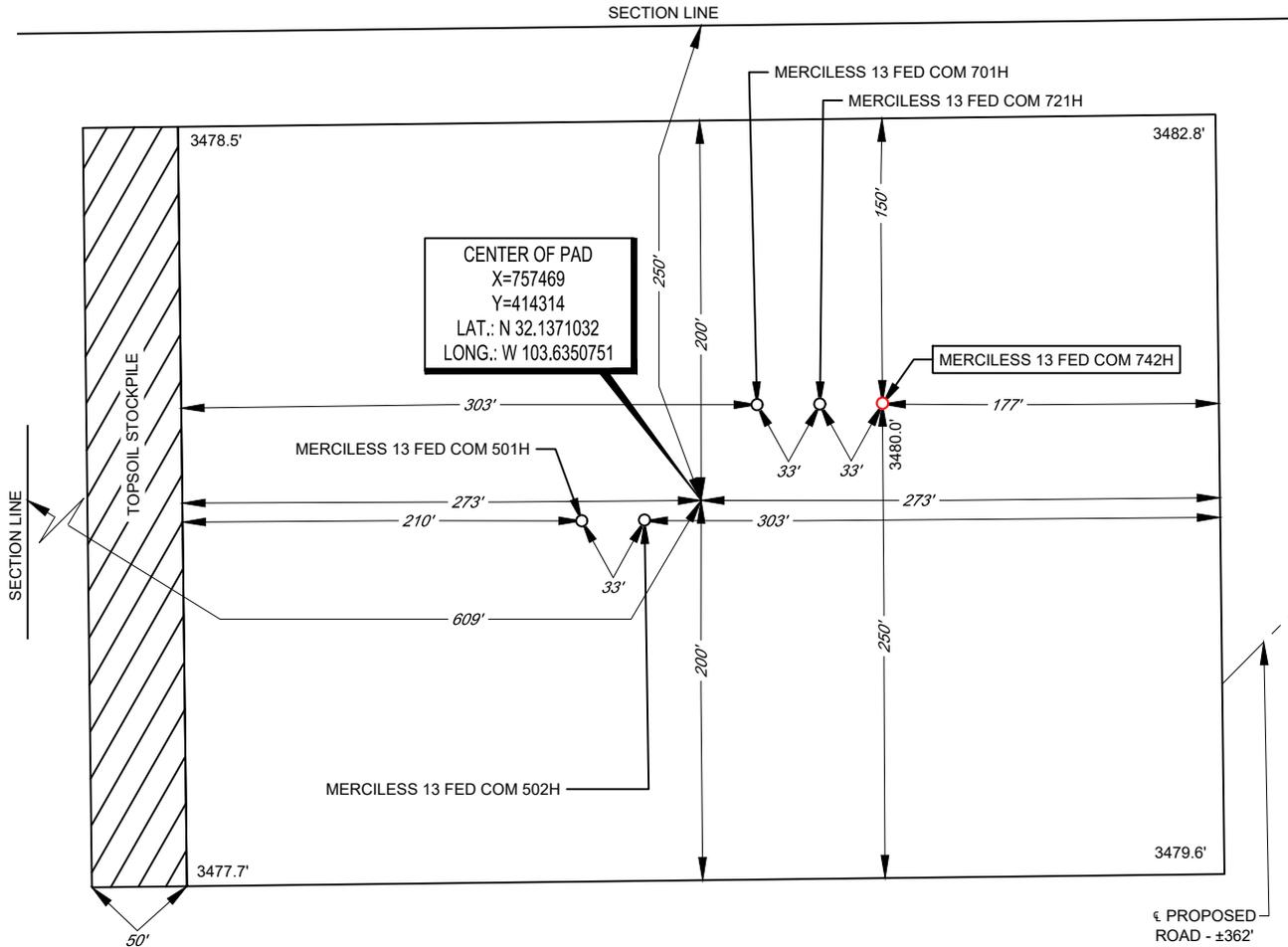


SECTION 13, TOWNSHIP 25-S, RANGE 32-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

LEGEND

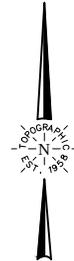
- SECTION LINE
- PROPOSED ROAD

DETAIL VIEW
SCALE: 1" = 100'



LEASE NAME & WELL NO.: _____ MERCILESS 13 FED COM 742H
 742H LATITUDE _____ N 32.1372421 _____ 742H LONGITUDE _____ W 103.6347658

CENTER OF PAD IS 250' FNL & 609' FWL



SCALE: 1" = 100'
 0' 50' 100'

Ramon A. Dominguez, P.S. No. 24508

JUNE 22, 2020

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET. ELEVATIONS USED ARE NAVD88, OBTAINED THROUGH AN OPUS SOLUTION.

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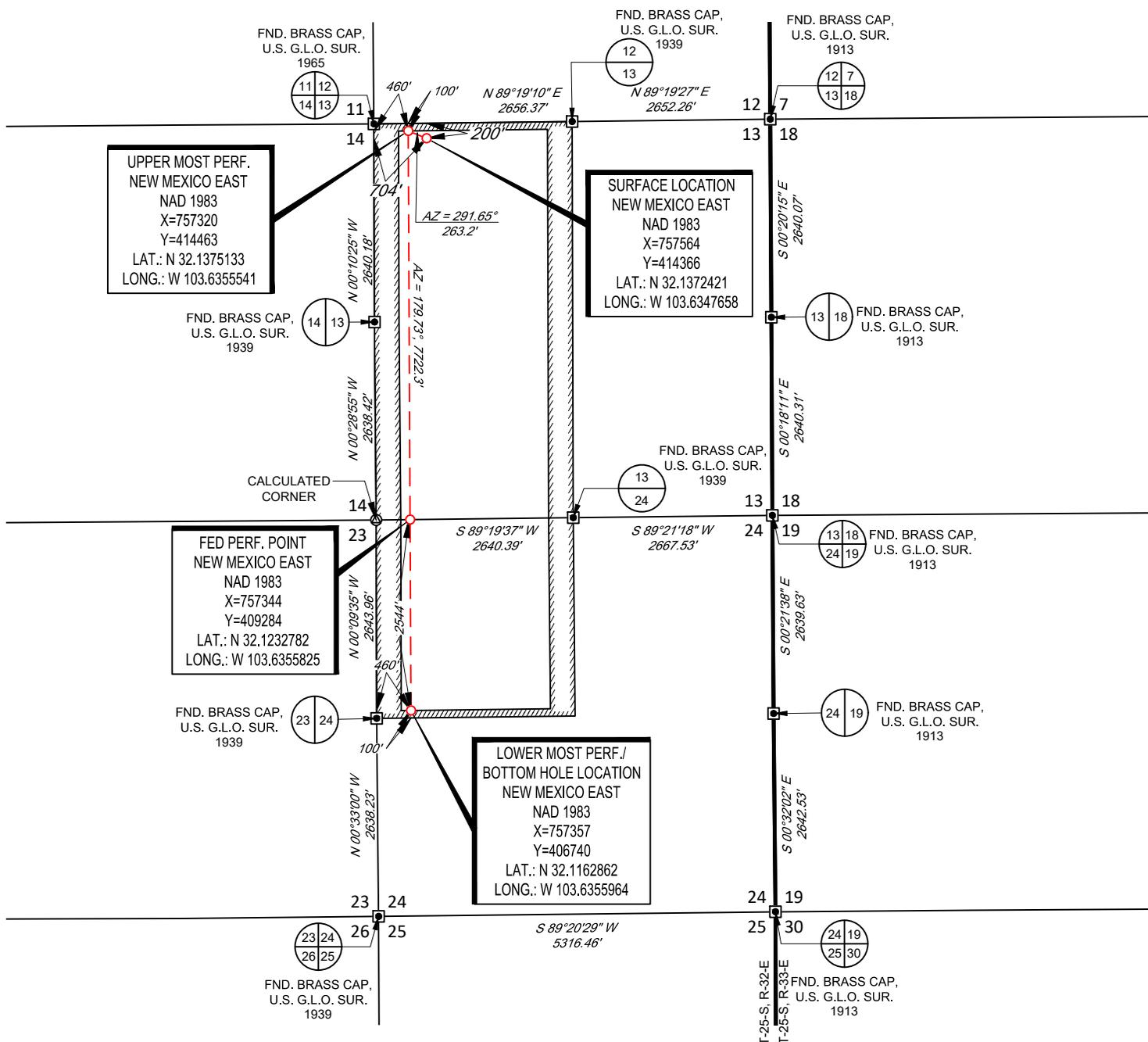
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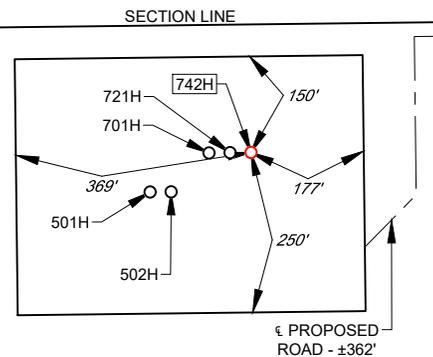


EXHIBIT 2A

SECTION 13, TOWNSHIP 25-S, RANGE 32-E, N.M.P.M. LEA COUNTY, NEW MEXICO



SCALE: 1" = 2000' 0' 1000' 2000'



DETAIL VIEW SCALE: 1" = 300'

LEASE NAME & WELL NO.: MERCILESS 13 FED COM 742H

SECTION 13 TWP 25-S RGE 32-E SURVEY N.M.P.M. COUNTY LEA STATE NM DESCRIPTION 200' FNL & 704' FWL

DISTANCE & DIRECTION FROM INT. OF NM-18 S. & NM-128 W. GO WEST ON NM-128 W ±30.0 MILES, THENCE SOUTH (LEFT) ON ORLA RD./J-2 ±5.7 MILES, THENCE EAST (LEFT) ON COTTON DRAW RD. ±2.7 MILES, THENCE NORTHEAST (LEFT) ON PROPOSED RD. ±0.8MILES, THENCE WEST (LEFT) ON PROPOSED RD. ±0.9 MILES, THENCE SOUTHWEST (LEFT) ON PROPOSED RD. ±362 FEET TO A POINT ±232 FEET SOUTHEAST OF THE LOCATION.



Ramon A. Dominguez, P.S. No. 24508 JUNE 22, 2020



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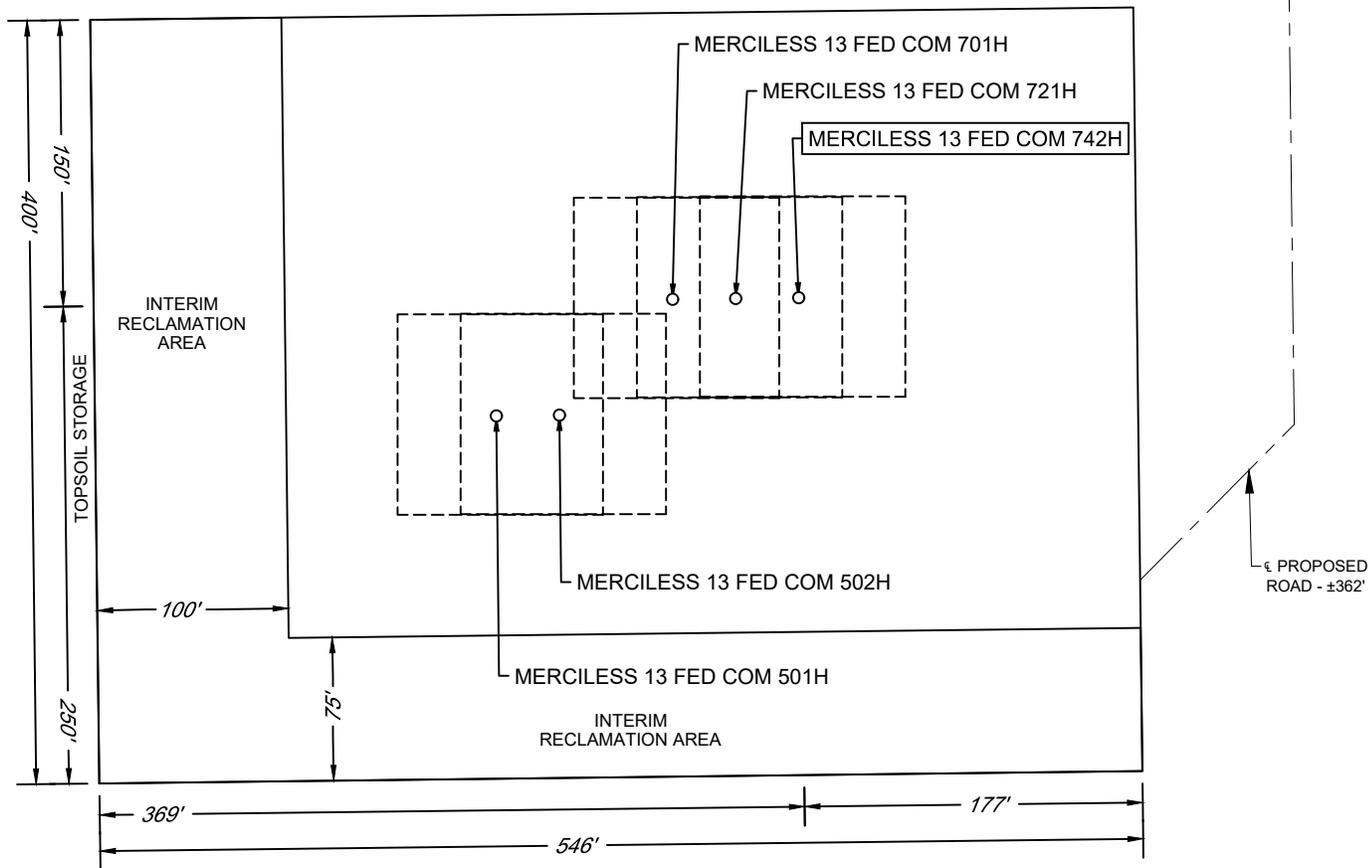
EXHIBIT 2C RECLAMATION AND FACILITY DIAGRAM - PRODUCTION FACILITIES DIAGRAM

SECTION 13, TOWNSHIP 25-S, RANGE 32-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'

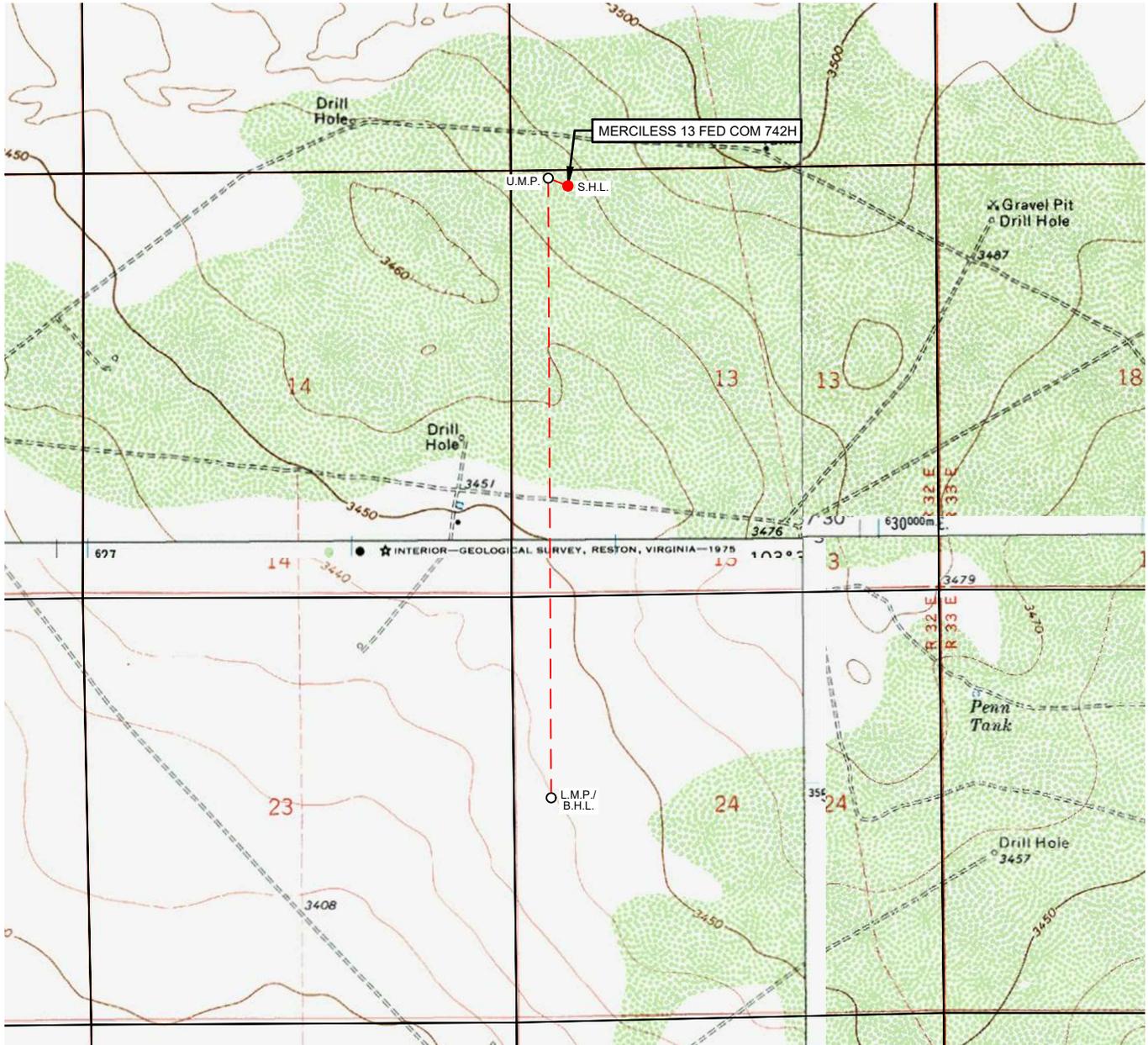


SECTION LINE



LEASE NAME & WELL NO.: MERCILESS 13 FED COM 742H
742H LATITUDE N 32.1372421 742H LONGITUDE W 103.6347658

LOCATION & ELEVATION VERIFICATION MAP



LEASE NAME & WELL NO.: MERCILESS 13 FED COM 742H

SECTION 13 TWP 25-S RGE 32-E SURVEY N.M.P.M.
 COUNTY LEA STATE NM ELEVATION 3480'
 DESCRIPTION 200' FNL & 704' FWL

LATITUDE N 32.1372421 LONGITUDE W 103.6347658



SCALE: 1" = 2000'
 0' 1000' 2000'

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Merciless 13 Fed Com 742H

SHL: 200 FNL & 704 FWL, Section: 13, T.25S., R.32E.
BHL: 2544 FNL & 460 FWL, Section: 24, T.25S., R.32E.

Surface Use Plan of Operations

Introduction

The following surface use plan of operations will be followed and carried out once the APD is approved. No other disturbance will be created other than what was submitted in this surface use plan. If any other surface disturbance is needed after the APD is approved, a BLM approved sundry notice or right of way application will be acquired prior to any new surface disturbance.

Before any surface disturbance is created, stakes or flagging will be installed to mark boundaries of permitted areas of disturbance, including soils storage areas. As necessary, slope, grade, and other construction control stakes will be placed to ensure construction in accordance with the surface use plan. All boundary markers will be maintained in place until final construction cleanup is completed. If disturbance boundary markers are disturbed or knocked down, they will be replaced before construction proceeds.

If terms and conditions are attached to the approved APD and amend any of the proposed actions in this surface use plan, we will adhere to the terms and conditions.

1. Existing Roads

- a. The existing access road route to the proposed project is depicted on Merciless 13 Fed Com 742H_Vicinity. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done, unless otherwise noted in the New or Reconstructed Access Roads section of this surface use plan..
- b. The existing access road route to the proposed project does not cross lease or unit boundaries, so a BLM right-of-way grant will not be acquired for this proposed road route.
- c. The operator will improve or maintain existing roads in a condition the same as or better than before operations begin. The operator will repair pot holes, clear ditches, repair the crown, etc. All existing structures on the entire access route such as cattleguards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use.
- d. We will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or wind events. BLM written approval will be acquired before application of surfactants, binding agents, or other dust suppression chemicals on roadways.

2. New or Reconstructed Access Roads

- a. No new road will be constructed for this project.

3. Location of Existing Wells

- a. Merciless 13 Fed Com 742H_Radius of the APD depicts all known wells within a one mile radius of the proposed well.
- b. There is no other information regarding wells within a one mile radius.

4. Location of Existing and/or Proposed Production Facilities

- a. All permanent, lasting more than 6 months, above ground structures including but not limited to pumpjacks, storage tanks, barrels, pipeline risers, meter housing, etc. that are not subject to safety requirements will be painted a non-reflective paint color, Shale Green, from the BLM Standard Environmental Colors chart, unless another color is required in the APD Conditions of Approval.
- b. If any type of production facilities are located on the well pad, they will be strategically placed to allow for

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maximum interim reclamation, recontouring, and revegetation of the well location.

c. Production from the proposed well will be transported to the production facility located on the Merciless 13 Fed Com 703H. The location of the well is as follows: NW/4 of Section 13.

d. A pipeline to transport production will be installed from the proposed well to the existing production facility.

i. We plan to install a 6 inch buried flex steel pipeline from the proposed well to the offsite production facility. The proposed length of the pipeline will be 2654 feet. The working pressure of the pipeline will be about 1440 psi. A 50 feet wide work area will be needed to install the buried pipeline. In areas where blading is allowed, topsoil will be stockpiled and separated from the excavated trench mineral material. Final reclamation procedures will match the procedures in Plans for Surface Reclamation. When the excavated soil is backfilled, it will be compacted to prevent subsidence. No berm over the pipeline will be evident.

ii. Merciless 13 Fed Com Infrastructure depicts the proposed production pipeline route from the well to the existing production facility.

iii. The proposed pipeline does not cross lease boundaries, so a right of way grant will not need to be acquired from the BLM.

If any plans change regarding the production facility or other infrastructure (pipeline, electric line, etc.), we will submit a sundry notice or right of way (if applicable) prior to installation or construction.

Additional Pipeline(s)

We propose to install 1 additional pipeline(s):

1. Buried gas lift gas pipeline:

a. We plan to install a 6 inch buried flex steel pipeline from proposed well to offsite production facility. The proposed length of the pipeline will be 2654 feet. The working pressure of the pipeline will be about 1440 psi. A 50 feet wide work area will be needed to install the buried pipeline. We will need an extra 10 foot wide area near corners to safely install the pipeline. In areas where blading is allowed, topsoil will be stockpiled and separated from the excavated trench mineral material. Final reclamation procedures will match the procedures in Plans for Surface Reclamation. When the excavated soil is backfilled, it will be compacted to prevent subsidence. No berm over the pipeline will be evident.

b. Merciless 13 Fed Com Infrastructure depicts the proposed gas lift gas pipeline route.

c. The proposed pipeline does not cross lease boundaries, so a right of way grant will not need to be acquired from the BLM.

Electric Line(s)

a. No electric line will be applied for with this APD.

5. Location and Types of Water

a. The source and location of the water supply are as follows: The source and location of the water supply are as follows: This location will be drilled using a combination of water mud systems as outline in the drilling program (i) Water will be obtained from commercial water stations in the area and hauled to location by trucks using existing and proposed roads as depicted on the road map attached (ii) Water may as be supplied from frac ponds and transported to location by temporary above ground surface lines a shown on the map EOG plans to utilize up to five 5 inch polyethylene and or layflat lines for the purpose of transporting freshwater

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Freshwater is defined as containing less than 10,000 mg/l Total Dissolved Solids (TDS) exhibiting no petroleum sheen when standing and not previously used in mechanical processes that expose it to heavy metals or other potential toxins

EOG plans to utilize up to five 12 inch layflat lines for the purpose of transporting treated produced water being defined as the reconditioning of produced water to a reusable form and may include mechanical and chemical processes

Freshwater Sources:

1 EOG Resources, Inc. Ross Gulch Frac Pond located in Section 8, Township 26 S, Range 31 E, Eddy County, New Mexico

2 Texas Pacific Land Trust Frac Pond located in Section 3, Block 56, Township 1, Loving County, Texas

Treated Produced Water Sources:

EOG Resources, Inc. Ross Draw Reuse Pit located in Section 16, Section 8, Township 26 S, Range 31 E, Eddy County, New Mexico

Temporary surface lines would originate from a single water source location or multiple water source locations in the surrounding area of the proposed action and be temporarily laid above ground with minimal disturbance

Temporary surface line(s) shall be laid no more than 10 feet from the edge of the existing disturbance (ie, edge of bar, borrow ditch, road surface or two track road or other man made addition to the landscape) A push off arm or other mechanism will be used All vehicle equipment will remain within the existing disturbance

Map or maps showing the locations of the temporary surface lines will be provided with the APD and will be included in the Environmental Assessment Electronic map file (shape file or KMZ file) shall be submitted with the Environmental Assessment

Merciless 13 Fed Com Water & Caliche Map depicts the proposed route for up to five temporary above ground surface lines and maybe installed on the surface for a time (>180 days) Temporary above ground surface lines shall supplying water for drilling and completions operations.

b. Merciless 13 Fed Com Water & Caliche depicts the proposed route for a 12 inch lay-flat temporary (<90 days) water pipeline supplying water for drilling operations.

6. Construction Material

a. Caliche will be supplied from pits shown on the attached caliche source map.

Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by "Flipping" the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for "Flipping" a well location is as follows:

*

-An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat.

-An area will be used within the proposed well site dimensions to excavate caliche.

Subsoil will be removed and stockpiled within the surveyed well pad dimensions.

-Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions.

-Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available).

-Neither caliche, nor subsoil will be stock piled outside of the well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat.

*

In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit or other

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Merciless 13 Fed Com 742H

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established mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or federal land.

7. Methods for Handling Waste

- a. Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility.
- b. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around the well site will be collected for disposal.
- c. Human waste and grey water will be properly contained and disposed of properly at a state approved disposal facility.
- d. After drilling and completion operations, trash, chemicals, salts, frac sand and other waste material will be removed and disposed of properly at a state approved disposal facility.
- e. The well will be drilled utilizing a closed loop system. Drill cutting will be properly disposed of into steel tanks and taken to an NMOCD approved disposal facility.

8. Ancillary Facilities

- a. No ancillary facilities will be needed for this proposed project.

9. Well Site Layout

- a. The following information is presented in the well site survey plat or diagram:
 - i. reasonable scale (near 1":50')
 - ii. well pad dimensions
 - iii. well pad orientation
 - iv. drilling rig components
 - v. proposed access road
 - vi. elevations of all points
 - vii. topsoil stockpile
 - viii. reserve pit location/dimensions if applicable
 - ix. other disturbances needed (flare pit, stinger, frac farm pad, etc.)
 - x. existing structures within the 600' x 600' archaeological surveyed area (pipelines, electric lines, well pads, etc)
- b. The proposed drilling pad was staked and surveyed by a professional surveyor. The attached survey plat of the well site depicts the drilling pad layout as staked.
- c. A title of a well site diagram is Merciless 13 Fed Com 742H Rig Layout. This diagram depicts the rig layout.
- d. Topsoil Salvaging
 - i. Grass, forbs, and small woody vegetation, such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respread evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of

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the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.

10. Plans for Surface Reclamation

Reclamation Objectives

- i. The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities.
- ii. The long-term objective of final reclamation is to return the land to a condition similar to what existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.
- iii. The BLM will be notified at least 3 days prior to commencement of any reclamation procedures.
- iv. If circumstances allow, interim reclamation and/or final reclamation actions will be completed no later than 6 months from when the final well on the location has been completed or plugged. We will gain written permission from the BLM if more time is needed.
- v. Interim reclamation will be performed on the well site after the well is drilled and completed. Merciless 13 Fed Com 742H_ depicts the location and dimensions of the planned interim reclamation for the well site.

Interim Reclamation Procedures (If performed)

1. Within 30 days of well completion, the well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not required for production.
2. In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
3. The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.
4. Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
5. Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.
6. The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

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Merciless 13 Fed Com 742H

SHL: 200 FNL & 704 FWL, Section: 13, T.25S., R.32E.
BHL: 2544 FNL & 460 FWL, Section: 24, T.25S., R.32E.

Final Reclamation (well pad, buried pipelines, etc.)

1. Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.
2. All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
3. All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.
4. After all the disturbed areas have been properly prepared, the areas will be seeded with the proper BLM seed mixture, free of noxious weeds. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
5. Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding area.
6. All unused equipment and structures including pipelines, electric line poles, tanks, etc. that serviced the well will be removed.
7. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

11. Surface Ownership

- a. The surface ownership of the proposed project is Federal.

12. Other Information

- a. An onsite meeting was conducted 6/18/20.
We plan to use 5, 12-inch lay flat hoses to transport water with an option to use 5, 4-inch poly lines for drilling and frac operations.
We are asking for 2 associated pipelines all depicted on the attached Merciless 13 Fed Com Infrastructure sketch:
One 4-inch buried flex steel gas lift line servicing wells 701H, 721H, & 742H.
One 4-inch buried flex steel production flowline per well.
The produced water, gas sales & electric line are already existing.
The well is planned to be produced using gas lift as the artificial lift method.
Produced water will be transported via pipeline to the EOG produced water gathering system.

13. Maps and Diagrams

- Merciless 13 Fed Com 742H_Vicinity - Existing Road
- Merciless 13 Fed Com 742H_Radius - Wells Within One Mile
- Merciless 13 Fed Com Infrastructure - Production Pipeline
- Merciless 13 Fed Com Infrastructure - gas lift gas Pipeline
- Merciless 13 Fed Com Water & Caliche - Drilling Water Pipeline
- Merciless 13 Fed Com 742H Rig Layout - Well Site Diagram
- Merciless 13 Fed Com 742H_ - Interim Reclamation



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

PWD Data Report

04/26/2021

APD ID: 10400058748

Submission Date: 07/06/2020

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres):

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Injection well name:

Assigned injection well API number?

Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



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

Bond Info Data Report

04/26/2021

APD ID: 10400058748

Submission Date: 07/06/2020

Highlighted data
reflects the most
recent changes

Operator Name: EOG RESOURCES INCORPORATED

Well Name: MERCILESS 13 FED COM

Well Number: 742H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Bond Information

Federal/Indian APD: FED

BLM Bond number:

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

Hydrogen Sulfide Plan Summary

- A. All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:

- Well control equipment
 - a. Flare line 150' from wellhead to be ignited by flare gun.
 - b. Choke manifold with a remotely operated choke.
 - c. Mud/gas separator

- Protective equipment for essential personnel.

Breathing apparatus:

- a. Rescue Packs (SCBA) — 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- b. Work/Escape packs —4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
- c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

Auxiliary Rescue Equipment:

- a. Stretcher
- b. Two OSHA full body harness
- c. 100 ft 5/8 inch OSHA approved rope
- d. 1-20# class ABC fire extinguisher

- H2S detection and monitoring equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.

(Gas sample tubes will be stored in the safety trailer)

- Visual warning systems.
 - a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
 - b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
 - c. Two wind socks will be placed in strategic locations, visible from all angles.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

- **Mud program:**
The mud program has been designed to minimize the volume of H₂S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H₂S bearing zones.

- **Metallurgy:**
All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.

- **Communication:**
Communication will be via cell phones and land lines where available.

**EOG RESOURCES, INC.
MERCILESS 13 FED COM #742H**

Emergency Assistance Telephone List

PUBLIC SAFETY: **911 or**

Lea County Sheriff's Department	(575) 396-3611
Rod Coffman	
Fire Department:	
Carlsbad	(575) 885-3125
Artesia	(575) 746-5050
Hospitals:	
Carlsbad	(575) 887-4121
Artesia	(575) 748-3333
Hobbs	(575) 392-1979
Dept. of Public Safety/Carlsbad	(575) 748-9718
Highway Department	(575) 885-3281
New Mexico Oil Conservation	(575) 476-3440
U.S. Dept. of Labor	(575) 887-1174

EOG Resources, Inc.

EOG / Midland	Office (432) 686-3600
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Company Drilling Consultants:

Jett Dueitt	Cell (432) 230-4840
Blake Burney	

Drilling Engineer

Steve Munsell	Office (432) 686-3609
	Cell (432) 894-1256

Drilling Manager

Aj Dach	Office (432) 686-3751
	Cell (817) 480-1167

Drilling Superintendent

Jason Townsend	Office (432) 848-9209
	Cell (210) 776-5131

H&P Drilling

H&P Drilling	Office (432) 563-5757
H&P 415 Drilling Rig	Rig (432) 230-4840

Tool Pusher:

Johnathan Craig	Cell (817) 760-6374
Brad Garrett	

Safety

Brian Chandler (HSE Manager)	Office (432) 686-3695
	Cell (817) 239-0251

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 25675

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
EOG RESOURCES INC P.O. Box 2267 Midland, TX79702	7377	25675	FORM 3160-3

OCD Reviewer	Condition
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string