

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 re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

5. Lease Serial No.  
NMNM19848

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.  
NMNM135945

**Carlsbad Field Office**  
**OCD Artesia**

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

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. CYPRESS 33 FEDERAL COM 6H
2. Name of Operator OXY USA INCORPORATED Contact: DAVID STEWART E-Mail: david_stewart@oxy.com		9. API Well No. 30-015-41557-00-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 33 T23S R29E NENE 466FNL 1040FEL 32.267189 N Lat, 103.984048 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			
<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 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.

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

6-14-18  
Accepted for record - NMOCD

RECEIVED

JUN 13 2018

DISTRICT II-ARTESIA O.C.D.

14. I hereby certify that the foregoing is true and correct. <b>Electronic Submission #422592 verified by the BLM Well Information System For OXY USA INCORPORATED, sent to the Carlsbad Committed to AFMSS for processing by PRISCILLA PEREZ on 06/05/2018 (18PP1884SE)</b>	
Name (Printed/Typed) DAVID STEWART	Title REGULATORY ADVISOR
Signature (Electronic Submission)	Date 06/05/2018

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

Approved By <u>/s/ Jonathon Shepard</u>	Title <u>PE</u>	Date <u>6/6/18</u>
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 <u>CFO</u>	

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 #422592 that would not fit on the form**

**32. Additional remarks, continued**

8576?12890'

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 (8623-12867') 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 22 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:**

- MIRU PU and rig equipment
- Ensure well is dead
- MU tubing equipment and POOH w/2-7/8" tubing and rod pump send to yard for inspection
- RIH with cleanout BHA
- RU power swivel if needed and cleanout to PBTB
- POOH with cleanout BHA and work string
- RIH with work string to top of KOP and set RBP. Test casing to 6200 psi or max treating pressure, whichever is lower.
- Bleed off pressure and RBIH 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 8576 – 12890'
- Expand the liner using Mohawk procedures

**Plug & Perf stimulation operation**

- Conduct pre-job safety meeting – discuss scope of work and hazard
- Check wellhead pressure and bleed off pressure if any to grounded flowback tank
- MIRU Cameron WH Company and equipment.
- Install 10M frac stack on wellhead
- MIRU frac and WL equipment
- RIH with WL and plug and perf for stage 1 with 4 clusters (8623-12867') per attached perf design.
- Spot 7.5% HCl acid and breakdown stage 1
- Frac stage 1 per the pump schedule below
- RIH with WL and plug & perf for stage 2 and frac afterwards
- Repeat process for the remaining stages (estimated 22 total stages)
- RDMO frac and WL company

**Wellbore Clean out and Flowback Procedure**

- Hold Pre-job safety meeting, discuss scope of work and hazards
- Check well head pressure- bleed off pressure if any to grounded flowback tank
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**OXY USA Inc. - Cypress 33 Fed Com 6H – 30-015-41557 – Cedar Canyon Bone Spring**

**Proposed Perforation & Plug Depth**

<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	12718	12767	12816	12865	12890
	Bottom	12720	12769	12818	12867	
Stage 2 Perfs: 6 shots loaded @ 60 degree phasing	Top	12523	12572	12621	12670	12695
	Bottom	12525	12574	12623	12672	
Stage 3 Perfs: 6 shots loaded @ 60 degree phasing	Top	12328	12377	12426	12475	12500
	Bottom	12330	12379	12428	12477	
Stage 4 Perfs: 6 shots loaded @ 60 degree phasing	Top	12133	12182	12231	12280	12305
	Bottom	12135	12184	12233	12282	
Stage 5 Perfs: 6 shots loaded @ 60 degree phasing	Top	11938	11987	12036	12085	12110
	Bottom	11940	11989	12038	12087	
Stage 6 Perfs: 6 shots loaded @ 60 degree phasing	Top	11743	11792	11841	11890	11915
	Bottom	11745	11794	11843	11892	
Stage 7 Perfs: 6 shots loaded @ 60 degree phasing	Top	11548	11597	11646	11695	11720
	Bottom	11550	11599	11648	11697	
Stage 8 Perfs: 6 shots loaded @ 60 degree phasing	Top	11353	11402	11451	11500	11525
	Bottom	11355	11404	11453	11502	
Stage 9 Perfs: 6 shots loaded @ 60 degree phasing	Top	11158	11207	11256	11305	11330
	Bottom	11160	11209	11258	11307	
Stage 10 Perfs: 6 shots loaded @ 60 degree phasing	Top	10963	11012	11061	11110	11135
	Bottom	10965	11014	11063	11112	
Stage 11 Perfs: 6 shots loaded @ 60 degree phasing	Top	10768	10817	10866	10915	10940
	Bottom	10770	10819	10868	10917	
Stage 12 Perfs: 6 shots loaded @ 60 degree phasing	Top	10573	10622	10671	10720	10745
	Bottom	10575	10624	10673	10722	
Stage 13 Perfs: 6 shots loaded @ 60 degree phasing	Top	10378	10427	10476	10525	10550
	Bottom	10380	10429	10478	10527	
Stage 14 Perfs: 6 shots loaded @ 60 degree phasing	Top	10183	10232	10281	10330	10355
	Bottom	10185	10234	10283	10332	
Stage 15 Perfs: 6 shots loaded @ 60 degree phasing	Top	9988	10037	10086	10135	10160
	Bottom	9990	10039	10088	10137	
Stage 16 Perfs: 6 shots loaded @ 60 degree phasing	Top	9793	9842	9891	9940	9965
	Bottom	9795	9844	9893	9942	
Stage 17 Perfs: 6 shots loaded @ 60 degree phasing	Top	9598	9647	9696	9745	9770
	Bottom	9600	9649	9698	9747	
Stage 18 Perfs: 6 shots loaded @ 60 degree phasing	Top	9403	9452	9501	9550	9575
	Bottom	9405	9454	9503	9552	
Stage 19 Perfs: 6 shots loaded @ 60 degree phasing	Top	9208	9257	9306	9355	9380
	Bottom	9210	9259	9308	9357	
Stage 20 Perfs: 6 shots loaded @ 60 degree phasing	Top	9013	9062	9111	9160	9185
	Bottom	9015	9064	9113	9162	
Stage 21 Perfs: 6 shots loaded @ 60 degree phasing	Top	8818	8867	8916	8965	8990
	Bottom	8820	8869	8918	8967	
Stage 22 Perfs: 6 shots loaded @ 60 degree phasing	Top	8623	8672	8721	8770	8795
	Bottom	8625	8674	8723	8772	

**Proposed Pump schedule**

<b>Slickwater 2 (5,000 ft) 1500 #/ft. 50 ft x 4 Clusters Slickwater Reduced Fluid</b>											
#	Time (min)	Type	Fluid Information				Proppant Information				
			Rate [bpm]	Clean [gal]	Dirty [gal]	Cum. Dirty [gals]	Description	Prop. Conc. [PPA]	Description	Stage Sand [lbs]	Cum. Sand [lbs]
1	0:79	Acid	30	1000	1,000	1,000	7.5% HCl				
2	6:08	Pad	90	15000	20,000	21,000	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	14,000	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	20000	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	57,500	155,000
9	52:29	Sweep	90	15000	29,904	205,616	Slick Water	1.00	100 Mesh	15,000	165,000
10	57:58	Sand Laden	90	15000	21,131	226,746	Slick Water	1.25	100 Mesh	18,750	183,750
11	63:61	Sand Laden	90	20000	28,476	255,222	Slick Water	1.50	100 Mesh	30,000	213,750
12	72:75	Sand Laden	90	23000	33,094	288,316	Slick Water	1.75	100 Mesh	40,250	254,000
13	80:86	Sand Laden	90	23000	33,441	321,757	Slick Water	2.00	100 Mesh	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

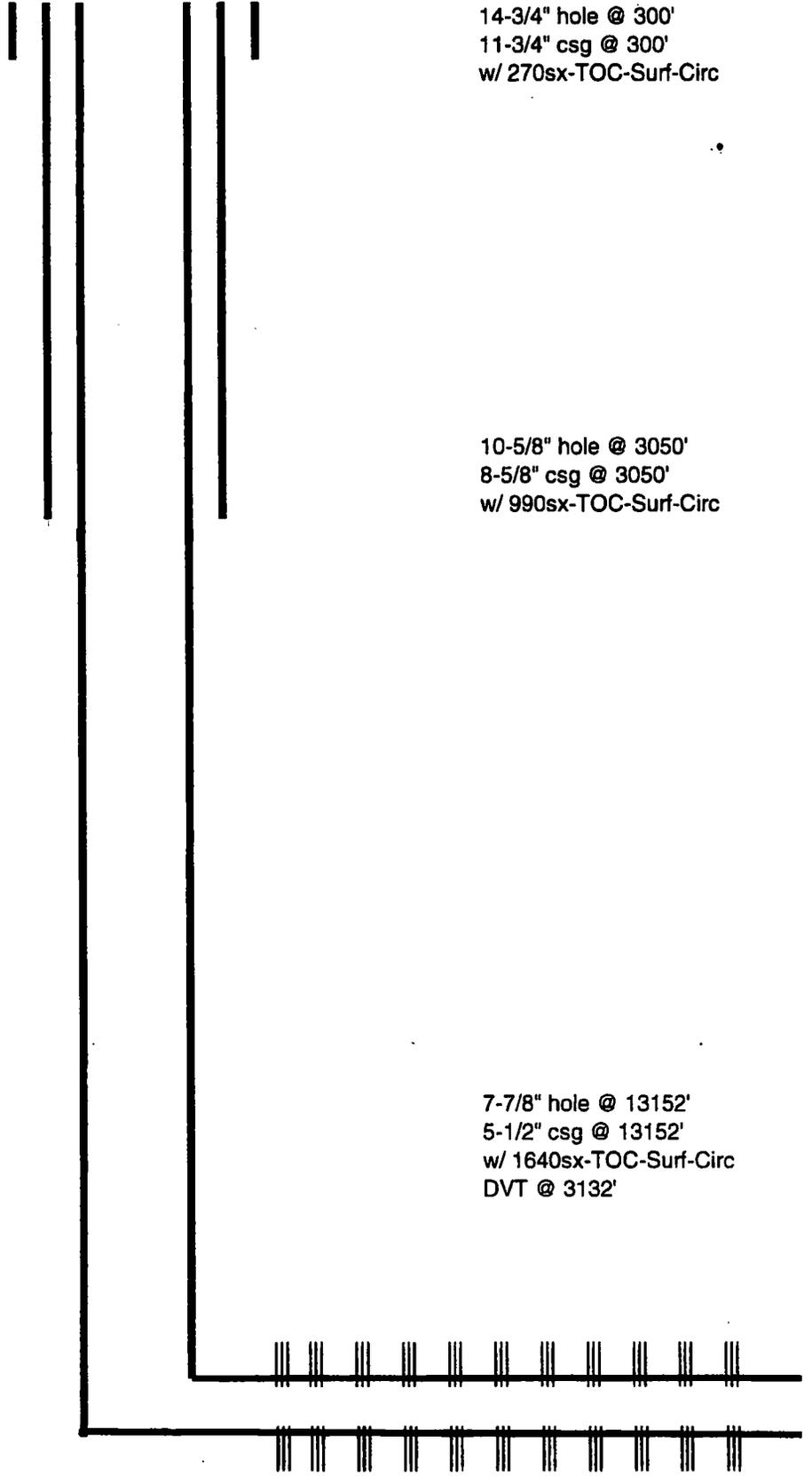
Tool connection up	2-7/8", 7.9# PH-6 Box
Tool weight	900 lbs
Tool length	40.0 ft
Expansion stroke	2.80 ft
Max. dog-leg severity	25 °/100ft
Axial load rating	200,000 lbs
Max. pressure	4,500 psi
Max. temperature	400 °F
Circulation flow rate	30 gpm
Valve shut off flow rate	46 gpm
Pressure/force conversion	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. - Current  
Cypress 33 Federal #6H  
API No. 30-015-41557



14-3/4" hole @ 300'  
11-3/4" csg @ 300'  
w/ 270sx-TOC-Surf-Circ

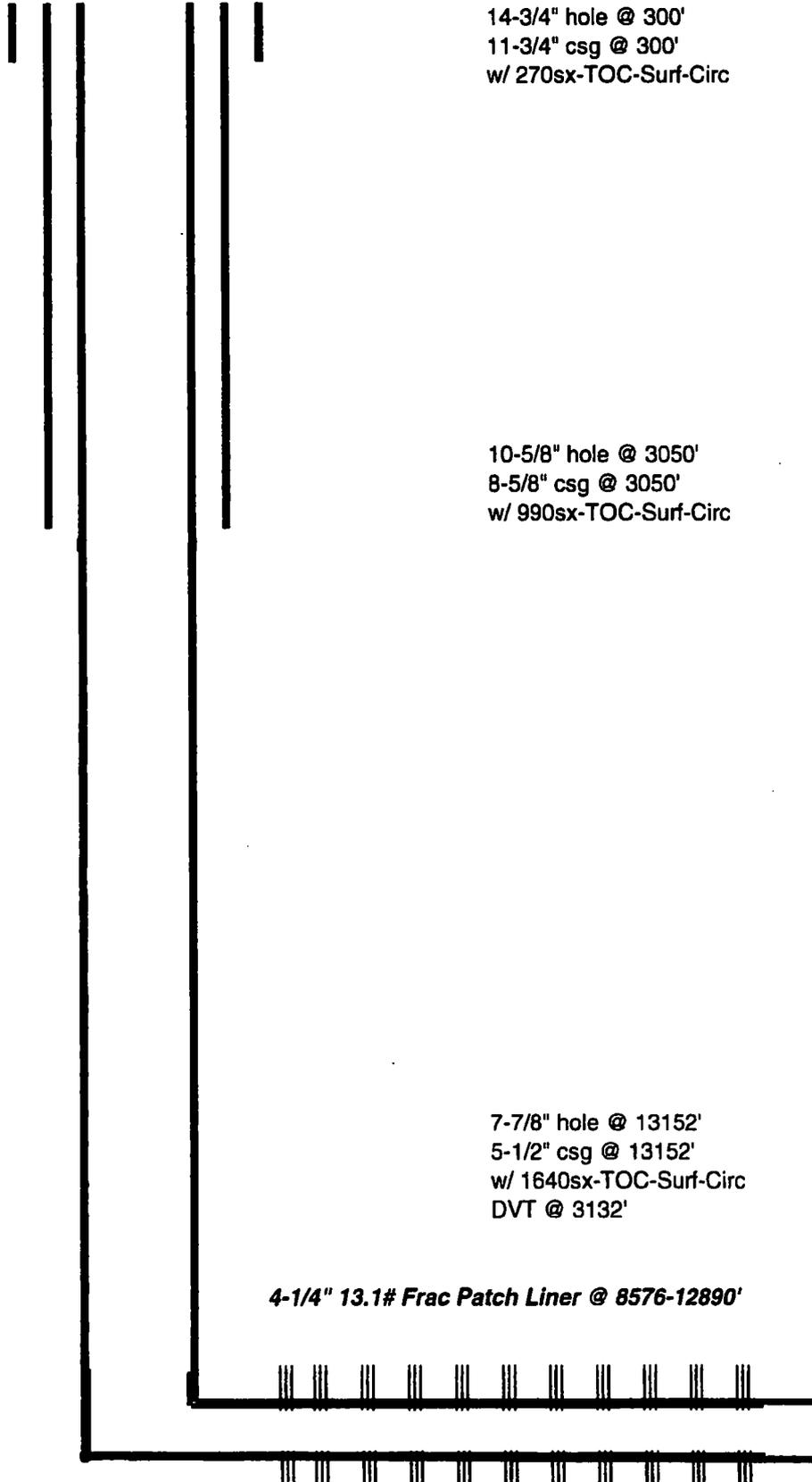
10-5/8" hole @ 3050'  
8-5/8" csg @ 3050'  
w/ 990sx-TOC-Surf-Circ

7-7/8" hole @ 13152'  
5-1/2" csg @ 13152'  
w/ 1640sx-TOC-Surf-Circ  
DVT @ 3132'

Perfs @ 8651-12890'

TD - 13152'M 8744'V  
PBSD-12991'M 8752'V

OXY USA Inc. - Proposed  
Cypress 33 Federal Com #6H  
API No. 30-015-41557



14-3/4" hole @ 300'  
11-3/4" csg @ 300'  
w/ 270sx-TOC-Surf-Circ

10-5/8" hole @ 3050'  
8-5/8" csg @ 3050'  
w/ 990sx-TOC-Surf-Circ

7-7/8" hole @ 13152'  
5-1/2" csg @ 13152'  
w/ 1640sx-TOC-Surf-Circ  
DVT @ 3132'

**4-1/4" 13.1# Frac Patch Liner @ 8576-12890'**

**Perfs @ 8623-12867'**  
Original Perfs @ 8651-12890'

TD - 13152'M 8744'V  
PB - 12991'M 8752'V