

Form 3160-5  
(June 2019)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2021

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No. **NMNM26394**

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well  
 Oil Well     Gas Well     Other

8. Well Name and No.  
**GREEN DRAKE 16 FED COM/405H**

2. Name of Operator **EOG RESOURCES INCORPORATED**

9. API Well No. **30-025-51086**

3a. Address **1111 BAGBY SKY LOBBY 2, HOUSTON, TX 770** 3b. Phone No. (include area code) **(713) 651-7000**

10. Field and Pool or Exploratory Area  
**WC-025 G-09 S253309P; Upper Wolfcamp**

4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)  
**SEC 16/T25S/R33E/NMP**

11. Country or Parish, State  
**LEA/NM**

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

EOG respectfully requests an amendment to our approved APD for this well to reflect the following changes:

Green Drake 16 Fed Com 751H (FKA 405H) API #: 30-025-51086

Change name from Green Drake 16 Fed Com 405H to Green Drake 16 Fed Com 751H.

Change SHL from T-25-S, R-33-E, Sec 16, 2390' FSL, 2189' FWL, LEA Co., NM, to T-25-S, R-33-E, Sec 16, 2331' FSL, 803' FEL, LEA Co., N.M.

Change BHL from T-25-S, R-33-E, Sec 21, 100' FSL, 1580' FWL, LEA Co., NM, to T-25-S, R-33-E, Sec 21, 100' FSL, 2144' FEL, LEA Co., N.M.

Continued on page 3 additional information

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
**STAR HARRELL / Ph: (432) 848-9161**

Title **Regulatory Specialist**

Signature (Electronic Submission) \_\_\_\_\_ Date **10/22/2024**

**THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by **CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved**

Title **Petroleum Engineer** Date **10/23/2024**

Office **CARLSBAD**

Conditions of approval, if any, are attached. Approval of this notice 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.

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.

(Instructions on page 2)

## GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law 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, are either shown below, will be issued by or may be obtained from the local Federal office.

## SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

*Item 13*: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. 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 the 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., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

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

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

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 Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

## Additional Information

### Additional Remarks

Change target formation to Wolfcamp M1.

Update casing and cement program to current design.

Update HSU to 480 acres.

Update the Pool as reflected in the C-102.

### Location of Well

0. SHL: TR K / 2390 FSL / 2189 FWL / TWSP: 25S / RANGE: 33E / SECTION: 16 / LAT: 32.1298941 / LONG: -103.5786857 ( TVD: 0 feet, MD: 0 feet )

PPP: TR K / 2540 FSL / 1580 FWL / TWSP: 25S / RANGE: 33E / SECTION: 16 / LAT: 32.1303104 / LONG: -103.5806524 ( TVD: 10237 feet, MD: 10272 feet )

BHL: TR N / 100 FSL / 1580 FWL / TWSP: 25S / RANGE: 33E / SECTION: 21 / LAT: 32.109083 / LONG: -103.5806659 ( TVD: 10502 feet, MD: 18097 feet )

<b>C-102</b> Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department <b>OIL CONSERVATION DIVISION</b>		Revised July 9, 2024	
	Submittal Type:	<input type="checkbox"/> Initial Submittal		
		<input checked="" type="checkbox"/> Amended Report		
			<input type="checkbox"/> As Drilled	

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number <b>30-025-51086</b>	Pool Code <b>98180</b>	Pool Name <b>WC-025 G-09 S253309P; Upper Wolfcamp</b>
Property Code <b>328329</b>	Property Name <b>GREEN DRAKE 16 FED COM</b>	Well Number <b>751H</b>
OGRID No. <b>7377</b>	Operator Name <b>EOG RESOURCES, INC.</b>	Ground Level Elevation <b>3385'</b>
Surface Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

**Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
I	16	25-S	33-E	-	2331' S	803' E	N 32.1297154	W 103.5713740	LEA

**Bottom Hole Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
O	21	25-S	33-E	-	100' S	2144' E	N 32.1090726	W 103.5757160	LEA

Dedicated Acres <b>480.00</b>	Infill or Defining Well <b>INFILL</b>	Defining Well API <b>30-025-47179</b>	Overlapping Spacing Unit (Y/N) <b>Y</b>	Consolidated Code <b>C</b>
Order Numbers <b>NMNM139915</b>			Well Setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No	

**Kick Off Point (KOP)**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
J	16	25-S	33-E	-	2590' S	2144' E	N 32.1304382	W 103.5757059	LEA

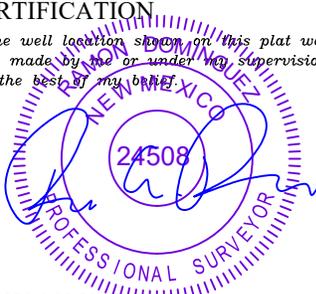
**First Take Point (FTP)**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
J	16	25-S	33-E	-	2540' S	2144' E	N 32.1303007	W 103.5757060	LEA

**Last Take Point (LTP)**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
O	21	25-S	33-E	-	100' S	2144' E	N 32.1090726	W 103.5757160	LEA

Unitized Area or Area of Uniform Intrest <b>COMM AGREEMENT</b>	Spacing Unity Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation <b>3410'</b>
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<b>OPERATOR CERTIFICATION</b> <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i>  <i>If this well is a horizontal well, I further certify that this organization has received The consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i>		<b>SURVEYORS CERTIFICATION</b> <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i>	
 Signature		 Signature and Seal of Professional Surveyor	
<b>10/22/24</b> Date		<b>9/18/2024 4:39:23 PM</b> Date	
<b>Star L Harrell</b> Print Name		<b>24508</b> Certificate Number	
<b>star_harrell@eogresources.com</b> E-mail Address		<b>08/29/2024</b> Date of Survey	

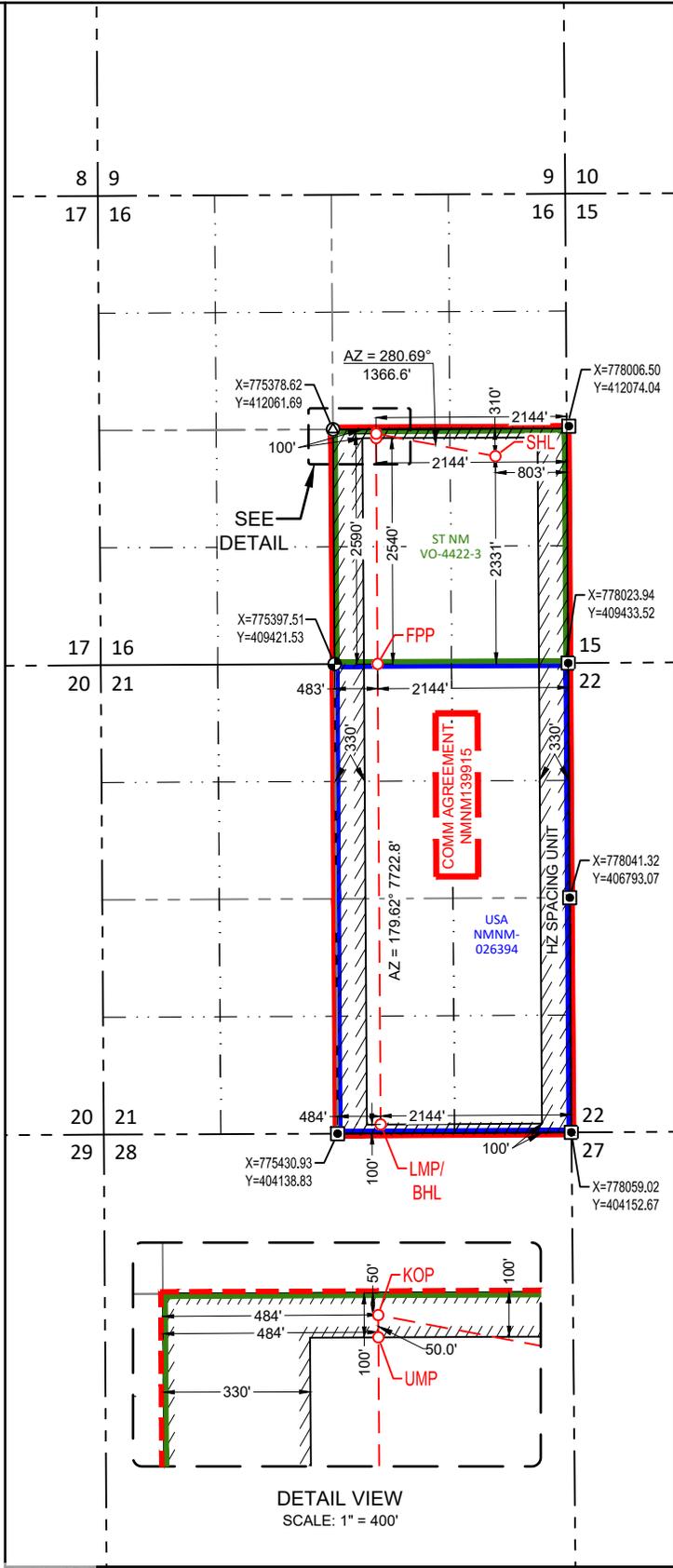
S:\SURVEY\EGO\_MLN\AND\GREEN\_DRAKE\_UL\_FED\_COM\FINAL\_PRODUCT\EGO\_GREEN\_DRAKE\_UL\_FED\_COM\_7/11/24.MXD SAMANTHA ROGERS 9/18/2024 4:39 PM

<b>C-102</b>  Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department <b>OIL CONSERVATION DIVISION</b>	Revised July 9, 2024
Property Name and Well Number  <div style="text-align: center; font-weight: bold; font-size: 1.2em;">GREEN DRAKE 16 FED COM 751H</div>		Submittal Type: <input type="checkbox"/> Initial Submittal <input checked="" type="checkbox"/> Amended Report <input type="checkbox"/> As Drilled

**SURFACE LOCATION (SHL)**  
 NEW MEXICO EAST  
 NAD 1983  
 X=777206 Y=411760  
 LAT.: N 32.1297154  
 LONG.: W 103.5713740  
 NAD 1927  
 X=736020 Y=411703  
 LAT.: N 32.1295909  
 LONG.: W 103.5709016  
 2331' FSL 803' FEL

**KICK OFF POINT (KOP)**  
 NEW MEXICO EAST  
 NAD 1983  
 X=775863 Y=412014  
 LAT.: N 32.1304382  
 LONG.: W 103.5757059  
 NAD 1927  
 X=734677 Y=411956  
 LAT.: N 32.1303136  
 LONG.: W 103.5752333  
 2590' FSL 2144' FEL

**UPPER MOST PERF. (UMP)**  
 NEW MEXICO EAST  
 NAD 1983  
 X=775863 Y=411964  
 LAT.: N 32.1303007  
 LONG.: W 103.5757060  
 NAD 1927  
 X=734677 Y=411906  
 LAT.: N 32.1301762  
 LONG.: W 103.5752334  
 2540' FSL 2144' FEL



**FED PERF. POINT (FPP)**  
 NEW MEXICO EAST  
 NAD 1983  
 X=775880 Y=409424  
 LAT.: N 32.1233181  
 LONG.: W 103.5757093  
 NAD 1927  
 X=734694 Y=409366  
 LAT.: N 32.1231935  
 LONG.: W 103.5752371  
 0' FSL 2144' FEL

**LOWER MOST PERF. (LMP) BOTTOM HOLE LOCATION (BHL)**  
 NEW MEXICO EAST  
 NAD 1983  
 X=775914 Y=404241  
 LAT.: N 32.1090726  
 LONG.: W 103.5757160  
 NAD 1927  
 X=734728 Y=404184  
 LAT.: N 32.1089479  
 LONG.: W 103.5752447  
 100' FSL 2144' FEL

**SURVEYORS CERTIFICATION**  
 I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  
 08/29/2024  
 Date of Survey  
 Signature and Seal of Professional Surveyor:

RAMON DOMINGUEZ  
 NEW MEXICO  
 24508  
 PROFESSIONAL SURVEYOR



## Midland

Lea County, NM (NAD 83 NME)  
Green Drake 16 Fed Com  
#751H

OH

Plan: Plan #0.2

## Standard Planning Report

24 September, 2024



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #751H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb 26 @ 3411.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb 26 @ 3411.0usft
<b>Site:</b>	Green Drake 16 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#751H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

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

<b>Site</b>	Green Drake 16 Fed Com				
<b>Site Position:</b>		<b>Northing:</b>	411,802.00 usft	<b>Latitude:</b>	32° 7' 47.652 N
<b>From:</b>	Map	<b>Easting:</b>	773,380.00 usft	<b>Longitude:</b>	103° 35' 1.431 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "		

<b>Well</b>	#751H					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	411,760.00 usft	<b>Latitude:</b>	32° 7' 46.971 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	777,206.00 usft	<b>Longitude:</b>	103° 34' 16.943 W
<b>Position Uncertainty</b>	0.0 usft		<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	3,385.0 usft
<b>Grid Convergence:</b>	0.41 °					

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	7/13/2022	6.41	59.78	47,326.26494279

<b>Design</b>	Plan #0.2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	189.75

<b>Plan Survey Tool Program</b>	<b>Date</b>	9/24/2024		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.0	20,864.2 Plan #0.2 (OH)	EOG MWD+IFR1 MWD + IFR1	



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #751H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb 26 @ 3411.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb 26 @ 3411.0usft
<b>Site:</b>	Green Drake 16 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#751H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

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	
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,840.0	10.80	280.71	1,836.8	9.4	-49.9	2.00	2.00	0.00	280.71	
8,593.0	10.80	280.71	8,470.2	244.6	-1,293.1	0.00	0.00	0.00	0.00	
9,133.0	0.00	0.00	9,007.0	254.0	-1,343.0	2.00	-2.00	0.00	180.00	
12,818.5	0.00	0.00	12,692.5	254.0	-1,343.0	0.00	0.00	0.00	0.00	0.00 KOP(Green Drake 16
13,038.9	26.46	180.00	12,905.2	204.0	-1,343.0	12.00	12.00	81.65	180.00	FTP(Green Drake 16
13,568.5	90.00	179.60	13,169.9	-223.4	-1,340.9	12.00	12.00	-0.08	-0.45	
15,681.1	90.00	179.60	13,170.0	-2,336.0	-1,326.0	0.00	0.00	0.00	0.00	0.00 Fed Perf 1(Green Dra
20,864.2	90.00	179.65	13,170.0	-7,519.0	-1,292.0	0.00	0.00	0.00	87.03	PBHL(Green Drake 16



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #751H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb 26 @ 3411.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb 26 @ 3411.0usft
<b>Site:</b>	Green Drake 16 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#751H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

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
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	2.00	280.71	1,400.0	0.3	-1.7	0.0	2.00	2.00	0.00
1,500.0	4.00	280.71	1,499.8	1.3	-6.9	-0.1	2.00	2.00	0.00
1,600.0	6.00	280.71	1,599.5	2.9	-15.4	-0.3	2.00	2.00	0.00
1,700.0	8.00	280.71	1,698.7	5.2	-27.4	-0.5	2.00	2.00	0.00
1,800.0	10.00	280.71	1,797.5	8.1	-42.8	-0.7	2.00	2.00	0.00
1,840.0	10.80	280.71	1,836.8	9.4	-49.9	-0.8	2.00	2.00	0.00
1,900.0	10.80	280.71	1,895.7	11.5	-60.9	-1.0	0.00	0.00	0.00
2,000.0	10.80	280.71	1,994.0	15.0	-79.3	-1.4	0.00	0.00	0.00
2,100.0	10.80	280.71	2,092.2	18.5	-97.7	-1.7	0.00	0.00	0.00
2,200.0	10.80	280.71	2,190.4	22.0	-116.1	-2.0	0.00	0.00	0.00
2,300.0	10.80	280.71	2,288.7	25.4	-134.5	-2.3	0.00	0.00	0.00
2,400.0	10.80	280.71	2,386.9	28.9	-153.0	-2.6	0.00	0.00	0.00
2,500.0	10.80	280.71	2,485.1	32.4	-171.4	-2.9	0.00	0.00	0.00
2,600.0	10.80	280.71	2,583.3	35.9	-189.8	-3.2	0.00	0.00	0.00
2,700.0	10.80	280.71	2,681.6	39.4	-208.2	-3.5	0.00	0.00	0.00
2,800.0	10.80	280.71	2,779.8	42.9	-226.6	-3.9	0.00	0.00	0.00
2,900.0	10.80	280.71	2,878.0	46.3	-245.0	-4.2	0.00	0.00	0.00
3,000.0	10.80	280.71	2,976.3	49.8	-263.4	-4.5	0.00	0.00	0.00
3,100.0	10.80	280.71	3,074.5	53.3	-281.8	-4.8	0.00	0.00	0.00
3,200.0	10.80	280.71	3,172.7	56.8	-300.2	-5.1	0.00	0.00	0.00
3,300.0	10.80	280.71	3,270.9	60.3	-318.7	-5.4	0.00	0.00	0.00
3,400.0	10.80	280.71	3,369.2	63.7	-337.1	-5.7	0.00	0.00	0.00
3,500.0	10.80	280.71	3,467.4	67.2	-355.5	-6.1	0.00	0.00	0.00
3,600.0	10.80	280.71	3,565.6	70.7	-373.9	-6.4	0.00	0.00	0.00
3,700.0	10.80	280.71	3,663.9	74.2	-392.3	-6.7	0.00	0.00	0.00
3,800.0	10.80	280.71	3,762.1	77.7	-410.7	-7.0	0.00	0.00	0.00
3,900.0	10.80	280.71	3,860.3	81.2	-429.1	-7.3	0.00	0.00	0.00
4,000.0	10.80	280.71	3,958.6	84.6	-447.5	-7.6	0.00	0.00	0.00
4,100.0	10.80	280.71	4,056.8	88.1	-465.9	-7.9	0.00	0.00	0.00
4,200.0	10.80	280.71	4,155.0	91.6	-484.4	-8.3	0.00	0.00	0.00
4,300.0	10.80	280.71	4,253.2	95.1	-502.8	-8.6	0.00	0.00	0.00
4,400.0	10.80	280.71	4,351.5	98.6	-521.2	-8.9	0.00	0.00	0.00
4,500.0	10.80	280.71	4,449.7	102.1	-539.6	-9.2	0.00	0.00	0.00
4,600.0	10.80	280.71	4,547.9	105.5	-558.0	-9.5	0.00	0.00	0.00
4,700.0	10.80	280.71	4,646.2	109.0	-576.4	-9.8	0.00	0.00	0.00
4,800.0	10.80	280.71	4,744.4	112.5	-594.8	-10.1	0.00	0.00	0.00
4,900.0	10.80	280.71	4,842.6	116.0	-613.2	-10.5	0.00	0.00	0.00
5,000.0	10.80	280.71	4,940.8	119.5	-631.6	-10.8	0.00	0.00	0.00
5,100.0	10.80	280.71	5,039.1	122.9	-650.1	-11.1	0.00	0.00	0.00
5,200.0	10.80	280.71	5,137.3	126.4	-668.5	-11.4	0.00	0.00	0.00



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #751H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb 26 @ 3411.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb 26 @ 3411.0usft
<b>Site:</b>	Green Drake 16 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#751H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

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	10.80	280.71	5,235.5	129.9	-686.9	-11.7	0.00	0.00	0.00	
5,400.0	10.80	280.71	5,333.8	133.4	-705.3	-12.0	0.00	0.00	0.00	
5,500.0	10.80	280.71	5,432.0	136.9	-723.7	-12.3	0.00	0.00	0.00	
5,600.0	10.80	280.71	5,530.2	140.4	-742.1	-12.7	0.00	0.00	0.00	
5,700.0	10.80	280.71	5,628.4	143.8	-760.5	-13.0	0.00	0.00	0.00	
5,800.0	10.80	280.71	5,726.7	147.3	-778.9	-13.3	0.00	0.00	0.00	
5,900.0	10.80	280.71	5,824.9	150.8	-797.3	-13.6	0.00	0.00	0.00	
6,000.0	10.80	280.71	5,923.1	154.3	-815.8	-13.9	0.00	0.00	0.00	
6,100.0	10.80	280.71	6,021.4	157.8	-834.2	-14.2	0.00	0.00	0.00	
6,200.0	10.80	280.71	6,119.6	161.2	-852.6	-14.5	0.00	0.00	0.00	
6,300.0	10.80	280.71	6,217.8	164.7	-871.0	-14.8	0.00	0.00	0.00	
6,400.0	10.80	280.71	6,316.0	168.2	-889.4	-15.2	0.00	0.00	0.00	
6,500.0	10.80	280.71	6,414.3	171.7	-907.8	-15.5	0.00	0.00	0.00	
6,600.0	10.80	280.71	6,512.5	175.2	-926.2	-15.8	0.00	0.00	0.00	
6,700.0	10.80	280.71	6,610.7	178.7	-944.6	-16.1	0.00	0.00	0.00	
6,800.0	10.80	280.71	6,709.0	182.1	-963.0	-16.4	0.00	0.00	0.00	
6,900.0	10.80	280.71	6,807.2	185.6	-981.4	-16.7	0.00	0.00	0.00	
7,000.0	10.80	280.71	6,905.4	189.1	-999.9	-17.0	0.00	0.00	0.00	
7,100.0	10.80	280.71	7,003.6	192.6	-1,018.3	-17.4	0.00	0.00	0.00	
7,200.0	10.80	280.71	7,101.9	196.1	-1,036.7	-17.7	0.00	0.00	0.00	
7,300.0	10.80	280.71	7,200.1	199.5	-1,055.1	-18.0	0.00	0.00	0.00	
7,400.0	10.80	280.71	7,298.3	203.0	-1,073.5	-18.3	0.00	0.00	0.00	
7,500.0	10.80	280.71	7,396.6	206.5	-1,091.9	-18.6	0.00	0.00	0.00	
7,600.0	10.80	280.71	7,494.8	210.0	-1,110.3	-18.9	0.00	0.00	0.00	
7,700.0	10.80	280.71	7,593.0	213.5	-1,128.7	-19.2	0.00	0.00	0.00	
7,800.0	10.80	280.71	7,691.3	217.0	-1,147.1	-19.6	0.00	0.00	0.00	
7,900.0	10.80	280.71	7,789.5	220.4	-1,165.6	-19.9	0.00	0.00	0.00	
8,000.0	10.80	280.71	7,887.7	223.9	-1,184.0	-20.2	0.00	0.00	0.00	
8,100.0	10.80	280.71	7,985.9	227.4	-1,202.4	-20.5	0.00	0.00	0.00	
8,200.0	10.80	280.71	8,084.2	230.9	-1,220.8	-20.8	0.00	0.00	0.00	
8,300.0	10.80	280.71	8,182.4	234.4	-1,239.2	-21.1	0.00	0.00	0.00	
8,400.0	10.80	280.71	8,280.6	237.9	-1,257.6	-21.4	0.00	0.00	0.00	
8,500.0	10.80	280.71	8,378.9	241.3	-1,276.0	-21.8	0.00	0.00	0.00	
8,593.0	10.80	280.71	8,470.2	244.6	-1,293.1	-22.0	0.00	0.00	0.00	
8,600.0	10.66	280.71	8,477.1	244.8	-1,294.4	-22.1	2.00	-2.00	0.00	
8,700.0	8.66	280.71	8,575.7	247.9	-1,310.9	-22.3	2.00	-2.00	0.00	
8,800.0	6.66	280.71	8,674.8	250.4	-1,324.0	-22.6	2.00	-2.00	0.00	
8,900.0	4.66	280.71	8,774.3	252.2	-1,333.7	-22.7	2.00	-2.00	0.00	
9,000.0	2.66	280.71	8,874.1	253.4	-1,340.0	-22.8	2.00	-2.00	0.00	
9,100.0	0.66	280.71	8,974.0	254.0	-1,342.8	-22.9	2.00	-2.00	0.00	
9,133.0	0.00	0.00	9,007.0	254.0	-1,343.0	-22.9	2.00	-2.00	0.00	
9,200.0	0.00	0.00	9,074.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,174.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,274.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,374.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,474.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,574.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,674.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,774.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
10,000.0	0.00	0.00	9,874.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
10,100.0	0.00	0.00	9,974.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,074.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
10,300.0	0.00	0.00	10,174.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,274.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #751H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb 26 @ 3411.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb 26 @ 3411.0usft
<b>Site:</b>	Green Drake 16 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#751H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

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)	
10,500.0	0.00	0.00	10,374.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
10,600.0	0.00	0.00	10,474.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
10,700.0	0.00	0.00	10,574.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
10,800.0	0.00	0.00	10,674.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
10,900.0	0.00	0.00	10,774.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
11,000.0	0.00	0.00	10,874.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
11,100.0	0.00	0.00	10,974.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
11,200.0	0.00	0.00	11,074.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
11,300.0	0.00	0.00	11,174.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
11,400.0	0.00	0.00	11,274.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
11,500.0	0.00	0.00	11,374.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
11,600.0	0.00	0.00	11,474.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
11,700.0	0.00	0.00	11,574.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
11,800.0	0.00	0.00	11,674.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
11,900.0	0.00	0.00	11,774.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
12,000.0	0.00	0.00	11,874.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
12,100.0	0.00	0.00	11,974.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
12,200.0	0.00	0.00	12,074.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
12,300.0	0.00	0.00	12,174.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
12,400.0	0.00	0.00	12,274.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
12,500.0	0.00	0.00	12,374.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
12,600.0	0.00	0.00	12,474.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
12,700.0	0.00	0.00	12,574.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
12,800.0	0.00	0.00	12,674.0	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
12,818.5	0.00	0.00	12,692.5	254.0	-1,343.0	-22.9	0.00	0.00	0.00	
12,825.0	0.78	180.00	12,699.0	254.0	-1,343.0	-22.9	12.00	12.00	0.00	
12,850.0	3.78	180.00	12,724.0	253.0	-1,343.0	-21.9	12.00	12.00	0.00	
12,875.0	6.78	180.00	12,748.9	250.7	-1,343.0	-19.6	12.00	12.00	0.00	
12,900.0	9.78	180.00	12,773.6	247.1	-1,343.0	-16.1	12.00	12.00	0.00	
12,925.0	12.78	180.00	12,798.1	242.2	-1,343.0	-11.2	12.00	12.00	0.00	
12,950.0	15.78	180.00	12,822.4	236.0	-1,343.0	-5.2	12.00	12.00	0.00	
12,975.0	18.78	180.00	12,846.2	228.6	-1,343.0	2.2	12.00	12.00	0.00	
13,000.0	21.78	180.00	12,869.7	219.9	-1,343.0	10.7	12.00	12.00	0.00	
13,025.0	24.78	180.00	12,892.6	210.0	-1,343.0	20.4	12.00	12.00	0.00	
13,038.9	26.46	180.00	12,905.2	204.0	-1,343.0	26.4	12.00	12.00	0.00	
13,050.0	27.78	179.98	12,915.0	199.0	-1,343.0	31.4	12.00	12.00	-0.20	
13,075.0	30.78	179.93	12,936.8	186.7	-1,343.0	43.4	12.00	12.00	-0.18	
13,100.0	33.78	179.90	12,958.0	173.4	-1,343.0	56.6	12.00	12.00	-0.15	
13,125.0	36.78	179.86	12,978.4	158.9	-1,342.9	70.8	12.00	12.00	-0.13	
13,150.0	39.78	179.84	12,998.0	143.5	-1,342.9	86.0	12.00	12.00	-0.11	
13,175.0	42.78	179.81	13,016.8	127.0	-1,342.8	102.3	12.00	12.00	-0.10	
13,200.0	45.78	179.79	13,034.7	109.5	-1,342.8	119.5	12.00	12.00	-0.09	
13,225.0	48.78	179.77	13,051.6	91.1	-1,342.7	137.6	12.00	12.00	-0.08	
13,250.0	51.78	179.75	13,067.6	71.9	-1,342.6	156.5	12.00	12.00	-0.07	
13,275.0	54.78	179.74	13,082.6	51.9	-1,342.5	176.2	12.00	12.00	-0.07	
13,300.0	57.78	179.72	13,096.4	31.1	-1,342.5	196.7	12.00	12.00	-0.06	
13,325.0	60.78	179.71	13,109.2	9.6	-1,342.3	217.9	12.00	12.00	-0.06	
13,350.0	63.78	179.69	13,120.8	-12.5	-1,342.2	239.7	12.00	12.00	-0.05	
13,375.0	66.78	179.68	13,131.3	-35.2	-1,342.1	262.0	12.00	12.00	-0.05	
13,400.0	69.78	179.67	13,140.5	-58.5	-1,342.0	284.9	12.00	12.00	-0.05	
13,425.0	72.78	179.66	13,148.6	-82.1	-1,341.8	308.2	12.00	12.00	-0.05	
13,450.0	75.78	179.65	13,155.3	-106.2	-1,341.7	331.9	12.00	12.00	-0.05	
13,475.0	78.78	179.64	13,160.8	-130.6	-1,341.5	355.9	12.00	12.00	-0.04	
13,500.0	81.78	179.62	13,165.0	-155.2	-1,341.4	380.1	12.00	12.00	-0.04	



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #751H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb 26 @ 3411.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb 26 @ 3411.0usft
<b>Site:</b>	Green Drake 16 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#751H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

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)	
13,525.0	84.78	179.61	13,168.0	-180.1	-1,341.2	404.6	12.00	12.00	-0.04	
13,550.0	87.78	179.60	13,169.6	-205.0	-1,341.0	429.1	12.00	12.00	-0.04	
13,568.5	90.00	179.60	13,169.9	-223.4	-1,340.9	447.3	12.00	12.00	-0.04	
13,600.0	90.00	179.60	13,169.9	-255.0	-1,340.7	478.4	0.00	0.00	0.00	
13,700.0	90.00	179.60	13,169.9	-355.0	-1,340.0	576.8	0.00	0.00	0.00	
13,800.0	90.00	179.60	13,170.0	-455.0	-1,339.3	675.2	0.00	0.00	0.00	
13,900.0	90.00	179.60	13,170.0	-555.0	-1,338.6	773.7	0.00	0.00	0.00	
14,000.0	90.00	179.60	13,170.0	-655.0	-1,337.9	872.1	0.00	0.00	0.00	
14,100.0	90.00	179.60	13,170.0	-755.0	-1,337.2	970.5	0.00	0.00	0.00	
14,200.0	90.00	179.60	13,170.0	-855.0	-1,336.5	1,069.0	0.00	0.00	0.00	
14,300.0	90.00	179.60	13,170.0	-955.0	-1,335.7	1,167.4	0.00	0.00	0.00	
14,400.0	90.00	179.60	13,170.0	-1,055.0	-1,335.0	1,265.8	0.00	0.00	0.00	
14,500.0	90.00	179.60	13,170.0	-1,155.0	-1,334.3	1,364.3	0.00	0.00	0.00	
14,600.0	90.00	179.60	13,170.0	-1,255.0	-1,333.6	1,462.7	0.00	0.00	0.00	
14,700.0	90.00	179.60	13,170.0	-1,355.0	-1,332.9	1,561.1	0.00	0.00	0.00	
14,800.0	90.00	179.60	13,170.0	-1,455.0	-1,332.2	1,659.6	0.00	0.00	0.00	
14,900.0	90.00	179.60	13,170.0	-1,555.0	-1,331.5	1,758.0	0.00	0.00	0.00	
15,000.0	90.00	179.60	13,170.0	-1,655.0	-1,330.8	1,856.4	0.00	0.00	0.00	
15,100.0	90.00	179.60	13,170.0	-1,755.0	-1,330.1	1,954.9	0.00	0.00	0.00	
15,200.0	90.00	179.60	13,170.0	-1,854.9	-1,329.4	2,053.3	0.00	0.00	0.00	
15,300.0	90.00	179.60	13,170.0	-1,954.9	-1,328.7	2,151.7	0.00	0.00	0.00	
15,400.0	90.00	179.60	13,170.0	-2,054.9	-1,328.0	2,250.2	0.00	0.00	0.00	
15,500.0	90.00	179.60	13,170.0	-2,154.9	-1,327.3	2,348.6	0.00	0.00	0.00	
15,600.0	90.00	179.60	13,170.0	-2,254.9	-1,326.6	2,447.0	0.00	0.00	0.00	
15,681.1	90.00	179.60	13,170.0	-2,336.0	-1,326.0	2,526.8	0.00	0.00	0.00	
15,700.0	90.00	179.60	13,170.0	-2,354.9	-1,325.9	2,545.5	0.00	0.00	0.00	
15,800.0	90.00	179.60	13,170.0	-2,454.9	-1,325.2	2,643.9	0.00	0.00	0.00	
15,900.0	90.00	179.60	13,170.0	-2,554.9	-1,324.5	2,742.3	0.00	0.00	0.00	
16,000.0	90.00	179.60	13,170.0	-2,654.9	-1,323.8	2,840.8	0.00	0.00	0.00	
16,100.0	90.00	179.60	13,170.0	-2,754.9	-1,323.1	2,939.2	0.00	0.00	0.00	
16,200.0	90.00	179.60	13,170.0	-2,854.9	-1,322.4	3,037.6	0.00	0.00	0.00	
16,300.0	90.00	179.60	13,170.0	-2,954.9	-1,321.7	3,136.1	0.00	0.00	0.00	
16,400.0	90.00	179.60	13,170.0	-3,054.9	-1,321.0	3,234.5	0.00	0.00	0.00	
16,500.0	90.00	179.60	13,170.0	-3,154.9	-1,320.3	3,332.9	0.00	0.00	0.00	
16,600.0	90.00	179.61	13,170.0	-3,254.9	-1,319.6	3,431.4	0.00	0.00	0.00	
16,700.0	90.00	179.61	13,170.0	-3,354.9	-1,318.9	3,529.8	0.00	0.00	0.00	
16,800.0	90.00	179.61	13,170.0	-3,454.9	-1,318.2	3,628.2	0.00	0.00	0.00	
16,900.0	90.00	179.61	13,170.0	-3,554.9	-1,317.5	3,726.7	0.00	0.00	0.00	
17,000.0	90.00	179.61	13,170.0	-3,654.9	-1,316.9	3,825.1	0.00	0.00	0.00	
17,100.0	90.00	179.61	13,170.0	-3,754.9	-1,316.2	3,923.6	0.00	0.00	0.00	
17,200.0	90.00	179.61	13,170.0	-3,854.9	-1,315.5	4,022.0	0.00	0.00	0.00	
17,300.0	90.00	179.61	13,170.0	-3,954.9	-1,314.8	4,120.4	0.00	0.00	0.00	
17,400.0	90.00	179.61	13,170.0	-4,054.9	-1,314.2	4,218.9	0.00	0.00	0.00	
17,500.0	90.00	179.62	13,170.0	-4,154.9	-1,313.5	4,317.3	0.00	0.00	0.00	
17,600.0	90.00	179.62	13,170.0	-4,254.9	-1,312.8	4,415.8	0.00	0.00	0.00	
17,700.0	90.00	179.62	13,170.0	-4,354.9	-1,312.1	4,514.2	0.00	0.00	0.00	
17,800.0	90.00	179.62	13,170.0	-4,454.9	-1,311.5	4,612.6	0.00	0.00	0.00	
17,900.0	90.00	179.62	13,170.0	-4,554.9	-1,310.8	4,711.1	0.00	0.00	0.00	
18,000.0	90.00	179.62	13,170.0	-4,654.9	-1,310.1	4,809.5	0.00	0.00	0.00	
18,100.0	90.00	179.62	13,170.0	-4,754.9	-1,309.5	4,908.0	0.00	0.00	0.00	
18,200.0	90.00	179.62	13,170.0	-4,854.9	-1,308.8	5,006.4	0.00	0.00	0.00	
18,300.0	90.00	179.62	13,170.0	-4,954.9	-1,308.2	5,104.8	0.00	0.00	0.00	
18,400.0	90.00	179.63	13,170.0	-5,054.9	-1,307.5	5,203.3	0.00	0.00	0.00	
18,500.0	90.00	179.63	13,170.0	-5,154.9	-1,306.9	5,301.7	0.00	0.00	0.00	



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #751H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb 26 @ 3411.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb 26 @ 3411.0usft
<b>Site:</b>	Green Drake 16 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#751H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

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)	
18,600.0	90.00	179.63	13,170.0	-5,254.9	-1,306.2	5,400.2	0.00	0.00	0.00	
18,700.0	90.00	179.63	13,170.0	-5,354.9	-1,305.6	5,498.6	0.00	0.00	0.00	
18,800.0	90.00	179.63	13,170.0	-5,454.9	-1,304.9	5,597.1	0.00	0.00	0.00	
18,900.0	90.00	179.63	13,170.0	-5,554.9	-1,304.3	5,695.5	0.00	0.00	0.00	
19,000.0	90.00	179.63	13,170.0	-5,654.9	-1,303.6	5,794.0	0.00	0.00	0.00	
19,100.0	90.00	179.63	13,170.0	-5,754.9	-1,303.0	5,892.4	0.00	0.00	0.00	
19,200.0	90.00	179.63	13,170.0	-5,854.9	-1,302.4	5,990.8	0.00	0.00	0.00	
19,300.0	90.00	179.64	13,170.0	-5,954.9	-1,301.7	6,089.3	0.00	0.00	0.00	
19,400.0	90.00	179.64	13,170.0	-6,054.9	-1,301.1	6,187.7	0.00	0.00	0.00	
19,500.0	90.00	179.64	13,170.0	-6,154.9	-1,300.4	6,286.2	0.00	0.00	0.00	
19,600.0	90.00	179.64	13,170.0	-6,254.8	-1,299.8	6,384.6	0.00	0.00	0.00	
19,700.0	90.00	179.64	13,170.0	-6,354.8	-1,299.2	6,483.1	0.00	0.00	0.00	
19,800.0	90.00	179.64	13,170.0	-6,454.8	-1,298.6	6,581.5	0.00	0.00	0.00	
19,900.0	90.00	179.64	13,170.0	-6,554.8	-1,297.9	6,680.0	0.00	0.00	0.00	
20,000.0	90.00	179.64	13,170.0	-6,654.8	-1,297.3	6,778.4	0.00	0.00	0.00	
20,100.0	90.00	179.64	13,170.0	-6,754.8	-1,296.7	6,876.9	0.00	0.00	0.00	
20,200.0	90.00	179.65	13,170.0	-6,854.8	-1,296.1	6,975.3	0.00	0.00	0.00	
20,300.0	90.00	179.65	13,170.0	-6,954.8	-1,295.4	7,073.8	0.00	0.00	0.00	
20,400.0	90.00	179.65	13,170.0	-7,054.8	-1,294.8	7,172.2	0.00	0.00	0.00	
20,500.0	90.00	179.65	13,170.0	-7,154.8	-1,294.2	7,270.7	0.00	0.00	0.00	
20,600.0	90.00	179.65	13,170.0	-7,254.8	-1,293.6	7,369.1	0.00	0.00	0.00	
20,700.0	90.00	179.65	13,170.0	-7,354.8	-1,293.0	7,467.6	0.00	0.00	0.00	
20,800.0	90.00	179.65	13,170.0	-7,454.8	-1,292.4	7,566.0	0.00	0.00	0.00	
20,864.2	90.00	179.65	13,170.0	-7,519.0	-1,292.0	7,629.2	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(Green Drake 16 Fe - plan hits target center - Point	0.00	0.00	12,692.5	254.0	-1,343.0	412,014.00	775,863.00	32° 7' 49.578 N	103° 34' 32.540 W	
FTP(Green Drake 16 Fe - plan hits target center - Point	0.00	0.01	12,905.2	204.0	-1,343.0	411,964.00	775,863.00	32° 7' 49.083 N	103° 34' 32.544 W	
PBHL(Green Drake 16 F - plan hits target center - Point	0.00	0.01	13,170.0	-7,519.0	-1,292.0	404,241.00	775,914.00	32° 6' 32.658 N	103° 34' 32.582 W	
Fed Perf 1(Green Drake - plan hits target center - Point	0.00	0.00	13,170.0	-2,336.0	-1,326.0	409,424.00	775,880.00	32° 7' 23.948 N	103° 34' 32.554 W	

Lea County, NM (NAD 83 NME)

Green Drake 16 Fed Com #751H

Plan #0.2



Azimuths to Grid North  
True North: -0.41°  
Magnetic North: 6.01°

Magnetic Field  
Strength: 47326.3nT  
Dip Angle: 59.78°  
Date: 7/13/2022  
Model: IGRF2020

To convert a Magnetic Direction to a Grid Direction, Add 6.01°  
To convert a True Direction to a Grid Direction, Add 6.41° East  
To convert a True Direction to a Magnetic Direction, Subtract 0.41°

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: #751H

3385.0  
kb 26 @ 3411.0usft  
Northing 411760.00 Easting 777206.00 Latitude 32° 7' 46.971 N Longitude 103° 34' 16.943 W

SECTION DETAILS

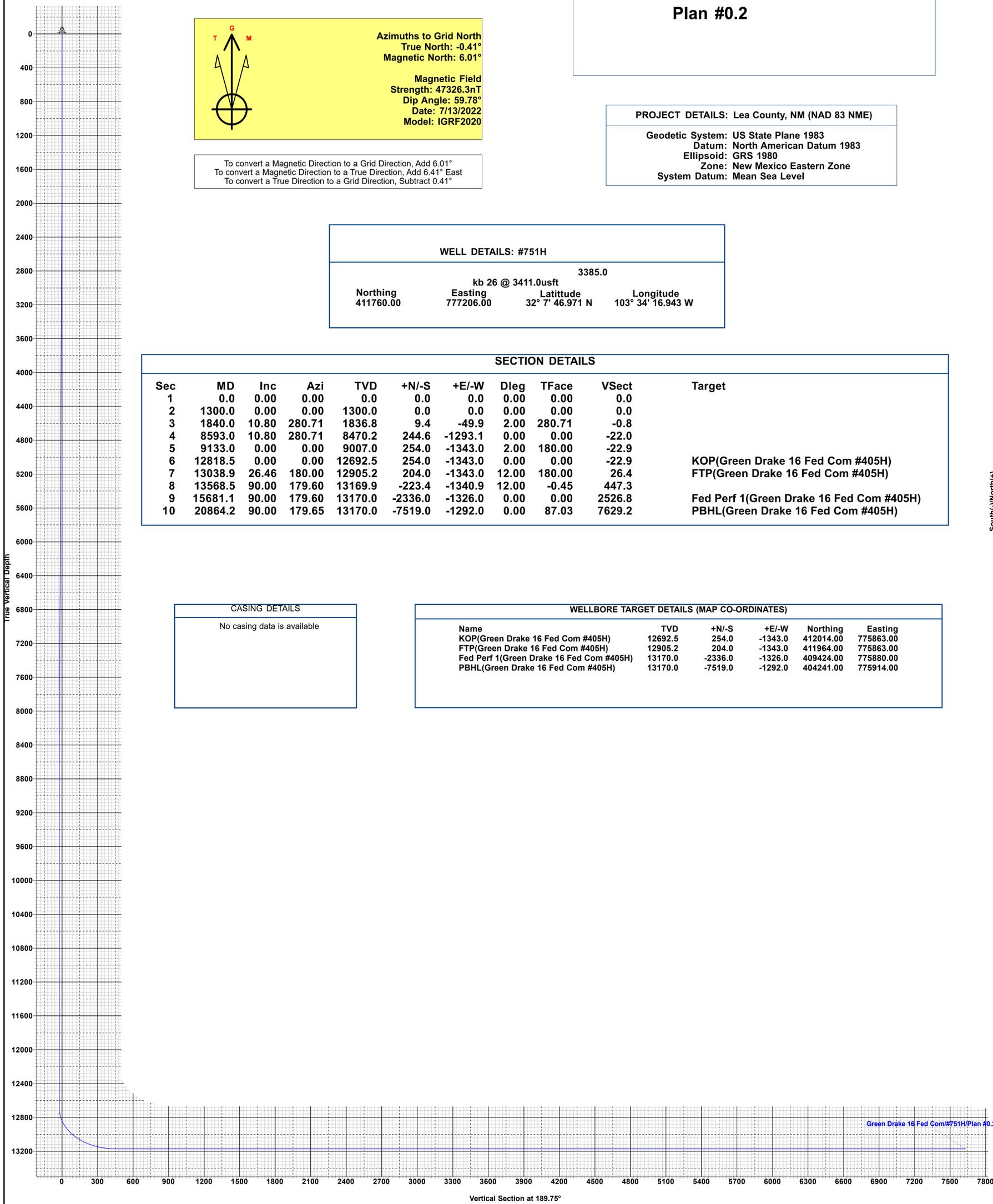
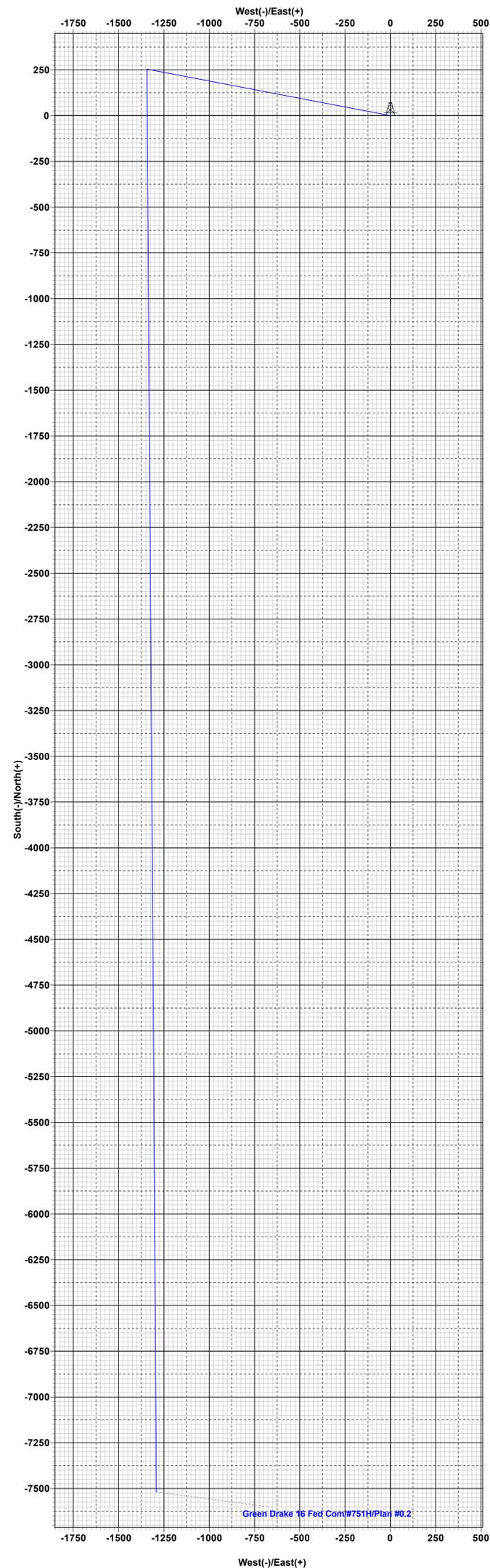
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1300.0	0.00	0.00	1300.0	0.0	0.0	0.00	0.00	0.0	
3	1840.0	10.80	280.71	1836.8	9.4	-49.9	2.00	280.71	-0.8	
4	8593.0	10.80	280.71	8470.2	244.6	-1293.1	0.00	0.00	-22.0	
5	9133.0	0.00	0.00	9007.0	254.0	-1343.0	2.00	180.00	-22.9	
6	12818.5	0.00	0.00	12692.5	254.0	-1343.0	0.00	0.00	-22.9	KOP(Green Drake 16 Fed Com #405H) FTP(Green Drake 16 Fed Com #405H)
7	13038.9	26.46	180.00	12905.2	204.0	-1343.0	12.00	180.00	26.4	
8	13568.5	90.00	179.60	13169.9	-223.4	-1340.9	12.00	-0.45	447.3	
9	15681.1	90.00	179.60	13170.0	-2336.0	-1326.0	0.00	0.00	2526.8	Fed Perf 1(Green Drake 16 Fed Com #405H) PBHL(Green Drake 16 Fed Com #405H)
10	20864.2	90.00	179.65	13170.0	-7519.0	-1292.0	0.00	87.03	7629.2	

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Green Drake 16 Fed Com #405H)	12692.5	254.0	-1343.0	412014.00	775863.00
FTP(Green Drake 16 Fed Com #405H)	12905.2	204.0	-1343.0	411964.00	775863.00
Fed Perf 1(Green Drake 16 Fed Com #405H)	13170.0	-2336.0	-1326.0	409424.00	775880.00
PBHL(Green Drake 16 Fed Com #405H)	13170.0	-7519.0	-1292.0	404241.00	775914.00



Vertical Section at 189.75°

Green Drake 16 Fed Com/#751H/Plan #0.2

Green Drake 16 Fed Com/#751H/Plan #0.2



## Green Drake 16 Fed Com 751H (FKA 405H) API #: 30-025-51086 Variances

EOG respectfully requests the below variances to be applied to the above well:

- Variance is requested to waive the centralizer requirements for the intermediate casing in the intermediate hole. An expansion additive will be utilized, in the cement slurry, for the entire length of the intermediate interval to maximize cement bond and zonal isolation.

- Variance is also requested to waive the centralizer requirements for the production casing in the production hole. An expansion additive will be utilized, in the cement slurry, for the entire length of the production interval to maximize cement bond and zonal isolation.

- EOG requests a variance to set the intermediate casing shoe in the Bone Spring formation or the Wolfcamp formation, depending on depletion in the area and well conditions. EOG will monitor the well and ensure the well is static before casing operations begin.

- 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.

- 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 1,500 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 the additional variance(s) in the attached document(s):

- EOG BLM Variance 2a - Intermediate Bradenhead Cement
- EOG BLM Variance 3a\_b - BOP Break-test and Offline Intermediate Cement



**Intermediate Bradenhead Cement:**

EOG requests variance from minimum standards to pump a two stage cement job on the intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Top of cement 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.



**Wolfcamp Intermediate Casing Setpoint:**

EOG Resources Inc. (EOG) requests a variance to set the intermediate casing shoe in the Bone Spring formation OR the Wolfcamp formation, depending on depletion in the area and well conditions. EOG will monitor the well and ensure the well is static before casing operations begin.

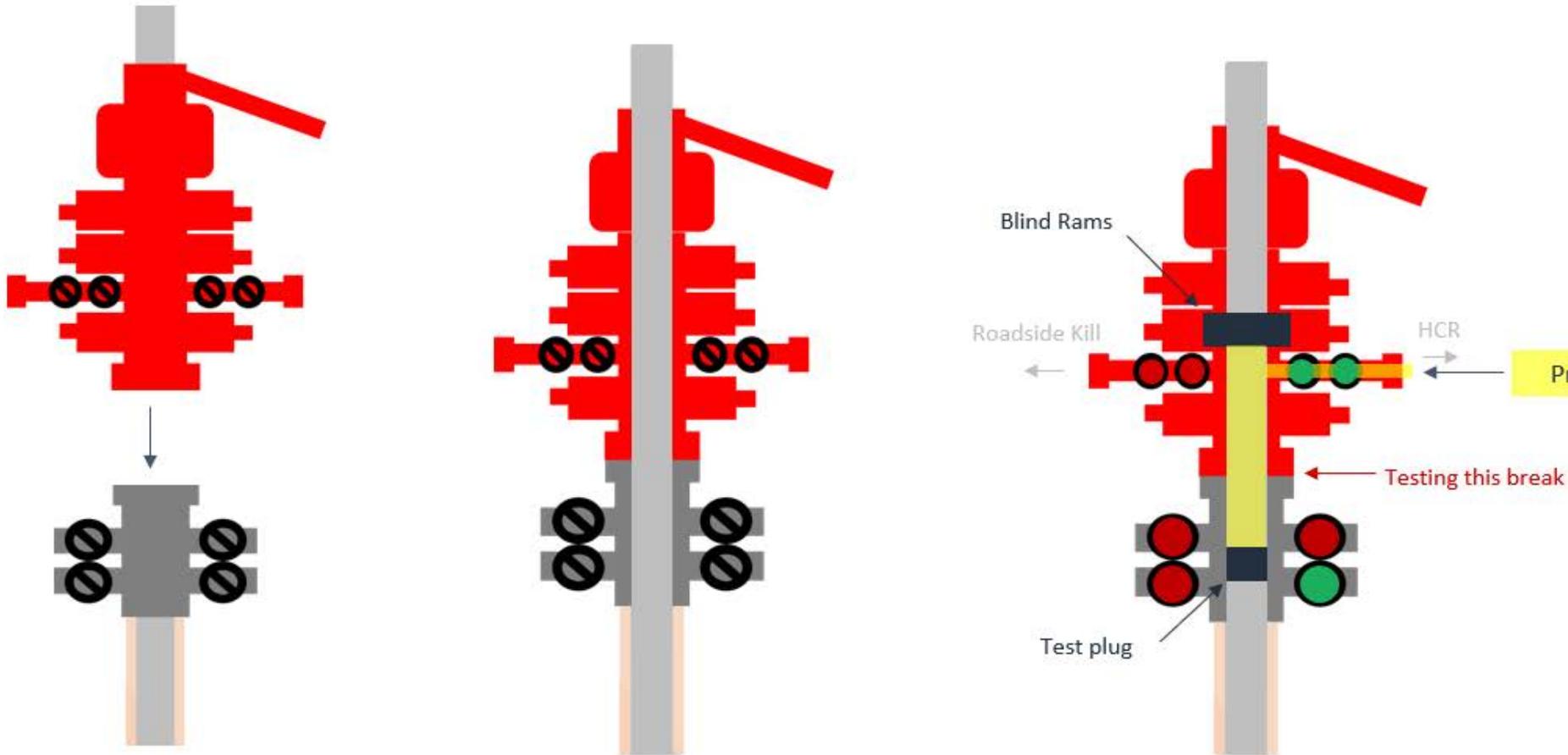


**Break-test BOP & Offline Cementing:**

EOG Resources Inc. (EOG) respectfully requests a variance from the minimum standards for well control equipment testing of ECFR Title 43 Part 3172.6(b)(9)(iv) to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with Batch Drilling & Offline cement operations to include the following:

- Full BOPE test at first installation on the pad.
- Full BOPE test every 21 days.
- This test will be conducted for 5M rated hole intervals only.
- Each rig requesting the break-test variance is capable of picking up the BOP without damaging components using winches, following API Standard 53, Well Control Equipment Systems for Drilling Wells (Fifth edition, December 2018, Annex C. Table C.4) which recognizes break testing as an acceptable practice.
- Function tests will be performed on the following BOP elements:
  - Annular ã during each full BOPE test
  - Upper Pipe Rams ã On trip ins where FIT required
  - Blind Rams ã Every trip
  - Lower Pipe Rams ã during each full BOPE test
- Break testing BOP and BOPE coupled with batch drilling operations and option to offline cement and/or remediate (if needed) any surface or intermediate sections, according to attached offline cementing support documentation.
- After the well section is secured, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad.
- TA cap will also be installed per Wellhead vendor procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

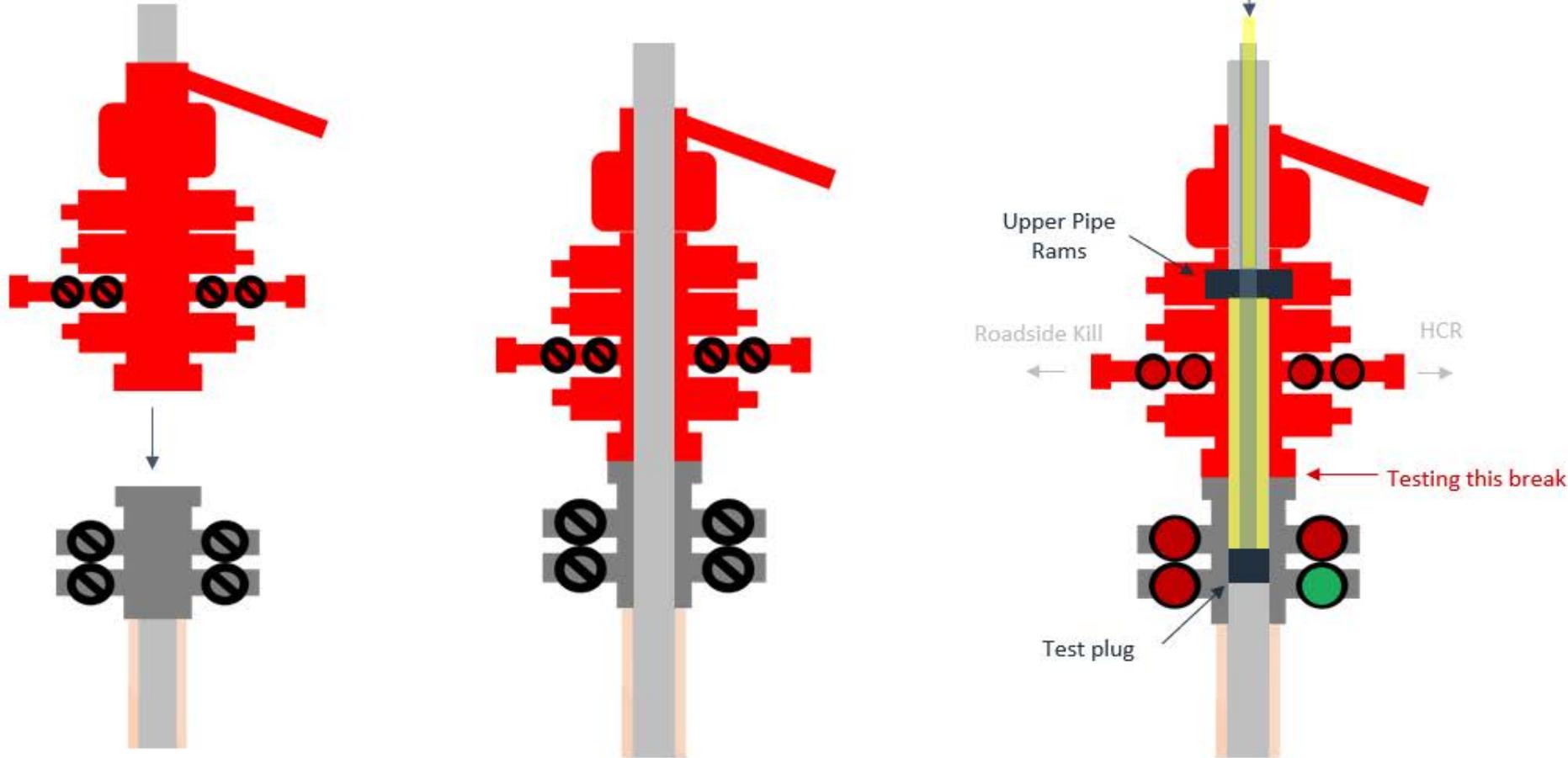
# Break Test Diagram (HCR valve)



## Steps

1. Set plug in wellhead (lower barrier)
2. Close Blind Rams (upper barrier)
3. Close roadside kill
4. Open HCR (pressure application)
5. Open wellhead valves below test plug to ensure if leak past test plug, pressure won't be applied to wellbore
6. Tie BOP testers high pressure line to main choke manifold crown valve
7. Pressure up to test break
8. Bleed test pressure from BOP testing unit

# Break Test Diagram (Test Joint)



## Steps

1. Set plug in with test joint wellhead (lower barrier)
2. Close Upper Pipe Rams (upper barrier)
3. Close roadside kill
4. Close HCR
5. Open wellhead valves below test plug to ensure if leak past test plug, pressure won't be applied to wellbore
6. Tie BOP testers high pressure line to top of test joint
7. Pressure up to test break
8. Bleed test pressure from BOP testing unit



### Cement Program

1. No changes to the cement program will take place for offline cementing.

### Summarized Operational Procedure for Intermediate Casing

1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment back pressure valves.
  - a. Float equipment is equipped with two back pressure valves rated to a minimum of 5,000 psi.
2. Land production casing on mandrel hanger through BOP.
  - a. If casing is unable to be landed with a mandrel hanger, then the **casing will be cemented online.**
3. Break circulation and confirm no restrictions.
  - a. Ensure no blockage of float equipment and appropriate annular returns.
  - b. Perform flow check to confirm well is static.
4. Set pack-off
  - a. If utilizing a fluted/ported mandrel hanger, ensure well is static on the annulus and inside the casing by filling the pipe with kill weight fluid, remove landing joint, and set annular packoff through BOP. Pressure test to 5,000 psi for 10 min.
  - b. If utilizing a solid mandrel hanger, ensure well is static on the annulus and inside the casing by filling the pipe with kill weight fluid. Pressure test seals to 5,000 psi for 10 min. Remove landing joint through BOP.
5. After confirmation of both annular barriers and the two casing barriers, install TA plug and pressure test to 5,000 psi for 10 min. Notify the BLM with intent to proceed with nipple down and offline cementing.
  - a. Minimum 4 hrs notice.
6. With the well secured and BLM notified, nipple down BOP and secure on hydraulic carrier or cradle.
  - a. **Note, if any of the barriers fail to test, the BOP stack will not be nipped down until after the cement job has concluded and both lead and tail slurry have reached 500 psi.**
7. Skid/Walk rig off current well.
8. Confirm well is static before removing TA Plug.
  - a. Cementing operations will not proceed until well is under control. (If well is not static, notify BLM and proceed to kill)
  - b. Casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing.
  - c. Well control plan can be seen in Section B, Well Control Procedures.
  - d. If need be, rig can be moved back over well and BOP nipped back up for any further remediation.



Offline Intermediate Cementing Procedure

2/24/2022

- e. Diagram for rig positioning relative to offline cementing can be seen in Figure 4.
9. Rig up return lines to take returns from wellhead to pits and rig choke.
  - a. Test all connections and lines from wellhead to choke manifold to 5,000 psi high for 10 min.
  - b. If either test fails, perform corrections and retest before proceeding.
  - c. Return line schematics can be seen in Figure 3.
10. Remove TA Plug from the casing.
11. Install offline cement tool.
  - a. Current offline cement tool schematics can be seen in Figure 1 (Cameron) and Figure 2 (Cactus).
12. Rig up cement head and cementing lines.
  - a. Pressure test cement lines against cement head to 80% of casing burst for 10 min.
13. Break circulation on well to confirm no restrictions.
  - a. If gas is present on circulation, well will be shut in and returns rerouted through gas buster.
  - b. Max anticipated time before circulating with cement truck is 6 hrs.
14. Pump cement job as per plan.
  - a. At plug bump, test casing to 0.22 psi/ft or 1500 psi, whichever is greater.
  - b. If plug does not bump on calculated, shut down and wait 8 hrs or 500 psi compressive strength, whichever is greater before testing casing.
15. Confirm well is static and floats are holding after cement job.
  - a. With floats holding and backside static:
    - i. Remove cement head.
  - b. If floats are leaking:
    - i. Shut-in well and WOC (Wait on Cement) until tail slurry reaches 500 psi compressive strength and the casing is static prior to removing cement head.
  - c. If there is flow on the backside:
    - i. Shut in well and WOC until tail slurry reaches 500 psi compressive strength. Ensure that the casing is static prior to removing cement head.
16. Remove offline cement tool.
17. Install night cap with pressure gauge for monitoring.
18. Test night cap to 5,000 psi for 10 min.



Offline Intermediate Cementing Procedure

2/24/2022

## Example Well Control Plan Content

### A. Well Control Component Table

The table below, which covers the cementing of the **5M MASP (Maximum Allowable Surface Pressure) portion of the well**, outlines the well control component rating in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the BOP nipped up to the wellhead.

Intermediate hole section, 5M requirement

Component	RWP
Pack-off	10M
Casing Wellhead Valves	10M
Annular Wellhead Valves	5M
TA Plug	10M
Float Valves	5M
2" 1502 Lo-Torque Valves	15M

### B. Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while circulating and cementing through the Offline Cement Adapter.

#### General Procedure While Circulating

1. Sound alarm (alert crew).
2. Shut down pumps.
3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
4. Confirm shut-in.
5. Notify tool pusher/company representative.

Page | 3



Offline Intermediate Cementing Procedure

2/24/2022

6. Read and record the following:
  - a. SICP (Shut in Casing Pressure) and AP (Annular Pressure)
  - b. Pit gain
  - c. Time
  - d. Regroup and identify forward plan to continue circulating out kick via rig choke and mud/gas separator. Circulate and adjust mud density as needed to control well.

General Procedure While Cementing

1. Sound alarm (alert crew).
2. Shut down pumps.
3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
4. Confirm shut-in.
5. Notify tool pusher/company representative.
6. Open rig choke and begin pumping again taking returns through choke manifold and mud/gas separator.
7. Continue to place cement until plug bumps.
8. At plug bump close rig choke and cement head.
9. Read and record the following
  - a. SICP and AP
  - b. Pit gain
  - c. Time
  - d. Shut-in annulus valves on wellhead

General Procedure After Cementing

1. Sound alarm (alert crew).
2. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
3. Confirm shut-in.
4. Notify tool pusher/company representative.
5. Read and record the following:
  - a. SICP and AP
  - b. Pit gain
  - c. Time
  - d. Shut-in annulus valves on wellhead



Figure 1: Cameron TA Plug and Offline Adapter Schematic

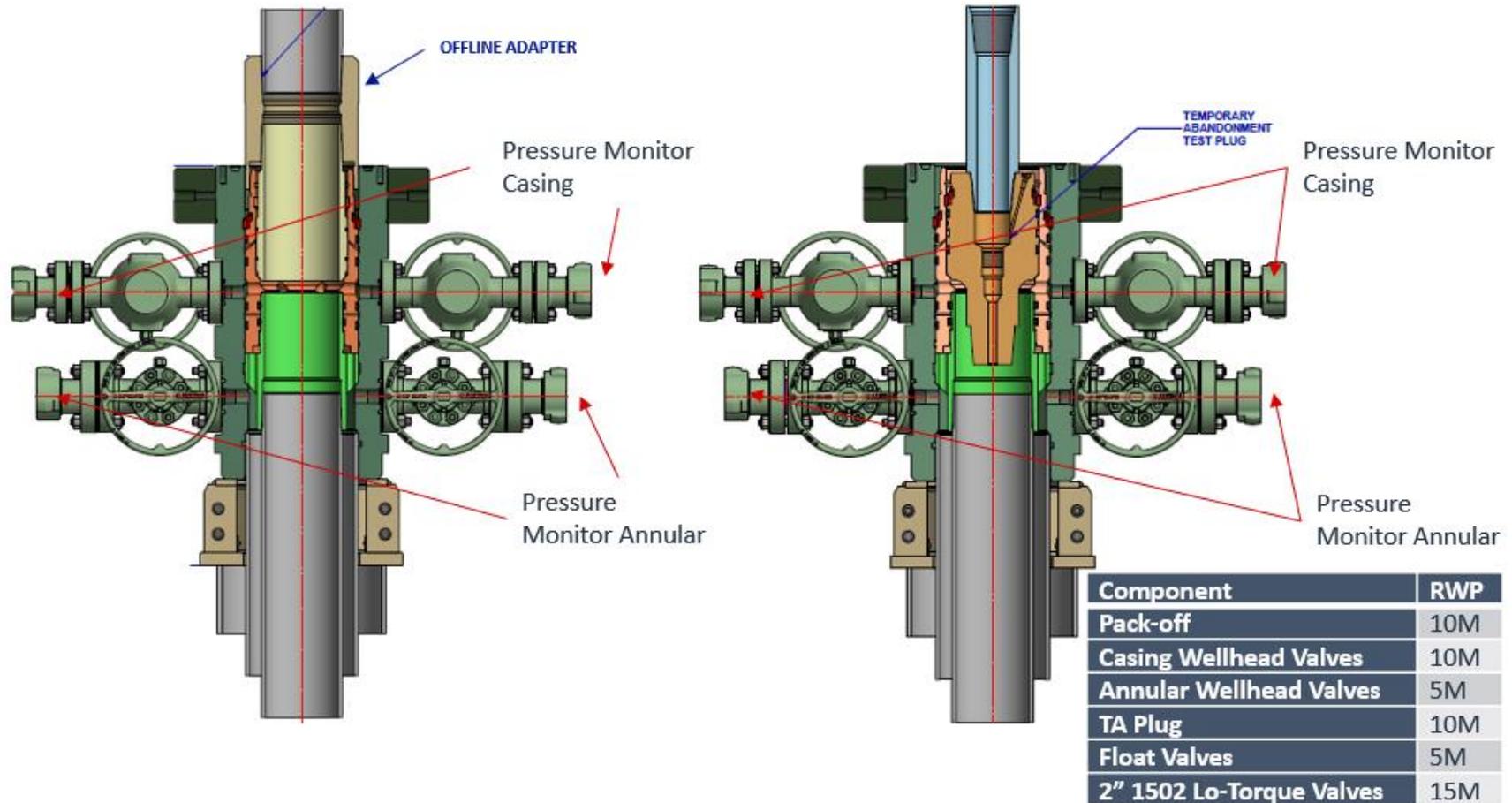
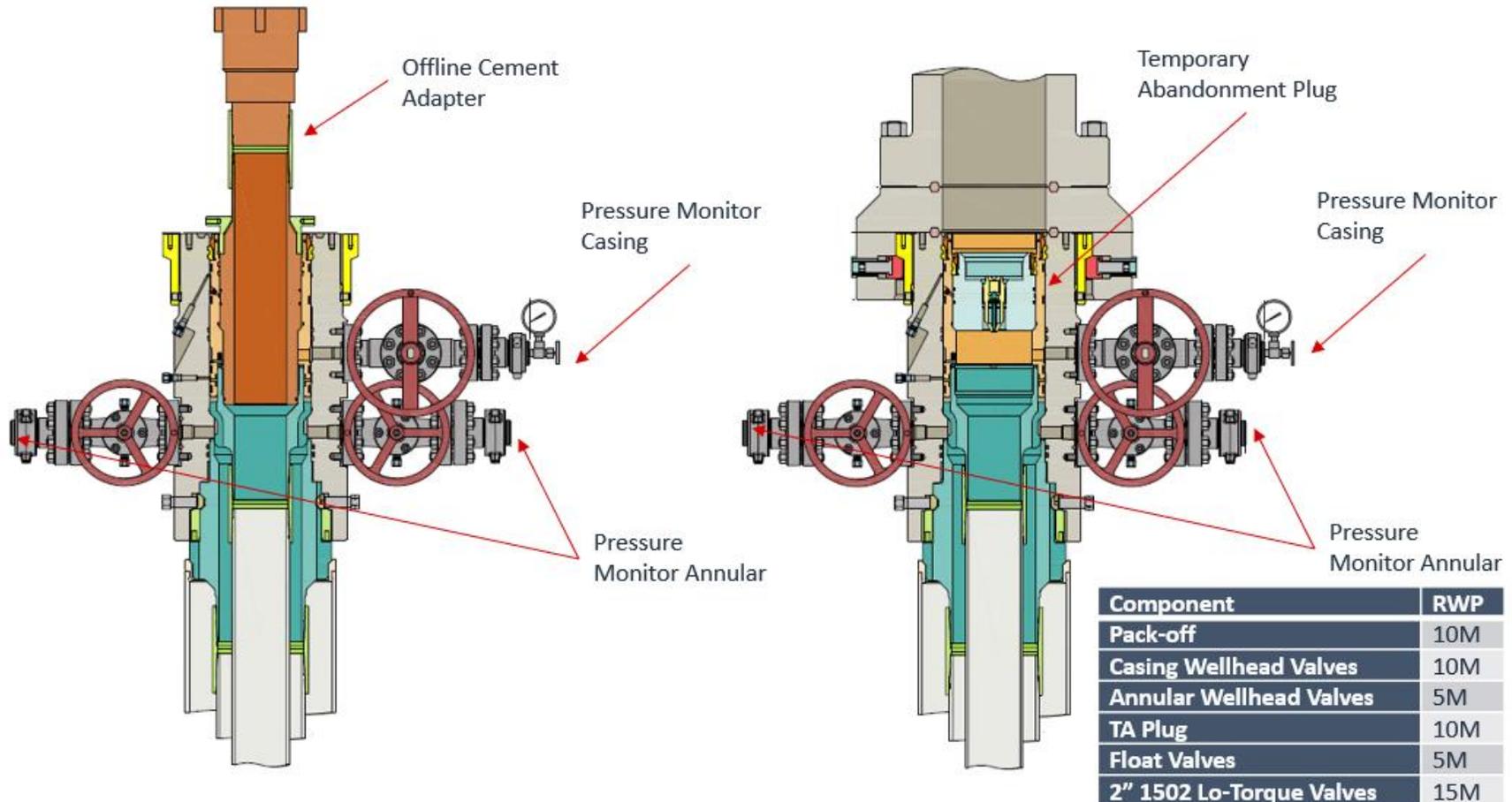




Figure 2: Cactus TA Plug and Offline Adapter Schematic

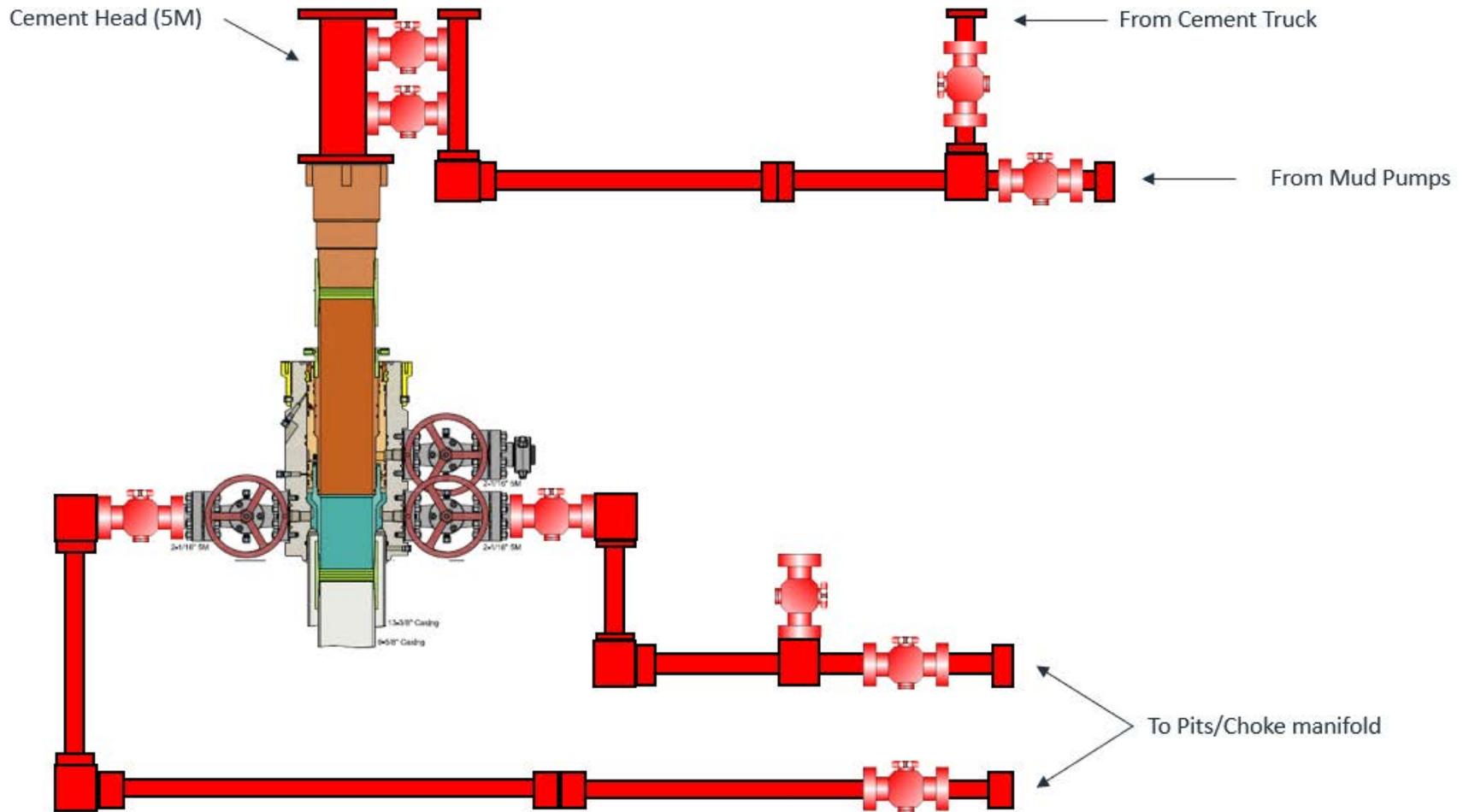




Offline Intermediate Cementing Procedure

2/24/2022

Figure 3: Back Yard Rig Up



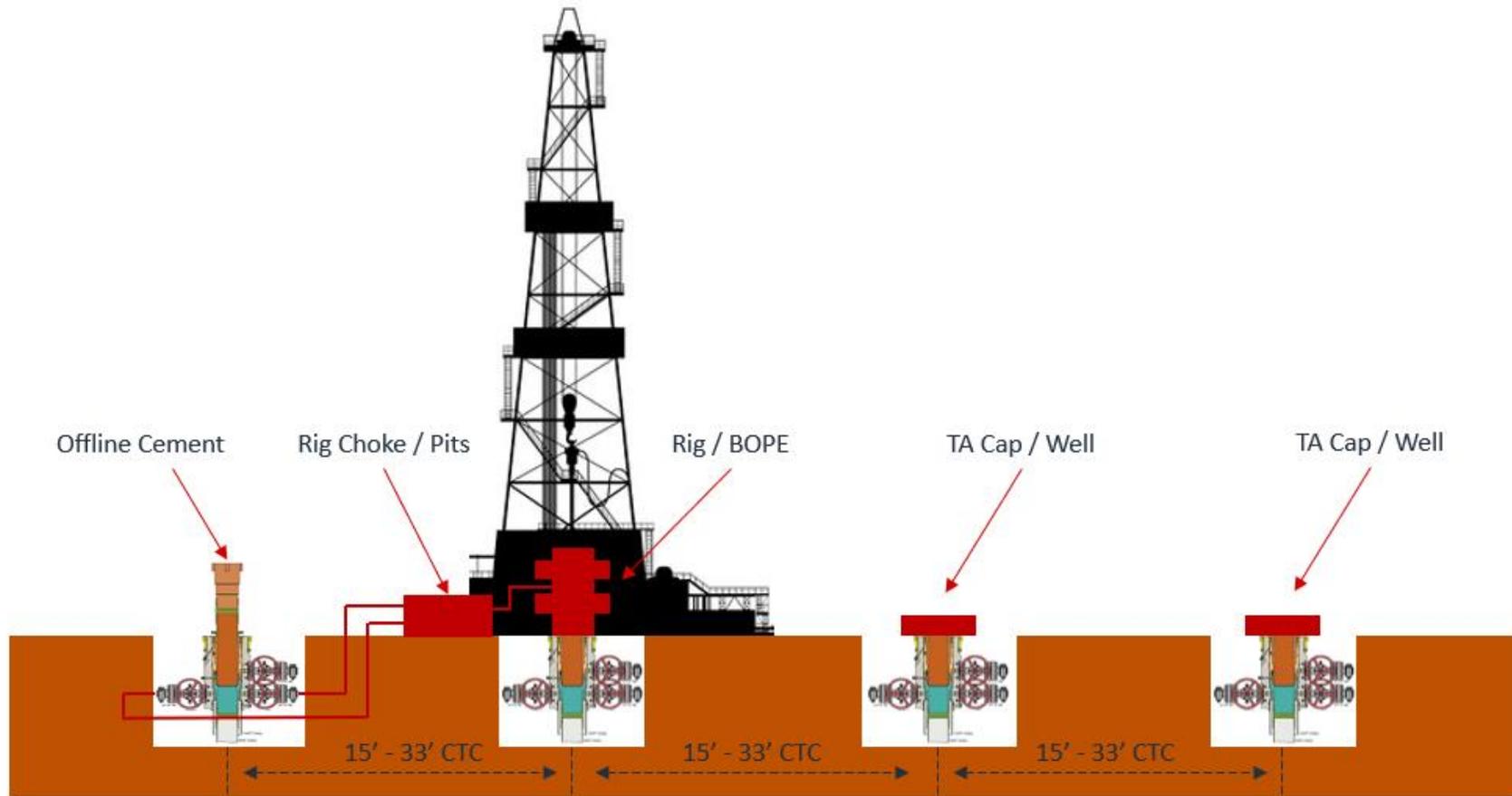
\*\*\* All Lines 10M rated working pressure



Offline Intermediate Cementing Procedure

2/24/2022

Figure 4: Rig Placement Diagram





### Green Drake 16 Fed Com 751H

#### Revised Permit Information 08/20/2024:

Well Name: Green Drake 16 Fed Com 751H

Location: SHL: 2331' FSL & 803' FEL, Section 16, T-25-S, R-33-E, LEA Co., N.M.

BHL: 100' FSL & 2144' FEL, Section 21, T-25-S, R-33-E, LEA Co., N.M.

#### CASING PROGRAM:

Hole Size	Interval MD		Interval TVD		Csg OD	Weight	Grade	Conn
	From (ft)	To (ft)	From (ft)	To (ft)				
12-1/4"	0	1,137	0	1,140	9-5/8"	36#	J-55	LTC
8-3/4"	0	12,824	0	12,690	7-5/8"	29.7#	ICYP-110	MO FXL
6-3/4"	0	12,324	0	12,190	5-1/2"	20#	P110-EC	DWC/C IS MS
6-3/4"	12,324	12,824	12,190	12,690	5-1/2"	20#	P110-EC	VAM Sprint SF
6-3/4"	12,824	20,864	12,690	13,170	5-1/2"	20#	P110-EC	DWC/C IS MS

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 Ft3/sk	Slurry Description
1,140' 9-5/8"	320	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl <sub>2</sub> + 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 @ 937')
12,690' 7-5/8"	1460	14.2	1.11	1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 8,810')
	1000	14.8	1.5	2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
20,864' 5-1/2"	2216	12.5	2.05	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ Surface)
	2220	13.2	1.41	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 12,193')



### Green Drake 16 Fed Com 751H

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 variance from minimum standards 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 (9,007') and the second stage performed as a 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 100 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. 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.

EOG requests a variance to set the intermediate casing shoe in the Bone Spring formation OR the Wolfcamp formation, depending on depletion in the area and well conditions. EOG will monitor the well and ensure the well is static before casing operations begin.

#### MUD PROGRAM:

Measured Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,140'	Fresh - Gel	8.6-8.8	28-34	N/c
1,140' – 12,690'	Brine	9.0-10.5	28-34	N/c
12,690' – 12,819'	Oil Base	8.7-9.4	58-68	N/c - 6
12,819' – 20,864' Lateral	Oil Base	10.0-14.0	58-68	4 - 6



## Green Drake 16 Fed Com 751H

### TUBING REQUIREMENTS

EOG respectfully requests an exception to the following NMOCD rule:

- 19.15.16.10 Casing AND TUBING REQUIREMENTS:  
J (3): “The operator shall set tubing as near the bottom as practical and tubing perforations shall not be more than 250 feet above top of pay zone.”

With horizontal flowing and gas lifted wells an end of tubing depth placed at or slightly above KOP is a conservative way to ensure the tubing stays clean from debris, plugging, and allows for fewer well interventions post offset completion. The deeper the tubulars are run into the curve, the higher the probability is that the tubing will become stuck in sand and or well debris as the well produces over time. An additional consideration for EOT placement during artificial lift installations is avoiding the high dog leg severity and inclinations found in the curve section of the wellbore to help improve reliability and performance. Dog leg severity and inclinations tend not to hamper gas lifted or flowing wells, but they do effect other forms of artificial lift like rod pump or ESP (electric submersible pump). Keeping the EOT above KOP is an industry best practice for those respective forms of artificial lift.



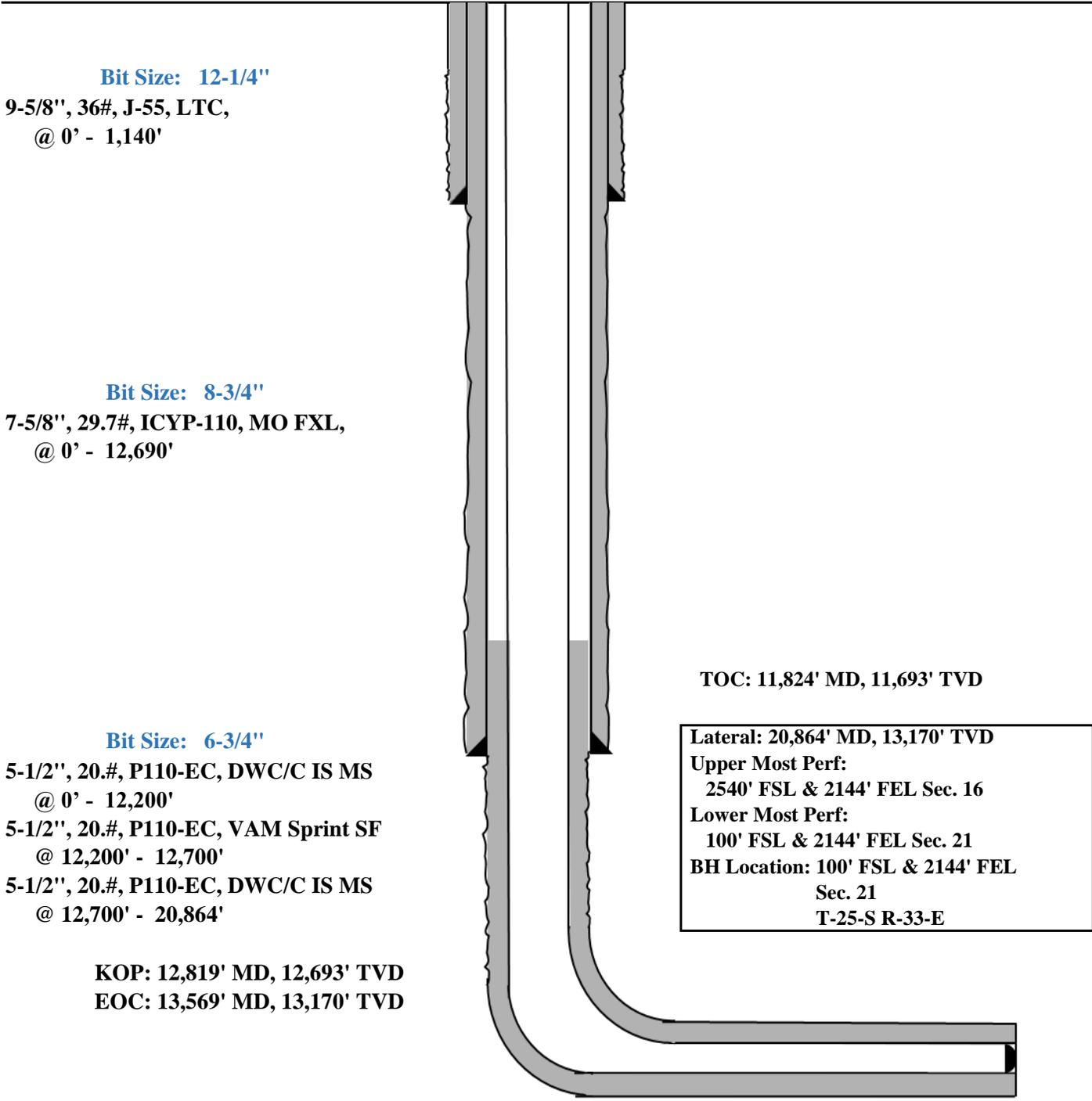
### Green Drake 16 Fed Com 751H

2331' FSL  
803' FEL  
Section 16  
T-25-S, R-33-E

Revised Wellbore

KB: 3410'  
GL: 3385'

API: 30-025-51086



**Bit Size: 12-1/4"**

9-5/8", 36#, J-55, LTC,  
@ 0' - 1,140'

**Bit Size: 8-3/4"**

7-5/8", 29.7#, ICYP-110, MO FXL,  
@ 0' - 12,690'

**Bit Size: 6-3/4"**

5-1/2", 20.#, P110-EC, DWC/C IS MS  
@ 0' - 12,200'

5-1/2", 20.#, P110-EC, VAM Sprint SF  
@ 12,200' - 12,700'

5-1/2", 20.#, P110-EC, DWC/C IS MS  
@ 12,700' - 20,864'

TOC: 11,824' MD, 11,693' TVD

<b>Lateral: 20,864' MD, 13,170' TVD</b>
<b>Upper Most Perf:</b>
2540' FSL & 2144' FEL Sec. 16
<b>Lower Most Perf:</b>
100' FSL & 2144' FEL Sec. 21
<b>BH Location: 100' FSL &amp; 2144' FEL</b>
Sec. 21
T-25-S R-33-E

KOP: 12,819' MD, 12,693' TVD  
EOC: 13,569' MD, 13,170' TVD



## Green Drake 16 Fed Com 751H

**Design B****CASING PROGRAM:**

Hole Size	Interval MD		Interval TVD		Csg OD	Weight	Grade	Conn
	From (ft)	To (ft)	From (ft)	To (ft)				
13"	0	1,137	0	1,137	10-3/4"	40.5#	J-55	STC
9-7/8"	0	11,462	0	11,330	8-3/4"	38.5#	P110-EC	VAM Sprint-SF
7-7/8"	0	12,819	0	12,693	6"	22.3#	P110-EC	DWC/C IS
6.75"	12,819	20,864	12,693	13,170	5-1/2"	20#	P110-EC	DWC/C IS MS

\*\*For highlighted rows above, variance is requested to run entire string of either 6" or 5-1/2" casing string above due to availability.

Variance is requested to waive the centralizer requirements for the 8-3/4" casing in the 9-7/8" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 9-7/8" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 6" and 5-1/2" casings in the 7-7/8" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 7-7/8" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive the annular clearance requirements for the 6" and 5-1/2" casings by 8-3/4" 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 Ft3/sk	Slurry Description
1,137' 10-3/4"	290	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl <sub>2</sub> + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	70	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 937')
12,693' 8-3/4"	1650	14.2	1.11	1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 8,807')
	1000	14.8	1.5	2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
20,864' 6"	1220	13.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 12,193')



### **Green Drake 16 Fed Com 751H**

EOG requests variance from minimum standards to pump a two stage cement job on the 8-3/4" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (9,007') and the second stage performed as a 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of -974 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. 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.

EOG requests a variance to set the intermediate casing shoe in the Bone Spring formation OR the Wolfcamp formation, depending on depletion in the area and well conditions. EOG will monitor the well and ensure the well is static before casing operations begin.

#### **VARIANCE REQUESTS:**

EOG requests the additional variance(s) in the attached document(s):

Variances requested include (supporting documents attached):

- BOP Break Testing for 5M Intermediate Intervals (EOG BLM Variance 3a\_b)
- Offline Cementing for Surface and Intermediate Intervals (EOG BLM Variance 3a\_b)
- Intermediate Bradenhead Cement (EOG BLM Variance 2a)
- Wolfcamp Intermediate Casing Setpoint (EOG BLM Varinace 2b)



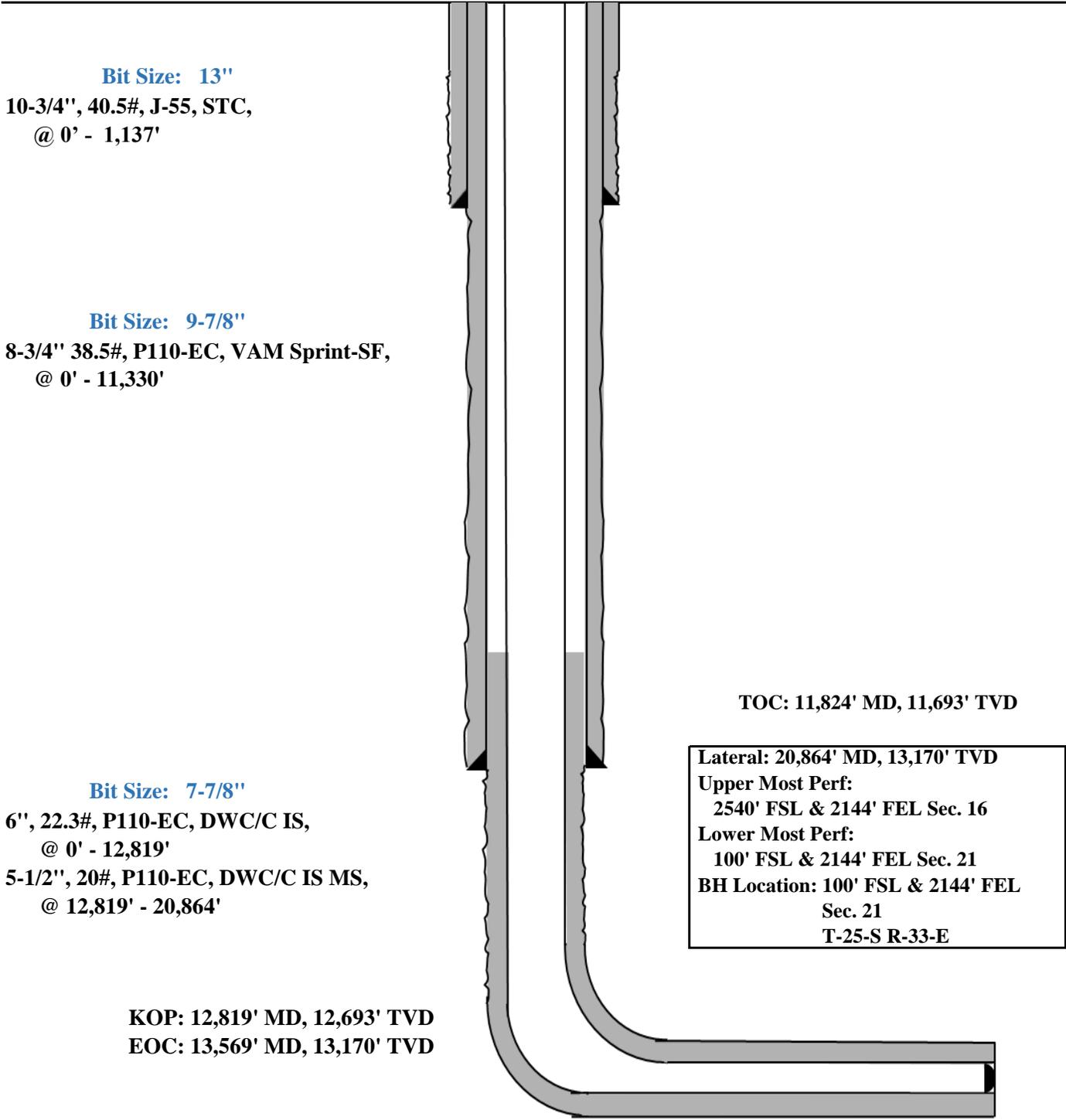
Green Drake 16 Fed Com 751H

2331' FSL  
803' FEL  
Section 16  
T-25-S, R-33-E

Proposed Wellbore

KB: 3410'  
GL: 3385'

API: 30-025-51086



Bit Size: 13"

10-3/4", 40.5#, J-55, STC,  
@ 0' - 1,137'

Bit Size: 9-7/8"

8-3/4" 38.5#, P110-EC, VAM Sprint-SF,  
@ 0' - 11,330'

Bit Size: 7-7/8"

6", 22.3#, P110-EC, DWC/C IS,  
@ 0' - 12,819'  
5-1/2", 20#, P110-EC, DWC/C IS MS,  
@ 12,819' - 20,864'

TOC: 11,824' MD, 11,693' TVD

Lateral: 20,864' MD, 13,170' TVD
Upper Most Perf: 2540' FSL & 2144' FEL Sec. 16
Lower Most Perf: 100' FSL & 2144' FEL Sec. 21
BH Location: 100' FSL & 2144' FEL Sec. 21 T-25-S R-33-E

KOP: 12,819' MD, 12,693' TVD  
EOC: 13,569' MD, 13,170' TVD



## Green Drake 16 Fed Com 751H

### GEOLOGIC NAME OF SURFACE FORMATION:

Permian

### ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,014'
Tamarisk Anhydrite	1,112'
Top of Salt	1,321'
Base of Salt	4,606'
Lamar	4,972'
Bell Canyon	5,024'
Cherry Canyon	6,114'
Brushy Canyon	9,007'
Bone Spring Lime	9,190'
Leonard (Avalon) Shale	9,248'
1st Bone Spring Sand	10,122'
2nd Bone Spring Shale	10,362'
2nd Bone Spring Sand	10,716'
3rd Bone Spring Carb	11,230'
3rd Bone Spring Sand	11,878'
Wolfcamp	12,299'
TD	13,170'

### ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 400'	Fresh Water
Bell Canyon	5,024'	Oil
Cherry Canyon	6,114'	Oil
Brushy Canyon	9,007'	Oil
Leonard (Avalon) Shale	9,248'	Oil
1st Bone Spring Sand	10,122'	Oil
2nd Bone Spring Shale	10,362'	Oil
2nd Bone Spring Sand	10,716'	Oil



**EOG Batch Casing**

**Pad Name:** Green Drake 16 Fed Com DEEP

SHL: Section 16, Township 25-S, Range 33-E, LEA County, NM

Well Name	API #	Surface		Intermediate		Production	
		MD	TVD	MD	TVD	MD	TVD
Green Drake 16 Fed Com #751H (FKA 405H)	30-025-51086	1,137	1,137	12,824	12,693	20,864	13,170
Green Drake 16 Fed Com #752H (FKA 603H)	30-025-51997	1,137	1,137	12,717	12,693	20,762	13,170
Green Drake 16 Fed Com #753H (FKA 509H)	30-025-51092	1,137	1,137	12,701	12,693	20,745	13,170



## EOG Batch Casing

### Variations

EOG requests the additional variance(s) in the attached document(s):

- EOG BLM Variance 2a - Intermediate Bradenhead Cement
- EOG BLM Variance 2b - Wolfcamp Intermediate Casing Setpoint
- EOG BLM Variance 3a\_b - BOP Break-test and Offline Intermediate Cement



## EOG Batch Casing

**GEOLOGIC NAME OF SURFACE FORMATION:**

Permian

**ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:**

Rustler	1,014'
Tamarisk Anhydrite	1,112'
Top of Salt	1,321'
Base of Salt	4,606'
Lamar	4,972'
Bell Canyon	5,024'
Cherry Canyon	6,114'
Brushy Canyon	9,007'
Bone Spring Lime	9,190'
Leonard (Avalon) Shale	9,248'
1st Bone Spring Sand	10,122'
2nd Bone Spring Shale	10,362'
2nd Bone Spring Sand	10,716'
3rd Bone Spring Carb	11,230'
3rd Bone Spring Sand	11,878'
Wolfcamp	12,299'

**ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:**

Upper Permian Sands	0- 400'	Fresh Water
Bell Canyon	5,024'	Oil
Cherry Canyon	6,114'	Oil
Brushy Canyon	9,007'	Oil
Leonard (Avalon) Shale	9,248'	Oil
1st Bone Spring Sand	10,122'	Oil
2nd Bone Spring Shale	10,362'	Oil
2nd Bone Spring Sand	10,716'	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 surface casing at 1,140' and circulating cement back to surface.

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 395337

**CONDITIONS**

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 395337
	Action Type: [C-103] NOI Change of Plans (C-103A)

**CONDITIONS**

Created By	Condition	Condition Date
pkautz	If cement is not circulated to surface during cementing operations, a Cement Bond Log (CBL) is required.	2/19/2025
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing.	2/19/2025