State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez

Governor

Ken McQueen Cabinet Secretary

Matthias Sayer
Deputy Cabinet Secretary

Heather Riley, Division Director Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-4 or 3160-5 form.

Operator Signature Date: 10/17/18

Well information:

API WELL#	Well Name	Well #	Operator Name	Туре	Stat	County	Surf_Owner	UL	Sec	Twp	N/S	Rng	W/E
30-045-24909-00- 00	RICHARDSON	001E	LOGOS OPERATING, LLC	G		San Juan	F	0	2	27	N	13	W

Ap	oplication Type:
	☐ P&A ☐ Drilling/Casing Change ☐ Location Change
	Recomplete/DHC (For hydraulic fracturing operations review EPA
	Underground injection control Guidance #84; Submit Gas Capture Plan form prior to spudding or initiating recompletion operations)
	Other: Bradenhead repair

Conditions of Approval:

- Notify NMOCD 24 Hours prior to commencing activities.
- Notify the Agencies of any issues discovered.
- Provide any proposed remediation to the agencies for review and approval prior to beginning remediation.

NMOCD Approved by Signature

10/25/18 Date Form 3160-5 (June 2015)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

RECEIVED

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

5. Lease Serial No. NMSF 077972A

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. 6. If Indian, Allottee or Tribe Name

	Hugan at and the				
SUBMIT IN TRIPLICATE - Other instr	uctions on page 2	7. If Unit of CA/Agreen	ment, Name and/or No.		
1. Type of Well		0 W.11 M			
Oil Well Gas Well Other		8. Well Name and No.	Richardson 1E		
2. Name of Operator LOGOS Operating, LLC		9. API Well No. 30-045	5-24909		
3a. Address 2010 Afton Place	3b. Phone No. (include area code)	10. Field and Pool or E	xploratory Area		
Farmington, NM 87401	(505) 787-2218	8 Basin Dakota			
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description,)	11. Country or Parish, S	State		
840 FSL & 1720 FEL, SW/SE, O Sec 02 T27N R13W		San Juan County, N	M		
12. CHECK THE APPROPRIATE B	OX(ES) TO INDICATE NATURE OF	NOTICE, REPORT OR OTHE	ER DATA		
TYPE OF SUBMISSION	TYPE O	F ACTION			
✓ Notice of Intent Acidize Alter Casing	Deepen Hydraulic Fracturing	Production (Start/Resume) Reclamation	Water Shut-Off Well Integrity		
Subsequent Report Casing Repair	New Construction	Recomplete	✓ Other		
Change Plans	Plug and Abandon	Temporarily Abandon	BH Remediation		
Final Abandonment Notice Convert to Injection	Plug Back	Water Disposal	Difficultural		
completed. Final Abandonment Notices must be filed only after is ready for final inspection.) LOGOS requests to perform a Bradenhead Remediation Reference: RBDMS MPK1819454857 NMOCD OCT 2 3 2018 DISTRICT III	BLM'S APPROVAL ACTION DOES NO	rrent wellbore diagram. OR ACCEPTANCE OF TOT RELIEVE THE LESSE MOBTAINING ANY OTH I REQUIRED FOR OPER	THIS E AND ER		
14. I hereby certify that the foregoing is true and correct. Name (Pr	inted/Typed)				
Marie E. Florez	Regulatory Sp.	ecialist			
Signature WIL	Date	10/17/20	18		
THE SPACE	FOR FEDERAL OR STATE	OFICE USE			
Approved by Conditions of approval, if any, are attached. Approval of this notice certify that the applicant tolds legal or equitable title to those rights which would entitle the applicant to conduct operations thereon.		Da	ate 10/19/18		
Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make		d willfully to make to any dep	artment or agency of the United States		

any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Richardson 1E API: 30-045-24909

Richardson 001E Bradenhead Remediation Plan of Action:

- 1. Contract wellhead company to check for secondary seal and replace if testing indicates failure
- 2. If wellhead testing/repair is done, conduct re-test of bradenhead
- 3. If bradenhead gas is not eliminated by wellhead repair, use workover rig for the following:
 - a. Set RBP to conduct casing MIT
 - b. If necessary, run cement bond log and remediate casing



Date Prepared: 10/16/2018 Gomez

Wellbore Schematic

Well Name:

Richardson 1E

Location:			13W 840' FSL & 1720	FEL	Last Updated:	4/20/4004
County: API#:	San J	15-24909			Spud Date: Completion Date:	4/29/1981 8/15/1981
Co-ordinates:			ong -108.184797		ast Workover Date:	10/12/2007
Elevations:			5881'		ast Workover Date.	10/12/2001
Zio vallonio.	0110		5892'		-	
Depths (KB):	F		6149'			
		TD:	6200'			
	All Dept	ths KB	Hole Size	Surface Casing: (5/4/1981)		
Surface Casing			12-1/4"	Drilled a 12-1/4" surface hole to 287'. Se		
8-5/8", 24#, H-40		1 1 1	0-287'	Cemented w/ 200 sxs Class 'B' cmt v	v/ 3% CaCl. Circ to s	surface 5 bbl.
6 jts set at 281'		1 1 1				
200 sxs		1 1 1		Intermediate Casing: (5/7/1981)	01.0.14543.4400	10.5% 16.55
Circ to surface 28	1	1 1	TOC at surface (circ)	Drilled a 7-7/8" intermediate hole to 6200 Cmt stage 1 w/ 350 sx 50-50 POZ mi		
	1 1			75%eff at 4833'. Cmt stage 2 w/ 300		
		1 1		50 sx of class 'B'.TOC calc using 1.1		
	1 1			65-35-12 tailed w/ 12-1/2 lb of gilson		
	1 1	1 1	7-7/8"			
		1 1	287'-6200'	Production Casing:		
	1 1	1 1		n/a		
	1 1	1 1				
	1 1	1 1		Tubing: (10/16/2007)		Length (ft)
			TOC @ surface	KB*diff from drilling KB		13.00
			DV Tool @ 1476'	(148) 2-3/8" 4/7# J-55		4617.71
				(1) Model R Packer		6.00
Intones dista One	100		Squeeze 1483-1670'	(46) 2-3/8" 4.7# J-55		1378.78
Intermediate Csq 4-1/2", 10.5#, K-55, 151 jts	- 1 1			(1) SN (1) 2 3/8" 4 7# 1 55		1.10 31.87
Set at 6193'				(1) 2-3/8" 4.7# J-55		31.07
950 sxs	1 1	1 1				
Circ to surface		1 1			Set at:	6048.46 ft
	1 1	1 1		Rods:		
	1 1	1 1		n/a		4
		1 1				
	1 1					
				<u> </u>		
				Pumping Unit:		
				Pumping Unit:		
				Pumping Unit:		
Tubing				Perforations:	3 6003 04 05 26 2	2 30 32 34 36 38 40 42 44 4
<u>Tubina</u> 2-3/8", 4, 7#, J-55			TOC @ 3012*	Perforations: 1-0.42" hole at each depth: 5951, 52, 53		
<u>Tubina</u> 2-3/8", 4.7#, J-55 195 jts			TOC @ 3012'	Perforations:	holes). Acidize w/ 1	500 gal 15% HCI, 130000lb 20/4
2-3/8", 4.7#, J-55			TOC @ 3012'	Perforations: 1-0.42" hole at each depth: 5951, 52, 53 48, 66, 68, 70, 72, 74, 76, 78, 80' (26	holes). Acidize w/ 1	500 gal 15% HCI, 130000lb 20/4
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2-3/8", 4.7#, J-55 195 jts EOT at 6046.46'			TOC @ 3012'	Perforations: 1-0.42" hole at each depth: 5951, 52, 53 48, 66, 68, 70, 72, 74, 76, 78, 80' (26 96000gal 30 lb x-linked gel. All fluid c Formations: Ojo Alamo- 490'	holes). Acidize w/ 1	500 gal 15% HCI, 130000lb 20/4
2-3/8", 4.7#, J-55 195 jts EOT at 6046.46'			TOC @ 3012'	Perforations: 1-0.42" hole at each depth: 5951, 52, 53 48, 66, 68, 70, 72, 74, 76, 78, 80' (26 96000gal 30 lb x-linked gel. All fluid of Formations: Ojo Alamo- Kirtland- 520'	holes). Acidize w/ 1	500 gal 15% HCI, 130000lb 20/4
2-3/8", 4.7#, J-55 195 jts EOT at 6046.46'		1000	Squeeze 3569-3910'	Perforations: 1-0.42" hole at each depth: 5951, 52, 53 48, 66, 68, 70, 72, 74, 76, 78, 80' (26 96000gal 30 lb x-linked gel. All fluid of Formations: Ojo Alamo- Kirtland- 520' Fruitland- 1300'	holes). Acidize w/ 1	500 gal 15% HCI, 130000lb 20/4
2-3/8", 4.7#, J-55 195 jts EOT at 6046.46'		SO:	Squeeze 3569-3910' Squeeze 3892'	Perforations: 1-0.42" hole at each depth: 5951, 52, 53 48, 66, 68, 70, 72, 74, 76, 78, 80' (26 96000gal 30 lb x-linked gel. All fluid of Formations: Ojo Alamo- Kirtland- 520' Fruitland- 1300' Pictured Cliffs- 1379'	holes). Acidize w/ 1	500 gal 15% HCI, 130000lb 20/4
2-3/8", 4.7#, J-55 195 jts EOT at 6046.46'		SO:	Squeeze 3569-3910'	Perforations: 1-0.42" hole at each depth: 5951, 52, 53 48, 66, 68, 70, 72, 74, 76, 78, 80' (26 96000gal 30 lb x-linked gel. All fluid of Formations: Ojo Alamo-490' Kirtland-520' Fruitland-1300' Pictured Cliffs-1379' Chacra-2255'	holes). Acidize w/ 1	500 gal 15% HCI, 130000lb 20/4
2-3/8", 4.7#, J-55 195 jts EOT at 6046.46'		SO:	Squeeze 3569-3910' Squeeze 3892'	Perforations: 1-0.42" hole at each depth: 5951, 52, 53 48, 66, 68, 70, 72, 74, 76, 78, 80' (26 96000gal 30 lb x-linked gel. All fluid c Formations: Ojo Alamo- Kirtland- Fruitland- Prictured Cliffs- Chacra- 2255' Cliff House-	holes). Acidize w/ 1	500 gal 15% HCI, 130000lb 20/4
2-3/8", 4.7#, J-55 195 jts EOT at 6046.46'		SO:	Squeeze 3569-3910' Squeeze 3892'	Perforations: 1-0.42" hole at each depth: 5951, 52, 53 48, 66, 68, 70, 72, 74, 76, 78, 80' (26 96000gal 30 lb x-linked gel. All fluid of the second of th	holes). Acidize w/ 1	500 gal 15% HCI, 130000lb 20/4
2-3/8", 4.7#, J-55 195 jts EOT at 6046.46'			Squeeze 3569-3910' Squeeze 3892' DV Tool @ 4178'	Perforations: 1-0.42" hole at each depth: 5951, 52, 53 48, 66, 68, 70, 72, 74, 76, 78, 80' (26 96000gal 30 lb x-linked gel. All fluid of sel. All fluid of s	holes). Acidize w/ 1	500 gal 15% HCI, 130000lb 20/4
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2-3/8", 4.7#, J-55 195 jts EOT at 6046.46'			Squeeze 3569-3910' Squeeze 3892' DV Tool @ 4178' Packer @ 4630'	Perforations: 1-0.42" hole at each depth: 5951, 52, 53 48, 66, 68, 70, 72, 74, 76, 78, 80' (26 96000gal 30 lb x-linked gel. All fluid of the selection of th	bg, set 4-1/2" RBP (500 gal 15% HCI, 130000lb 20/4 Basin DK 25900' TIH w/ packer, Isolate cs
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