

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS** DEC 06 2013  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

Farmington Field Office

Bureau of Land Management

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.  
NMNM113426  
6. If Indian, Allottee or Tribe Name  
7. If Indian, Allottee or Tribe Name  
8. Unit or CA/Agreement, Name and/or No.

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other: INJECTION		8. Well Name and No. OJO ENCINO 31 FEDERAL SWD 1
2. Name of Operator HPOC, LLC Contact: ARTHUR W. BUTLER E-Mail: BBUTLER@HIGHPLAINSOP.COM		9. API Well No. 30-031-21112-00-S1
3a. Address P.O. BOX 5046 BUENA VISTA, CO 81211	3b. Phone No. (include area code) Ph: 719-395-8059	10. Field and Pool, or Exploratory UNKNOWN WILDCAT
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 31 T20N R5W NWNE 340FNL 2300FEL 35.926480 N Lat, 107.405320 W Lon		11. County or Parish, and State MCKINLEY COUNTY, NM

BLM'S APPROVAL OR ACCEPTANCE OF THIS  
ACTION DOES NOT RELIEVE THE LESSEE AND  
OPERATOR FROM OBTAINING ANY OTHER  
AUTHORIZATION REQUIRED FOR OPERATIONS  
ON FEDERAL AND INDIAN LANDS

## 12. CHECK 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 checked="" type="checkbox"/> Fracture Treat	<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 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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

HPOC, LLC is operating with Bond No. NMB 000457.

HPOC intends to fracture treat this disposal well to increase injectivity and lower the injection pressure. Current injection pressure is 840 psi at an injection rate of 5,300 barrels of water per day. Note our NM OCD injection order SWD-1315 dated Feb. 2, 2012 limits the wellhead injection pressure to 1,150 psi. We are well below this current limit.

Study of other Entrada disposal wells in the San Juan Basin indicates that fracture treatment is typical and other operators have had good success in lowering their injection pressure. HPOC is using a horizontal centrifugal injection pump and design specs for this pump anticipated a lower pressure. HPOC believes fracture treatment is the best way for us to bring actual injection pressure in line with pump design. In addition, a lower injection pressure will decrease our

CONDITIONS OF APPROVAL  
Adhere to previously issued stipulations.RCVD DEC 10 '13  
OIL CONS. DIV.

DIST. 3

14. I hereby certify that the foregoing is true and correct. Electronic Submission #228786 verified by the BLM Well Information System For HPOC, LLC, sent to the Farmington Committed to AFMSS for processing by TROY SALYERS on 12/09/2013 (14TLS0258SE)	
Name (Printed/Typed) ARTHUR W. BUTLER	Title MANAGER
Signature (Electronic Submission)	Date 12/06/2013

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By TROY SALYERS	Title PETROLEUM ENGINEER	Date 12/09/2013
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 Farmington

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.

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

NMOCDA

**Additional data for EC transaction #228786 that would not fit on the form**

**32. Additional remarks, continued**

electric usage significantly, providing cost and environmental benefits.

The frack design calls for 65,000 gallons of water and 90,000 lbs of premium white 20/40 proppant. The frack is designed to reach approximately 40-50 feet beyond the well bore and any associated skin damage.

See the attached Halliburton proposal.

**HALLIBURTON**

Hpoc LLC  
PO Box 5046  
Buena Vista, Colorado 81211

Ojo Encino 31 Federal SWD 1

Mc Kinley County, New Mexico  
United States of America  
S:31 T:20N R:5W  
API/UWI 30031211120000

## **Single Stage, Delta 140 Frac**

Prepared for: Butch Butler

December 5, 2013  
Version: 2

Submitted by:  
Lance Erdmann  
Halliburton  
4109 E Main  
Farmington, New Mexico 87499  
+15053243501

**HALLIBURTON**

**Well Information****Ojo Encino 31 Fed SWD 1**

Well Name: Ojo Encino 31 Federal SWD    Well #: 1

**Tubulars**

<b>Name</b>	<b>Measured Depth (ft)</b>	<b>Outer Diameter (in)</b>	<b>Inner Diameter (in)</b>	<b>Linear Weight (lbm/ft)</b>	<b>Grade</b>
4 1/2" Production Casing	0 - 5762	4.5	4	11.6	J-55

## Job Fluids Summary

## Ojo Encino 31 Fed SWD 1

## Oxidizer Sweep

Volume	Base Fluid	Additive Material	Additive Material	Additive Material	Additive Material
1000 (Gal)	2% KCL Water*	Vicon NF	CAT-3	CAT-4	GasPerm 1000
<b>Totals</b>	1000 (Gal)	10 (Gal)	2 (Gal)	0.2 (Gal)	2 (Gal)

## Delta Frac 140 R 15#

Volume	Base Fluid	Additive Material	Additive Material	Additive Material	Additive Material
42000 (Gal)	2% KCL Water*	SP Breaker	Optiflo-III	GasPerm 1000	CAT-3
<b>Totals</b>	42000 (Gal)	84 (lbm)	42 (lbm)	84 (Gal)	42 (Gal)

## Water Frac G - R 15#

Volume	Base Fluid	Additive Material	Additive Material	Additive Material
22000 (Gal)	2% KCL Water*	SP Breaker	GasPerm 1000	CAT-3
<b>Totals</b>	22000 (Gal)	22 (lbm)	44 (Gal)	22 (Gal)

## 7.5% HF Acid

Volume	Additive Material	Additive Material
1000 (Gal)	HAI-OS	GasPerm 1000
<b>Totals</b>	1 (Gal)	2 (Gal)

## JOB TOTALS

Volume (Gal)	Base Fluid (Gal)	Additive Material (Gal)	Additive Material (Gal)	Additive Material (Gal)	Additive Material (Gal)	Additive Material (lbm)	Additive Material (lbm)	Additive Material (Gal)
	2% KCL Water*	Vicon NF	CAT-3	CAT-4	GasPerm 1000	SP Breaker	Optiflo-III	HAI-OS
65000		10	66	0.2	132	106	42	1

## Proppant

	Designed Qty	Requested
Premium White-20/40	90000 (lbm)	90000 (lbm)

## Diverters

Name	Volume (Gal)	Conc (lbm/Mgal)	Mass (lbm)
Biovert NWB	4000	125	500

## Customer Supplied Items \*

	Designed Qty	Tank Bottom	Requested w/ Tank Bottom
2% KCL Water	65000 Gal	0 Gal	65000 Gal

## Treatment 1

## Ojo Encino 31 Fed SWD 1

Well Name	Ojo Encino 31 Federal SWD	Oxidizer Sweep	1000 Gal
Job Name	Ojo Encino 31 Fed SWD 1	7.5% HF Acid	1000 Gal
Estimated Pump Time	0.59 hrs	Water Frac G - R 15#	22000 Gal
BHST	68 degF	Delta Frac 140 R 15#	42000 Gal
		Premium White-20/40	90000 lbm
		Biovert NWB	500 lbm

Casing (Surface)								
Trt Stage	Stage Desc	Flow Path	Fluid Desc	Rate Liq+Prop	Clean Vol	Proppant	Proppant Conc	Prop Mass
1-1	Pre-Flush	IN	Oxidizer Sweep	15	1000		0	0
1-2	Acid Spearhead	IN	7.5% HF Acid	15	1000		0	0
1-3	Pad	IN	Water Frac G - R 15#	50	18000		0	0
1-4	Pad	IN	Delta Frac 140 R 15#	50	2000		0	0
1-5	Proppant Laden Fluid	IN	Delta Frac 140 R 15#	50	10000	Premium White-20/40	1	10000
1-6	Proppant Laden Fluid	IN	Delta Frac 140 R 15#	50	10000	Premium White-20/40	2	20000
1-7	Proppant Laden Fluid	IN	Delta Frac 140 R 15#	50	20000	Premium White-20/40	3	60000
1-8	Flush	IN	Water Frac G - R 15#	50	4000		0	0
1-9	Shut-In	SHUTIN		0	0		0	0
<b>Totals</b>					<b>66000</b>			<b>90000</b>

Casing				
Stage#	Stage Desc	Clean Vol	Diverter Used	Div. Conc. (lbm/Mgal)
1-8	Flush	4000	Biovert NWB	125
<b>Totals</b>				<b>500</b>

**Fluid Details - Treatment 1**
**Ojo Encino 31 Fed SWD 1**

Oxidizer Sweep					
Volume (Gal)	Base Fluid	Additive Material (gal/Mgal)	Additive Material (gal/Mgal)	Additive Material (gal/Mgal)	Additive Material (gal/Mgal)
1000	2% KCL Water * 0 - 1000	Vicon NF 10	CAT-3 2	CAT-4 0.2	GasPerm 1000 2

7.5% HF Acid			
Volume (Gal)	Base Fluid	Additive Material (gal/Mgal)	Additive Material (gal/Mgal)
1000	HCL / HF Acid 0 - 1000	HAI-OS 1	GasPerm 1000 2

Water Frac G - R 15#				
Volume (Gal)	Base Fluid	Additive Material (lbm/Mgal)	Additive Material (gal/Mgal)	Additive Material (gal/Mgal)
22000	2% KCL Water * 0 - 22000	SP Breaker 1	GasPerm 1000 2	CAT-3 1

Delta Frac 140 R 15#					
Volume (Gal)	Base Fluid	Additive Material (lbm/Mgal)	Additive Material (lbm/Mgal)	Additive Material (gal/Mgal)	Additive Material (gal/Mgal)
42000	2% KCL Water * 0 - 42000	SP Breaker 2	Optiflo-III 1	GasPerm 1000 2	CAT-3 1

\* Customer Supplied