

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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**

MAR 12 2019

RECEIVED

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other	5. Lease Serial No. NMNM27506
2. Name of Operator CHEVRON USA INCORPORATED Contact: LAURA BECERRA E-Mail: LBECERRA@CHEVRON.COM	6. If Indian, Allottee or Tribe Name
3a. Address 6301 DEAUVILLE BLVD MIDLAND, TX 79706	7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 432-687-7655	8. Well Name and No. SD EA 29 32 FED COM P10 20H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 29 T26S R33E NENW 120FNL 2608FEL 32.021431 N Lat, 103.594162 W Lon	9. API Well No. 30-025-44488-00-X1
	10. Field and Pool or Exploratory Area WC025G09S263327G-UP WOLFCAMP
	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 Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

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 recomple 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.

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

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

- 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 #455166 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 (19PP1125SE)	
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 03/06/2019
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 #455166 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

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-44488	² Pool Code 98097	³ Pool Name SANDERS TANK; UPPER WOLFCAMP
⁴ Property Code	⁵ Property Name SD EA 29 32 FED COM P10	⁶ Well Number 20H
⁷ OGRID No. 4323	⁸ Operator Name CHEVRON U.S.A. INC.	⁹ Elevation 3238'

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
B	29	26 SOUTH	33 EAST, N.M.P.M.		120'	NORTH	2608'	EAST	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
G	32	26 SOUTH	33 EAST, N.M.P.M.		25'	SOUTH	2005'	EAST	LEA

¹² Dedicated Acres 237.41	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

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SD EA 29 32 FED COM P10 NO. 20H WELL	
X= 729,234	NAD 27
Y= 372,262	
LAT. 32.021307 N	
LONG. 103.593693 W	
X= 770,422	NAD83/2011
Y= 372,319	
LAT. 32.021432 N	
LONG. 103.594160 W	
ELEVATION +3238' NAVD 88	

PROPOSED FIRST TAKE POINT	
X= 729,832	NAD 27
Y= 372,286	
LAT. 32.021361 N	
LONG. 103.591764 W	
X= 771,020	NAD83/2011
Y= 372,343	
LAT. 32.021486 N	
LONG. 103.592230 W	

PROPOSED LAST TAKE POINT	
X= 729,894	NAD 27
Y= 364,738	
LAT. 32.000612 N	
LONG. 103.591732 W	
X= 771,082	NAD83/2011
Y= 364,795	
LAT. 32.000737 N	
LONG. 103.592197 W	

PROPOSED BOTTOM HOLE LOCATION	
X= 729,895	NAD 27
Y= 364,583	
LAT. 32.000186 N	
LONG. 103.591731 W	
X= 771,083	NAD83/2011
Y= 364,640	
LAT. 32.000311 N	
LONG. 103.592196 W	

CORNER COORDINATES TABLE (NAD 27)

A - Y=372382.09, X=729197.59
 B - Y=372390.91, X=730519.68
 C - Y=364563.17, X=730579.96
 D - Y=364553.99, X=729259.12

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: [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.

Date of Survey: 03/06/2018

Signature and Seal: [Signature]

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)		12,782	20,200

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 availability 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 floor on surface casing. BOPE will be nipped 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'	20,200'	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	0'	12,500'	6-3/4"	5.5"	20#	P-110-ICY	TXP BTC	New
(Taper String)	12,500'	20,200'	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 recalculated & 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.

3-String Design

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	X	X	X	X
P external: Water				
P internal: Test psi + next section heaviest mud in csg				
Displace to Gas- Surf Csg	X			
P external: Water				
P internal: Dry Gas from Next Csg Point				
Frac at Shoe, Gas to Surf- Int Csg		X	X	
P external: Water				
P internal: Dry Gas, 16 ppg Frac Gradient				
Stimulation (Frac) Pressures- Prod Csg				X
P external: Water				
P internal: Max inj pressure w/ heaviest injected fluid				
Tubing leak- Prod Csg (packer at KOP)				X
P external: Water				
P internal: Leak just below surf, 8.7 ppg packer fluid				
Collapse Design				
Full Evacuation	X	X	X	X
P external: Water gradient in cement, mud above TOC				
P internal: none				
Cementing- Surf, Int, Prod Csg	X	X	X	X
P external: Wet cement				
P internal: water				
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'	18,700'	15.6	1.183	35	2246	5.14	Antifoam Dispersent Fluid Loss Retarder Viscosifier
Tail	Class H	18,700'	20,200'	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
11,500'	20,200'	Oil Based Mud	9.8-14.8	70 - 75	25 - 30

Liner Contingency

A closed system will be 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:

- Drill stem tests are not planned.
- 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

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

8. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

- 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
- 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 P10	20H	30-025-44488
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Rig: Nabors 1206

CVX CONTACT:

Tony Bacon

MCBU D&C Engineer – Nabors 1206

Chevron North America Exploration and Production Co.

MidContinent Business Unit

Office: (713) 372-4025

Cell: (406) 989-0415

Email: tonybacon@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.

Chevron SD EA 29 32 Fed Com P10 20H Rev1 kFc 03Dec18 Proposal

Geodetic Report

(Def Plan)



Report Date: December 04, 2018 - 12:13 AM
Client: Chevron
Field: NM Lea County (NAD 27)
Structure / Slot: Chevron SD EA 29 32 Fed Com P10 Pad / 20H
Well: SD EA 29 32 Fed Com P10 20H
Borehole: SD EA 29 32 Fed Com P10 20H
UWI / API#: Unknown / Unknown
Survey Name: Chevron SD EA 29 32 Fed Com P10 20H Rev1 kFc 03Dec18
Survey Date: November 29, 2018
Tort / AHD / DDI / ERD Ratio: 108.361' / 8474.093 ft / 6.163 / 0.563
Coordinate Reference System: NAD27 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long: N 32° 1' 16.70019", W 103° 35' 37.29879"
Location Grid N/E Y/X: N 372282.000 NUS, E 729234.000 NUS
CRS Grid Convergence Angle: 0.3922°
Grid Scale Factor: 0.99998928
Version / Patch: 2.10.753.0

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 179.531° (Grid North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: KB 32.5ft
TVD Reference Elevation: 3270.500 ft above
Seabed / Ground Elevation: 3238.000 ft above
Magnetic Declination: 6.731°
Total Gravity Field Strength: 998.4325mgn (9.80665 Based)
Gravity Model: GARM
Total Magnetic Field Strength: 47718.170 nT
Magnetic Dip Angle: 59.855°
Declination Date: November 29, 2018
Magnetic Declination Model: HDGM 2018
North Reference: Grid North
Grid Convergence Used: 0.3922°
Total Corr Mag North->Grid North: 6.3384°
Local Coord Referenced To: Well Head

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 ° ' ")
Surface	0.00	0.00	81.77	0.00	0.00	0.00	0.00	0.00	N/A	372282.00	729234.00	N 32 116.70 W 103 35 37.30
	100.00	0.00	81.77	100.00	0.00	0.00	0.00	0.00	372282.00	729234.00	N 32 116.70 W 103 35 37.30	
	200.00	0.00	81.77	200.00	0.00	0.00	0.00	0.00	372282.00	729234.00	N 32 116.70 W 103 35 37.30	
	300.00	0.00	81.77	300.00	0.00	0.00	0.00	0.00	372282.00	729234.00	N 32 116.70 W 103 35 37.30	
	400.00	0.00	81.77	400.00	0.00	0.00	0.00	0.00	372282.00	729234.00	N 32 116.70 W 103 35 37.30	
	500.00	0.00	81.77	500.00	0.00	0.00	0.00	0.00	372282.00	729234.00	N 32 116.70 W 103 35 37.30	
	600.00	0.00	81.77	600.00	0.00	0.00	0.00	0.00	372282.00	729234.00	N 32 116.70 W 103 35 37.30	
	700.00	0.00	81.77	700.00	0.00	0.00	0.00	0.00	372282.00	729234.00	N 32 116.70 W 103 35 37.30	
Rustler	723.00	0.00	81.77	723.00	0.00	0.00	0.00	0.00	372282.00	729234.00	N 32 116.70 W 103 35 37.30	
	800.00	0.00	81.77	800.00	0.00	0.00	0.00	0.00	372282.00	729234.00	N 32 116.70 W 103 35 37.30	
Surface Casing	873.00	0.00	81.77	873.00	0.00	0.00	0.00	0.00	372282.00	729234.00	N 32 116.70 W 103 35 37.30	
	900.00	0.00	81.77	900.00	0.00	0.00	0.00	0.00	372282.00	729234.00	N 32 116.70 W 103 35 37.30	
Build 1"/100ft	973.00	0.00	81.77	973.00	0.00	0.00	0.00	0.00	372282.00	729234.00	N 32 116.70 W 103 35 37.30	
	1000.00	0.27	81.77	1000.00	-0.01	0.01	0.06	1.00	372282.01	729234.06	N 32 116.70 W 103 35 37.30	
	1100.00	1.27	81.77	1099.99	-0.19	0.20	1.39	1.00	372282.20	729235.39	N 32 116.70 W 103 35 37.28	
	1200.00	2.27	81.77	1199.94	-0.61	0.64	4.45	1.00	372282.64	729236.45	N 32 116.71 W 103 35 37.25	
	1300.00	3.27	81.77	1299.82	-1.26	1.34	9.23	1.00	372283.34	729243.23	N 32 116.71 W 103 35 37.19	
	1400.00	4.27	81.77	1399.60	-2.15	2.28	15.74	1.00	372284.28	729249.74	N 32 116.72 W 103 35 37.12	
	1500.00	5.27	81.77	1499.28	-3.27	3.47	23.97	1.00	372285.47	729257.97	N 32 116.73 W 103 35 37.02	
	1600.00	6.27	81.77	1598.75	-4.63	4.91	33.82	1.00	372286.91	729267.92	N 32 116.75 W 103 35 36.90	
	1700.00	7.27	81.77	1698.05	-6.22	6.59	45.59	1.00	372288.59	729279.59	N 32 116.76 W 103 35 36.77	
	1800.00	8.27	81.77	1797.13	-8.04	8.53	58.97	1.00	372270.53	729292.97	N 32 116.78 W 103 35 36.61	
	1873.40	9.00	81.77	1899.70	-9.53	10.11	69.88	1.00	372272.10	729303.87	N 32 116.80 W 103 35 36.49	
	1900.00	9.00	81.77	1895.97	-10.09	10.70	74.00	0.00	372272.70	729307.99	N 32 116.80 W 103 35 36.44	
	2000.00	9.00	81.77	1994.74	-12.21	12.94	89.49	0.00	372274.94	729323.48	N 32 116.82 W 103 35 36.28	
	2100.00	9.00	81.77	2093.51	-14.32	15.18	104.98	0.00	372277.18	729338.97	N 32 116.84 W 103 35 36.08	
	2200.00	9.00	81.77	2192.27	-16.43	17.42	120.46	0.00	372279.42	729354.46	N 32 116.86 W 103 35 35.90	
	2300.00	9.00	81.77	2291.04	-18.55	19.66	135.95	0.00	372281.66	729369.95	N 32 116.89 W 103 35 35.72	
	2400.00	9.00	81.77	2389.81	-20.66	21.90	151.44	0.00	372283.90	729385.44	N 32 116.91 W 103 35 35.54	
	2500.00	9.00	81.77	2488.58	-22.77	24.14	166.93	0.00	372286.14	729400.93	N 32 116.93 W 103 35 35.36	
	2600.00	9.00	81.77	2587.34	-24.89	26.38	182.42	0.00	372288.38	729416.42	N 32 116.95 W 103 35 35.18	
	2700.00	9.00	81.77	2686.11	-27.00	28.62	197.91	0.00	372290.62	729431.90	N 32 116.97 W 103 35 35.00	
2800.00	9.00	81.77	2784.88	-29.11	30.86	213.40	0.00	372292.86	729447.39	N 32 116.99 W 103 35 34.82		
2900.00	9.00	81.77	2883.65	-31.23	33.10	228.89	0.00	372295.10	729462.88	N 32 117.01 W 103 35 34.64		
3000.00	9.00	81.77	2982.42	-33.34	35.34	244.38	0.00	372297.34	729478.37	N 32 117.03 W 103 35 34.46		
Castile	3078.02	9.00	81.77	3059.47	-34.99	37.09	256.46	0.00	372299.09	729490.45	N 32 117.05 W 103 35 34.32	
	3100.00	9.00	81.77	3081.18	-35.45	37.58	258.87	0.00	372299.58	729493.86	N 32 117.05 W 103 35 34.28	
	3200.00	9.00	81.77	3179.95	-37.57	39.82	275.36	0.00	372301.82	729509.35	N 32 117.08 W 103 35 34.10	
	3300.00	9.00	81.77	3278.72	-39.68	42.06	290.85	0.00	372304.06	729524.84	N 32 117.10 W 103 35 33.92	
	3400.00	9.00	81.77	3377.49	-41.79	44.30	306.34	0.00	372306.30	729540.33	N 32 117.12 W 103 35 33.74	
	3500.00	9.00	81.77	3476.25	-43.90	46.54	321.82	0.00	372308.54	729555.81	N 32 117.14 W 103 35 33.56	
	3600.00	9.00	81.77	3575.02	-46.02	48.78	337.31	0.00	372310.78	729571.30	N 32 117.16 W 103 35 33.38	
	3700.00	9.00	81.77	3673.79	-48.13	51.02	352.80	0.00	372313.02	729586.79	N 32 117.18 W 103 35 33.20	
	3800.00	9.00	81.77	3772.56	-50.24	53.26	368.29	0.00	372315.26	729602.28	N 32 117.20 W 103 35 33.02	
	3900.00	9.00	81.77	3871.33	-52.36	55.50	383.78	0.00	372317.50	729617.77	N 32 117.22 W 103 35 32.84	
	4000.00	9.00	81.77	3970.09	-54.47	57.74	399.27</					

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 ° ' ")
Drift West	8900.00	0.00	81.77	8952.00	-88.68	94.00	850.00	0.00	372356.00	729883.98	N 32 117.59 W 103 35 28.74	
	8948.00	0.00	81.77	8900.00	-88.68	94.00	850.00	0.00	372356.00	729883.98	N 32 117.59 W 103 35 28.74	
	7000.00	0.01	270.00	8952.00	-88.68	94.00	850.00	0.02	372356.00	729883.97	N 32 117.59 W 103 35 28.74	
	7100.00	0.03	270.00	7052.00	-88.68	94.00	649.98	0.02	372356.00	729883.94	N 32 117.59 W 103 35 28.74	
	7200.00	0.05	270.00	7152.00	-88.68	94.00	649.90	0.02	372356.00	729883.88	N 32 117.59 W 103 35 28.74	
	7300.00	0.06	270.00	7252.00	-88.68	94.00	649.80	0.02	372356.00	729883.78	N 32 117.59 W 103 35 28.74	
	7400.00	0.08	270.00	7352.00	-88.68	94.00	649.68	0.02	372356.00	729883.65	N 32 117.59 W 103 35 28.75	
	7500.00	0.10	270.00	7452.00	-88.68	94.00	649.52	0.02	372356.00	729883.49	N 32 117.59 W 103 35 28.75	
	7548.78	0.11	270.00	7500.78	-88.68	94.00	649.43	0.02	372356.00	729883.41	N 32 117.59 W 103 35 28.75	
	7600.00	0.12	270.00	7552.00	-88.68	94.00	649.32	0.02	372356.00	729883.30	N 32 117.59 W 103 35 28.75	
Brushy Canyon	7700.00	0.14	270.00	7652.00	-88.68	94.00	649.10	0.02	372356.00	729883.08	N 32 117.59 W 103 35 28.75	
	7800.00	0.16	270.00	7752.00	-88.69	94.00	648.85	0.02	372356.00	729882.83	N 32 117.59 W 103 35 28.76	
	7900.00	0.17	270.00	7852.00	-88.69	94.00	648.56	0.02	372356.00	729882.54	N 32 117.59 W 103 35 28.76	
	8000.00	0.19	270.00	7952.00	-88.69	94.00	648.24	0.02	372356.00	729882.22	N 32 117.59 W 103 35 28.76	
	8100.00	0.21	270.00	8052.00	-88.69	94.00	647.89	0.02	372356.00	729881.87	N 32 117.59 W 103 35 28.77	
	8200.00	0.23	270.00	8152.00	-88.70	94.00	647.51	0.02	372356.00	729881.49	N 32 117.59 W 103 35 28.77	
	8300.00	0.25	270.00	8252.00	-88.70	94.00	647.10	0.02	372356.00	729881.08	N 32 117.59 W 103 35 28.78	
	8400.00	0.26	270.00	8352.00	-88.70	94.00	646.65	0.02	372356.00	729880.83	N 32 117.59 W 103 35 28.78	
	8500.00	0.28	270.00	8452.00	-88.71	94.00	646.18	0.02	372356.00	729880.15	N 32 117.59 W 103 35 28.79	
	8600.00	0.30	270.00	8552.00	-88.71	94.00	645.67	0.02	372356.00	729879.65	N 32 117.59 W 103 35 28.79	
Bone Spring Lime	8700.00	0.32	270.00	8651.99	-88.72	94.00	645.13	0.02	372356.00	729879.10	N 32 117.59 W 103 35 28.80	
	8800.00	0.34	270.00	8751.99	-88.72	94.00	644.55	0.02	372356.00	729878.53	N 32 117.59 W 103 35 28.81	
	8900.00	0.36	270.00	8851.99	-88.73	94.00	643.95	0.02	372356.00	729877.93	N 32 117.59 W 103 35 28.81	
	9000.00	0.37	270.00	8951.99	-88.73	94.00	643.31	0.02	372356.00	729877.29	N 32 117.59 W 103 35 28.82	
	9089.51	0.39	270.00	9041.50	-88.74	94.00	642.72	0.02	372356.00	729876.70	N 32 117.59 W 103 35 28.83	
	9100.00	0.39	270.00	9051.99	-88.74	94.00	642.65	0.02	372356.00	729876.62	N 32 117.59 W 103 35 28.83	
	9114.51	0.39	270.00	9066.50	-88.74	94.00	642.55	0.02	372356.00	729876.53	N 32 117.59 W 103 35 28.83	
	9200.00	0.41	270.00	9151.98	-88.74	94.00	641.95	0.02	372356.00	729875.93	N 32 117.59 W 103 35 28.84	
	9300.00	0.43	270.00	9251.98	-88.75	94.00	641.22	0.02	372356.00	729875.19	N 32 117.59 W 103 35 28.84	
	9400.00	0.45	270.00	9351.98	-88.75	94.00	640.45	0.02	372356.00	729874.43	N 32 117.59 W 103 35 28.85	
Avalon	9500.00	0.46	270.00	9451.98	-88.76	94.00	639.66	0.02	372356.00	729873.84	N 32 117.59 W 103 35 28.86	
	9600.00	0.48	270.00	9551.97	-88.77	94.00	638.83	0.02	372356.00	729872.81	N 32 117.59 W 103 35 28.87	
	9700.00	0.50	270.00	9651.97	-88.77	94.00	637.97	0.02	372356.00	729871.95	N 32 117.59 W 103 35 28.88	
	9800.00	0.52	270.00	9751.96	-88.78	94.00	637.08	0.02	372356.00	729871.06	N 32 117.59 W 103 35 28.89	
	9900.00	0.54	270.00	9851.96	-88.79	94.00	636.16	0.02	372356.00	729870.14	N 32 117.59 W 103 35 28.90	
	9984.54	0.55	270.00	9936.50	-88.80	94.00	635.36	0.02	372356.00	729869.34	N 32 117.59 W 103 35 28.91	
	10000.00	0.56	270.00	9951.98	-88.80	94.00	635.21	0.02	372356.00	729869.19	N 32 117.59 W 103 35 28.91	
	10100.00	0.57	270.00	10051.95	-88.81	94.00	634.22	0.02	372356.00	729868.20	N 32 117.59 W 103 35 28.93	
	10200.00	0.59	270.00	10151.95	-88.81	94.00	633.21	0.02	372356.00	729867.19	N 32 117.59 W 103 35 28.94	
	10274.56	0.61	270.00	10226.50	-88.82	94.00	632.43	0.02	372356.00	729866.41	N 32 117.59 W 103 35 28.95	
First Bone Spring Shale	10300.00	0.61	270.00	10251.94	-88.82	94.00	632.16	0.02	372356.00	729866.14	N 32 117.59 W 103 35 28.95	
	10400.00	0.63	270.00	10351.93	-88.83	94.00	631.08	0.02	372356.00	729865.06	N 32 117.59 W 103 35 28.96	
	10500.00	0.65	270.00	10451.93	-88.84	94.00	629.97	0.02	372356.00	729863.94	N 32 117.59 W 103 35 28.97	
	10598.58	0.66	270.00	10548.50	-88.85	94.00	628.88	0.02	372356.00	729862.84	N 32 117.59 W 103 35 28.98	
	10600.00	0.66	270.00	10551.92	-88.85	94.00	628.82	0.02	372356.00	729862.80	N 32 117.59 W 103 35 28.99	
	10700.00	0.68	270.00	10651.91	-88.86	94.00	627.65	0.02	372356.00	729861.63	N 32 1	

Survey Error Model:									
Survey Type:									
Description									
Part									
MD From									
MD To									
EOU Freq									
Hole Size Casing Diameter									
Expected Max Inclination									
Survey Tool Type									
Borehole / Survey									
ISOWSA Rev 3 --- 3-D 97.071% Confidence 3,000 sigma									
Del Plan									
P10 20H - PBHL									
Chevron SD EA									
29 32 Fed Com									
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N 32 0 108.00 W 103.35 30.27									
7289									

Delaware Basin

Changes to APD/COA for Federal Well



Wells:

SD EA 29 32 Fed Com P10	17H	30-025-44485
SD EA 29 32 Fed Com P10	18H	30-025-44486
SD EA 29 32 Fed Com P10	19H	30-025-44487
SD EA 29 32 Fed Com P10	20H	30-025-44488

Rig: Nabors 1206

CVX CONTACT:

Tony Bacon
MCBU D&C Engineer – Nabors 1206
Chevron North America Exploration and Production Co.
MidContinent Business Unit
Office: (713) 372-4025
Cell: (406) 989-0415
Email: tonybacon@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

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CHEVRON USA INC.
LEASE NO.:	NMNM27506
WELL NAME & NO.:	20H -SD EA 29 32 FED COM P10
SURFACE HOLE FOOTAGE:	120'/N & 2608'/W
BOTTOM HOLE FOOTAGE	25'/S & 2005'/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 **800** 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:
Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.
 - a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool: Cement to surface. If cement does not circulate, contact the appropriate BLM office.
- ❖ 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:
 - c. 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:
 - a. Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

Operator shall set 5 1/2" 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:
 - b. 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)

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1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as

well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. **On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.**
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

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

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. 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.

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