

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**Carlsbad Field Office**

FORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018

**Office**  
NMNM86024

**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter abandoned well. Use form 3160-3 (APD) for such proposals.*

Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

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

1. Type of Well  
 Oil Well  Gas Well  Other

8. Well Name and No.  
CYPRESS 34 FEDERAL 8H

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

9. API Well No.  
30-015-39430-00-S1

3a. Address  
5 GREENWAY PLAZA SUITE 110  
HOUSTON, TX 77046-0521  
3b. Phone No. (include area code)  
Ph: 432.685.5717

10. Field and Pool or Exploratory Area  
CEDAR CANYON

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec 34 T23S R29E SWSE 575FSL 1980FEL

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			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recompleat 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 recompleat 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.

Well Prep Procedure:

- MIRU PU and rig equipment
- Ensure well is dead
- MU tubing equipment and POOH w/2-7/8" tubing and rod pump
- RIH with cleanout BHA
- RU power swivel if needed and cleanout to PBTD
- POOH with cleanout BHA and work string
- RIH with work string to top of KOP and set RBP. Test casing to 6200# or max treating pressure, whichever is lower.
- Bleed off pressure and RBP to latch on RBP, release RBP and begin POOH. LD w/ RBP
- Perform drift run with Mohawk BHA
- RIH w/ 4.25" 13.1# P110 R2M expandable liner set @ approximately from

*GC 6-28-18*  
Accepted for record - NMOCDD

**NM OIL CONSERVATION**  
ARTESIA DISTRICT

JUN 27 2018

RECEIVED

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

Electronic Submission #424146 verified by the BLM Well Information System  
For OXY USA INCORPORATED, sent to the Carlsbad  
Committed to AFMSS for processing by PRISCILLA PEREZ on 06/18/2018 (18PP2012SE)

Name (Printed/Typed) DAVID STEWART

Title REGULATORY ADVISOR

Signature (Electronic Submission)

Date 06/14/2018

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By

*/s/ Jonathon Shepard*

Title

**Petroleum Engineer**  
**Carlsbad Field Office**

JUN 21 2018  
Date

Office

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.

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 #424146 that would not fit on the form

### 32. Additional remarks, continued

8749-12910'

11. Expand the liner using Mohawk procedures

#### Plug & Perf stimulation operation:

1. Conduct pre-job safety meeting, discuss scope of work and hazard
2. Check wellhead pressure and bleed off pressure if any to grounded flowback tank
3. MIRU Cameron WH Company and equipment.
4. Install 10M frac stack on wellhead
5. MIRU frac and WL equipment
6. RIH with WL and plug and perf for stage 1 with 4 clusters (8766-12886') per attached perf design.
7. Spot 7.5% HCl acid and breakdown stage 1
8. Frac stage 1 per the pump schedule below
9. RIH with WL and plug & perf for stage 2 and frac afterwards
10. Repeat process for the remaining stages (estimated 21 total stages)
11. RDMO frac and WL company

#### Wellbore Clean out and Flowback Procedure:

1. Hold Pre-job safety meeting, discuss scope of work and hazards
2. Check well head pressure, bleed off pressure if any to grounded flowback tank
3. MIRU 2-3/8" CT unit, PU 4.13" JZ bit, (Mohawk liner is 4.158" ID drift) RIH and DO plugs and CO to PBTD
4. Circulate hole clean and pump gel sweeps
5. RDMO CT unit and turn the well over to production
6. Open to Flowback
7. An artificial lift procedure will be provided once flowback operations completed.

**Well Prep Procedure:**

1. MIRU PU and rig equipment
2. Ensure well is dead
3. MU tubing equipment and POOH w/2-7/8" tubing and rod pump with HEEL system. Send to the yard for inspection
4. RIH with cleanout BHA
5. RU power swivel if needed and cleanout to PBTD
6. POOH with cleanout BHA and work string
7. RIH with work string to top of KOP and set RBP. Test casing to 6200 psi or max treating pressure, whichever is lower.
8. Bleed off pressure and RBIH to latch on RBP, release RBP and begin POOH. LD w/ RBP
9. Perform drift run with Mohawk BHA
10. RIH w/ 4.25" 13.1# P110 R2M expandable liner set @ approximately from 8749–12910'.
11. Expand the liner using Mohawk procedures

**Plug & Perf stimulation operation**

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**Wellbore Clean out and Flowback Procedure**

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**OXY USA Inc. - Cypress 34 Federal 8H – 30-015-39430 – Cedar Canyon Bone Spring**

<b>PLUGS AND PERFORATIONS INTERVALS</b>						
		Cluster 1	Cluster 2	Cluster 3	Cluster 4	Plug
	Gun Length	2	2	2	2	
	Number of Shots	6	6	6	6	
Stage 1 Perfs: 6 shots loaded @ 60 degree phasing	Top	12735.5	12785	12834.5	12884	12910
	Bottom	12737.5	12787	12836.5	12886	
Stage 2 Perfs: 6 shots loaded @ 60 degree phasing	Top	12537	12587	12636	12686	12712
	Bottom	12539	12589	12638	12688	
Stage 3 Perfs: 6 shots loaded @ 60 degree phasing	Top	12339	12388	12438	12487	12513
	Bottom	12341	12390	12440	12489	
Stage 4 Perfs: 6 shots loaded @ 60 degree phasing	Top	12140	12190	12239	12289	12315
	Bottom	12142	12192	12241	12291	
Stage 5 Perfs: 6 shots loaded @ 60 degree phasing	Top	11942	11991	12041	12090	12116
	Bottom	11944	11993	12043	12092	
Stage 6 Perfs: 6 shots loaded @ 60 degree phasing	Top	11743	11793	11842	11892	11918
	Bottom	11745	11795	11844	11894	
Stage 7 Perfs: 6 shots loaded @ 60 degree phasing	Top	11545	11594	11644	11693	11719
	Bottom	11547	11596	11646	11695	
Stage 8 Perfs: 6 shots loaded @ 60 degree phasing	Top	11346	11396	11445	11495	11521
	Bottom	11348	11398	11447	11497	
Stage 9 Perfs: 6 shots loaded @ 60 degree phasing	Top	11148	11197	11247	11296	11322
	Bottom	11150	11199	11249	11298	
Stage 10 Perfs: 6 shots loaded @ 60 degree phasing	Top	10949	10999	11048	11098	11124
	Bottom	10951	11001	11050	11100	
Stage 11 Perfs: 6 shots loaded @ 60 degree phasing	Top	10751	10800	10850	10899	10925
	Bottom	10753	10802	10852	10901	
Stage 12 Perfs: 6 shots loaded @ 60 degree phasing	Top	10552	10602	10651	10701	10727
	Bottom	10554	10604	10653	10703	
Stage 13 Perfs: 6 shots loaded @ 60 degree phasing	Top	10354	10403	10453	10502	10528
	Bottom	10356	10405	10455	10504	
Stage 14 Perfs: 6 shots loaded @ 60 degree phasing	Top	10155	10205	10254	10304	10330
	Bottom	10157	10207	10256	10306	
Stage 15 Perfs: 6 shots loaded @ 60 degree phasing	Top	9957	10006	10056	10105	10131
	Bottom	9959	10008	10058	10107	
Stage 16 Perfs: 6 shots loaded @ 60 degree phasing	Top	9758	9808	9857	9907	9933
	Bottom	9760	9810	9859	9909	
Stage 17 Perfs: 6 shots loaded @ 60 degree phasing	Top	9560	9609	9659	9708	9734
	Bottom	9562	9611	9661	9710	
Stage 18 Perfs: 6 shots loaded @ 60 degree phasing	Top	9361	9411	9460	9510	9536
	Bottom	9363	9413	9462	9512	
Stage 19 Perfs: 6 shots loaded @ 60 degree phasing	Top	9163	9212	9262	9311	9337
	Bottom	9165	9214	9264	9313	
Stage 20 Perfs: 6 shots loaded @ 60 degree phasing	Top	8964	9014	9063	9113	9139
	Bottom	8966	9016	9065	9115	
Stage 21 Perfs: 6 shots loaded @ 60 degree phasing	Top	8766	8815	8865	8914	8940
	Bottom	8768	8817	8867	8916	

**Propose Pump schedule**

<b>Slickwater 2 (5,000 ft)</b>			<b>1500 #/ft 50 ft x 4 Clusters Slickwater Reduced Fluid</b>									
			<b>Fluid Information</b>					<b>Proppant Information</b>				
#	Time [min]	Type	Rate [bpm]	Clean [gals]	Dirty [gals]	Cum. Dirty [gals]	Description	Prop. Conc. [PPA]	Description	Stage Sand [lbs]	Cum. Sand [lbs]	
1	0.79	Acid	30	1000	1000	1000	7.5% HCl					
2	6.08	Flush	90	15000	20000	21000	Slick Water					
3	9.61	Sand Laden	90	10000	13,635	34,634	Slick Water	0.50	100 Mesh	5,000	5,000	
4	13.84	Sand Laden	90	12000	16,543	51,177	Slick Water	0.75	100 Mesh	9,000	14,000	
5	19.14	Sand Laden	90	15000	20,904	72,081	Slick Water	1.00	100 Mesh	15,000	29,000	
6	26.19	Sand Laden	90	20000	28,174	100,255	Slick Water	1.25	100 Mesh	25,000	54,000	
7	36.42	Sand Laden	90	29000	41,290	141,545	Slick Water	1.50	100 Mesh	43,500	97,500	
8	47.00	Sand Laden	90	30000	43,166	184,711	Slick Water	1.75	100 Mesh	52,500	150,000	
9	52.29	Sweep	90	15000	20,904	205,616	Slick Water	1.00	40/70 White	15,000	165,000	
10	57.58	Sand Laden	90	15000	21,131	226,746	Slick Water	1.75	40/70 White	18,750	183,750	
11	64.64	Sand Laden	90	20000	28,476	255,222	Slick Water	1.50	40/70 White	30,000	213,750	
12	72.75	Sand Laden	90	23000	33,094	288,316	Slick Water	1.75	40/70 White	40,250	254,000	
13	80.85	Sand Laden	90	23000	33,441	321,757	Slick Water	2.00	40/70 White	46,000	300,000	
14	0.00	Flush	90				Slick Water		(Flush to Top Perf)		300,000	

# MOHAWK ENERGY EXPANDABLE LINER SPECIFICATIONS

**4.25 inch, 0.31 wall x 5.5 inch, 17 lb/ft**

## FracPatch Specifications

### Expandable Pipe Body

Pre-Expansion		Post Expansion	
OD	4.250 inches	OD	4.805 inches
ID	3.630 inches	ID	4.218 inches
Wall Thickness	0.310 inches	Wall Thickness	0.293 inches
Weight	13.100 lb/ft	Drift	4.158 inches
Drift	3.505 inches	Internal Yield	9,895 psi
Seal Joint OD	4.490 inches	Collapse	5,600 psi
Seal Thickness	0.120 inches	Expansion Ratio	16.207 %

### Expandable Connection

Pre-Expansion		Post Expansion	
Connection OD	4.310 inches	Connection OD	4.865 inches
Connection ID	3.600 inches	Connection ID	4.218 inches
Drift	3.505 inches	Drift	4.158 inches
Tensile Rating	142,286 lbs	Internal Yield	9,895 psi
Compressive Rating	142,286 lbs	Collapse	5,600 psi
Max DLS	36.01 °/100ft	Tensile Rating	154,125 lbs
Optimum Torque	1,360 ft-lbs	Compressive Rating	138,713 lbs
Max Torque	1,496 ft-lbs	Yield Torque	1,700 ft-lbs

### Mohawk Energy Setting Tool:

#### Appendix A1: Setting Tool

Table 4. 4.25 Setting Tool Specifications

Tool connection up	2-7/8", 7.9# PH-6 Box
Tool weight	900 lbs
Tool length	40.0 ft
Expansion stroke	2.80 ft
Max. dog-leg severity	25 °/100ft
Axial load rating	200,000 lbs
Max. pressure	4,500 psi
Max. temperature	400 °F
Circulation flow rate	30 gpm
Valve shut off flow rate	46 gpm
Pressure/force conversion	44 lbs/psi

Table 5. 3.50 Tool Running Parameters

Event	Pressure or Force
Stabbing sub latching load	500 lbs
Max. slack off during deployment	15,000 lbs
Max. overpull during deployment	25,000 lbs
Drive unit shear disk	1,750 psi
Tool reset	3,000-5,000 lbs
Safety burst disk relief	5,000 psi



OXY USA Inc. - Proposed  
Cypress 34 Federal #8H  
API No. 30-015-39430

16" hole @ 408'  
13-3/8" csg @ 408'  
w/ 350sx-TOC-Surf-Circ

12-1/4" hole @ 3100'  
9-5/8" csg @ 3100'  
w/ 1145sx-TOC-Surf-Circ

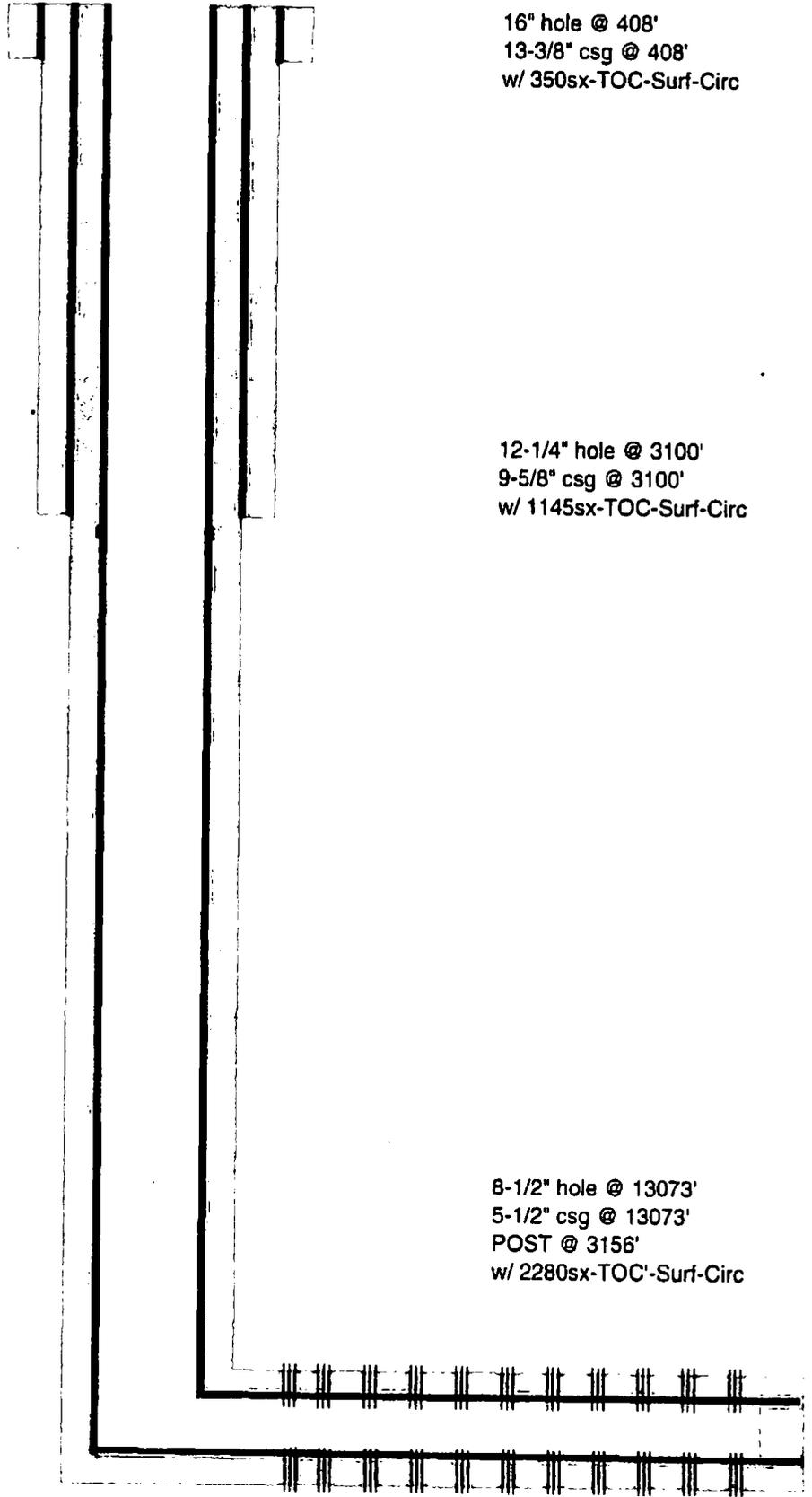
8-1/2" hole @ 13073'  
5-1/2" csg @ 13073'  
POST @ 3156'  
w/ 2280sx-TOC'-Surf-Circ

*4-1/4" 13.1# Frac Patch Liner @ 8749-12910'*

*Perfs @ 8766-12886'*  
Original Perfs @ 8725 -12910

TD - 13073'M 8910'V  
PB - 12965'M 8906'V

OXY USA Inc. - Current  
Cypress 34 Federal #8H  
API No. 30-015-39430



16" hole @ 408'  
13-3/8" csg @ 408'  
w/ 350sx-TOC-Surf-Circ

12-1/4" hole @ 3100'  
9-5/8" csg @ 3100'  
w/ 1145sx-TOC-Surf-Circ

8-1/2" hole @ 13073'  
5-1/2" csg @ 13073'  
POST @ 3156'  
w/ 2280sx-TOC'-Surf-Circ

Perfs @ 8725 -12910'

TD - 13073'M 8910'V  
PB - 12965'M 8906'V