Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

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.

SUBMIT IN TRIPLICATE - Other instructions on page 2

HOBBS OCD
APR 08 2019
RECEIVED

5. Lease Serial No.
NMNM27506

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
SD EA 29 32 FED COM P11 16H

2. Name of Operator
CHEVRON USA INCORPORATED
Contact: LAURA BECERRA
E-Mail: LBECERRA@CHEVRON.COM

9. API Well No.
30-025-44336-00-X1

3a. Address
6301 DEAUVILLE BLVD
MIDLAND, TX 79706

3b. Phone No. (include area code)
Ph: 432-687-7655

10. Field and Pool or Exploratory Area
WC025G09S263327G UP WOLFCAMP

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 29 T26S R33E NWNW 195FNL 903FWL
32.021225 N Lat, 103.599892 W Lon

Carlsbad Field Office
OCD Hobbs

11. County or Parish, State
LEA COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original A PD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Chevron respectfully requests a variance to make the following changes to the originally approved APD:

- change the BHL of this well to the new 100' North-South Lease line rule as agreed upon by the State of New Mexico OCD and BLM. Updated C-102 and directional survey with revised TVD and MD are attached.

- Change intermediate cement design from 15.6 ppg class H cement slurry to 14.8 ppg class C. Details of the verbally agreed upon cement design are attached.

- change the casing design to a 3-string design with 4-string liner contingency plan. Design factors have been updated for both designs in the attached 9 Pt Drilling plan. Formations tops in

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #455161 verified by the BLM Well Information System
For CHEVRON USA INCORPORATED, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 02/26/2019 (19PP1124SE)

Name *(Printed/Typed)* LAURA BECERRA — Title REGULATORY SPECIALIST

Signature (Electronic Submission) — Date 02/19/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ZOTA STEVENS — Title PETROLEUM ENGINEER — Date 03/24/2019

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 Hobbs

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)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #455161 that would not fit on the form

32. Additional remarks, continued

the 9-point plan have also been updated utilizing data from pilot holes Chevron has drilled in the area.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

[X] AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-44336	98097	SANDERS TANK;UPPER WOLFCAMP

[4] Property Code	[5] Property Name	[6] Well Number
	SD EA 29 32 FED COM P11	16H

[7] OGRID No.	[8] Operator Name	[9] Elevation
4323	CHEVRON U.S.A. INC.	3215'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	29	26 SOUTH	33 EAST, N.M.P.M.		195'	NORTH	903'	WEST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	32	26 SOUTH	33 EAST, N.M.P.M.		25'	SOUTH	1590'	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
237.37			

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

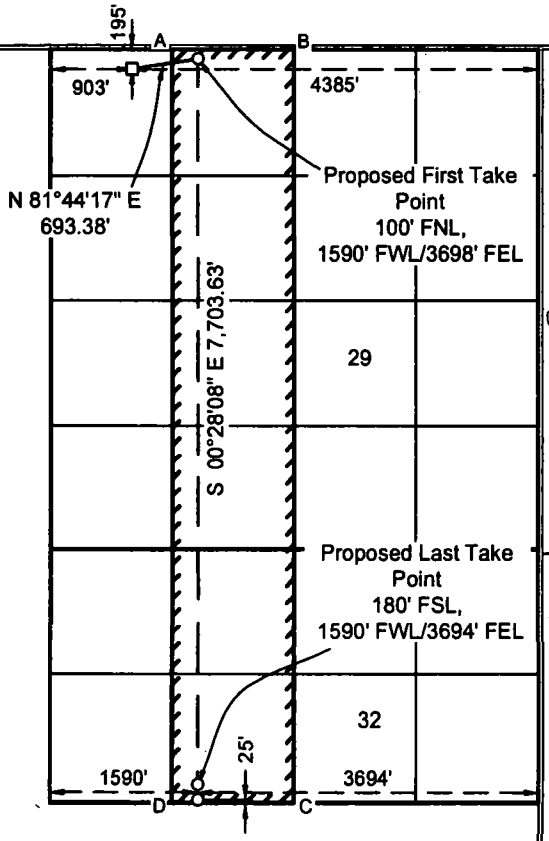
[16]

SD EA 29 32 FED COM P11 NO. 16H WELL		
X=	727,458	NAD 27
Y=	372,175	
LAT.	32.021101 N	
LONG.	103.599426 W	
X=	768,646	NAD83/2011
Y=	372,232	
LAT.	32.021226 N	
LONG.	103.599893 W	
ELEVATION +3215' NAVD 88		

PROPOSED FIRST TAKE POINT		
X=	728,144	NAD 27
Y=	372,275	
LAT.	32.021362 N	
LONG.	103.597210 W	
X=	769,332	NAD83/2011
Y=	372,332	
LAT.	32.021487 N	
LONG.	103.597677 W	

PROPOSED LAST TAKE POINT		
X=	728,206	NAD 27
Y=	364,727	
LAT.	32.000611 N	
LONG.	103.597177 W	
X=	769,394	NAD83/2011
Y=	364,783	
LAT.	32.000737 N	
LONG.	103.597642 W	

PROPOSED BOTTOM HOLE LOCATION		
X=	728,207	NAD 27
Y=	364,572	
LAT.	32.000185 N	
LONG.	103.597176 W	
X=	769,395	NAD83/2011
Y=	364,628	
LAT.	32.000311 N	
LONG.	103.597641 W	



CORNER COORDINATES TABLE (NAD 27)

A - Y=372373.27, X=727875.49
B - Y=372382.09, X=729197.59
C - Y=364553.99, X=729259.12
D - Y=364544.81, X=727938.29

[17] OPERATOR CERTIFICATION

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

Signature — Date: 12/12/2018

Laura Becerra
Printed Name

LBecerra@Chevron.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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

04/12/2018
Date of Survey

Signature and Seal of Professional Surveyor:

ROBERT L. LASTRAPES
NEW MEXICO
07/09/2018
23006
PROFESSIONAL SURVEYOR

23006
Certificate Number

1. **FORMATION TOPS**

The estimated tops of important geologic markers are as follows:

FORMATION	SUB-SEA TVD	KBTVD	MD
Rustler		1,043	
Castile		3,065	
Lamar		4,932	
Bell Canyon		4,956	
Cherry Canyon		5,990	
Brushy Canyon		7,519	
Bone Spring Limestone		9,110	
Upr. Avalon		9,145	
Top Bone Spring 1		10,069	
Top Bone Spring 2		10,616	
Top Bone Spring 3		11,740	
Wolfcamp		12,130	
Wolfcamp A1		12,326	
Wolfcamp A2		12,656	
Lateral TD (Wolfcamp A2)		12,754	20283

2. **ESTIMATED DEPTH OF WATER, OIL, GAS & OTHER MINERAL BEARING FORMATIONS**

The estimated depths at which the top and bottom of the anticipated water, oil, gas, or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Depth
Deepest Expected Base of Fresh Water		700
Water	Rustler	1043
Water	Bell Canyon	4956
Water	Cherry Canyon	5990
Oil/Gas	Brushy Canyon	7519
Oil/Gas	Bone Spring Limestone	9110
Oil/Gas	Upr. Avalon	9145
Oil/Gas	Top Bone Spring 1	10069
Oil/Gas	Top Bone Spring 2	10616
Oil/Gas	Top Bone Spring 3	11740
Oil/Gas	Wolfcamp	12130
Oil/Gas	Wolfcamp A1	12326
Oil/Gas	Wolfcamp A2	12656

All shows of fresh water and minerals will be reported and protected.

3. **BOP EQUIPMENT**

Will have a minimum of a 10000 psi rig stack (see proposed schematic) for drill out below surface (Wolfcamp is not exposed until drillout of the intermediate casing). Could possibly utilize the 5000 psi rig stack (see proposed schematic) for drill out below surface casing due to the availabity of 10 M annular. (Wolfcamp is not exposed until drillout of the intermediate casing) Stack will be tested as specified in the attached testing requirements. Batch drilling of the surface, intermediate, and production will take place. A full BOP test will be performed unless approval from BLM is received otherwise. Flex choke hose will be used for all wells on the pad (see attached specs) BOP test will be conducted by a third party.

Chevron requests a variance to use a FMC UH2 Multibowl wellhead, which will be run through the rig foor on surface casing. BOPE will be nippled up and tested after cementing surface casing. Subsequent tests will be performed as needed, not to exceed 30 days. The field report from FMC and BOP test information will be provided in a subsequent report at the end of the well. Please see the attached wellhead schematic. An installation manual has been placed on file with the BLM office and remains unchanged from previous submittal.

4. **CASING PROGRAM**

a. The proposed casing program will be as follows:

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	850'	17-1/2"	13-3/8"	54.5 #	J55	STC	New
Intermediate	0'	11,500'	12-1/4"	9-5/8"	43.5#	L-80IC	LTC	New
Production	0'	20,283'	8-1/2"	5-1/2"	20.0 #	P-110-ICY	TXP BTC	New

An alternative casing design with a contingency string is as follows:

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	850'	17-1/2"	13-3/8"	54.5 #	J55	STC	New
Intermediate	0'	11,500'	12-1/4"	9-5/8"	43.5#	L-80IC	LTC	New
Liner	10,850'	12,300'	8-1/2"	7-5/8"	29.7 #	HCP-110	W-513	New
Production (Taper String)	0'	12,500'	6-3/4"	5.5"	20#	P-110-ICY	TXP BTC	New
	12,500'	20,283'	6-3/4"	5"	18#	P-110 IC	W-521	New

b. Casing design subject to revision based on geologic conditions encountered.

c. ***A "Worst Case" casing design for wells in a particular area is used below to calculate the Casing Safety Factors. If for any reason the casing design for a particular well requires setting casing deeper than the following "worst case" design, then the Casing Safety Factors will be recalcuated & sent to the BLM prior to drilling.

d. **Chevron will fill casing at a minimum of every 20 jts (840') while running for intermediate and production casing in order to maintain collapse SF.**

SF Calculations based on the following "Worst Case" casing design:

Surface Casing: 1150'
Intermediate Casing: 11,650' TVD
Production Casing: 23,000' MD/12,851' TVD (10,300' VS @ 90 deg inc)

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.80	2.15	4.34	2.19
Intermediate	1.25	1.62	1.60	1.57
Production	1.10	1.19	2.35	1.32

Contingency Liner - 4 String Design

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.80	2.15	4.34	2.19
Intermediate	1.24	2.13	1.60	1.51
Liner	2.69	4.14	4.26	3.27
Production	1.12	1.21	1.76	1.38

Min SF is the smallest of a group of safety factors that include the following considerations:

	Surf	Int	Liner	Prod
Burst Design				
Pressure Test- Surface, Int, Prod Csg P external: Water P internal: Test psi + next section heaviest mud in csg	X	X	X	X
Displace to Gas- Surf Csg P external: Water P internal: Dry Gas from Next Csg Point	X			
Frac at Shoe, Gas to Surf- Int Csg P external: Water P internal: Dry Gas, 16 ppg Frac Gradient		X	X	
Stimulation (Frac) Pressures- Prod Csg P external: Water P internal: Max inj pressure w/ heaviest injected fluid				X
Tubing leak- Prod Csg (packer at KOP) P external: Water P internal: Leak just below surf, 8.7 ppg packer fluid				X
Collapse Design				
Full Evacuation P external: Water gradient in cement, mud above TOC P internal: none	X	X	X	X
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: water	X	X	X	X
Tension Design				
100k lb overpull	X	X	X	X

5. **CEMENTING PROGRAM**

Slurry	Type	Top	Bottom	Weight	Yield	%Excess	Sacks	Water	Additives
Surface				(ppg)	(sx/cu ft)	Open Hole		gal/sk	
Tail	Class C	0'	850'	14.8	1.33	50	650	6.57	Extender Antifoam Retarder
Intermediate									
Stage 2 Lead	Class C	0'	4570	11.9	2.53	200	1515	14.55	Antifoam Extender Salt Retarder Viscosifier
Stage 2 Tail	Class C	4570	4870	14.8	1.33	50	109	6.31	Antifoam Retarder Viscosifier
Stage 1 Lead	Class C	4,870'	11,150'	11.9	2.52	100	1154	14.57	Antifoam Retarder Viscosifier
Stage 1 Tail	Class C	11,150'	11,650'	14.8	1.33	50	202	3.30	Antifoam Retarder Dispersent
Contingency Liner	*No change to surface and intermediate cement design with implementation of contingency liner.								
Tail	Class H	10,850'	12,300'	15.6	1.22	17	123	5.34	
Production									
Lead	Class H	9850'	18,783'	15.6	1.183	35	2267	5.14	Antifoam Dispersent Fluid Loss Retarder Viscosifier
Tail	Class H	18,783'	20,238'	16.0	1.903	35	186	7.43	Antifoam Dispersent Fluid Loss Retarder Viscosifier

1. Final cement volumes will be determined by caliper.
2. Surface casing shall have at least one centralizer installed on each of the bottom three joints starting with the shoe joint.
3. Production casing will have one horizontal type centralizer on every joint for the first 1000' from TD, then every other joint to EOB, and then every third joint to KOP. Bowspring type centralizers will be run from KOP to intermediate casing.

6. MUD PROGRAM

From	To	Type	Weight	F. Vis	Filtrate	
0'	850'	Spud Mud	8.3-8.7	32 - 34	NC - NC	
850'	11,500'	Oil Based Mud	8.8-9.8	28 - 30	25-30	
11,150'	12,300'	Oil Based Mud	9.8-12.9	70 - 75	25 - 30	Liner Contingency
11,500'	20,283'	Oil Based Mud	9.8-14.8	70 - 75	25 - 30	

A closed system will by utilized consisting of above ground steel tanks. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. Sanitary wastes will be contained in a chemical porta-toilet and then hauled to an approved sanitary landfill.

All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conservation Division rules and regulations.

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

Visual mud monitoring equipment shall be in place to detect volume changes indicating loss or gain of circulating fluid volume. When abnormal pressures are anticipated – a pit volume totalizer (PVT), stroke counter, and flow sensor will be used to detect volume changes indicating loss or gain of circulating fluid volume.

A weighting agent and lost circulating material (LCM) will be onsite to mitigate pressure or lost circulation as hole conditions dictate.

7. TESTING, LOGGING, AND CORING

The anticipated type and amount of testing, logging, and coring are as follows:

a. Drill stem tests are not planned.
b. The logging program will be as follows:

TYPE	Logs	Interval	Timing	Vendor
Mudlogs	2 man mudlog	Int Csg to TD	Drillout of Int Csg	TBD
LWD	MWD Gamma	Int. and Prod. Hole	While Drilling	TBD

c. Conventional whole core samples are not planned.
d. A Directional Survey will be run.

8. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

a. No abnormal pressures or temperatures are expected. Estimated BHP at intermediate TD is: 5750 psi
No abnormal pressures or temperatures are expected. Estimated BHP at production TD is: 9830 psi
b. Hydrogen sulfide gas is not anticipated. An H2S Contingency plan is attached with this APD in the event that H2S is encountered

Delaware Basin
Changes to APD/COA for Federal Well

Well Name:

SD EA 29 32 Fed Com P11	16H	30-025-44336

Rig: Nabors X30

CVX CONTACT:

Jason Hannen
MCBU D&C Engineer – Nabors X30
Chevron North America Exploration and Production Co.
MidContinent Business Unit
Office: (713) 372-1169
Cell: (432) 238-3004
Email: Jason.Hannen@chevron.com

Summary of Changes to APD Submission

Chevron respectfully requests to change the well plans of these two Salado Draw pads to the new 100' North-South Lease line rule as agreed upon by the State of New Mexico OCD and BLM. The updated C-102 Plats and drill plans are attached.

Delaware Basin
Changes to APD/COA for Federal Well

Well Names:

SD EA 29 32 Fed Com P11	13H	30-025-44333
SD EA 29 32 Fed Com P11	14H	30-025-44334
SD EA 29 32 Fed Com P11	15H	30-025-44335
SD EA 29 32 Fed Com P11	16H	30-025-44336

Rig: Nabors X30

CVX CONTACT:

Jason Hannen
MCBU D&C Engineer – Nabors X30
Chevron North America Exploration and Production Co.
MidContinent Business Unit
Office: (713) 372-1169
Cell: (432) 238-3004
Email: Jason.Hannen@chevron.com

Summary of Changes to APD Submission

Chevron respectfully requests to change the intermediate cement design from the 15.6 ppg class H cement slurry to the 14.8 ppg class C cement design shown below as previously agreed upon.

Cement Program

Slurry	Type	Top	Bottom	Weight	Yield	%Excess	Sacks	Water
Intermediate								
Stage 2 Lead	Class C	0	4570	11.9	2.53	200	1515	14.55
Stage 2 Tail	Class C	4570	4870	14.8	1.33	50	109	6.31
Stage 1 Lead	Class C	4870	11150	11.9	2.52	100	1154	14.57
Stage 1 Tail	Class C	11150	11650	14.8	1.33	50	202	3.3

Planned Wellpath Report

SD EA 29 32 Fed Com P11 16H Rev F.0

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Chevron U.S.A. Inc.**	Slot	**SD EA 29 32 Fed Com P11 16H**
Area	**Lea County, NM**	Well	**SD EA 29 32 Fed Com P11 16H**
Field	**Bone Spring (Lea County, NM) NAD27**	Wellbore	**SD EA 29 32 Fed Com P11 16H**
Facility	**SD EA 29 32 Fed Com P11**		

REPORT SETUP INFORMATION			
Projection System	**NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet**	Software System	**WellArchitect® 5.1**
North Reference	**Grid**	User	**Gilbjosl**
Scale	**0.999968**	Report Generated	**11-Oct-18 at 12:06:06 PM**
Convergence at slot	**0.39° East**	Database/Source file	**WA_HOU_Midland_Defn/SD_EA_29_32_Fed_Com_P11_16H_Rev_F.0.xml**

WELLPATH LOCATION	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	**East[ft]**	**Easting[US ft]**	**Northing[US ft]**	**Latitude**	**Longitude**
Slot Location	0.00	75.00	**727458.00**	**372175.00**	32°01'15.959"N	103°35'57.934"W
Facility Reference Pt			**727383.00**	**372175.00**	32°01'15.964"N	103°35'58.805"W
Field Reference Pt			**152400.30**	**0.00**	30°59'42.846"N	105°26'33.659"W

WELLPATH DATUM			
Calculation method	**Minimum curvature**	Rig Nabors X30 (KB) to Facility Vertical Datum	**3247.60ft**
Horizontal Reference Pt	**Slot**	Rig Nabors X30 (KB) to Mean Sea Level	**3247.60ft**
Vertical Reference Pt	**Rig Nabors X30 (KB)**	Rig Nabors X30 (KB) to Ground Level at Slot (SD EA 29 32 Fed Com P11 16H)	**32.60ft**
MD Reference Pt	**Rig Nabors X30 (KB)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Mean Sea Level**	Section Azimuth	**179.53°**

Planned Wellpath Report

SD EA 29 32 Fed Com P11 16H Rev F.0

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Bone Spring (Lea County, NM) NAD27	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

WELLPATH DATA (216 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
0.00†	0.000	73.438	0.00	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
32.60	0.000	73.438	32.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	Tie On
132.60†	0.000	73.438	132.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
232.60†	0.000	73.438	232.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
332.60†	0.000	73.438	332.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
432.60†	0.000	73.438	432.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
532.60†	0.000	73.438	532.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
632.60†	0.000	73.438	632.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
732.60†	0.000	73.438	732.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
832.60†	0.000	73.438	832.60	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	
850.00	0.000	73.438	850.00	0.00	0.00	0.00	727458.00	372175.00	32°01'15.959"N	103°35'57.934"W	0.00	0.00	0.00	End of Tangent
932.60†	0.826	73.438	932.60	-0.17	0.17	0.57	727458.57	372175.17	32°01'15.961"N	103°35'57.927"W	1.00	1.00	88.91	
1032.60†	1.826	73.438	1032.57	-0.81	0.83	2.79	727460.79	372175.83	32°01'15.967"N	103°35'57.901"W	1.00	1.00	0.00	
1132.60†	2.826	73.438	1132.49	-1.93	1.99	6.68	727464.68	372176.99	32°01'15.978"N	103°35'57.856"W	1.00	1.00	0.00	
1232.60†	3.826	73.438	1232.32	-3.54	3.64	12.24	727470.24	372178.64	32°01'15.994"N	103°35'57.791"W	1.00	1.00	0.00	
1332.60†	4.826	73.438	1332.03	-5.63	5.79	19.47	727477.47	372180.79	32°01'16.015"N	103°35'57.707"W	1.00	1.00	0.00	
1432.60†	5.826	73.438	1431.60	-8.20	8.44	28.37	727486.37	372183.44	32°01'16.041"N	103°35'57.603"W	1.00	1.00	0.00	
1532.60†	6.826	73.438	1530.99	-11.26	11.58	38.93	727496.93	372186.58	32°01'16.071"N	103°35'57.481"W	1.00	1.00	0.00	
1632.60†	7.826	73.438	1630.17	-14.79	15.21	51.15	727509.15	372190.21	32°01'16.106"N	103°35'57.338"W	1.00	1.00	0.00	
1732.60†	8.826	73.438	1729.11	-18.80	19.34	65.03	727523.03	372194.34	32°01'16.146"N	103°35'57.177"W	1.00	1.00	0.00	
1832.60†	9.826	73.438	1827.79	-23.30	23.96	80.56	727538.56	372198.96	32°01'16.191"N	103°35'56.996"W	1.00	1.00	0.00	
1932.60†	10.826	73.438	1926.17	-28.26	29.07	97.74	727555.74	372204.07	32°01'16.240"N	103°35'56.796"W	1.00	1.00	0.00	
2032.60†	11.826	73.438	2024.22	-33.71	34.67	116.57	727574.56	372209.66	32°01'16.294"N	103°35'56.577"W	1.00	1.00	0.00	
2132.60†	12.826	73.438	2121.91	-39.62	40.75	137.03	727595.02	372215.75	32°01'16.353"N	103°35'56.339"W	1.00	1.00	0.00	
2232.60†	13.826	73.438	2219.22	-46.01	47.32	159.12	727617.12	372222.32	32°01'16.417"N	103°35'56.082"W	1.00	1.00	0.00	
2332.60†	14.826	73.438	2316.11	-52.87	54.37	182.84	727640.83	372229.37	32°01'16.485"N	103°35'55.806"W	1.00	1.00	0.00	
2350.00	15.000	73.438	2332.92	-54.11	55.65	187.13	727645.12	372230.65	32°01'16.497"N	103°35'55.756"W	1.00	1.00	0.00	End of Build
2432.60†	15.000	73.438	2412.71	-60.04	61.74	207.62	727665.62	372236.74	32°01'16.556"N	103°35'55.517"W	0.00	0.00	0.00	
2532.60†	15.000	73.438	2509.30	-67.21	69.12	232.43	727690.42	372244.12	32°01'16.627"N	103°35'55.229"W	0.00	0.00	0.00	
2632.60†	15.000	73.438	2605.89	-74.39	76.50	257.24	727715.23	372251.50	32°01'16.699"N	103°35'54.940"W	0.00	0.00	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Bone Spring (Lea County, NM) NAD27	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

WELLPATH DATA (216 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
2732.60†	15.000	73.438	2702.49	-81.56	83.88	282.05	727740.04	372258.87	32°01'16.770"N	103°35'54.651"W	0.00	0.00	0.00	
2826.36	15.000	73.438	2793.05	-88.29	90.79	305.31	727763.30	372265.79	32°01'16.837"N	103°35'54.380"W	0.00	0.00	0.00	End of Tangent
2832.60†	14.938	73.438	2799.08	-88.73	91.25	306.85	727764.84	372266.25	32°01'16.841"N	103°35'54.362"W	1.00	-1.00	0.00	
2932.60†	13.938	73.438	2895.92	-95.64	98.36	330.75	727788.74	372273.36	32°01'16.910"N	103°35'54.084"W	1.00	-1.00	0.00	
3032.60†	12.938	73.438	2993.18	-102.08	104.98	353.02	727811.01	372279.98	32°01'16.974"N	103°35'53.825"W	1.00	-1.00	0.00	
3132.60†	11.938	73.438	3090.83	-108.05	111.12	373.67	727831.66	372286.12	32°01'17.034"N	103°35'53.585"W	1.00	-1.00	0.00	
3232.60†	10.938	73.438	3188.85	-113.55	116.77	392.68	727850.66	372291.77	32°01'17.088"N	103°35'53.364"W	1.00	-1.00	0.00	
3332.60†	9.938	73.438	3287.19	-118.57	121.94	410.04	727868.03	372296.93	32°01'17.138"N	103°35'53.162"W	1.00	-1.00	0.00	
3432.60†	8.938	73.438	3385.84	-123.12	126.61	425.76	727883.74	372301.61	32°01'17.183"N	103°35'52.979"W	1.00	-1.00	0.00	
3532.60†	7.938	73.438	3484.75	-127.18	130.80	439.82	727897.81	372305.79	32°01'17.224"N	103°35'52.815"W	1.00	-1.00	0.00	
3632.60†	6.938	73.438	3583.91	-130.77	134.49	452.23	727910.21	372309.48	32°01'17.259"N	103°35'52.671"W	1.00	-1.00	0.00	
3732.60†	5.938	73.438	3683.28	-133.88	137.68	462.98	727920.96	372312.68	32°01'17.290"N	103°35'52.546"W	1.00	-1.00	0.00	
3832.60†	4.938	73.438	3782.83	-136.51	140.38	472.06	727930.04	372315.38	32°01'17.316"N	103°35'52.440"W	1.00	-1.00	0.00	
3932.60†	3.938	73.438	3882.53	-138.65	142.59	479.47	727937.46	372317.58	32°01'17.338"N	103°35'52.354"W	1.00	-1.00	0.00	
4032.60†	2.938	73.438	3982.35	-140.31	144.30	485.22	727943.21	372319.29	32°01'17.354"N	103°35'52.287"W	1.00	-1.00	0.00	
4132.60†	1.938	73.438	4082.25	-141.49	145.51	489.30	727947.28	372320.50	32°01'17.366"N	103°35'52.239"W	1.00	-1.00	0.00	
4232.60†	0.938	73.438	4182.22	-142.19	146.22	491.70	727949.69	372321.22	32°01'17.373"N	103°35'52.211"W	1.00	-1.00	0.00	
4326.36	0.000	145.000	4275.97	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	1.00	-1.00	-78.33	End of Drop
4332.60†	0.000	145.000	4282.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
4432.60†	0.000	145.000	4382.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
4532.60†	0.000	145.000	4482.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
4632.60†	0.000	145.000	4582.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
4732.60†	0.000	145.000	4682.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
4832.60†	0.000	145.000	4782.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
4932.60†	0.000	145.000	4882.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
5032.60†	0.000	145.000	4982.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
5132.60†	0.000	145.000	5082.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
5232.60†	0.000	145.000	5182.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
5332.60†	0.000	145.000	5282.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
5432.60†	0.000	145.000	5382.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Bone Spring (Lea County, NM) NAD27	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

WELLPATH DATA (216 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
5532.60†	0.000	145.000	5482.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
5632.60†	0.000	145.000	5582.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
5732.60†	0.000	145.000	5682.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
5832.60†	0.000	145.000	5782.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
5932.60†	0.000	145.000	5882.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
6032.60†	0.000	145.000	5982.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
6132.60†	0.000	145.000	6082.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
6232.60†	0.000	145.000	6182.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
6332.60†	0.000	145.000	6282.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
6432.60†	0.000	145.000	6382.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
6532.60†	0.000	145.000	6482.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
6632.60†	0.000	145.000	6582.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
6732.60†	0.000	145.000	6682.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
6832.60†	0.000	145.000	6782.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
6932.60†	0.000	145.000	6882.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
7032.60†	0.000	145.000	6982.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
7132.60†	0.000	145.000	7082.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
7232.60†	0.000	145.000	7182.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
7332.60†	0.000	145.000	7282.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
7432.60†	0.000	145.000	7382.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
7532.60†	0.000	145.000	7482.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
7632.60†	0.000	145.000	7582.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
7732.60†	0.000	145.000	7682.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
7832.60†	0.000	145.000	7782.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
7932.60†	0.000	145.000	7882.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
8032.60†	0.000	145.000	7982.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
8132.60†	0.000	145.000	8082.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
8232.60†	0.000	145.000	8182.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
8332.60†	0.000	145.000	8282.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
8432.60†	0.000	145.000	8382.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	

Planned Wellpath Report

SD EA 29 32 Fed Com P11 16H Rev F.0

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Bone Spring (Lea County, NM) NAD27	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

WELLPATH DATA (216 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
8532.60†	0.000	145.000	8482.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
8632.60†	0.000	145.000	8582.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
8732.60†	0.000	145.000	8682.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
8832.60†	0.000	145.000	8782.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
8932.60†	0.000	145.000	8882.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
9032.60†	0.000	145.000	8982.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
9132.60†	0.000	145.000	9082.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
9232.60†	0.000	145.000	9182.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
9332.60†	0.000	145.000	9282.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
9432.60†	0.000	145.000	9382.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
9532.60†	0.000	145.000	9482.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
9632.60†	0.000	145.000	9582.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
9732.60†	0.000	145.000	9682.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
9832.60†	0.000	145.000	9782.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
9932.60†	0.000	145.000	9882.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
10032.60†	0.000	145.000	9982.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
10132.60†	0.000	145.000	10082.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
10232.60†	0.000	145.000	10182.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
10332.60†	0.000	145.000	10282.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
10432.60†	0.000	145.000	10382.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
10532.60†	0.000	145.000	10482.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
10632.60†	0.000	145.000	10582.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
10732.60†	0.000	145.000	10682.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
10832.60†	0.000	145.000	10782.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
10932.60†	0.000	145.000	10882.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
11032.60†	0.000	145.000	10982.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
11132.60†	0.000	145.000	11082.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
11232.60†	0.000	145.000	11182.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
11332.60†	0.000	145.000	11282.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
11432.60†	0.000	145.000	11382.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Bone Spring (Lea County, NM) NAD27	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

WELLPATH DATA (216 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
11532.60†	0.000	145.000	11482.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
11632.60†	0.000	145.000	11582.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
11732.60†	0.000	145.000	11682.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
11832.60†	0.000	145.000	11782.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
11932.60†	0.000	145.000	11882.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
12032.60†	0.000	145.000	11982.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
12132.60†	0.000	145.000	12082.22	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	
12201.28	0.000	145.000	12150.90	-142.40	146.44	492.44	727950.42	372321.44	32°01'17.375"N	103°35'52.203"W	0.00	0.00	0.00	End of Tangent
12232.60†	3.758	145.000	12182.19	-141.55	145.60	493.03	727951.01	372320.60	32°01'17.367"N	103°35'52.196"W	12.00	12.00	463.00	
12332.60†	15.758	145.000	12280.57	-127.61	131.74	502.73	727960.71	372306.74	32°01'17.229"N	103°35'52.084"W	12.00	12.00	0.00	
12432.60†	27.758	145.000	12373.27	-97.13	101.43	523.95	727981.94	372276.43	32°01'16.928"N	103°35'51.840"W	12.00	12.00	0.00	
12439.00†	28.526	145.000	12378.92	-94.65	98.96	525.68	727983.67	372273.96	32°01'16.903"N	103°35'51.820"W	12.00	12.00	0.00	FTP crossing
12532.60†	39.758	145.000	12456.26	-51.44	56.00	555.77	728013.75	372231.00	32°01'16.476"N	103°35'51.474"W	12.00	12.00	0.00	
12617.95	50.000	145.000	12516.66	-1.89	6.73	590.26	728048.25	372181.73	32°01'15.986"N	103°35'51.077"W	12.00	12.00	0.00	End of Build
12632.60†	51.193	146.671	12525.96	7.53	-2.64	596.62	728054.60	372172.36	32°01'15.893"N	103°35'51.004"W	12.00	8.15	11.41	
12732.60†	59.871	156.751	12582.60	80.40	-75.19	635.24	728093.22	372099.81	32°01'15.172"N	103°35'50.562"W	12.00	8.68	10.08	
12832.60†	69.191	165.141	12625.61	165.86	-160.41	664.40	728122.38	372014.59	32°01'14.327"N	103°35'50.230"W	12.00	9.32	8.39	
12932.60†	78.870	172.531	12653.13	260.17	-254.57	682.83	728140.81	371920.43	32°01'13.394"N	103°35'50.023"W	12.00	9.68	7.39	
13032.60†	88.718	179.438	12663.94	359.21	-353.56	689.73	728147.70	371821.45	32°01'12.414"N	103°35'49.951"W	12.00	9.85	6.91	
13033.94	88.850	179.529	12663.97	360.55	-354.90	689.74	728147.71	371820.11	32°01'12.401"N	103°35'49.951"W	12.00	9.88	6.81	End of 3D Arc
13132.60†	88.850	179.529	12665.95	459.19	-453.54	690.55	728148.53	371721.47	32°01'11.425"N	103°35'49.949"W	0.00	0.00	0.00	
13232.60†	88.850	179.529	12667.95	559.17	-553.52	691.37	728149.35	371621.50	32°01'10.435"N	103°35'49.948"W	0.00	0.00	0.00	
13332.60†	88.850	179.529	12669.96	659.15	-653.49	692.19	728150.17	371521.53	32°01'09.446"N	103°35'49.946"W	0.00	0.00	0.00	
13432.60†	88.850	179.529	12671.97	759.13	-753.47	693.01	728150.99	371421.55	32°01'08.456"N	103°35'49.944"W	0.00	0.00	0.00	
13532.60†	88.850	179.529	12673.98	859.11	-853.45	693.84	728151.81	371321.58	32°01'07.467"N	103°35'49.943"W	0.00	0.00	0.00	
13632.60†	88.850	179.529	12675.98	959.09	-953.42	694.66	728152.63	371221.61	32°01'06.478"N	103°35'49.941"W	0.00	0.00	0.00	
13732.60†	88.850	179.529	12677.99	1059.07	-1053.40	695.48	728153.46	371121.64	32°01'05.488"N	103°35'49.939"W	0.00	0.00	0.00	
13832.60†	88.850	179.529	12680.00	1159.05	-1153.38	696.30	728154.28	371021.66	32°01'04.499"N	103°35'49.938"W	0.00	0.00	0.00	
13932.60†	88.850	179.529	12682.00	1259.03	-1253.35	697.12	728155.10	370921.69	32°01'03.510"N	103°35'49.936"W	0.00	0.00	0.00	
14032.60†	88.850	179.529	12684.01	1359.01	-1353.33	697.95	728155.92	370821.72	32°01'02.520"N	103°35'49.934"W	0.00	0.00	0.00	

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Bone Spring (Lea County, NM) NAD27	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

WELLPATH DATA (216 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
14132.60†	88.850	179.529	12686.02	1458.99	-1453.31	698.77	728156.74	370721.74	32°01'01.531"N	103°35'49.933"W	0.00	0.00	0.00	
14232.60†	88.850	179.529	12688.02	1558.97	-1553.28	699.59	728157.57	370621.77	32°01'00.541"N	103°35'49.931"W	0.00	0.00	0.00	
14332.60†	88.850	179.529	12690.03	1658.95	-1653.26	700.41	728158.39	370521.80	32°00'59.552"N	103°35'49.930"W	0.00	0.00	0.00	
14432.60†	88.850	179.529	12692.04	1758.93	-1753.24	701.23	728159.21	370421.82	32°00'58.563"N	103°35'49.928"W	0.00	0.00	0.00	
14532.60†	88.850	179.529	12694.05	1858.91	-1853.21	702.05	728160.03	370321.85	32°00'57.573"N	103°35'49.926"W	0.00	0.00	0.00	
14632.60†	88.850	179.529	12696.05	1958.89	-1953.19	702.88	728160.85	370221.88	32°00'56.584"N	103°35'49.925"W	0.00	0.00	0.00	
14732.60†	88.850	179.529	12698.06	2058.87	-2053.16	703.70	728161.68	370121.90	32°00'55.595"N	103°35'49.923"W	0.00	0.00	0.00	
14832.60†	88.850	179.529	12700.07	2158.85	-2153.14	704.52	728162.50	370021.93	32°00'54.605"N	103°35'49.921"W	0.00	0.00	0.00	
14932.60†	88.850	179.529	12702.07	2258.83	-2253.12	705.34	728163.32	369921.96	32°00'53.616"N	103°35'49.920"W	0.00	0.00	0.00	
15032.60†	88.850	179.529	12704.08	2358.81	-2353.09	706.16	728164.14	369821.98	32°00'52.626"N	103°35'49.918"W	0.00	0.00	0.00	
15132.60†	88.850	179.529	12706.09	2458.79	-2453.07	706.99	728164.96	369722.01	32°00'51.637"N	103°35'49.916"W	0.00	0.00	0.00	
15232.60†	88.850	179.529	12708.09	2558.77	-2553.05	707.81	728165.78	369622.04	32°00'50.648"N	103°35'49.915"W	0.00	0.00	0.00	
15332.60†	88.850	179.529	12710.10	2658.75	-2653.02	708.63	728166.61	369522.07	32°00'49.658"N	103°35'49.913"W	0.00	0.00	0.00	
15432.60†	88.850	179.529	12712.11	2758.73	-2753.00	709.45	728167.43	369422.09	32°00'48.669"N	103°35'49.912"W	0.00	0.00	0.00	
15532.60†	88.850	179.529	12714.12	2858.71	-2852.98	710.27	728168.25	369322.12	32°00'47.679"N	103°35'49.910"W	0.00	0.00	0.00	
15632.60†	88.850	179.529	12716.12	2958.69	-2952.95	711.10	728169.07	369222.15	32°00'46.690"N	103°35'49.908"W	0.00	0.00	0.00	
15732.60†	88.850	179.529	12718.13	3058.67	-3052.93	711.92	728169.89	369122.17	32°00'45.701"N	103°35'49.907"W	0.00	0.00	0.00	
15832.60†	88.850	179.529	12720.14	3158.65	-3152.91	712.74	728170.72	369022.20	32°00'44.711"N	103°35'49.905"W	0.00	0.00	0.00	
15932.60†	88.850	179.529	12722.14	3258.63	-3252.88	713.56	728171.54	368922.23	32°00'43.722"N	103°35'49.903"W	0.00	0.00	0.00	
16032.60†	88.850	179.529	12724.15	3358.61	-3352.86	714.38	728172.36	368822.25	32°00'42.733"N	103°35'49.902"W	0.00	0.00	0.00	
16132.60†	88.850	179.529	12726.16	3458.59	-3452.84	715.20	728173.18	368722.28	32°00'41.743"N	103°35'49.900"W	0.00	0.00	0.00	
16232.60†	88.850	179.529	12728.16	3558.57	-3552.81	716.03	728174.00	368622.31	32°00'40.754"N	103°35'49.898"W	0.00	0.00	0.00	
16332.60†	88.850	179.529	12730.17	3658.55	-3652.79	716.85	728174.82	368522.33	32°00'39.764"N	103°35'49.897"W	0.00	0.00	0.00	
16353.94	88.850	179.529	12730.60†	3679.88	-3674.12	717.02	728175.00	368501.00	32°00'39.553"N	103°35'49.896"W	0.00	0.00	0.00	End of Tangent
16394.92	89.670	179.533	12731.13	3720.86	-3715.10	717.36	728175.34	368460.02	32°00'39.148"N	103°35'49.896"W	2.00	2.00	0.01	End of 3D Arc
16432.60†	89.670	179.533	12731.35	3758.54	-3752.78	717.67	728175.64	368422.35	32°00'38.775"N	103°35'49.895"W	0.00	0.00	0.00	
16532.60†	89.670	179.533	12731.92	3858.54	-3852.77	718.48	728176.46	368322.36	32°00'37.785"N	103°35'49.894"W	0.00	0.00	0.00	
16632.60†	89.670	179.533	12732.50	3958.53	-3952.77	719.30	728177.27	368222.37	32°00'36.796"N	103°35'49.892"W	0.00	0.00	0.00	
16732.60†	89.670	179.533	12733.08	4058.53	-4052.76	720.11	728178.09	368122.37	32°00'35.806"N	103°35'49.891"W	0.00	0.00	0.00	
16832.60†	89.670	179.533	12733.65	4158.53	-4152.76	720.92	728178.90	368022.38	32°00'34.817"N	103°35'49.889"W	0.00	0.00	0.00	

Planned Wellpath Report

SD EA 29 32 Fed Com P11 16H Rev F.0

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Bone Spring (Lea County, NM) NAD27	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

WELLPATH DATA (216 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
16932.60†	89.670	179.533	12734.23	4258.53	-4252.75	721.74	728179.71	367922.39	32°00'33.827"N	103°35'49.887"W	0.00	0.00	0.00	
17032.60†	89.670	179.533	12734.81	4358.53	-4352.75	722.55	728180.53	367822.40	32°00'32.838"N	103°35'49.886"W	0.00	0.00	0.00	
17132.60†	89.670	179.533	12735.38	4458.53	-4452.74	723.37	728181.34	367722.41	32°00'31.848"N	103°35'49.884"W	0.00	0.00	0.00	
17232.60†	89.670	179.533	12735.96	4558.52	-4552.74	724.18	728182.16	367622.42	32°00'30.858"N	103°35'49.883"W	0.00	0.00	0.00	
17332.60†	89.670	179.533	12736.54	4658.52	-4652.73	725.00	728182.97	367522.42	32°00'29.869"N	103°35'49.881"W	0.00	0.00	0.00	
17432.60†	89.670	179.533	12737.11	4758.52	-4752.73	725.81	728183.79	367422.43	32°00'28.879"N	103°35'49.880"W	0.00	0.00	0.00	
17532.60†	89.670	179.533	12737.69	4858.52	-4852.72	726.62	728184.60	367322.44	32°00'27.890"N	103°35'49.878"W	0.00	0.00	0.00	
17632.60†	89.670	179.533	12738.27	4958.52	-4952.72	727.44	728185.41	367222.45	32°00'26.900"N	103°35'49.877"W	0.00	0.00	0.00	
17732.60†	89.670	179.533	12738.84	5058.52	-5052.71	728.25	728186.23	367122.46	32°00'25.911"N	103°35'49.875"W	0.00	0.00	0.00	
17832.60†	89.670	179.533	12739.42	5158.51	-5152.71	729.07	728187.04	367022.47	32°00'24.921"N	103°35'49.874"W	0.00	0.00	0.00	
17932.60†	89.670	179.533	12740.00	5258.51	-5252.70	729.88	728187.86	366922.47	32°00'23.932"N	103°35'49.872"W	0.00	0.00	0.00	
18032.60†	89.670	179.533	12740.57	5358.51	-5352.70	730.70	728188.67	366822.48	32°00'22.942"N	103°35'49.870"W	0.00	0.00	0.00	
18132.60†	89.670	179.533	12741.15	5458.51	-5452.69	731.51	728189.49	366722.49	32°00'21.952"N	103°35'49.869"W	0.00	0.00	0.00	
18232.60†	89.670	179.533	12741.73	5558.51	-5552.69	732.33	728190.30	366622.50	32°00'20.963"N	103°35'49.867"W	0.00	0.00	0.00	
18332.60†	89.670	179.533	12742.30	5658.51	-5652.68	733.14	728191.11	366522.51	32°00'19.973"N	103°35'49.866"W	0.00	0.00	0.00	
18432.60†	89.670	179.533	12742.88	5758.50	-5752.68	733.95	728191.93	366422.52	32°00'18.984"N	103°35'49.864"W	0.00	0.00	0.00	
18532.60†	89.670	179.533	12743.46	5858.50	-5852.67	734.77	728192.74	366322.52	32°00'17.994"N	103°35'49.863"W	0.00	0.00	0.00	
18632.60†	89.670	179.533	12744.03	5958.50	-5952.67	735.58	728193.56	366222.53	32°00'17.005"N	103°35'49.861"W	0.00	0.00	0.00	
18732.60†	89.670	179.533	12744.61	6058.50	-6052.66	736.40	728194.37	366122.54	32°00'16.015"N	103°35'49.860"W	0.00	0.00	0.00	
18832.60†	89.670	179.533	12745.19	6158.50	-6152.66	737.21	728195.19	366022.55	32°00'15.025"N	103°35'49.858"W	0.00	0.00	0.00	
18932.60†	89.670	179.533	12745.76	6258.50	-6252.65	738.03	728196.00	365922.56	32°00'14.036"N	103°35'49.856"W	0.00	0.00	0.00	
19032.60†	89.670	179.533	12746.34	6358.49	-6352.65	738.84	728196.82	365822.57	32°00'13.046"N	103°35'49.855"W	0.00	0.00	0.00	
19132.60†	89.670	179.533	12746.92	6458.49	-6452.64	739.65	728197.63	365722.57	32°00'12.057"N	103°35'49.853"W	0.00	0.00	0.00	
19232.60†	89.670	179.533	12747.49	6558.49	-6552.64	740.47	728198.44	365622.58	32°00'11.067"N	103°35'49.852"W	0.00	0.00	0.00	
19332.60†	89.670	179.533	12748.07	6658.49	-6652.63	741.28	728199.26	365522.59	32°00'10.078"N	103°35'49.850"W	0.00	0.00	0.00	
19432.60†	89.670	179.533	12748.64	6758.49	-6752.63	742.10	728200.07	365422.60	32°00'09.088"N	103°35'49.849"W	0.00	0.00	0.00	
19532.60†	89.670	179.533	12749.22	6858.49	-6852.62	742.91	728200.89	365322.61	32°00'08.098"N	103°35'49.847"W	0.00	0.00	0.00	
19632.60†	89.670	179.533	12749.80	6958.48	-6952.62	743.73	728201.70	365222.62	32°00'07.109"N	103°35'49.846"W	0.00	0.00	0.00	
19732.60†	89.670	179.533	12750.37	7058.48	-7052.61	744.54	728202.52	365122.63	32°00'06.119"N	103°35'49.844"W	0.00	0.00	0.00	
19832.60†	89.670	179.533	12750.95	7158.48	-7152.61	745.36	728203.33	365022.63	32°00'05.130"N	103°35'49.843"W	0.00	0.00	0.00	

Planned Wellpath Report

SD EA 29 32 Fed Com P11 16H Rev F.0

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Bone Spring (Lea County, NM) NAD27	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

WELLPATH DATA (216 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	Comments
19932.60†	89.670	179.533	12751.53	7258.48	-7252.60	746.17	728204.14	364922.64	32°00'04.140"N	103°35'49.841"W	0.00	0.00	0.00	
20032.60†	89.670	179.533	12752.10	7358.48	-7352.60	746.98	728204.96	364822.65	32°00'03.151"N	103°35'49.839"W	0.00	0.00	0.00	
20132.60†	89.670	179.533	12752.68	7458.48	-7452.59	747.80	728205.77	364722.66	32°00'02.161"N	103°35'49.838"W	0.00	0.00	0.00	
20208.00†	89.670	179.533	12753.12	7533.87	-7527.99	748.41	728206.39	364647.26	32°00'01.415"N	103°35'49.837"W	0.00	0.00	0.00	LTP crossing
20232.60†	89.670	179.533	12753.26	7558.47	-7552.59	748.61	728206.59	364622.67	32°00'01.172"N	103°35'49.836"W	0.00	0.00	0.00	
20283.27	89.670	179.533	12753.55[2]	7609.14	-7603.26	749.03	728207.00	364572.00	32°00'00.670"N	103°35'49.836"W	0.00	0.00	0.00	End of Tangent

HOLE & CASING SECTIONS - Ref Wellbore: SD EA 29 32 Fed Com P11 16H Ref Wellpath: SD EA 29 32 Fed Com P11 16H Rev F.0

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
13.375in Casing	32.60	800.00	767.40	32.60	800.00	0.00	0.00	0.00	0.00
9.625in Open Hole	32.60	11094.38	11061.78	32.60	11044.00	0.00	0.00	146.44	492.44
5.5in Open Hole	32.60	20283.27	20250.67	32.60	12753.55	0.00	0.00	-7603.26	749.03

Planned Wellpath Report

SD EA 29 32 Fed Com P11 16H Rev F.0

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chevron U.S.A. Inc.	Slot	SD EA 29 32 Fed Com P11 16H
Area	Lea County, NM	Well	SD EA 29 32 Fed Com P11 16H
Field	Bone Spring (Lea County, NM) NAD27	Wellbore	SD EA 29 32 Fed Com P11 16H
Facility	SD EA 29 32 Fed Com P11		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SD EA 29 32 Fed Com P11 16H FTP		12658.00	100.00	686.02	728144.00	372275.00	32°01'16.902"N	103°35'49.958"W	point
1) SD EA 29 32 Fed Com P11 16H MP	16353.94	12730.60	-3674.12	717.02	728175.00	368501.00	32°00'39.553"N	103°35'49.896"W	point
SD EA 29 32 Fed Com P11 16H LTP		12753.37	-7448.25	748.03	728206.00	364727.00	32°00'02.204"N	103°35'49.835"W	point
2) SD EA 29 32 Fed Com P11 16H PBHL rev 3	20283.27	12753.55	-7603.26	749.03	728207.00	364572.00	32°00'00.670"N	103°35'49.836"W	rectangle

SURVEY PROGRAM - Ref Wellbore: SD EA 29 32 Fed Com P11 16H Ref Wellpath: SD EA 29 32 Fed Com P11 16H Rev F.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.60	800.00	BHI NaviTrak (Axial)		SD EA 29 32 Fed Com P11 16H
800.00	11044.00	BHI NaviTrak (Axial)		SD EA 29 32 Fed Com P11 16H
11044.00	20286.44	BHI AutoTrak Curve (Short)		SD EA 29 32 Fed Com P11 16H

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**CHEVRON USA INC.**
LEASE NO.:	**NMNM27506**
WELL NAME & NO.:	**16H –SD EA 29 32 FED COM P11**
SURFACE HOLE FOOTAGE:	**195'/N & 903'/W**
BOTTOM HOLE FOOTAGE	**25'/S & 1590'/W**
LOCATION:	**Section 29 T.26 S., R.33E., NMP**
COUNTY:	**LEA County, New Mexico**

COA

All previous COAs still apply expect the following:

H2S	○ Yes	◉ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	○ Low	◉ Medium	○ High
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	○ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP

A. Hydrogen Sulfide

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **850** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours

after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Operator shall filled 50% of casing with fluid while running intermediate casing to maintain collapse safety factor.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:
   - Cement to surface. If cement does not circulate see B.1.a, c-d above.

   ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings , the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
   a. Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

CONTINGENCY PLAN

Notify BLM before proceeding with the contingency plan.

Operator shall filled 1/3rd casing with fluid while running liner to maintain collapse safety factor.

4. The minimum required fill of cement behind the **7-5/8** inch intermediate liner is:
   b. Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

Operator shall set 5 ½ " casing at KOP.

Variance is approved for annular spacing between 7 5/8" x 5 1/2 " casing.

5. The minimum required fill of cement behind the **5-1/2 x 5** inch production casing is:
   c. Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. **Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).**

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** intermediate casing shoe shall be **10,000 (10M)** psi.

GENERAL REQUIREMENTS

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

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

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

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

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

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement

program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

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

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

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

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

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

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

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

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

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

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

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

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

    b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been

done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug. The results of the test shall be reported to the appropriate BLM office.

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

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

f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes. This test shall be performed prior to the test at full stack pressure.

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

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

Waste Minimization Plan (WMP)

In the interest of resource development, submission of additional well gas capture development plan information is deferred but may be required by the BLM Authorized Officer at a later date.

ZS 032419