

Form 3160-5
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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.

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☐ Oil Well ☐ Gas Well ☐ Other

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

8. Well Name and No.

47H

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. (include area code)

10. Field and Pool or Exploratory Area

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

11. Country or Parish, State

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

TYPE OF SUBMISSION	TYPE OF ACTION				
<input 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 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 recompleat 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 recompleat 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 detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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.

Office

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

TO: 22573'MD/12400'TVD

The drilling plan will be updated to include a request for approval to perform off-line cementing and request approval to skid the rig to the next well on the pad to begin operations instead of waiting 8 hours for surface casing cement to harden before skidding rig.

Location of Well

0. SHL: NENW / 255 FNL / 1600 FWL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.238754 / LONG: -103.631642 (TVD: 0 feet, MD: 0 feet)

PPP: NENW / 0 FNL / 1980 FWL / TWSP: 24S / RANGE: 32E / SECTION: 13 / LAT: 32.2248639 / LONG: -103.630425 (TVD: 12300 feet, MD: 17300 feet)

PPP: NESE / 2641 FNL / 1980 FWL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.2322861 / LONG: -103.6304194 (TVD: 12300 feet, MD: 14600 feet)

BHL: SESW / 100 FSL / 2250 FWL / TWSP: 24S / RANGE: 32E / SECTION: 13 / LAT: 32.210692 / LONG: -103.630439 (TVD: 12400 feet, MD: 22573 feet)

CONFIDENTIAL

NOTE:

- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearing is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

1. Geological Formations

TVD of target 12,400

Pilot Hole TD N/A

MD at TD 22,573'

Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1185	Useable Water	
Salado (Top Salt)	1500	N/A	
Base of Salt	4650	N/A	
Delaware Sands	4920	N/A	
Bone Spring	8815	Hydrocarbons	
1st Bone Spring Sand	9910	Hydrocarbons	
2nd Bone Spring Sand	10635	Hydrocarbons	
3rd Bone Spring Sand	11835	Hydrocarbons	
Wolfcamp	12245	Hydrocarbons	

2. Casing Program

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
14 3/4	0	1215	1215	10-3/4"	40.50	J-55	BT&C	3.01	5.97	12.78
9 7/8	0	12630	12361	7-5/8"	29.70	L-80	BT&C	2.48	1.19	1.81
6 3/4	0	11880	11880	5-1/2"	20.00	P-110	LT&C	1.44	1.64	2.46
6 3/4	11880	22573	12400	5"	18.00	HCP-110	BT&C	1.67	1.69	61.97
BLM Minimum Safety Factor								1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Request Variance for 5-1/2" x 7-5/8" annular clearance. The portion that does not meet clearance will not be cemented

Cimarex Energy Co., Dos Equis 12-13 Federal Com 47H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	N
Is 2nd string set 100' to 600' below the base of salt?	N
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	N
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	N
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	N
Is AC Report included?	N

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft ³ /sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	472	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	127	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate Stage 1	601	10.30	3.64	22.18		Lead: Tuned Light + LCM
	207	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS
Intermediate Stage 2	775	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
Production	1037	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

DV tool with possible annular casing packer as needed is proposed at a depth of +/- 4,850'.

Casing String	TOC	% Excess
Surface	0	45
Intermediate Stage 1	4850	47
Intermediate Stage 2	0	37
Production	12430	25

Cimarex request the ability to perform casing integrity tests after plug bump of cement job.

4. Pressure Control Equipment

A variance is requested for the use of a diverter on the surface casing. See attached for schematic.					
BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
9 7/8	13 5/8	5M	Annular	X	5M
			Blind Ram		
			Pipe Ram	X	
			Double Ram	X	
			Other		
6 3/4	13 5/8	10M	Annular	X	50% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram	X	
			Other		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.				
X	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.				
N	Are anchors required by manufacturer?				

5. Mud Program

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1215'	FW Spud Mud	7.80 - 8.30	30-32	N/C
1215' to 12630'	Brine Diesel Emulsion	8.50 - 9.00	30-35	N/C
12630' to 22573'	OBM	12.00 - 12.50	50-70	N/C

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

The Brine Emulsion is completely saturated brine fluid that ties diesel into itself to lower the weight of the fluid. The drilling fluid is completely salt saturated.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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6. Logging and Testing Procedures

Logging, Coring and Testing	
	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
X	No logs are planned based on well control or offset log information.
	Drill stem test?
	Coring?

Additional Logs Planned	Interval
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7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	8060 psi
Abnormal Temperature	No

Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

X	H ₂ S is present
X	H ₂ S plan is attached

8. Other Facets of Operation**9. Wellhead**

A multi-bowl wellhead system will be utilized.

After running the 10-3/4" surface casing, a 13 5/8" BOP/BOPE system with a minimum working pressure of 10000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10000 psi test. Annular will be tested to 50% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2.

The multi-bowl wellhead will be installed by vendor's representative. A copy of the installation instructions has been sent to the BLM field office.

The wellhead will be installed by a third-party welder while being monitored by the wellhead vendor representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

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 10000 psi.

All casing strings will be tested as per Onshore Order No.2 to at least 0.22 psi/ft or 1,500 whichever is greater and not to exceed 70% of casing burst.

If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

10. Other Variances

Cimarex requests to perform offline cementing. OLC procedure as follows: 1. Land casing on solid body mandrel hanger. Engage packoff and lock ring. 2. Install BPV. 3. Skid rig. 4. Check for pressure and remove BPV. 5. Circulate down casing, taking returns through casing valves. 6. Pump lead and tail cement. 7. Displace cement and bump the plug. 8. Ensure floats are holding pressure. RD cement crew. 10. Install BPV and TA cap.

Cimarex requests permission to skid the rig to the next well on the pad to begin operations instead of waiting 8 hours for surface cement to harden on this 47H well. Surface cement will be pumped and we will ensure floats hold, do a green cement test and then skid to the next well on pad. We will not perform any operations on this 47H well until at least 8 hours and when both tail and lead slurry reach 500 psi. The mandrel hanger is made up on the last joint of 10-3/4" casing and then lowered down with and landing joint. It is then lowered down until the mandrel contacts the landing ring which is pre-welded to the conductor pipe. At this point the 10-3/4" casing is entirely supported by the conductor pipe via the landing ring/mandrel and is independent from the rig. This allows us to walk the rig away from the 47H well and begin work on the next well while the cement is hardening. There is no way for the casing to be moved or knocked off center since it is hanging from the landing ring.

Schlumberger

Cimarex Dos Equis 12-13 Federal Com #47H Rev2 kFc 05Aug22 Proposal
Geodetic Report
(Def Plan)



Report Date: August 05, 2022 - 05:20 PM
Client: Cimarex Energy
Field: NM Lea County (NAD 83)
Structure / Slot: Cimarex Dos Equis 12-13 Federal Com #47H / 47H
Well: Dos Equis 12-13 Federal Com #47H
Borehole: Dos Equis 12-13 Federal Com #47H
UWI / API#: Unknown / Unknown
Survey Name: Cimarex Dos Equis 12-13 Federal Com #47H Rev2 kFc 05Aug22
Survey Date: December 20, 2018
Tort / AHD / DDI / ERD Ratio: 117.000 * / 11032.634 ft / 6.371 / 0.890
Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 14' 19.51387", W 103° 37' 53.91234"
Location Grid N/E Y/X: N 451300.900 RUS, E 758290.160 RUS
CRS Grid Convergence Angle: 0.3743 °
Grid Scale Factor: 0.999963
Version / Patch: 2.10.832.2

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.670 ° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 3634.000 ft above MSL
Seabed / Ground Elevation: 3608.000 ft above MSL
Magnetic Declination: 6.325 °
Total Gravity Field Strength: 998.4380mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47573.115 nT
Magnetic Dip Angle: 59.831 °
Declination Date: August 05, 2022
Magnetic Declination Model: HDGM 2022
North Reference: Grid North
Grid Convergence Used: 0.3743 °
Total Corr Mag North->Grid North: 5.9511 °
Local Coord Referenced To: Well Head

30-025-46322

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S °)	Longitude (E/W °)
SHL [255' FNL, 1600' FWL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	451300.90	758290.16	N 32.238754	W 103.631642
	100.00	0.00	76.17	100.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	200.00	0.00	76.17	200.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	300.00	0.00	76.17	300.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	400.00	0.00	76.17	400.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	500.00	0.00	76.17	500.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	600.00	0.00	76.17	600.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	700.00	0.00	76.17	700.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	800.00	0.00	76.17	800.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	900.00	0.00	76.17	900.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	1000.00	0.00	76.17	1000.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	1100.00	0.00	76.17	1100.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
Rustler	1185.00	0.00	76.17	1185.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	1200.00	0.00	76.17	1200.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	1300.00	0.00	76.17	1300.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	1400.00	0.00	76.17	1400.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
Salado (Top Salt)	1500.00	0.00	76.17	1500.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	1600.00	0.00	76.17	1600.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	1700.00	0.00	76.17	1700.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
Nudge, Build 2"/100ft	1800.00	0.00	76.17	1800.00	0.00	0.00	0.00	0.00	451300.90	758290.16	N 32.238754	W 103.631642
	1900.00	2.00	76.17	1899.98	-0.41	0.42	1.69	2.00	451301.32	758291.85	N 32.238755	W 103.631637
	2000.00	4.00	76.17	1999.84	-1.83	1.67	6.78	2.00	451302.57	758296.94	N 32.238758	W 103.631620
	2100.00	6.00	76.17	2099.45	-3.66	3.75	15.24	2.00	451304.65	758305.40	N 32.238764	W 103.631593
	2200.00	8.00	76.17	2198.70	-6.51	6.66	27.07	2.00	451307.56	758317.23	N 32.238772	W 103.631555
	2300.00	10.00	76.17	2297.47	-10.16	10.40	42.26	2.00	451311.30	758332.42	N 32.238782	W 103.631505
	2400.00	12.00	76.17	2395.62	-14.61	14.96	60.79	2.00	451315.86	758350.95	N 32.238794	W 103.631445
Hold	2475.00	13.50	76.17	2468.77	-16.48	18.92	76.86	2.00	451319.62	758367.02	N 32.238804	W 103.631393
	2500.00	13.50	76.17	2493.08	-19.84	20.31	82.53	0.00	451321.21	758372.68	N 32.238808	W 103.631375
	2600.00	13.50	76.17	2590.32	-25.29	25.89	105.19	0.00	451326.79	758395.35	N 32.238823	W 103.631302
	2700.00	13.50	76.17	2687.55	-30.74	31.47	127.86	0.00	451332.37	758418.02	N 32.238838	W 103.631228
	2800.00	13.50	76.17	2784.79	-36.19	37.05	150.53	0.00	451337.95	758440.68	N 32.238853	W 103.631155
	2900.00	13.50	76.17	2882.03	-41.63	42.63	173.20	0.00	451343.53	758463.35	N 32.238868	W 103.631081
	3000.00	13.50	76.17	2979.27	-47.08	48.21	195.87	0.00	451349.11	758486.02	N 32.238883	W 103.631008
	3100.00	13.50	76.17	3076.50	-52.53	53.79	218.53	0.00	451354.69	758508.69	N 32.238898	W 103.630934
	3200.00	13.50	76.17	3173.74	-57.98	59.37	241.20	0.00	451360.27	758531.35	N 32.238913	W 103.630861
	3300.00	13.50	76.17	3270.98	-63.43	64.95	263.87	0.00	451365.85	758554.02	N 32.238928	W 103.630788
	3400.00	13.50	76.17	3368.21	-68.88	70.53	286.54	0.00	451371.43	758576.69	N 32.238943	W 103.630714
	3500.00	13.50	76.17	3465.45	-74.33	76.11	309.21	0.00	451377.01	758599.35	N 32.238957	W 103.630641
	3600.00	13.50	76.17	3562.69	-79.78	81.69	331.87	0.00	451382.59	758622.02	N 32.238972	W 103.630567
	3700.00	13.50	76.17	3659.93	-85.23	87.27	354.54	0.00	451388.17	758644.69	N 32.238987	W 103.630494
	3800.00	13.50	76.17	3757.16	-90.68	92.85	377.21	0.00	451393.75	758667.35	N 32.239002	W 103.630420
	3900.00	13.50	76.17	3854.40	-96.12	98.43	399.88	0.00	451399.32	758690.02	N 32.239017	W 103.630347
	4000.00	13.50	76.17	3951.64	-101.57	104.01	422.54	0.00	451404.90	758712.69	N 32.239032	W 103.630274
	4100.00	13.50	76.17	4048.87	-107.02	109.59	445.21	0.00	451410.48	758735.35	N 32.239047	W 103.630200
	4200.00	13.50	76.17	4146.11	-112.47	115.17	467.88	0.00	451416.06	758758.02	N 32.239062	W 103.630127
	4300.00	13.50	76.17	4243.35	-117.92	120.75	490.55	0.00	451421.64	758780.69	N 32.239077	W 103.630053
	4400.00	13.50	76.17	4340.58	-123.37	126.33	513.22	0.00	451427.22	758803.36	N 32.239092	W 103.629980
	4500.00	13.50	76.17	4437.82	-128.82	131.91	535.88	0.00	451432.80	758826.02	N 32.239107	W 103.629906
	4600.00	13.50	76.17	4535.06	-134.27	137.49	558.55	0.00	451438.38	758848.69	N 32.239122	W 103.629833
Drop 2"/100ft	4659.95	13.50	76.17	4593.35	-137.53	140.83	572.14	0.00	451444.13	758862.28	N 32.239137	W 103.629759
	4700.00	12.70	76.17	4632.36	-139.65	143.00	580.95	2.00	451443.90	758871.09	N 32.239136	W 103.629760
Base of Salt	4718.07	12.34	76.17	4650.00	-140.57	143.94	584.76	2.00	451444.83	758874.89	N 32.239139	W 103.629748
	4800.00	10.70	76.17	4730.28	-144.39	147.85	600.84	2.00	451446.74	758890.78	N 32.239149	W 103.629697
	4900.00	8.70	76.17	4828.84	-148.32	151.87	617.00	2.00	451452.77	758907.14	N 32.239160	W 103.629644
Delaware Sands	4992.01	6.86	76.17	4920.00	-151.22	154.85	629.09	2.00	451455.74	758919.23	N 32.239168	W 103.629605
	5000.00	6.70	76.17	4927.94	-151.44	155.08	630.01	2.00	451455.97	758920.14	N 32.239169	W 103.629602
	5100.00	4.70	76.17	5027.44	-153.76	157.45	639.65	2.00	451458.34	758929.79	N 32.239175	W 103.629570
	5200.00	2.70	76.17	5127.22	-155.27	158.99	645.91	2.00	451459.88	758936.05	N 32.239179	W 103.629550
	5300.00	0.70	76.17	5227.17	-155.96	159.70	648.79	2.00	451460.59	758939.03	N 32.239181	W 103.629541
Hold	5334.95	0.00	76.17	5262.12	-156.01	159.75	649.00	2.00	451460.64	758939.13	N 32.239181	W 103.629540
	5400.00	0.00	76.17	5327.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
	5500.00	0.00	76.17	5427.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
	5600.00	0.00	76.17	5527.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
	5700.00	0.00	76.17	5627.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
	5800.00	0.00	76.17	5727.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
	5900.00	0.00	76.17	5827.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
	6000.00	0.00	76.17	5927.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
	6100.00	0.00	76.17	6027.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
	6200.00	0.00	76.17	6127.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
	6300.00	0.00	76.17	6227.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
	6400.00	0.00	76.17	6327.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
	6500.00	0.00	76.17	6427.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
	6600.00	0.00	76.17	6527.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
	6700.00	0.00	76.17	6627.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540

...Dos Equis 12-13 Federal Com #47H\Cimarex Dos Equis 12-13 Federal Com #47H Rev2 kFc 05Aug22

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S °)	Longitude (E/W °)	
Bone Spring	6800.00	0.00	76.17	6727.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	6900.00	0.00	76.17	6827.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	7000.00	0.00	76.17	6927.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	7100.00	0.00	76.17	7027.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	7200.00	0.00	76.17	7127.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	7300.00	0.00	76.17	7227.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	7400.00	0.00	76.17	7327.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	7500.00	0.00	76.17	7427.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	7600.00	0.00	76.17	7527.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	7700.00	0.00	76.17	7627.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	7800.00	0.00	76.17	7727.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	7900.00	0.00	76.17	7827.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	8000.00	0.00	76.17	7927.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	8100.00	0.00	76.17	8027.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	8200.00	0.00	76.17	8127.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	8300.00	0.00	76.17	8227.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	8400.00	0.00	76.17	8327.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	8500.00	0.00	76.17	8427.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	8600.00	0.00	76.17	8527.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	8700.00	0.00	76.17	8627.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	8800.00	0.00	76.17	8727.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	8887.83	0.00	76.17	8815.00	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	8900.00	0.00	76.17	8827.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	9000.00	0.00	76.17	8927.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	9100.00	0.00	76.17	9027.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	9200.00	0.00	76.17	9127.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	9300.00	0.00	76.17	9227.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	9400.00	0.00	76.17	9327.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	9500.00	0.00	76.17	9427.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	9600.00	0.00	76.17	9527.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
9700.00	0.00	76.17	9627.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540		
9800.00	0.00	76.17	9727.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540		
9900.00	0.00	76.17	9827.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540		
1st Bone Spring Sand	9982.83	0.00	76.17	9910.00	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	10000.00	0.00	76.17	9927.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	10100.00	0.00	76.17	10027.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	10200.00	0.00	76.17	10127.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	10300.00	0.00	76.17	10227.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	10400.00	0.00	76.17	10327.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	10500.00	0.00	76.17	10427.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	10600.00	0.00	76.17	10527.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	10700.00	0.00	76.17	10627.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	2nd Bone Spring Sand	10707.83	0.00	76.17	10635.00	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
		10800.00	0.00	76.17	10727.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
10900.00		0.00	76.17	10827.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
11000.00		0.00	76.17	10927.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
11100.00		0.00	76.17	11027.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
3rd Bone Spring Carb		11157.83	0.00	76.17	11085.00	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540
11200.00		0.00	76.17	11127.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
11300.00		0.00	76.17	11227.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
11400.00		0.00	76.17	11327.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
11500.00		0.00	76.17	11427.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
11600.00		0.00	76.17	11527.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
11700.00	0.00	76.17	11627.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540		
11800.00	0.00	76.17	11727.17	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540		
KOP, Build 10*/100ft	11880.35	0.00	76.17	11807.52	-156.01	159.75	649.00	0.00	451460.64	758939.13	N 32.239181	W 103.629540	
	11900.00	1.97	179.67	11827.17	-155.67	159.41	649.00	10.00	451460.31	758939.14	N 32.239180	W 103.629540	
	11907.84	2.75	179.67	11835.00	-155.35	159.09	649.00	10.00	451459.98	758939.14	N 32.239179	W 103.629540	
3rd Bone Spring Sand	11907.84	2.75	179.67	11835.00	-155.35	159.09	649.00	10.00	451459.98	758939.14	N 32.239179	W 103.629540	
Wolfcamp	12000.00	11.97	179.67	11926.31	-143.56	147.30	649.07	10.00	451448.20	758939.21	N 32.239147	W 103.629540	
	12100.00	21.97	179.67	12021.83	-114.42	118.16	649.24	10.00	451419.06	758939.37	N 32.239067	W 103.629540	
	12200.00	31.97	179.67	12110.85	-69.13	72.87	649.50	10.00	451373.77	758939.64	N 32.238942	W 103.629540	
	12300.00	41.97	179.67	12190.65	-9.07	12.82	649.85	10.00	451313.72	758939.98	N 32.238777	W 103.629540	
	12378.12	49.78	179.67	12245.00	46.96	-43.22	650.17	10.00	451257.69	758940.30	N 32.238623	W 103.629541	
	12400.00	51.97	179.67	12258.80	63.93	-60.18	650.27	10.00	451240.72	758940.40	N 32.238577	W 103.629541	
	12500.00	61.97	179.67	12313.25	147.66	-143.91	650.75	10.00	451157.00	758940.88	N 32.238347	W 103.629541	
	12600.00	71.97	179.67	12352.33	239.57	-235.82	651.28	10.0					

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S °)	Longitude (E/W °)
	15600.00	90.00	179.67	12400.00	3234.89	-3231.10	668.55	0.00	448069.93	758958.69	N 32.229861	W 103.629549
	15700.00	90.00	179.67	12400.00	3334.89	-3331.10	669.13	0.00	447669.93	758959.27	N 32.229586	W 103.629549
	15800.00	90.00	179.67	12400.00	3434.89	-3431.09	669.71	0.00	447669.94	758959.84	N 32.229311	W 103.629549
	15900.00	90.00	179.67	12400.00	3534.89	-3531.09	670.28	0.00	447769.95	758960.42	N 32.229036	W 103.629549
	16000.00	90.00	179.67	12400.00	3634.89	-3631.09	670.86	0.00	447669.95	758961.00	N 32.228761	W 103.629550
	16100.00	90.00	179.67	12400.00	3734.89	-3731.09	671.44	0.00	447569.96	758961.57	N 32.228487	W 103.629550
	16200.00	90.00	179.67	12400.00	3834.89	-3831.09	672.02	0.00	447469.96	758962.15	N 32.228212	W 103.629550
	16300.00	90.00	179.67	12400.00	3934.89	-3931.09	672.59	0.00	447369.97	758962.73	N 32.227937	W 103.629550
	16400.00	90.00	179.67	12400.00	4034.89	-4031.08	673.17	0.00	447269.97	758963.30	N 32.227662	W 103.629551
	16500.00	90.00	179.67	12400.00	4134.89	-4131.08	673.75	0.00	447169.98	758963.88	N 32.227387	W 103.629551
	16600.00	90.00	179.67	12400.00	4234.89	-4231.08	674.32	0.00	447069.98	758964.46	N 32.227112	W 103.629551
	16700.00	90.00	179.67	12400.00	4334.89	-4331.08	674.90	0.00	446969.99	758965.03	N 32.226837	W 103.629551
	16800.00	90.00	179.67	12400.00	4434.89	-4431.08	675.48	0.00	446870.00	758965.61	N 32.226562	W 103.629552
	16900.00	90.00	179.67	12400.00	4534.89	-4531.08	676.05	0.00	446770.00	758966.19	N 32.226288	W 103.629552
	17000.00	90.00	179.67	12400.00	4634.89	-4631.07	676.63	0.00	446670.01	758966.76	N 32.226013	W 103.629552
	17100.00	90.00	179.67	12400.00	4734.89	-4731.07	677.21	0.00	446570.01	758967.34	N 32.225738	W 103.629552
	17200.00	90.00	179.67	12400.00	4834.89	-4831.07	677.78	0.00	446470.02	758967.92	N 32.225463	W 103.629553
	17300.00	90.00	179.67	12400.00	4934.89	-4931.07	678.36	0.00	446370.02	758968.49	N 32.225188	W 103.629553

Section 12-13
Line,
NMNM0002889
exit to
NMNM0553548
enter Lease
Crossing

17392.87	90.00	179.67	12400.00	5027.77	-5023.94	678.90	0.00	446277.16	758969.03	N 32.224933	W 103.629553
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17400.00	90.00	179.67	12400.00	5034.89	-5031.07	678.94	0.00	446270.03	758969.07	N 32.224913	W 103.629553
17500.00	90.00	179.67	12400.00	5134.89	-5131.07	679.51	0.00	446170.03	758969.65	N 32.224638	W 103.629554
17600.00	90.00	179.67	12400.00	5234.89	-5231.06	680.09	0.00	446070.04	758970.22	N 32.224364	W 103.629554
17700.00	90.00	179.67	12400.00	5334.89	-5331.06	680.67	0.00	445970.05	758970.80	N 32.224089	W 103.629554
17800.00	90.00	179.67	12400.00	5434.89	-5431.06	681.24	0.00	445870.05	758971.38	N 32.223814	W 103.629554
17900.00	90.00	179.67	12400.00	5534.89	-5531.06	681.82	0.00	445770.06	758971.95	N 32.223539	W 103.629555
18000.00	90.00	179.67	12400.00	5634.89	-5631.06	682.40	0.00	445670.06	758972.53	N 32.223264	W 103.629555
18100.00	90.00	179.67	12400.00	5734.89	-5731.06	682.97	0.00	445570.07	758973.11	N 32.222989	W 103.629555
18200.00	90.00	179.67	12400.00	5834.89	-5831.05	683.55	0.00	445470.07	758973.68	N 32.222714	W 103.629555
18300.00	90.00	179.67	12400.00	5934.89	-5931.05	684.13	0.00	445370.08	758974.26	N 32.222440	W 103.629556
18400.00	90.00	179.67	12400.00	6034.89	-6031.05	684.71	0.00	445270.08	758974.84	N 32.222165	W 103.629556
18500.00	90.00	179.67	12400.00	6134.89	-6131.05	685.28	0.00	445170.09	758975.42	N 32.221890	W 103.629556
18600.00	90.00	179.67	12400.00	6234.89	-6231.05	685.86	0.00	445070.10	758975.99	N 32.221615	W 103.629556
18700.00	90.00	179.67	12400.00	6334.89	-6331.05	686.44	0.00	444970.10	758976.57	N 32.221340	W 103.629557
18800.00	90.00	179.67	12400.00	6434.89	-6431.04	687.01	0.00	444870.11	758977.15	N 32.221065	W 103.629557
18900.00	90.00	179.67	12400.00	6534.89	-6531.04	687.59	0.00	444770.11	758977.72	N 32.220790	W 103.629557
19000.00	90.00	179.67	12400.00	6634.89	-6631.04	688.17	0.00	444670.12	758978.30	N 32.220515	W 103.629557
19100.00	90.00	179.67	12400.00	6734.89	-6731.04	688.74	0.00	444570.12	758978.88	N 32.220241	W 103.629558
19200.00	90.00	179.67	12400.00	6834.89	-6831.04	689.32	0.00	444470.13	758979.45	N 32.219966	W 103.629558
19300.00	90.00	179.67	12400.00	6934.89	-6931.04	689.90	0.00	444370.13	758980.03	N 32.219691	W 103.629558
19400.00	90.00	179.67	12400.00	7034.89	-7031.03	690.47	0.00	444270.14	758980.61	N 32.219416	W 103.629558
19500.00	90.00	179.67	12400.00	7134.89	-7131.03	691.05	0.00	444170.15	758981.18	N 32.219141	W 103.629559
19600.00	90.00	179.67	12400.00	7234.89	-7231.03	691.63	0.00	444070.15	758981.76	N 32.218866	W 103.629559
19700.00	90.00	179.67	12400.00	7334.89	-7331.03	692.20	0.00	443970.16	758982.34	N 32.218591	W 103.629559
19800.00	90.00	179.67	12400.00	7434.89	-7431.03	692.78	0.00	443870.16	758982.92	N 32.218317	W 103.629559
19900.00	90.00	179.67	12400.00	7534.89	-7531.03	693.36	0.00	443770.17	758983.49	N 32.218042	W 103.629560
20000.00	90.00	179.67	12400.00	7634.89	-7631.02	693.93	0.00	443670.17	758984.07	N 32.217767	W 103.629560

NMNM0553548
exit to
NMNM0553642
enter Lease
Crossing

20032.16	90.00	179.67	12400.00	7667.05	-7663.18	694.12	0.00	443638.02	758984.25	N 32.217678	W 103.629560
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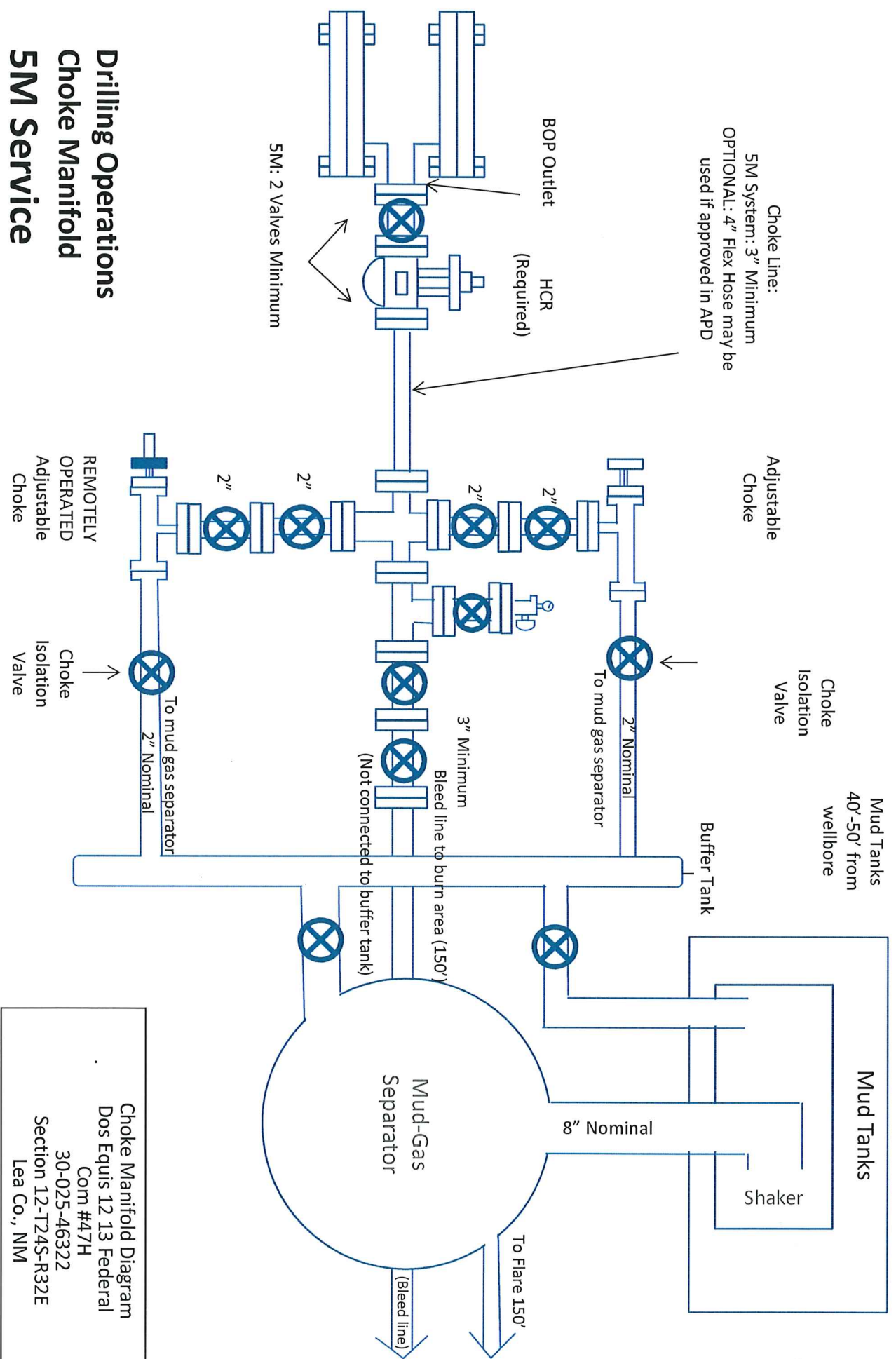
20100.00	90.00	179.67	12400.00	7734.89	-7731.02	694.51	0.00	443570.18	758984.64	N 32.217492	W 103.629560
20200.00	90.00	179.67	12400.00	7834.89	-7831.02	695.09	0.00	443470.18	758985.22	N 32.217217	W 103.629560
20300.00	90.00	179.67	12400.00	7934.89	-7931.02	695.66	0.00	443370.19	758985.80	N 32.216942	W 103.629561
20400.00	90.00	179.67	12400.00	8034.89	-8031.02	696.24	0.00	443270.20	758986.37	N 32.216667	W 103.629561
20500.00	90.00	179.67	12400.00	8134.89	-8131.02	696.82	0.00	443170.20	758986.95	N 32.216392	W 103.629561
20600.00	90.00	179.67	12400.00	8234.89	-8231.01	697.40	0.00	443070.21	758987.53	N 32.216118	W 103.629561
20700.00	90.00	179.67	12400.00	8334.89	-8331.01	697.97	0.00	442970.21	758988.10	N 32.215843	W 103.629562
20800.00	90.00	179.67	12400.00	8434.89	-8431.01	698.55	0.00	442870.22	758988.68	N 32.215568	W 103.629562
20900.00	90.00	179.67	12400.00	8534.89	-8531.01	699.13	0.00	442770.22	758989.26	N 32.215293	W 103.629562
21000.00	90.00	179.67	12400.00	8634.89	-8631.01	699.70	0.00	442670.23	758989.83	N 32.215018	W 103.629562
21100.00	90.00	179.67	12400.00	8734.89	-8731.01	700.28	0.00	442570.23	758990.41	N 32.214743	W 103.629563
21200.00	90.00	179.67	12400.00	8834.89	-8831.00	700.86	0.00	442470.24	758990.99	N 32.214468	W 103.629563
21300.00	90.00	179.67	12400.00	8934.89	-8931.00	701.43	0.00	442370.25	758991.57	N 32.214194	W 103.629563
21400.00	90.00	179.67	12400.00	9034.89	-9031.00	702.01	0.00	442270.25	758992.14	N 32.213919	W 103.629563
21500.00	90.00	179.67	12400.00	9134.89	-9131.00	702.59	0.00	442170.26	758992.72	N 32.213644	W 103.629564
21600.00	90.00	179.67	12400.00	9234.89	-9231.00	703.16	0.00	442070.26	758993.30	N 32.213369	W 103.629564
21700.00	90.00	179.67	12400.00	9334.89	-9331.00	703.74	0.00	441970.27	758993.87	N 32.213094	W 103.629564
21800.00	90.00	179.67	12400.00	9434.89	-9430.99	704.32	0.00	441870.27	758994.45	N 32.212819	W 103.629564
21900.00	90.00	179.67	12400.00	9534.89	-9530.99	704.89	0.00	441770.28	758995.03	N 32.212544	W 103.629565
22000.00	90.00	179.67	12400.00	9634.89	-9630.99	705.47	0.00	441670.28	758995.61	N 32.212270	W 103.629565
22100.00	90.00	179.67	12400.00	9734.89	-9730.99	706.05	0.00	441570.29	758996.18	N 32.211995	W 103.629565
22200.00	90.00	179.67	12400.00	9834.89	-9830.99	706.62	0.00	441470.30	758996.76	N 32.211720	W 103.629565
22300.00	90.00	179.67	12400.00	9934.89	-9930.99	707.20	0.00	441370.30	758997.33	N 32.211445	W 103.629566
22400.00	90.00	179.67	12400.00	10034.89	-10030.98	707.78	0.00	441270.31	758997.91	N 32.211170	W 103.629566
22500.00	90.00	179.67	12400.00	10134.89	-10130.98	708.35	0.00	441170.31	758998.49	N 32.210895	W 103.629566

Cimarex Dos
Equis 12-13
Federal Com
47H - PBHL
[100' FSL, 2250'
FWL]

22573.36	90.00	179.67	12400.00	10208.25	-10204.34	708.78	0.00	441096.96	758998.91	N 32.210694	W 103.629566
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Survey Type:	Def Plan								
Survey Error Model:	ISCWSA Rev 3 *** 3-D 95.000% Confidence 2.7955 sigma								
Survey Program:									
Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	26.000	1/100.000	17.500	13.375		A001Mb_MWD-Depth Only	Dos Equis 12-13 Federal Com #47H / Cimarex Dos Equis 12-13
	1	26.000	22573.358	1/100.000	17.500	13.375		A001Mb_MWD	Dos Equis 12-13 Federal Com #47H / Cimarex Dos Equis 12-13

CIMAREX ENERGY COMPANY



Mud Tanks
40'-50' from
wellbore



Choke Manifold Diagram
Dos Equis 12 13 Federal
Com #47H
30-025-46322
Section 12-T24S-R32E
Lea Co., NM

CIMAREX ENERGY COMPANY

Drilling 9-7/8" Hole
below 10-3/4" Casing

5M Annular Preventer

10M Double
Ram BOP

Pipe Rams

Blind Rams

2" Kill Line Valves (2)
with Check Valve

3" Manual Choke Valve
and 3" HCR Valve

2" Kill Line

3" Choke Line

10M Single
Ram BOP

Pipe Rams

5,000# BOP
Dos Equis 12-13 Federal Com
#47H
30-025-46322
Section 12-T24S-R32E
Lea Co., NM

11" 10M x 13-5/8"
5M Casing Spool

13-5/8" 5M x
13-3/8" SOW
Wellhead

Drilling 6-3/4" Hole
below 7-5/8" Casing

5M Annular Preventer

10M Double
Ram BOP

Pipe Rams

Blind Rams

2" Kill Line Valves (2)
with Check Valve

3" Manual Choke Valve
and 3" HCR Valve

2" Kill Line

3" Choke Line

10M Single
Ram BOP

Pipe Rams

10,000# BOP
Dos Equis 12 13Federal Com
#47H
30-025-46322
Section 13-T24S-R32E
Lea Co., NM

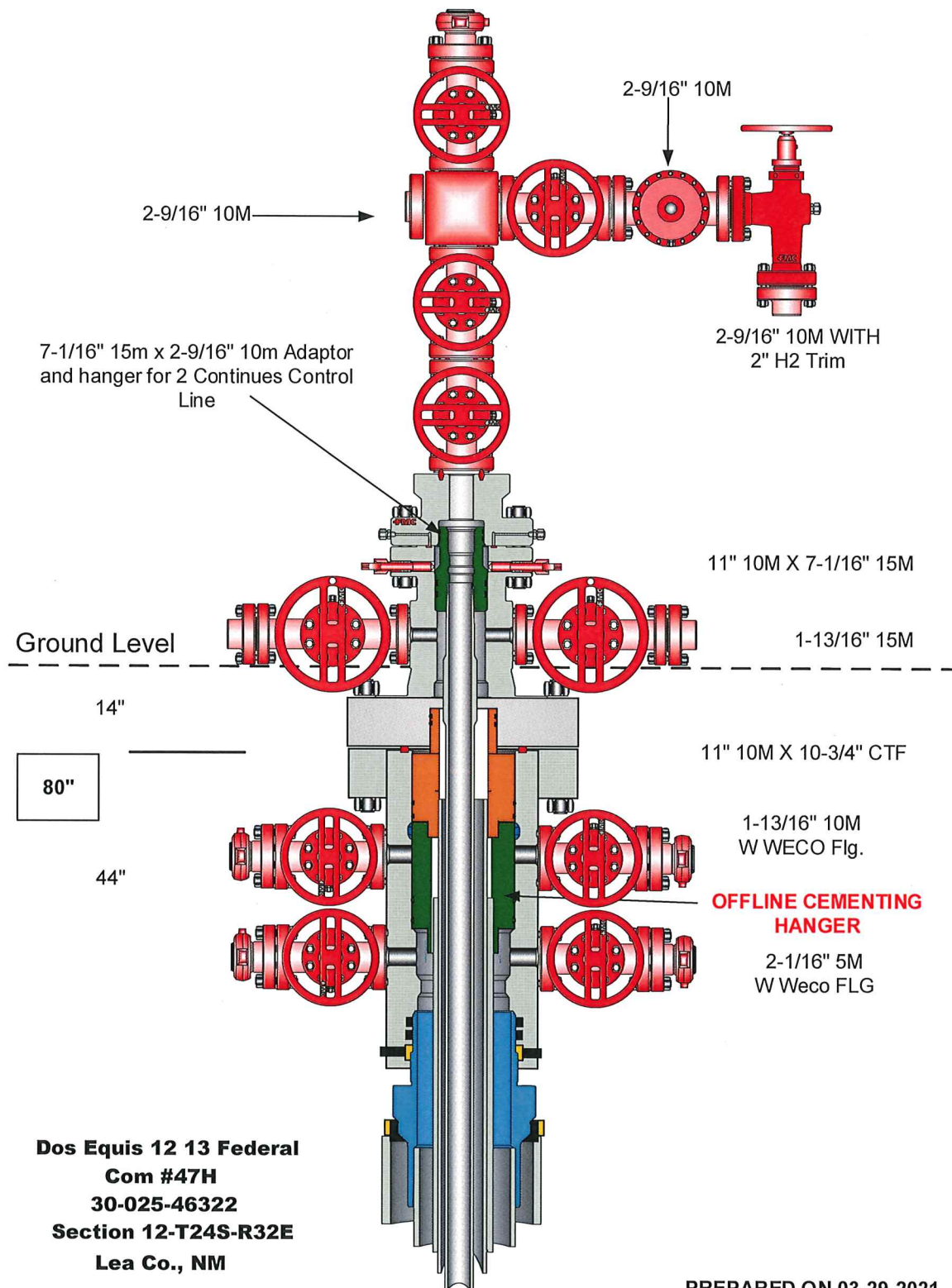
11" 10M x 13-5/8"
5M Casing Spool

13-5/8" 5M x
13-3/8" SOW
Wellhead



CACTUS FOR SERVICE
WEARBUSHING
IN CASING HEAD &
CASING SPOOL

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
14 3/4	0	1215	1215	10-3/4"	40.50	J-55	BT&C	3.01	5.97	12.78
9 7/8	0	12630	12361	7-5/8"	29.70	L-80	BT&C	2.48	1.19	1.81
6 3/4	0	11880	11880	5-1/2"	20.00	P-110	LT&C	1.44	1.64	2.46
6 3/4	11880	22573	12400	5"	18.00	HCP-110	BT&C	1.67	1.69	61.97
BLM Minimum Safety Factor								1.125	1	1.6 Dry 1.8 Wet



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 164202

CONDITIONS

Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701	OGRID: 215099
	Action Number: 164202
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	12/29/2022