NEW MEXICO OIL CONSERVATION DIVISI

- Engineering Bureau -1220 South St. Francis Drive, Santa Fe, NM 87505



		ADMINISTRATIVE APPLICATION CHECKLIST
т		ANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE
Applic	[DHC-Dowr [PC-Po	i: Indard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication] Inhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling] Inhole Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement] INFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion] INFX-Waterflood Expansion] [IPI-Injection Pressure Increase] Infied Enhanced Oll Recovery Certification] [PPR-Positive Production Response]
[1]	TYPE OF AP	PLICATION - Check Those Which Apply for [A] Location - Spacing Unit - Simultaneous Dedication NSL NSP SD NSP 16656
	Check [B]	One Only for [B] or [C] Commingling - Storage - Measurement DHC CTB PLC PC OLS OLM
	[C]	Injection - Disposal - Pressure Increase - Enhanced Oil Recovery WFX PMX SWD IPI EOR PPR
	[D]	Other: Specify
[2]	NOTIFICATI [A]	Working, Royalty or Overriding Royalty Interest Owners - Peeches 19 Kalth H
	[B]	Offset Operators, Leaseholders or Surface Owner 30-015-40250 - Peach 2515 Fed # 241
	[C]	Application is One Which Requires Published Legal Notice 30-015-42362 -Pecches 1972434
	[D]	Notification and/or Concurrent Approval by BLM or SLO
	[E]	For all of the above, Proof of Notification or Publication is Attached, and/or, 30-015-43,137
	[F]	U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office - Pecches 4 red 444 For all of the above, Proof of Notification or Publication is Attached, and/or, 30-015-42032 Waivers are Attached - Pod - Cotton word Dnew)
[3]	SUBMIT ACC	CURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE Bond STION INDICATED ABOVE. 5 pn, 91 (3) 77 49 4
	oval is accurate a	TION: I hereby certify that the information submitted with this application for administrative and complete to the best of my knowledge. I also understand that no action will be taken on this quired information and notifications are submitted to the Division.
	Note:	Statement must be completed by an individual with managerial and/or supervisory capacity.
	LOR STILLMAN or Type Name	Signature REGULATORY ENGINEER 2-24-17 Title Date
	*	

TAYLOR_STILLMAN@OXY.COM e-mail Address

District I 1625 N. French Drive, Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St Francis Dr, Santa Fe, NM 87505

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-107-B Revised August 1, 2011

OIL CONSERVATION DIVISION

1220 S. St Francis Drive Santa Fe, New Mexico 87505

Submit the original application to the Santa Fe office with one copy to the appropriate District Office.

APPLICATION I	OR SURFACE (COMMINGLING	(DIVERSE	OWNERSHIP)						
OPERATOR NAME: OXY US	A INC									
OPERATOR ADDRESS: PO BOX	4294 HOUSTON, TX	77210								
APPLICATION TYPE:										
☐ Pool Commingling ☐ Lease Comminglin	g Pool and Lease Con	nmingling Off-Lease	Storage and Measur	ement (Only if not Surface	Commingled)					
LEASE TYPE: Fee	State									
Is this an Amendment to existing Order? Yes \(\subseteq No \) If "Yes", please include the appropriate Order No. \(\frac{CTB-788}{CTB-788} \) Have the Bureau of Land Management (BLM) and State Land office (SLO) been notified in writing of the proposed commingling \(\subseteq Yes \) \(\subseteq No \)										
(A) POOL COMMINGLING Please attach sheets with the following information										
	Gravities / BTU of	Calculated Gravities /		Calculated Value of						
(1) Pool Names and Codes	Non-Commingled Production	BTU of Commingled Production		Commingled Production	Volumes					
]								
]	ļ							
		<u> </u>								
(2) Are any wells producing at top allowal			Over Over							
(3) Has all interest owners been notified b(4) Measurement type: Metering [y cerunea man or the pro Dother (Specify)	posea comminging?	□Yes □No.							
(5) Will commingling decrease the value of	of production?	☐No If "yes", descri	ibe why commingli	ing should be approved						
	(B) LEAS	SE COMMINGLIN	VG							
		s with the following i								
(1) Pool Name and Code.		_								
(2) Is all production from same source of			My., Da	-	1					
(3) Has all interest owners been notified by (4) Measurement type: Metering			MYes □N ST-PLEASE SEE		P					
(,,										
				<u> </u>						
		LEASE COMMIN								
(1) Complete Sections A and E.	Please attach sneet	s with the following i	ntormation							
(1) Complete decidors A and E.										
(1	O) OFF-LEASE ST	ORAGE and MEA	SUREMENT							
		ets with the following	information							
(1) Is all production from same source of(2) Include proof of notice to all interest of	·· · · —	lo								
(2) Include proof of notice to all interest of	wiicis.		<u></u>	· · · · · · · · · · · · · · · · · · ·						
(E) Al	DITIONAL INFO	RMATION (for al	l application t	ypes)						
·		s with the following i								
(1) A schematic diagram of facility, inclu										
(2) A plat with lease boundaries showing	•	ions. Include lease numb	ers if Federal or St	ate lands are involved.						
(3) Lease Names, Lease and Well Numbers, and API Numbers.										
I hereby certify that the information above is	s true and complete to the	best of my knowledge a	nd belief.							
SIGNATURE:	the T	ITLE: REGULATORY E	ENGINEER I	DATE: 2-24-	-17					
TYPE OR PRINT NAME: AYLOR STILLMAN TELEPHONE NO.: 713-366-5945										

E-MAIL ADDRESS: Taylor_Stillman@oxy.com

APPLICATION FOR CENTRAL TANK BATTERY, OFF-LEASE MEASUREMENT, SALES AND STORAGE

OXY USA INC is amending the previously approved commingle application, CTB-788, to allow allocation by well test as per Order No. R-14299.

Federal Lease NMNM107368 (12.5% Royalty Rate) POOL: COTTONWOOD DRAW BONE SPRING (97494)

Well Name	First Oil Production	Location	API	BOPD	OIL GRAVITY	MCFPD	вти
Peaches 19 Federal #1H	09/06/2012	B-19-25S-27E	30-015-40250	78	44	444	1204
Peaches 19 Federal #2H	10/17/2014	P-18-25S-27E	30-015-42362	79	44	729	1204

Federal Lease NMNM109756 (12.5% Royalty Rate) POOL: COTTONWOOD DRAW BONE SPRING (97494)

Well Name	First Oil Production	Location	API	BOPD	OIL GRAVITY	MCFPD	вти
Peaches 19 Federal #3H	10/18/2015	N-19-25S-27E	30-015-42446	80	44	1366	1204
Peaches 19 Federal #4H	10/24/2015	1-19-25S-27E	30-015-42030	132	44	1491	1204

Attached is a map which displays the federal leases and well locations.

The BLM's interest is identical in all wells. All wells are in the Cottonwood Draw Bone Spring formation.

Oil & Gas metering:

The central tank battery is located on the Peaches 19 Federal 1H location in NWNE, Sec 19, T25S, R27E. The production from each well will flow through a common three phase 6'x 20' production separator. One well will be put through the test separator at a time, while the other three will flow through the production separator. The three phase 30" x 10' test separator is sized for maximum expected one well rate and outfitted with turbine meters to meter oil (S/N 11278673828) and water (S/N 15SBFA30364), and an orifice meter (S/N T142986305) for gas measurement.

All wells have been on production for over a year and are in Range 3 of decline. The wells can be reasonably expected to have a decline rate of less than 5 percent, as specified in Hearing Order R-14299. Therefore, wells will be tested monthly for a minimum of 24 hours.

Production from Peaches 19 Federal 3H and 4H, produced on BLM Lease NMNM 109756 will be sent to the Peaches 19 CTB, located on lease NMNM 107368, therefore off lease measurement, sales and storage approval will be required.

The oil production from the wells listed will be commingled, measured and sold using a LACT Unit (S/N 3318133). Produced water will be trucked from the lease to a commercial SWD facility.

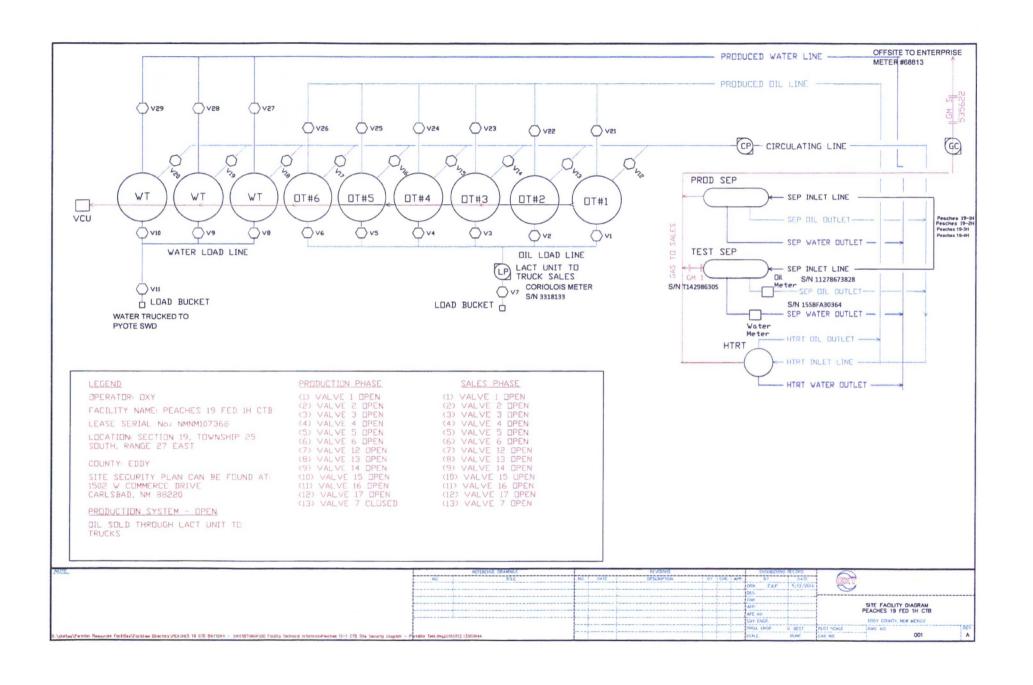
The gas will be sold to Enterprise off-lease through a meter (S/N 68813) located at 32.122403, -104.245878 after it is measured by Oxy check meter (S/N 535622) located on lease. The oil and gas meters will be calibrated on a regular basis per API, NMOCD and BLM specifications. The BLM and OCD will be notified of any future changes to the facility.

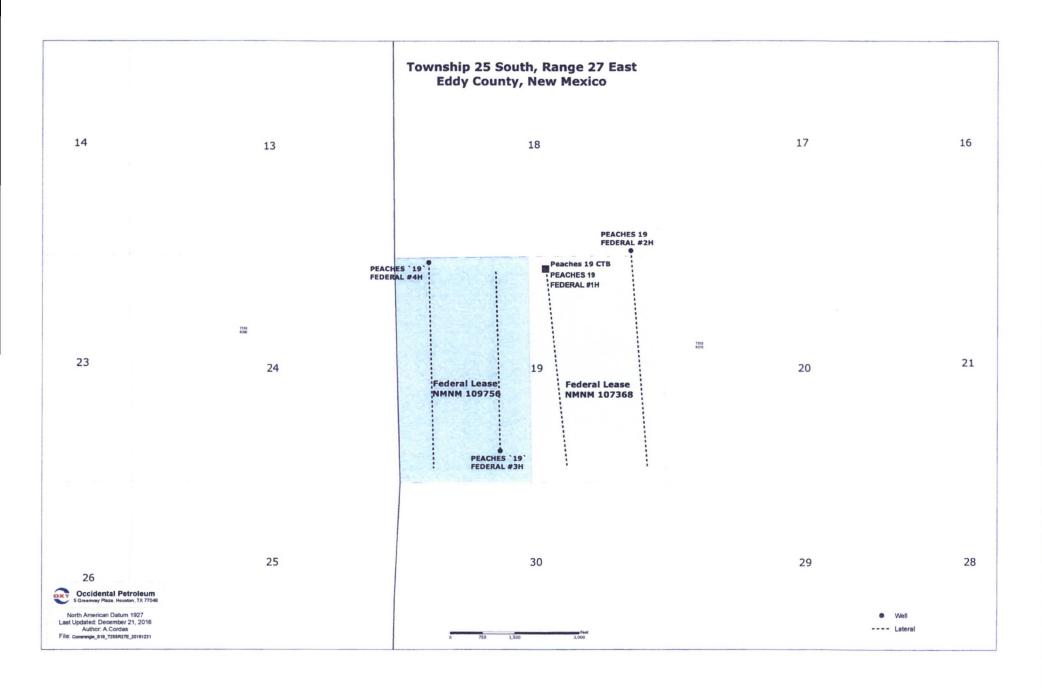
The amount of flash gas generated as the oil is reduced to atmospheric pressure is too minimal to install and operate a vapor recovery unit (VRU). Therefore, a Vapor Combustion Unit (VCU) is installed in order to comply with EPA 40 CFR Part 60, Subpart OOOO. All flash gas will be metered prior to combustion.

Process and Flow Descriptions:

The flow of production is shown in detail on the enclosed facility diagram. Also enclosed is a map detailing the lease boundaries and well locations as well as a plat showing the right-of-way from the CTB to the gas sales meter. Commingling this production is the most effective means of producing the reserves. OXY USA INC understands the requested approval will not constitute the granting of any right-of-way or construction rights not granted by the lease instrument. These applications will be submitted separately for approval per NMOCD and BLM regulations.

The working interest, royalty interest and overriding royalty interest owners have been notified of this proposal by certified mail (see attached).





Peaches 19 Production Data

Peaches 19 Federal #1H (30-015-40250)

Cumulative Oil	27943	bbls	
	Oil (bbls)	Gas (mcf)	Water (bbls)
May	7751	43722	3289
Jun	5488	31795	2605
Jul	4334	23134	2102
Aug	4093	23360	1636
Sep	3517	19590	1609
Oct	2760	18240	1889
Ave Daily Prod	153	876	72

Peaches 19 Federal #3H (30-015-42446)

Cumulative Oil	39662	bbls	
	Oil (bbls)	Gas (mcf)	Water (bbls)
May	7637	60399	3443
Jun	7206	76369	4879
Jul	8980	72448	4343
Aug	7812	62397	2283
Sep	3465	57688	1330
Oct	4562	51539	2443
Avg Daily Prod	217	2088	103

Peaches 19 Federal #2H (30-015-42362)

Cumulative Oil	18126	bbls	
	Oil (bbls)	Gas (mcf)	Water (bbls)
May	4263	30994	1369
Jun	3366	30698	2540
Jul	2798	33337	2289
Aug	2738	24105	1918
Sep	2459	19874	1657
Oct	2502	23012	1120
Avg Daily Prod	99	888	60

Peaches 19 Federal #4H (30-015-42030)

Cumulative Oil	33244	bbls	<u> </u>
	Oil (bbls)	Gas (mcf)	Water (bbls)
May	10905	97714	8273
Jun	7358	88484	4538
Jul	3434	73254	1846
Aug	2465	63466	740
Sep	4824	60052	783
Oct	4258	56215	337
Avg Daily Prod	182	2408	91



5 Greenway Plaza, Suite 110, Houston, Texas 77046 P.O. Box 4294, Houston, Texas 77210-4294 Direct 713.366.5945 Cell:: 832.744.1256 Taylor_Stillman@oxy.com

February 24, 2017

CERTIFIED MAIL RETURN RECEIPT REQUESTED

Re:

Request for Lease Commingling, a Central Tank Battery & Off-lease Gas Measurement, Sales,

& Storage for the Peaches 19-1 Central Tank Battery

Wells: Peaches 19 #1H-4H

Leases: NM 107368, NM 109756

Eddy County, New Mexico

To Whom It May Concern:

This is to advise you that OXY USA INC is amending the previously approved Peaches 19 Central Tank Battery commingling application to remove unnecessary equipment. A copy of the application submitted to the Division is attached.

Any objections or requests for a hearing regarding this application must be submitted to the New Mexico Oil Conservation Division Santa Fe Office within 20 Days from the date of this letter.

For questions regarding this application, please contact Taylor Stillman at (713) 366-5945.

Respectfully,

OXY USA INC

Taylor Stillman Regulatory Engineer Taylor Stillman@oxy.com

Peaches 19 Tracking No

OWNER NAME	ADDRESS	CITY	STATE	ZIP	Tracking No
MINERALS MANAGEMENT SERVICE	PO BOX 25627	DENVER	со	80225	7016 0750 0000 2763 7959
CHEVRON MIDCONTINENT LP	P O BOX 730365	DALLAS	TX	75373	7016 0750 0000 2763 7966
CORNERSTONE FAMILY TRUST	PO BOX 17656	GOLDEN	со	80402	7016 0750 0000 2763 7973
HH&P ENERGY LLC	PO BOX 687	GRAHAM	TX	76450	7016 0750 0000 2763 7980
LIMPINBEAR FAMILY PRTNRSHP LTD	600 17TH ST STE 1700N	DENVER	СО	80202	7016 0750 0000 2763 7997
MORSE FAMILY SECURITY TRUST	410 17TH ST SUITE 1150	DENVER	со	80202	7016 0750 0000 2763 8000
TALUS, INC	PO BOX 1210	GRAHAM	TX	76450	7016 0750 0000 2763 8017
THOMA,SANDRA M	8530 MILL RUN ROAD	ATHENS	TX	75751	7016 0750 0000 2763 8024
TWIN MONTANA, INC	PO BOX 1210	GRAHAM	TX	76450	7016 0750 0000 2763 8031
OXY USA INC	P O BOX 27570	HOUSTON	TX	77227	N/A
CHEVRON USA INC	P O BOX 730436	DALLAS	TX	75373	7016 0750 0000 2763 8048
THE ALLAR COMPANY	P O BOX 1567	GRAHAM	TX	76450	7016 0750 0000 2763 8055
TLW INVESTMENTS LLC	P O BOX 301535	DALLAS	TX	75303	7016 0750 0000 2763 8062
AMERICAN ENERGY NONOP LLC	P O BOX 18756	OKLAHOMA CITY	ОК	73154	7016 0750 0000 2763 8079

District 1 1825 U. French Or , Hobbs, NW 88240 Obstrict B 1301 W. Grand Avenue, Artesia, NM 88210 Detrict III

Slate of New Mexico Energy, Minerals & Natural Resources Department

> OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office State Lease- 4 Copies

1000 Sio Brozas Rd., Aztec, HM 87410 Fee Leose- 3 Copies District M Santa Fe. NM 87505 1220 S. St. Francis Or., Sonla Fe, NM 87505 AMENDED REPORT andwilled LOCATION AND ACREAGE DEDICATION PLAT API Bumber **Pool Code** Draw Bone Spring 97494 30-015-40250 Cottonuod Mell Humber Property Code Properly Hame 1H PEACHES 19 FEDERAL **ጛዺ**፞፞፞፞፞፞፞፞፞፞፞፞፞፞፞፞፞፞፞፞፞፞፞፞፞፞፞ጚ Operator Harne Devotion OCRO No. 16696 OXY USA INC. 3199.21 Surface Location Uil or lot no. Section Let Ma Feet from the Horlh/South line feet from the East/West line 25 SOUTH 27 EAST, N.H.P.M. NORTH EAST **EDDY** B 19 330 2310' Bottom Hole Location If Different From Surface UL or tol no. Section Touriship Lot Ida Feel from the East/West Ens County EDDY O 25 SOUTH 27 EAST, N.M.P.M. SOUTH EAST Dedicated Acres Joint or Inial Consolidation Code Order No. 160

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

OPERATOR CERTIFICATION SURFACE LOCATION
NEW MEXICO EAST
NAO 1927
Y=407990.9
1=32856.3 I hereby certify that the information contained herein is true and complete to the best of my knowledge and 2310 AT: N 32.1216616 NC.1 W 104.227849 tel, and that this organization bellet, and that this organization either owns a working interest or unteased mineral interest in the land including the proposed bottom hate location or has a right to drift this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a working pooling agreement or a computary pooling agreement or a computary pooling order heretalore entered by the division. 10/14/11 David Stewa SURVEYOR CERTIFICATION d thot NEW MEDICO EAST NAO 1927 Y=403370.8 1988' 1870 LAT : N 32 1089373* LONG.: W 104 2284889* 317 #O# 110921WL-9 (KA)

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

MAMENDED REPORT

3		Namber 5–423	62	Paul Cada 97494			COTTONWOOD DRAW BONE SPRING											
	y Cuás 207							"19" FEDERAL 2H					Minher 2H					
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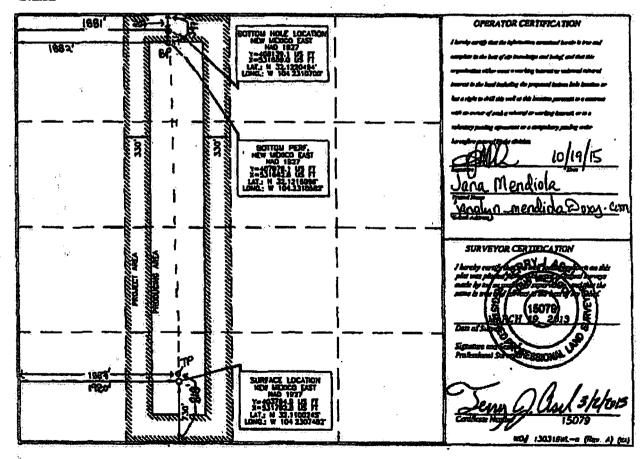
RECEIVED

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

AMENDED REPORT
As Dolled

WELL LOCATION AND ACREAGE DEDICATION PLAT Pool Code Draw Bone Spring 97494 30-015-42446 Cotton wood Vell Mumber 39207 PEACHES "19" FEDERAL 3H Develop 6696 OXY USA INC. 3171.3 Surface Location 25 SOUTH 27 EAST, N.W.P.W. 18 730 SOUTH 1980* EDDY WAST Bottom Hole Location If Different From Surface 25 SOUTH 10 27 EAST, N.M.P.M. EDDY Botton Perf-Top Perf -347 FNL 1882 FWL 60 818' FIL 1987' FWL

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



NM OIL CONSERVATION ARTESIA DISTRICT

District I 1627 K. French Dr., Holde, NM 182340 Phome (274) 397-4141 Pace (275) 393-4750 Chinging St. 211 S. Fost S., Armain, NM 182149 Phome (275) 745-1231 Pace (274) 740-47752 Phome (275) 346-4730 Pace (286) 334-474 Phome (276) 334-4730 Pace (286) 334-474 Phome (276) 334-4740 Pace (286) 434-3443 Phome (276) 344-3450 Pace (286) 434-3443 Phome (276) 434-3460 Pace (286) 434-3443 State of New Mexico

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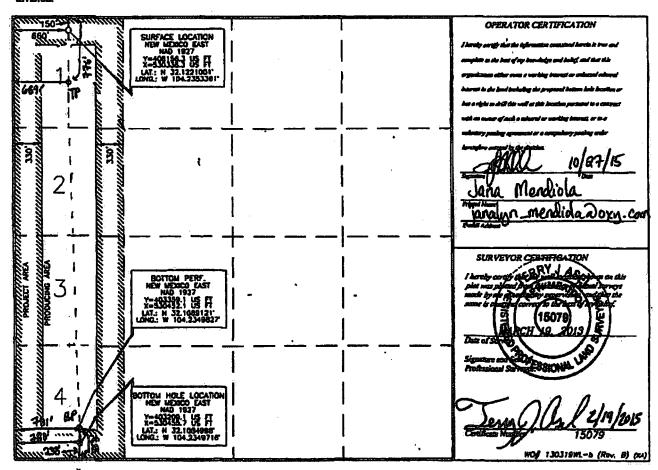
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISMOSEIVED
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

(As Drilled)

		u	ELL LOCATION AN	DACE	EAGE D	EDICATIO	N PLAT					
30-015-42030 97494 Cottonword Draw Birne Spring								ů.				
3920	Property Code Property Name Well Number 39207 PEACHES "19" FEDERAL 4H											
	OGRID No. Operator Nume - Elevation Use OXY USA INC. 3222.9'											
	Surface Location											
UL or lat sa.	Section	Township	Range	Lot lde	Feet from the	North/South line	Fost from the	East/West line	County			
1	19	26 SOUTH	27 EAST, N.M.P.M.	ļ	150'	NORTH	880'	WEST	EDDY			
			Bottom Hole Local	ion If I	Different I	From Surface	æ					
UL er lot no.	Section	Township	Lange	Lock	Feet from the	North/South line	Feet from the	East/West line	County			
4	19	25 SOUTH	27 EAST, N.W.P.W.		1283	SOUTH	₹83 1	WEST	EDDY			
Dodicard 158		Joint or Infill	Consolidation Code Ander 190	Top P		FIVL W						

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.



STATE OF NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 15540 ORDER NO. R-14299

APPLICATION OF OXY USA, INC. FOR APPROVAL OF SURFACE LEASE COMMINGLING, OFF-LEASE STORAGE, AND OFF-LEASE MEASUREMENT, EDDY COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on September 15, 2016 at Santa Fe, New Mexico, and again on January 5, 2017, both before Examiner William V. Jones.

NOW, on this 14th day of February, 2017, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

- (1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.
- (2) The applicant, OXY USA, Inc. ("OXY"), seeks approval for surface lease commingling within one pool, off-lease storage, and off-lease measurement of oil and associated gas production.
- (3) OXY also seeks an exception to the metering requirements of 19.15.12.10 C.(1) NMAC by authorizing the allocation of production from diversely owned, horizontally drilled oil wells on the basis of periodic well tests.
- (4) OXY proposes to commingle oil and gas production from all current and future wells producing from the <u>Pierce Crossing</u>; <u>Bone Spring</u>, <u>East Pool</u> (96473) underlying the following acreage ("subject acreage"):

Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico.

Section 22: S/2 N/2 and N/2 S/2

Section 23: All

Section 24: W/2

SW/4 Section 24

(5) The following wells (with associated acreage dedication) are drilled or currently planned for drilling within the subject acreage:

(API No. 30-015-43642) Cedar Canyon 22 Federal Well No. 21H S/2 N/2 Section 22 (160 acres) (API No. 30-015-43708) Cedar Canyon 22 Federal Com Well No. 4H N/2 S/2 Section 22 (160 acres) (API No. 30-015-43290) Cedar Canyon 23 Federal Well No. 3H (API No. 30-015-43281) Cedar Canyon 23 Federal Well No. 4H S/2 N/2 Section 23 and S/2 NW/4 Section 24 (240 acres) Cedar Canyon 23 Federal Well No. 5H (API No. 30-015-43282) N/2 N/2 Section 23 and N/2 SW/4 Section 24 (240 acres) Cedar Canyon 23 Federal Com Well No. 6H (API No. 30-015-Pending) Cedar Canvon 23 Federal Com Well No. 33H (API No. 30-015-Pending) N/2 S/2 Section 23 and N/2 SW/4 Section 24 (240 acres) No Wells Permitted at this time S/2 S/2 Section 23

(6) Each well proposed for commingling within this acreage produces from the Pierce Crossing; Bone Spring, East Pool (96473) which is governed by Special Rules promulgated by Division Order No. R-13248 in Case No. 14420. Said rules allow a Limiting Gas Oil Ratio of 5000 to 1, but retain all other Division rules for oil wells.

No Wells Permitted at this time

- (7) OXY intends to utilize a production and a test separator at the Cedar Canyon 23-3H satellite facility (the "facility"), located at the well pad of the Cedar Canyon 23 Federal Well No. 3H in Unit I of Section 22, and use periodic well tests to allocate oil and gas production back to diversely owned wells feeding into that facility.
- (8) Gas from that facility will be metered from both separators and combined into the low pressure gas gathering system and transported approximately two miles north to the Enterprise Sales Meter.
- (9) Oil from that facility will be measured using a test turbine meter and a production turbine meter, then combined and transported southwest to the Cedar Canyon 22 Satellite located in Unit L of Section 22 where it will be tanked, metered through a Coriolis meter and sold at the nearby central tank battery, also within Unit L.
- (10) OXY provided the following testimony at the hearing from a Landman and two engineers:

- (a) OXY proposed this diversely owned commingle using well tests for allocation in an earlier administrative application. The Division asked that it be presented before an examiner where the well test method for horizontal Bone Spring wells which have been hydraulically fractured and are exhibiting hyperbolic oil production decline behavior could be presented in more detail.
- (b) The SW/4 SW/4 of Section 23 is privately owned and leased at higher than 1/8th royalty rate. All other lands being proposed for commingling are federally owned and leased at 1/8th royalty. Four Federal oil and gas leases (NMNM013996, NMNM088138, NMNM081586, and NMNM093477) cover the federal lands being proposed for commingling.
- (c) The horizontal well project areas being proposed for commingling are diversely owned. There are numerous overriding royalty owners in the federal leases. The leases in Section 23 are 100 percent OXY working interest.
- (d) All owners, including the Bureau of Land Management ("BLM"), were noticed of the administrative application as well as the application(s) for hearing, and no one has voiced an objection.
- (e) The production from each well will be gathered into the Cedar Canyon 23-3H satellite facility, located on fee surface at the well pad of the Cedar Canyon 23 Federal Well No. 3H in Unit I of Section 22 where the oil and gas from each well will be tested and measured using periodic well tests.
- (f) The Cedar Canyon 22 Satellite is located in Unit L of Section 22 where oil production from all the wells will be tanked, metered through a Coriolis LACT and sold at the nearby central tank battery, also within Unit L.
- (g) There would be considerable additional costs to install the additional separators needed to provide constant metering from the diversely owned tracts; and those additional meters would also be turbine meters and not Coriolis meters.
- (h) Approval of this commingle as proposed would allow OXY to efficiently and effectively transport, store, and market production from the subject acreage.
- (i) OXY's proposed testing methodology is based on the American Petroleum Institute Manual of Petroleum Measurement Standards, Chapter 20 (API MPMS 20.1).

- (j) The decline life cycle of these Bone Spring horizontal wells would be partitioned into four stages beginning with the flow back after fracturing to peak production rate. For each of these stages, the wells would be tested at differing frequencies for optimum accuracy. For example, the early time stage would need more frequent testing of that well to accurately utilize well tests to allocate monthly production volumes among all wells being commingled prior to sales.
- (k) For this commingle application consisting of hyperbolically declining horizontally drilled Bone Spring wells, OXY is proposing Range 1 as the period from peak production to two months after peak production. Range 2 would be months 3 to 12. Range 3 would begin at month 12 and continue through the life of the well. Range 1 would require more frequent well testing, with an adequately sized test separator, than the frequency needed while the same well is within Range 3.
- (1) To adequately install production equipment for each well would require equipment designed for the peak production, which would be an over design for the period commencing only a few months after peak production from that well due to the rapid decline. The wells would in most cases begin production at staggered times; therefore, production equipment designed around the concept of well testing is most efficient and increases the likelihood of a proper design and utilization of the turbine and gas meters.
- (m) The initial production from these wells sometimes includes slug flow which requires larger vessels to have adequate retention time. Early flow also sometimes contains sand from the hydraulic fracture treatment which also creates problems with operation of equipment.
- (n) The time increment for sales through the custody transfer meters is monthly.
- (o) Most of the newer oil custody transfer sites (or LACT) include a Coriolis meter which is fed by a pump; while the older LACTs had displacement meters. The Coriolis meter has been accepted as a sales measurement by the BLM in Onshore Order No. 4 and is regarded as more accurate than the displacement meters. The turbine meters handle gas better than the Coriolis meters and are less expensive, so they are used upstream of the actual sales point.
- (p) OXY generated "type curves" for production from the various Bone Spring sands using available production "Rate vs Time" data and volumetric estimates of recoverable oil. The generated Rate vs

Time plots were supplied to the facilities engineer for properly designing production equipment. The engineers identified the separate segments of the decline behavior for purposes of frequency of well testing.

(q) These wells may produce over the top allowable for a short, three month period in their early life, then are expected to produce below top allowable for the remaining life of each well. After an initial period of hyperbolic decline, production stabilizes at a more predictable exponential decline rate.

The Division concludes as follows:

- (11) The application was properly advertised to affected parties including to the BLM. No other parties entered appearances in this case or otherwise opposed this application.
- (12) The proposed method of measurement and allocation of production between the subject wells is reasonable and sufficiently reliable to protect the correlative rights of owners of separate interests in the production from the wells.
- (13) The requested exception to the metering requirements of 19.15.12.10 C.(1) NMAC should be approved. The use of periodic well tests for diversely owned wells prior to commingling for oil and gas production and sales should be approved to ensure efficient use of surface facilities and to protect correlative rights. The operator should use more frequent well tests, as proposed in this application, during the earlier stages of each well to ensure accuracy of allocation.
- (14) Measurement and allocation methods for commingling of diversely owned production is governed by Division Rule 19.15.12.10 C (1) NMAC. These methods include continuous metering or: "other methods the division has specifically approved prior to commingling." There is a need to allow the commonly used "well test method" as proposed in this case, as an "other method".
- (15) Henceforth the Division, upon receiving administrative requests for diversely owned commingling of oil wells, should have the option of considering approval of the Well Testing Method. Any such proposed application should include "type curves" showing expected oil production versus time behavior, the expected completion schedule of all wells to be serviced by the test separator, the maximum number of wells to be serviced at any time by each test separator, the maximum expected daily production from any well, the size and type of the test separator and specifics of the test meters. The application should propose a well testing frequency which is acceptable based on these parameters, which varies based on the stages of oil production decline, and which follows guidance provided in the American Petroleum Institute Manual of Petroleum Measurement Standards, Chapter 20 (API MPMS 20.1). These requirements should be in the application advertised to all affected parties and the administrative application must be unopposed.

- (16) OXY's proposed commingling of oil and gas production from the Pierce Crossing; Bone Spring, East Pool (96473) within the lands described above <u>for all existing and future wells</u> should be approved to protect correlative rights and prevent waste.
- (17) Off-lease storage, measurement, and sales should be approved for all leases not located on measurement or sales points.
 - (18) This application should be approved.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, OXY USA, Inc. ("OXY"), is hereby authorized to surface commingle oil and gas production from all current and future wells producing from the Pierce Crossing; Bone Spring, East Pool (96473) underlying the following acreage:

Township 24 South, Range 29 East, NMPM, Eddy County, New Mexico.

Section 22:

S/2 N/2 and N/2 S/2

Section 23: Section 24: : All

W/2

- (2) The production facilities for well testing and measurement shall be the Cedar Canyon 23-3H satellite facility, located at the well pad of the Cedar Canyon 23 Federal Well No. 3H in Unit I of Section 22, and the Cedar Canyon 22 Satellite located in Unit L. The sales point for oil is located within Unit L. The sales point for gas is located off-lease approximately two miles north of this commingle. Off-lease storage, measurement, and sales is approved for all leases not located on these measurement or sales locations.
- (3) The requested exception to the metering requirements of Rule 19.15.12.10 C.(1) NMAC is hereby approved. The use of periodic well tests for diversely owned wells prior to commingling for oil and gas production and sales is approved. The operator shall use more frequent well tests, as proposed in this application, during the earlier stages of each well's oil production to ensure accuracy of allocation.
- (4) Henceforth the Division, upon receiving administrative requests for commingling of oil and associated gas from diversely owned leases, shall have the option of considering approval of the Well Testing Method if the operator supplies evidence in the application acceptable to the Division of proper test facility design, proposes a well testing frequency which is acceptable, which varies based on the stages of oil production decline, and which follows guidance provided in the American Petroleum Institute Manual of Petroleum Measurement Standards, Chapter 20 (API MPMS 20.1).
- (5) Expansion of this permitted area as specified in ordering Paragraph (1) or the addition of any pool other than the pool specified in ordering Paragraph (1) shall entail an amended permit application. Amendments shall be permitted administratively, after proper notice, unless deemed necessary for Division hearing by the Division Director.

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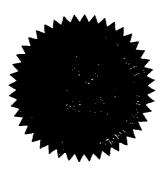
(6) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

DAVID R. CATANACH

Director



SEAL