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.
NMNM17224

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.
Multiple--See Attached

2. Name of Operator
OXY USA INCORPORATED
Contact: DAVID STEWART
E-Mail: david_stewart@oxy.com

9. API Well No.
Multiple--See Attached

3a. Address
5 GREENWAY PLAZA SUITE 110
HOUSTON, TX 77046-0521

3b. Phone No. (include area code)
Ph: 432.685.5717
Fx: 436.855.5742

10. Field and Pool or Exploratory Area
PIERCE CROSSING-BONE SPRING
WOLFCAMP

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Multiple--See Attached

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 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.

OXY USA Inc. respectfully requests the following bulk sundry changes to the approved APD?s for the following wells:

1. Salt Flat CC 20-29 Federal Com #32H - 30-015-45081
2. Salt Flat CC 20-29 Federal Com #31H - 30-015-45080
3. Salt Flat CC 20-29 Federal Com #33H - 30-015-45082

See attached for the Amended Drill Plan with the following changes.

1. Change Production Casing to Liner and update cementing information. See attached for Casing Tie Back Detail
2. Request Bradenhead squeeze for the 2nd stage Intermediate casing with the Bradenhead CBL

See Attached COAs

Carlsbad Field Office
OCD Artesia

RECEIVED
NOV 05 2019
DISTRICT II-ARTESIA O.C.D.

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

Electronic Submission #486833 verified by the BLM Well Information System
For OXY USA INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 10/07/2019 (20PP0071SE)

Name *(Printed/Typed)* DAVID STEWART — Title SR. REGULATORY ADVISOR

Signature (Electronic Submission) — Date 10/07/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By NDUNGU KAMAU — Title PETROLEUM ENGINEER — Date 10/28/2019

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 ****

RJP 11-5-19

Additional data for EC transaction #486833 that would not fit on the form

Wells/Facilities, continued

Agreement	Lease	Well/Fac Name, Number	API Number	Location
NMNM17224	NMNM17224	SALT FLAT CC 20-29 FEDERAL COM 32H	30-015-45081-00-X1	Sec 17 T24S R29E SWSW 252FSL 1257FWL 32.211033 N Lat, 104.011040 W Lon
NMNM17224	NMNM17224	SALT FLAT CC 20-29 FEDERAL COM 31H	30-015-45080-00-X1	Sec 17 T24S R29E SWSW 252FSL 1222FWL 32.211033 N Lat, 104.011154 W Lon
NMNM17224	NMNM17224	SALT FLAT CC 20-29 FEDERAL COM 33H	30-015-45082-00-X1	Sec 17 T24S R29E SWSW 252FSL 1292FWL 32.211033 N Lat, 104.010933 W Lon

32. Additional remarks, continued

requirement.
3. Request Offline Intermediate Casing/Cementing Variance, see attached.
4. Update BOP Break Testing Request, Information and Plan
5. Update BOP/Wellhead Diagram

Revisions to Operator-Submitted EC Data for Sundry Notice #486833

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM17224	NMNM17224
Agreement:		
Operator:	OXY USA INC. P.O. BOX 50250 MIDLAND, TX 79710 Ph: 432-685-5717	OXY USA INCORPORATED 5 GREENWAY PLAZA SUITE 110 HOUSTON, TX 77046-0521 Ph: 713.350.4816
Admin Contact:	DAVID STEWART SR. REGULATORY ADVISOR E-Mail: david_stewart@oxy.com Cell: 432-634-5688 Ph: 432-685-5717	DAVID STEWART SR. REGULATORY ADVISOR E-Mail: david_stewart@oxy.com Cell: 432.685.5717 Ph: 432.685.5717 Fx: 436.855.5742
Tech Contact:	DAVID STEWART SR. REGULATORY ADVISOR E-Mail: david_stewart@oxy.com Cell: 432-634-5688 Ph: 432-685-5717	DAVID STEWART SR. REGULATORY ADVISOR E-Mail: david_stewart@oxy.com Cell: 432.685.5717 Ph: 432.685.5717 Fx: 436.855.5742
Location: State: County:	 NM EDDY	 NM EDDY
Field/Pool:	PURPLE SAGE WOLFCAMP	PIERCE CROSSING-BONE SPRING WOLFCAMP
Well/Facility:	SALT FLAT CC 20-29 FEDERAL COM 32H Sec 17 T24S R29E Mer NMP SWSW 252FSL 1257FWL 32.211034 N Lat, 104.011042 W Lon	SALT FLAT CC 20-29 FEDERAL COM 32H Sec 17 T24S R29E SWSW 252FSL 1257FWL 32.211033 N Lat, 104.011040 W Lon SALT FLAT CC 20-29 FEDERAL COM 31H Sec 17 T24S R29E SWSW 252FSL 1222FWL 32.211033 N Lat, 104.011154 W Lon SALT FLAT CC 20-29 FEDERAL COM 33H Sec 17 T24S R29E SWSW 252FSL 1292FWL 32.211033 N Lat, 104.010933 W Lon

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OXY USA INC.
LEASE NO.:	NMNM094651
LOCATION:	SECTION 17, T24S, R29E, NMPM
COUNTY:	EDDY

WELL NAME & NO.:	SALT FLAT CC 20-29 FED 31H
SURFACE HOLE FOOTAGE:	252'/S & 1222'/W
BOTTOM HOLE FOOTAGE	180'/S & 380'/W

WELL NAME & NO.:	SALT FLAT CC 20-29 FED 32H
SURFACE HOLE FOOTAGE:	252'/S & 1257'/W
BOTTOM HOLE FOOTAGE	180'/S & 1260'/W

WELL NAME & NO.:	SALT FLAT CC 20-29 FED 33H
SURFACE HOLE FOOTAGE:	252'/S & 1292'/W
BOTTOM HOLE FOOTAGE	180'/S & 2140'/W

COA

H2S	○ Yes	◉ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	○ Low	◉ Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	○ Multibowl	◉ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☑ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit

ALL PREVIOUS COAs STILL APPLY.

A. CASING

Casing Design:

1. The **10-3/4** inch surface casing shall be set at approximately **400** feet (a minimum of 70 feet (Eddy County) 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.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The **7-5/8** inch intermediate casing shall be set at approximately **9258** feet The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

Option 2:

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.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ 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.

Operator has proposed to pump down 10-3/4" X 7-5/8" annulus. Operator must run a CBL/ ECHOMETER from TD of the 7-5/8" casing to surface. Submit results to BLM. Excess calculates to 8% - additional cement might be required.

3. The minimum required fill of cement behind the **5-1/2** inch production liner is:

    - Cement should tie-back **100 feet** into the previous casing. Operator shall provide method of verification. **Excess calculates to 5% - additional cement might be required.**

B. 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.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

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

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. 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.

    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.

C. SPECIAL REQUIREMENT (S)

BOP Break Testing Variance

- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer prior to the commencement of any BOP Break Testing operations.
- A full BOP test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOP test will be required.

Offline Cementing

- Contact the BLM prior to the commencement of any offline cementing procedure.

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

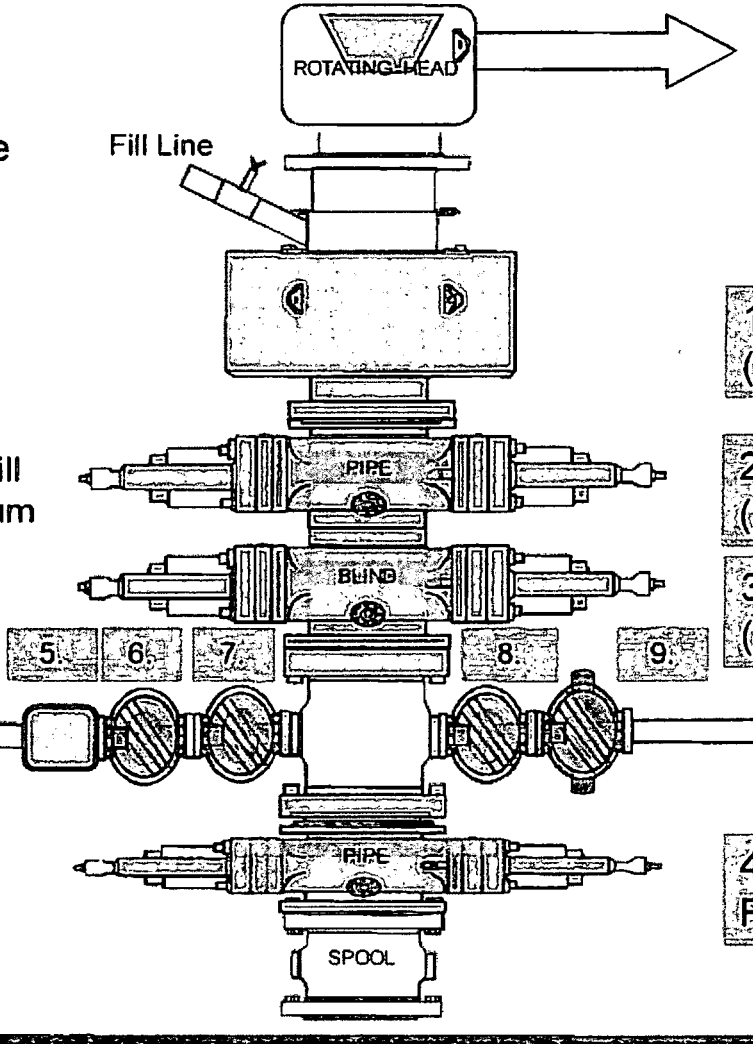
OTA10282019

5/10M BOP Stack

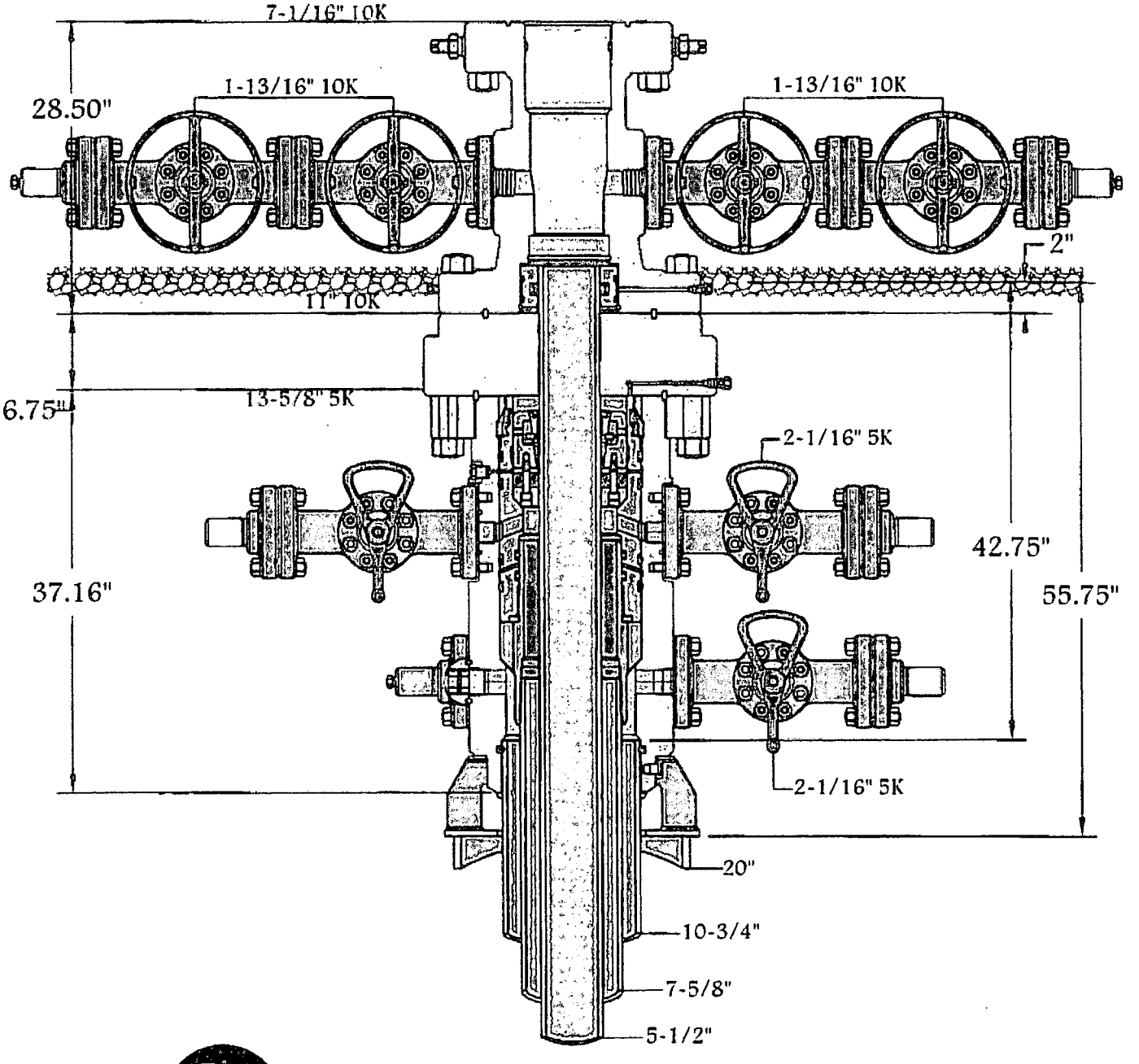
Mud Cross Valves:

5. 10M Check Valve
6. Outside 10M Kill Line Valve
7. Inside 10M Kill Line
8. Outside10M Kill Line Valve
9. 10M HCR Valve

*Minimum ID = 2-1/16" on Kill Line side and 3" minimum ID on choke line side



1. 5,000 psi Annular (13-5/8" ID)
2. 10,000 psi Upper Pipe Ram (13-5/8" ID)
3. 10,000 psi Blind Ram (13-5/8" ID)
4. 10,000 psi Lower Pipe Ram (13-5/8" ID)



13-5/8" 5K MN-DS

CAMERON
A Schlumberger Company

			#

OXY USA Inc. – Salt Flat CC 20-29 Federal Com 31H–32H-33H – Amended Drill Plan

This is a bulk sundry request for the Salt Flat CC 20-29 Federal Com #32H, but includes the following Salt Flat CC 20-29 Federal Com wells in the Cedar Canyon area.

API #	Well Name	TVD	MD
3001545080	Salt Flat CC 20-29 Federal Com 31H	9881'	20,110'
3001545081	Salt Flat CC 20-29 Federal Com 32H	9908'	20,086'
3001545082	Salt Flat CC 20-29 Federal Com 33H	9932'	20,162'

1. Casing Program

OXY requests to run a production liner. The updated casing table is shown below:

Hole Size (in)	Casing Interval From (ft)	Casing Interval To (ft)	Csg. Size (in)	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	Buoyant Body SF Tension	Buoyant Joint SF Tension
14.75	0	532	10.75	45.5	J-55	BTC	1.125	1.2	1.4	1.4
9.875	0	9258	7.625	26.4	HCL-80	BTC	1.125	1.2	1.4	1.4
6.75	9158	20085	5.5	20	P-110	DQX	1.125	1.2	1.4	1.4
							SF Values will meet or Exceed			

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

9893 10,260'

*OXY requests the option to set casing shallower yet still below the salts if losses or hole conditions require this. Cement volumes may be adjusted if casing is set shallower and a DV tool may be run in case hole conditions merit pumping a second stage cement job to comply with permitted top of cement. If cement circulated to surface during first stage we will drop a cancelation cone and not pump the second stage.

*OXY requests the option to run production casing with DQX, SF TORQ, and/or DQW TORQ connections to accommodate hole conditions or drilling operations.

Annular Clearance Variance Request

As per the agreement reached in the OXY/BLM meeting on Feb 22, 2018, OXY requests permission to allow deviation from the 0.422" annular clearance requirement from Onshore Order #2 under the following conditions:

1. Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casings.
2. Annular clearance less than 0.422" is acceptable for the curve and lateral portions of the production open hole section.

2. Cementing Program

OXY requests to change the production cement job. The tables below highlight the changes.

Casing String	# Sks	Wt. (lb/gal)	Yld (ft³/sack)	H₂0 (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Surface (Tail)	431	14.8	1.33	6.365	5:26	Class C Cement, Accelerator
Intermediate 1st Stage (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate 1st Stage (Tail)	560	13.2	1.65	8.640	11:54	Class H Cement, Retarder, Dispersant, Salt
Intermediate 2nd Stage (Tail Slurry) to be pumped as Bradenhead Squeeze from surface, down the Intermediate annulus						
Intermediate 2nd Stage (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate 2nd Stage (Tail)	638	12.9	1.92	10.41	23:10	Class C Cement, Accelerator
Production (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Production (Tail)	703	13.2	1.38	6.686	3:39	Class H Cement, Retarder, Dispersant, Salt

Casing String	Top (ft)	Bottom (ft)	% Excess
Surface (Lead)	N/A	N/A	N/A
Surface (Tail)	0	532	100%
Intermediate 1st Stage (Lead)	N/A	N/A	N/A
Intermediate 1st Stage (Tail)	5213	9258	5%
Intermediate 2nd Stage (Lead)	N/A	N/A	N/A
Intermediate 2nd Stage (Tail)	0	5213	10%
Production (Lead)	N/A	N/A	N/A
Production (Tail)	9158	20085	5%

Cement Top and Liner Overlap

1. OXY is requesting permission to have minimum fill of cement behind the 5-1/2" production liner to be 100' into previous casing string. The reason for this is so that we can come back and develop shallower benches from the same 7-5/8" mainbore in the future.
2. Our plan is to use a whipstock for our exit through the mainbore. Based on our lateral target, we are planning a whipstock cased/hole exit so that kick-off point will allow for roughly 10deg/100' doglegs needed for the curve.
3. Cement will be brought to the top of this liner hanger.
4. See attached for additional casing tie-back information.

*OXY requests a variance to cement the 9-5/8" and/or 7-5/8" intermediate casing strings offline, see attached for additional information.

Bradenhead CBL - OXY requests permission to adjust the CBL requirement after bradenhead cement jobs, on 7-5/8" intermediate casings, as per the agreement reached in the OXY/BLM meeting on September 5, 2019.

Three string wells:

1. CBL will be required on one well per pad
2. If the pumped volume of cement is less than permitted in the APD, BLM will be notified and a CBL may be run
3. Echometer will be used after bradenhead cement job to determine TOC before pumping top-out cement

3. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
9.875" Hole	13-5/8"	3M	Annular	✓	70% of working pressure
		3M	Blind Ram	✓	250 psi / 3000 psi
			Pipe Ram		
			Double Ram	✓	
			Other*		
6.75" Hole	13-5/8"	5M	Annular	✓	70% of working pressure
		5M	Blind Ram	✓	250 psi / 5000 psi
			Pipe Ram		
			Double Ram	✓	
			Other*		

*Specify if additional ram is utilized.

OXY will utilize a 5M annular with a 10M BOPE stack. The BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

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

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	Y	Are anchors required by manufacturer?

	A multibowl or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015. See attached schematics.

BOP Break Testing Request

OXY requests permission to adjust the BOP break testing requirements as per the agreement reached in the OXY/BLM meeting on September 5, 2019.

BOP break test under the following conditions:

1. After a full BOP test is conducted
2. When skidding to drill an intermediate section where ICP is set into the third Bone Spring or shallower.
3. When skidding to drill a production section that does not penetrate into the third Bone Spring or deeper.

If the kill line is broken prior to skid, two tests will be performed.

1. Wellhead flange, co-flex hose, kill line connections and upper pipe rams
2. Wellhead flange, HCR valve, check valve, upper pipe rams

If the kill line is not broken prior to skid, only one test will be performed.

1. Wellhead flange, co-flex hose, check valve, upper pipe rams

Well	Hole Size	Casing String	Shoe Depth (TVD)	Formation	Intermediate /Production	Mud Weight	Shell Test
Salt Flat CC 20-29 Fed Com 31H	9.875"	26.4# - 7.625"	9,283	2nd Bone Spring	Intermediate	9.0-9.4	No
Salt Flat CC 20-29 Fed Com 32H	9.875"	26.4# - 7.625"	9,258	2nd Bone Spring	Intermediate	9.0-9.4	Yes
Salt Flat CC 20-29 Fed Com 33H	9.875"	26.4# - 7.625"	9,266	3rd Bone Spring	Intermediate	9.0-9.4	No
Salt Flat CC 20-29 Fed Com 33H	6.75"	20# - 5.5"	9,726	3rd Bone Spring	Production	11.0-12.0	No
Salt Flat CC 20-29 Fed Com 32H	6.75"	20# - 5.5"	10,008	Wolfcamp A	Production	12.5-13.5	No
Salt Flat CC 20-29 Fed Com 31H	6.75"	20# - 5.5"	9,883	Wolfcamp XY	Production	12.0-13.0	No

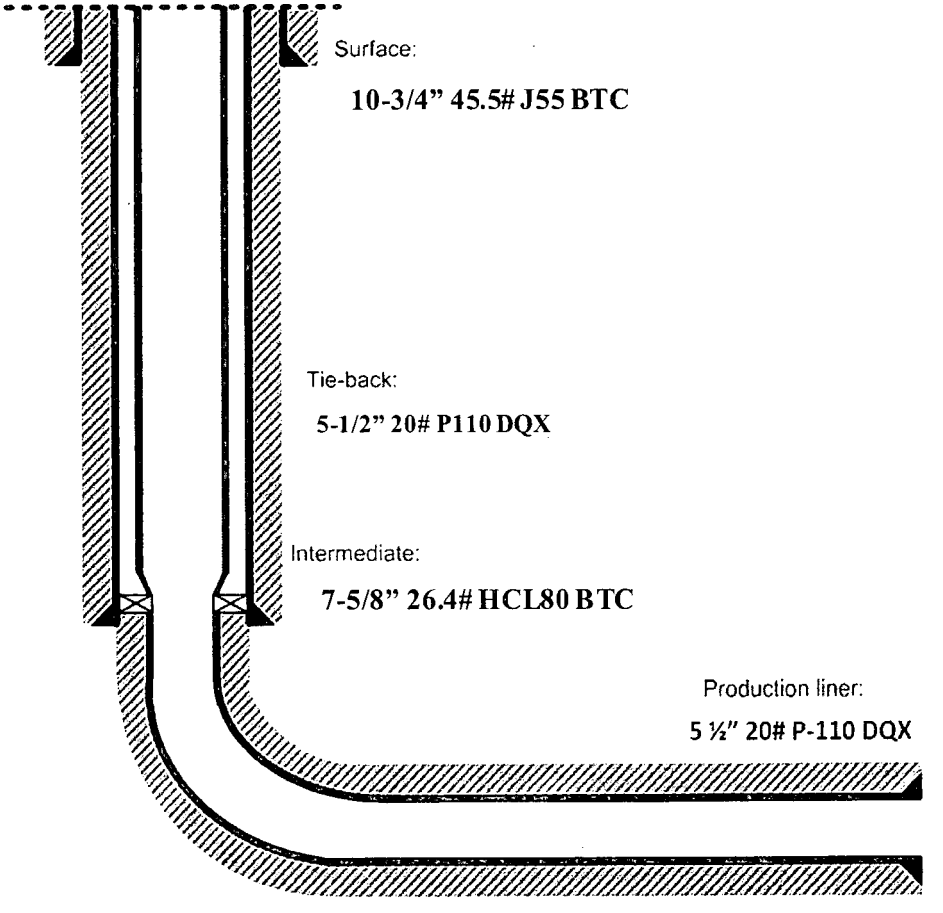
OXY USA WTP LP
Oxbow CC 17-8 Federal Com
Salt Flat CC 20-29 Federal Com

Below is a summary that describes the general operational steps to drill and complete the well.

- Drill 14-3/4" hole x 10-3/4" casing for surface section. Cement to surface.
- Drill 9-7/8" hole x 7-5/8" casing for intermediate section. Cement to surface.
- Drill 6-3/4" hole x 5-1/2" liner for production section. Cement to top of liner, 100' inside 7-5/8" shoe.
- Release drilling rig from location.
- Move in workover rig and run a 5-1/2" 20# P110 DQX tie-back frack string and seal assembly (see connection specs below). Tie into liner hanger Polished Bore Receptacle (PBR) with seal assembly.
- Pump hydraulic fracture job.
- Flowback and produce well.

When a decision is made to develop a secondary bench from this wellbore, a workover rig will be moved to location. The workover rig will then retrieve the tie-back frack string and seal assembly before temporarily abandoning the initial lateral.

General well schematic:



5-1/2" 20# P110 DQX Tie-back string specifications:

PERFORMANCE DATA

TMK UP DQX **5.500 in** **20.00 lbs/ft** **P-110**
Technical Data Sheet

Tubular Parameters

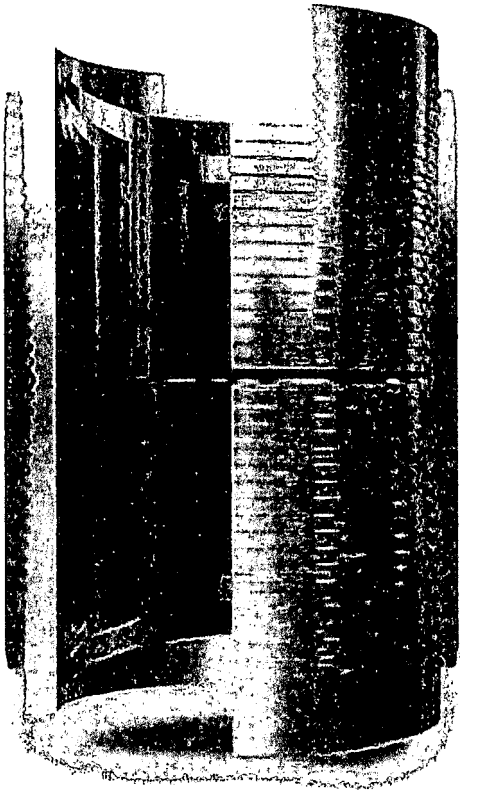
Size	5.500	in	Minimum Yield	110,000	psi
Nominal Weight	20.00	lbs/ft	Minimum Tensile	125,000	psi
Grade	P-110		Yield Load	641,000	lbs
PE Weight	19.81	lbs/ft	Tensile Load	729,000	lbs
Wall Thickness	0.361	in	Min. Internal Yield Pressure	12,600	psi
Nominal ID	4.778	in	Collapse Pressure	11,100	psi
Drift Diameter	4.653	in			
Nom. Pipe Body Area	5.828	in²			

Connection Parameters

Connection OD	6.050	in
Connection ID	4.778	in
Make-Up Loss	4.122	in
Critical Section Area	5.828	in²
Tension Efficiency	100.0	%
Compression Efficiency	100.0	%
Yield Load In Tension	641,000	lbs
Min. Internal Yield Pressure	12,600	psi
Collapse Pressure	11,100	psi

Make-Up Torques

Min. Make-Up Torque	11,600	ft-lbs
Opt. Make-Up Torque	12,900	ft-lbs
Max. Make-Up Torque	14,100	ft-lbs
Yield Torque	20,600	ft-lbs



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NOTE
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IPSCO

OXY USA Inc.
APD Attachment
Offline Cementing

OXY respectfully requests a variance to cement the 9-5/8" and/or 7-5/8" intermediate casing strings offline.

The summarized operational sequence will be as follows:

1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).
2. Land casing.
3. Fill pipe with kill weight fluid, and confirm well is static.
    a. If well is not static notify BLM and kill well.
    b. Once well is static notify BLM with intent to proceed with nipple down and offline cementing.
4. Set and pressure test annular packoff.
5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed.
6. Skid rig to next well on pad.
7. Confirm well is static before removing cap flange.
8. If well is not static notify BLM and kill well prior to cementing or nippling up for further remediation.
9. Install offline cement tool.
10. Rig up cement equipment.
    a. Notify BLM prior to cement job.
11. Perform cement job.
12. Confirm well is static and floats are holding after cement job.
13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.