Form 3160-3
(March 2012)

Operator Copy

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMNM27506 (H)

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. (314194) SALADO DRAW 29 26 33 FED COM 1H

2. Name of Operator CHEVRON USA INC (4323)

9. API Well No. 30-025-42629

3a. Address 1616 W. BENDER BLVD, HOBBS, NM 88240

3b. Phone No. (include area code) 575-263-0431

HOBBS OCD
JUN 11 2015
RECEIVED

10. Field and Pool, or Exploratory (97955) WC-025 G-06 S263313P; BS

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface 200' FNL & 1283" FWL (D)
At proposed prod. zone 280' FSL & 355' FWL (E)

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 29 T26S, R33E; UL D (SHL)
SEC 32 T26S, R33E, UL E (BHL)

14. Distance in miles and direction from nearest town or post office*
50 MILES WEST OF JAL, NEW MEXICO

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 200" FNL

16. No. of acres in lease: 1517.74 (NMNM27506)

17. Spacing Unit dedicated to this well: 237.34 ACRES

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 1370 FT FROM GULF LITTLEFIELD FED #1

19. Proposed Depth: TVD 9200' MD ~~9535~~ 16474

20. BLM/BIA Bond No. on file: CA 0329

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3213' GL

22. Approximate date work will start*

23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature: Cindy Herrera-Murillo 2630431
Name (Printed/Typed): CINDY HERRERA-MURILLO
Date: 09/23/2014

Title: PERMITTING SPECIALIST

Approved by (Signature): Stephen J Caffey
Name (Printed/Typed):
Date: 6/10/15

Title: FOR FIELD MANAGER
Office: CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

KZ 06/11/15

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

JUN 16 2015

1. FORMATION TOPS

The estimated tops of important geologic markers are as follows:

FORMATION	SUB-SEA TVD	KBTVD	MD
Rustler	2500	740	
Castile	240	3000	
Lamar	-1590	4830	
Bell Canyon	-1630	4870	
Cherry Canyon	-2635	5875	
Brushy Canyon	-4258	7498	
Bone Spring Limestone	-5745	8985	
Upr. Avalon	-5820	9060	
Lateral TD (Upper Avalon)	-5960	9200	16474

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		820
Water	Rustler	740
Water	Bell Canyon	4870
Water	Cherry Canyon	5875
Oil/Gas	Brushy Canyon	7498
Oil/Gas	Bone Spring Limestone	8985
Oil/Gas	Upr. Avalon	9060

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

3. BOP EQUIPMENT

Will have a minimum of a 5000 psi rig stack (see proposed schematic) for drill out below surface casing. Stack will be tested as specified in the attached testing requirements.

Chevron requests a variance to use a GE/Vetco SH-2 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 GE/Vetco 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.

Intermediate casing depth 4800'

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"	48 #	H-40	STC	New
Intermediate	0'	4,900'	12-1/4"	9-5/8"	40 #	HCK-55	LTC	New
Production	0'	16,474'	8-3/4"	5-1/2"	17.0 #	HCP-110	CDC	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: 1000'
Intermediate Casing: 5000'
Production Casing: 17,426' MD/10,240' TVD (6900' VS @ 90 deg inc)

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.42	1.63	2.29	1.8
Intermediate	1.24	1.44	2.09	1.32
Production	1.26	1.71	2.2	1.46

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

	Surf	Int	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
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, 15 ppg Frac Gradient		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
Cementing- Surf, Int, Prod Csg P external: Wet cement P internal: water	X	X	X
Tension Design			
100k lb overpull	X	X	X

5. **CEMENTING PROGRAM**

Slurry	Type	Top	Bottom	Weight	Yield	%Excess	Sacks	Water
Surface				(ppg)	(sx/cu ft)	Open Hole		gal/sk
Tail	Class C+2%CaCl	0'	850'	14.8	1.35	125	1011	6.57
Intermediate								
Lead	EconoCem C + 3 lb/sk Kol-Seal + 0.125 lb/sk PolyFlake + 0.1% HR-601 + 0.25% D-Air 5000	0'	3,920'	11.9	2.46	150	1107	14.21
Tail	HalCem C	3,920'	4,900'	14.8	1.33	85	456	6.37
Production								
1st Lead	VariCem-PB1 + 0.1% FWCA + 3 lb/sk Kol-Seal + 0.1% HR-601	4,050'	8,780'	11.3	2.54	50	666	15.51
2nd Lead	VariCem-PB2 + 0.5% Halad-344 + 0.3% CFR-3 + 3 lb/sk KolSeal + 0.05% FE-2 + 0.1% HR-601	8,780'	15,326'	12.5	1.81	35	1237	9.64
Tail	SoluCem H + 0.25 lb/sk D-Air 5000	15,326'	16,474'	15	2.63	0	110	11.42

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'	4,900'	Brine	9.5 - 10.1	28 - 30	NC - NC
4,900'	8,780'	FW/Cut Brine	8.3 - 9.6	28 - 30	NC - NC
8,780'	9,535'	Cut Brine	8.3 - 9.6	28 - 30	15 - 25
9,535'	16,474'	FW/Cut Brine	8.3 - 9.6	28 - 30	15 - 25

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 is: 4750 psi
b. Hydrogen sulfide gas is not anticipated. An H2S Contingency plan is attached with this APD in the event that H2S is encountered

Chevron

Project: Lea County NM (NAD27 NME)
Site: Salado Draw 29 26 33 Fed Com
Well: 1H
Wellbore: Wellbore #1
Design: Plan #1 06-11-14
Rig: Planning

PHOENIX TECHNOLOGY SERVICES

Azimuths to Grid North
True North: -0.39°
Magnetic North: 6.83°

Magnetic Field
Strength: 48193.6snT
Dip Angle: 59.92°
Date: 2014/06/11
Model: IGRF2010_14

KB: 27' @ 3240.00usft (Planning)
Ground Level: 3213.00

WELL DETAILS

Ground Level: 3213.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	372173.00	727838.00	32° 1' 15.91374 N	103° 35' 53.52012 W	1H

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00		KOP1, Start 1°/100' Build
3	2889.70	7.90	274.10	2887.20	3.89	-54.20	1.00	274.10	2.49		EOB, Start hold at 7.9° Inc
4	8780.23	7.90	274.10	8721.87	61.79	-861.43	0.00	0.00	39.59		KOP2, Start 12°/100' Build-Turn
5	9535.44	90.00	179.54	9200.00	-416.16	-923.71	12.00	-94.52	521.55		LP, 90° Inc, 179.54° Azm - Start hold
6	16474.50	90.00	179.54	9200.00	-7355.00	-868.00	0.00	0.00	7406.04	BHL SD 29-26-33 FC #1H	TD at 16474.50' MD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BHL SD 29-26-33 FC #1H - plan hits target center	9200.00	-7355.00	-868.00	364818.00	726970.00	32° 0' 3.18765 N	103° 36' 4.18047 W	Point

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001

Local Origin: Well 1H - Slot 1H, Grid North

Latitude: 32° 1' 15.91374 N
Longitude: 103° 35' 53.52012 W

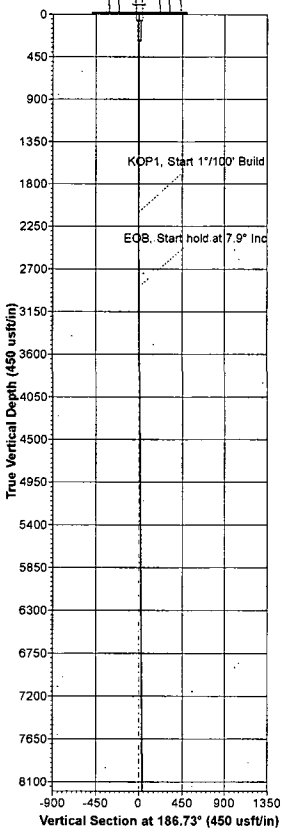
Grid East: 727838.00
Grid North: 372173.00
Scale Factor: 1.000

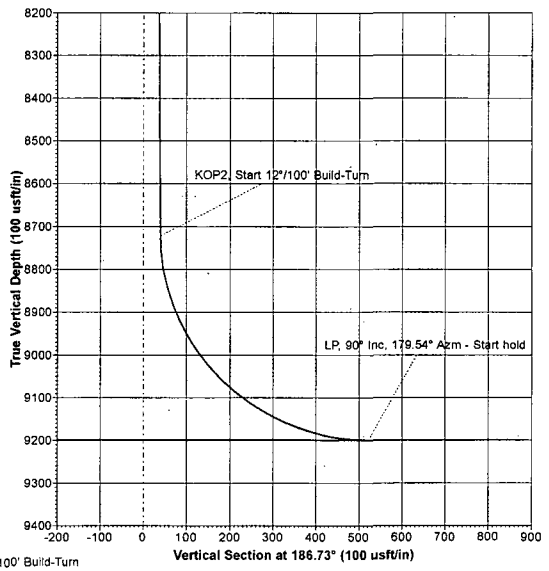
Geomagnetic Model: IGRF2010_14
Sample Date: 11-Jun-14
Magnetic Declination: 7.22°
Dip Angle from Horizontal: 59.92°
Magnetic Field Strength: 48194

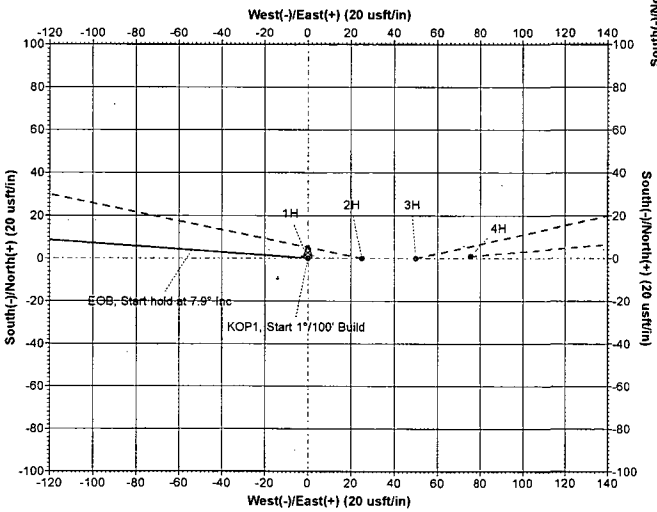
To convert a Magnetic Direction to a Grid Direction, Add 6.83°
To convert a Magnetic Direction to a True Direction, Add 7.22° East
To convert a True Direction to a Grid Direction, Subtract 0.39°

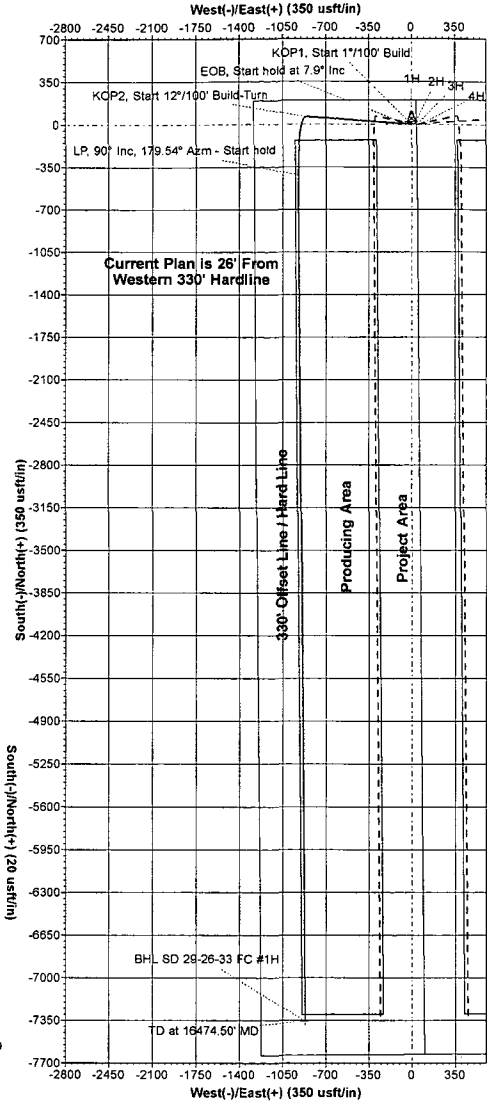
LEGEND

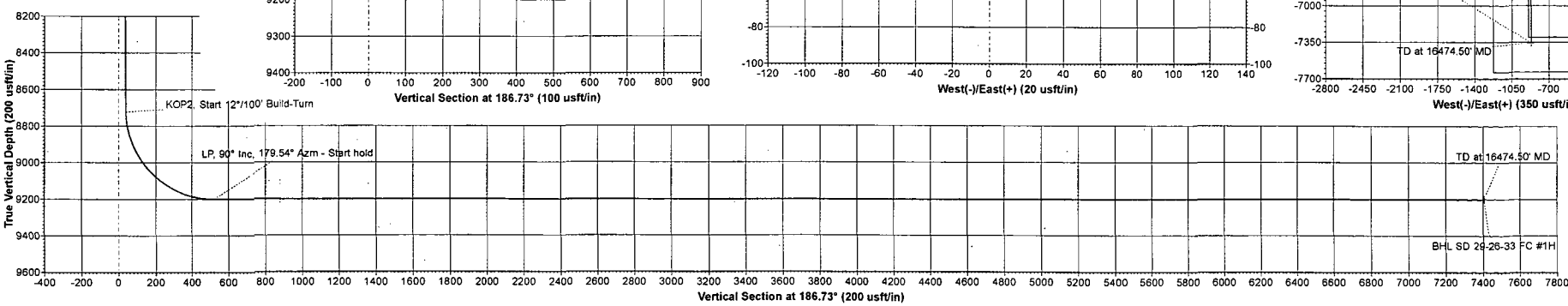
- 2H, Wellbore #1, Plan #1 06-11-14 V0
- 4H, Wellbore #1, Plan #1 06-11-14 V0
- 3H, Wellbore #1, Plan #1 06-11-14 V0
- Plan #1 06-11-14











Created By: Tyler Carlson Date: 13:08, June 11 2014