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

5. Lease Serial No.
NMNM13233

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

Carlsbad Field Office
OCD Artesia

8. Well Name and No.
CB HAYES 10 3 FED COM 005 3H

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

9. API Well No.
30-015-45668-00-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
PURPLE SAGE-WOLFCAMP (GAS)

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 15 T23S R28E NENE 520FNL 1280FEL
32.311356 N Lat, 104.070793 W Lon

11. County or Parish, State
EDDY 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 APD
	☐ 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.

Chevron respectfully requests to change the casing design on this well from a 4-string design to a 3-string design. Attached you will find a revised 9Pt drilling plan.

All previous COAs still apply. Filled 1/3rd casing with fluid while running intermediate casing to maintain Collapse safety factor. 5M BOP is approved.

NM OIL CONSERVATION
ARTESIA DISTRICT
AUG 21 2019

RECEIVED

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #463345 verified by the BLM Well Information System
For CHEVRON USA INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 04/29/2019 (19PP1847SE)

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

Signature (Electronic Submission) — Date 04/29/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By ZOTA STEVENS — Title PETROLEUM ENGINEER — Date 04/03/2019

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 Carlsbad

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 ****

RWP 10-29-19

Delaware Basin
Changes to APD/COA for Federal Well

Chevron

Well Name:

CB HAYS 10 3 FED COM 005	3H	30-015-45668

Rig: Patterson 257

CVX CONTACT:

Hannah Wardo
MCBU D&C Engineer – Patterson 257
Chevron North America Exploration and Production Co.
MidContinent Business Unit
Office: (713) 372-9032
Cell: (832) 963-9814
Email: hannah.wardo@chevron.com

Summary of Changes to APD Submission

Chevron respectfully requests to change the casing design on this well from a 4-string design to a 3-string design. Please see the attached updated 9-point plan.

3H

4. CASING PROGRAM

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	450'	17-1/2"	13-3/8"	54.5 #	J-55	STC	New
Intermediate	0'	9,000'	12-1/4"	9-5/8"	43.5#	L-80IC	LTC	New
Production	0'	20,213'	8-1/2"	5-1/2"	20#	P-110	TXP	New

1. FORMATION TOPS

The estimated tops of important geologic markers are as follows:

FORMATION	SUB-SEA TVD	KBTVD	MD
Castille	1917	1103	
Lamar	435	2595	
Bell	398	2622	
Cherry	-414	3434	
Brushy	-1638	4658	
Bone Spring Lime	-3140	6160	
Avalon	-3547	6567	
First Bone Spring Sand	-4272	7292	
SBSG Sand	-5004	8024	
Third Bone Spring Carbonate	-6108	9128	
Third Bone Spring Sand	-6443	9403	
Wolfcamp A		9463	
Lateral TVD Wolfcamp A	-6604	9624	20213

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		450
Water	Castille	1103
Water	Cherry Canyon	3434
Oil/Gas	Brushy Canyon	4658
Oil/Gas	First Bone Spring Sand	7292
Oil/Gas	SBSG Sand	8024
Oil/Gas	Third Bone Spring Carbonate	9128
Oil/Gas	Third Bone Spring Sand	9403
Oil/Gas	Wolfcamp A	9463

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). 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 UHS 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**

Purpose	From	To	Hole Size	Csg Size	Weight	Grade	Thread	Condition
Surface	0'	450'	17-1/2"	13-3/8"	54.5 #	J-55	STC	New
Intermediate	0'	9,000'	12-1/4"	9-5/8"	43.5#	L-80IC	LTC	New
Production	0'	20,213'	8-1/2"	5-1/2"	20#	P-110	TXP	New

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

Surface Casing: 450'
Intermediate Casing: 9,000' MD
Production Casing: 20,213' MD/9,624' TVD (11,034' VS @ 90 deg inc)

Casing String	Min SF Burst	Min SF Collapse	Min SF Tension	Min SF Tri-Axial
Surface	1.42	5.22	2.76	1.76
Intermediate	1.38	2.19	1.7	1.67
Production	1.1	1.64	2.19	1.32

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	Cemnent Top	Cement Bottom	Weight	Yield	OH %Excess	Sacks	Water
Surface				(ppg)	(sx/cu ft)	Open Hole		gal/sk
Tail	Class C	0'	450'	14.8	1.336	10	257	6.423
Intermediate								
Stage 2 Lead	Class C	0'	1,595'	11.9	2.57	10	217	14.73
Stage 2 Tail	Class C	1,595'	2595'	14.8	1.337	10	258	6.42
DV Tool		2,595'						
Stage 1 Lead	Class C	2,595'	8,000'	11.9	2.57	10	724	14.73
Stage 1 Tail	Class C	8,000'	9,000'	14.8	1.337	10	258	6.42
Production								
Tail	Class C	0'	19,213'	13.2	1.84	10	2637	9.85
Acid Soluable Tail	Class H	19,213'	20,213'	15	2.18	10	115	9.55

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.

6. **MUD PROGRAM**

From	To	Type	Weight	F. Vis	Filtrate
0'	450'	Spud Mud	8.3 - 8.4	32 - 34	NC - NC
450'	9,000'	Brine/OBM	8.8 - 10	50 -70	5.0 - 10
9,000'	20,213'	OBM	9.5 - 13	50 -70	5.0 - 10

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 CSG & Prod	While Drilling	TBD

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

8. **ABNORMAL PRESSURES AND HYDROGEN SULFIDE**

No abnormal Pressures anticipated. Reference Attached H2S Contingency Plan.