

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
OCD Artesia

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

Case Serial No.
NMINM86024

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

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 34 FEDERAL 3H
2. Name of Operator OXY USA INCORPORATED Contact: DAVID STEWART E-Mail: david_stewart@oxy.com		9. API Well No. 30-015-35692-00-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 <i>5206</i> CEDAR CANYON <i>11520</i>
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 34 T23S R29E NESW 2100FSL 1650FWL		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 recomplate 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 & RBIH to latch on RBP, release RBP & POOH. LD w/ RBP
- Perform drift run with Mohawk BHA
- RIH w/ 4.25" 13.1# P110 R2M expandable liner & set @ approximately

GC 6-29-18
Accepted for record - NMOCD

NM OIL CONSERVATION
ARTESIA DISTRICT

JUN 29 2018

RECEIVED

14. I hereby certify that the foregoing is true and correct. Electronic Submission #424670 verified by the BLM Well Information System For OXY USA INCORPORATED, sent to the Carlsbad Committed to AFMSS for processing by PRISCILLA PEREZ on 06/25/2018 (18PP2040SE)	
Name (Printed/Typed) DAVID STEWART	Title REGULATORY ADVISOR
Signature (Electronic Submission)	Date 06/19/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>/s/ Jonathon Shepard</u>	Petroleum Engineer	JUN 26 2018
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.	Carlsbad Field Office	Date

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 ****

RW 7-5-18

Additional data for EC ti ction #424670 that would not fit on the form

32. Additional remarks, continued

7900-10950'

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 WH pressure & 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 (7925-10927') 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 16 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 WH 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 7900–10950'
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 (7925-10927') 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 16 total stages)
11. RDMO frac and WL company

Wellbore Clean out and Flowback Procedure

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OXY USA Inc.- Cypress 34 Federal 3H – 30-015-35692 – Cedar Canyon Bone Spring

Proposed Perforation & Plug Depth

PLUGS AND PERFORATIONS INTERVALS		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	10783	10830	10878	10925	10950
	Bottom	10785	10832	10880	10927	
Stage 2 Perfs: 6 shots loaded @ 60 degree phasing	Top	10592	10640	10687	10735	10760
	Bottom	10594	10642	10689	10737	
Stage 3 Perfs: 6 shots loaded @ 60 degree phasing	Top	10402	10449	10497	10544	10569
	Bottom	10404	10451	10499	10546	
Stage 4 Perfs: 6 shots loaded @ 60 degree phasing	Top	10211	10259	10306	10354	10379
	Bottom	10213	10261	10308	10356	
Stage 5 Perfs: 6 shots loaded @ 60 degree phasing	Top	10021	10068	10116	10163	10188
	Bottom	10023	10070	10118	10165	
Stage 6 Perfs: 6 shots loaded @ 60 degree phasing	Top	9830	9878	9925	9973	9998
	Bottom	9832	9880	9927	9975	
Stage 7 Perfs: 6 shots loaded @ 60 degree phasing	Top	9640	9687	9735	9782	9807
	Bottom	9642	9689	9737	9784	
Stage 8 Perfs: 6 shots loaded @ 60 degree phasing	Top	9449	9497	9544	9592	9617
	Bottom	9451	9499	9546	9594	
Stage 9 Perfs: 6 shots loaded @ 60 degree phasing	Top	9259	9306	9354	9401	9426
	Bottom	9261	9308	9356	9403	
Stage 10 Perfs: 6 shots loaded @ 60 degree phasing	Top	9068	9116	9163	9211	9236
	Bottom	9070	9118	9165	9213	
Stage 11 Perfs: 6 shots loaded @ 60 degree phasing	Top	8878	8925	8973	9020	9045
	Bottom	8880	8927	8975	9022	
Stage 12 Perfs: 6 shots loaded @ 60 degree phasing	Top	8687	8735	8782	8830	8855
	Bottom	8689	8737	8784	8832	
Stage 13 Perfs: 6 shots loaded @ 60 degree phasing	Top	8497	8544	8592	8639	8664
	Bottom	8499	8546	8594	8641	
Stage 14 Perfs: 6 shots loaded @ 60 degree phasing	Top	8306	8354	8401	8449	8474
	Bottom	8308	8356	8403	8451	
Stage 15 Perfs: 6 shots loaded @ 60 degree phasing	Top	8116	8163	8211	8258	8283
	Bottom	8118	8165	8213	8260	
Stage 16 Perfs: 6 shots loaded @ 60 degree phasing	Top	7925	7973	8020	8068	8093
	Bottom	7927	7975	8022	8070	

Proposed Pump schedule

Slickwater 2 (5,000 ft)		1500 #/ft. 50 ft x 4 Clusters Slickwater Reduced Fluid										
		Fluid Information					Proppant Information					
#	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	1,000	1,000	7.5% HCl					
2	6.08	Pad	90	15000	70,000	71,000	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	17000	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	57,500	150,000	
9	57.29	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	1.25	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

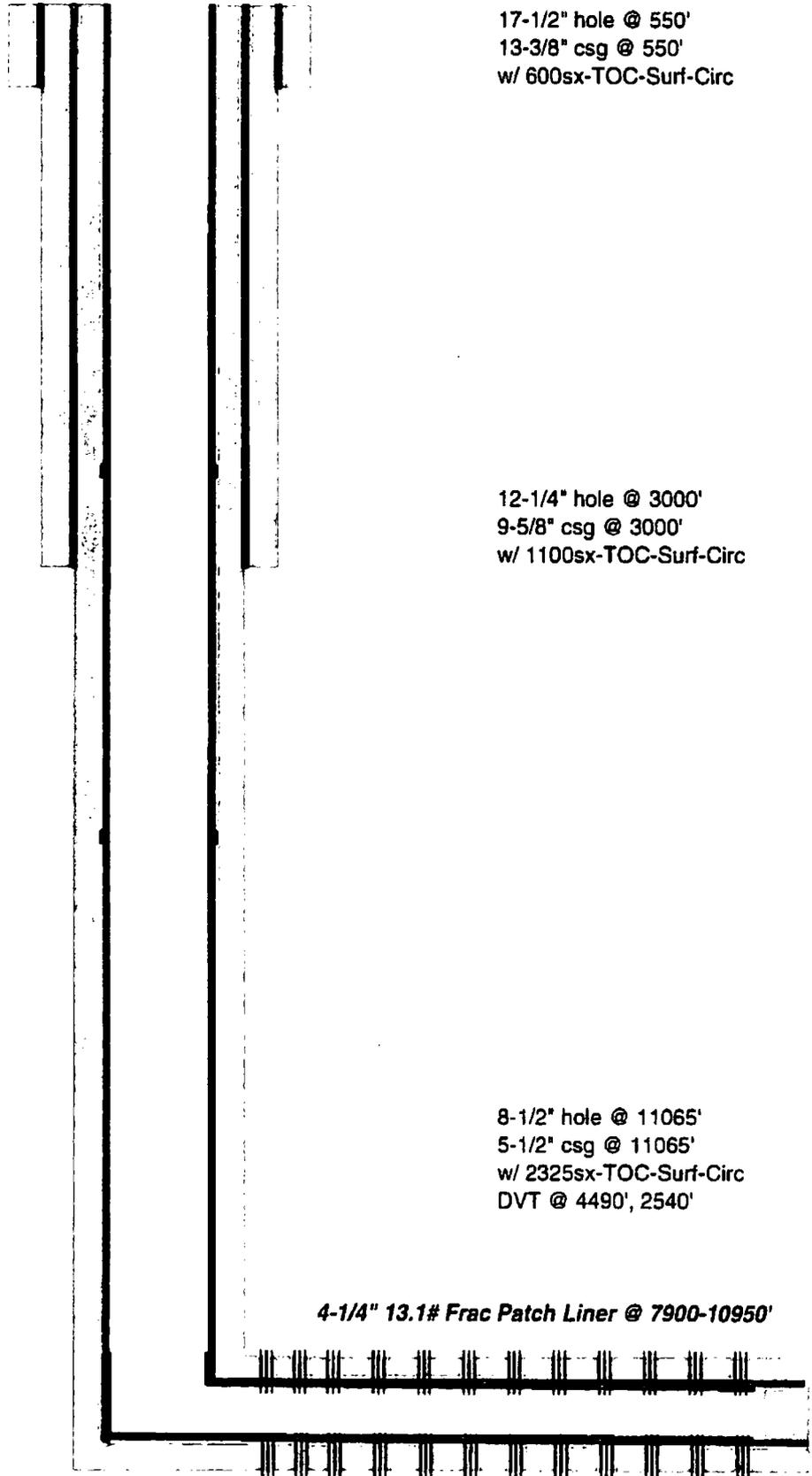
Tool connection up	2-7/8", 7.9# PH-6 Box
Tool weight	900 lbs
Tool length	40.0 ft
Expansion stroke	2.80 ft
Max. dog-leg severity	25 °/100ft
Axial load rating	200,000 lbs
Max. pressure	4,500 psi
Max. temperature	400 °F
Circulation flow rate	30 gpm
Valve shut off flow rate	46 gpm
Pressure/force conversion	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 #3H
API No. 30-015-35692



17-1/2" hole @ 550'
13-3/8" csg @ 550'
w/ 600sx-TOC-Surf-Circ

12-1/4" hole @ 3000'
9-5/8" csg @ 3000'
w/ 1100sx-TOC-Surf-Circ

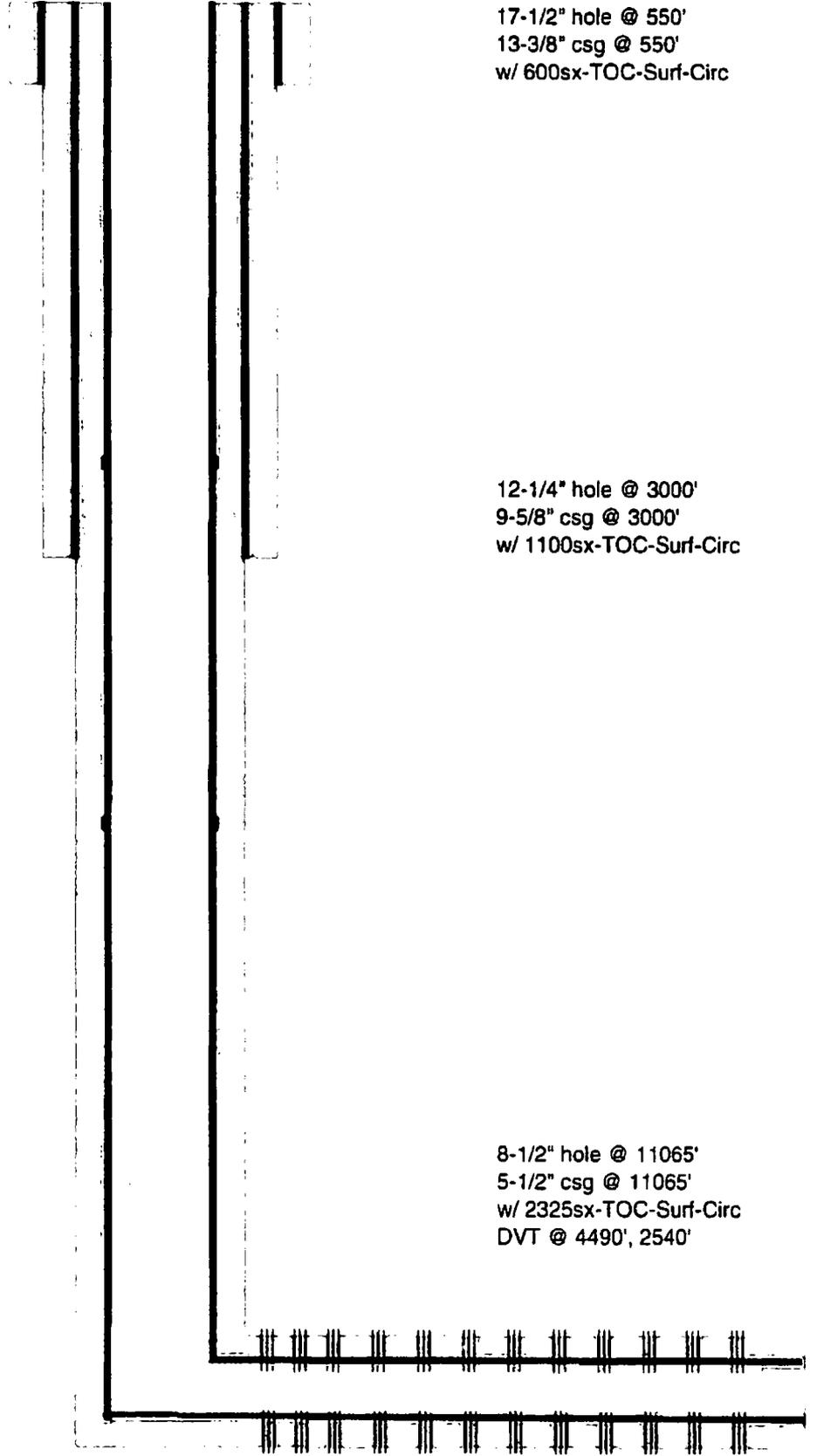
8-1/2" hole @ 11065'
5-1/2" csg @ 11065'
w/ 2325sx-TOC-Surf-Circ
DVT @ 4490', 2540'

4-1/4" 13.1# Frac Patch Liner @ 7900-10950'

Perfs @ 7925-10927'
Original Perfs @ 8102 -10950'

TD - 11065'M 7949'V
PB - 10985'M 7949'V

OXY. USA Inc. - Current
Cypress 34 Federal #3H
API No. 30-015-35692



17-1/2" hole @ 550'
13-3/8" csg @ 550'
w/ 600sx-TOC-Surf-Circ

12-1/4" hole @ 3000'
9-5/8" csg @ 3000'
w/ 1100sx-TOC-Surf-Circ

8-1/2" hole @ 11065'
5-1/2" csg @ 11065'
w/ 2325sx-TOC-Surf-Circ
DVT @ 4490', 2540'

Perfs @ 8102 -10950'

TD - 11065'M 7949'V
PB - 10950'M 7949'V