Form 3160-3 (March 2012)

UNITED STATES

OCT 23 2012

FORM APPROVED OMB No. 1004-0137 Expires October 31, 2014

	OF THE INTERIOR AND MANAGEMENT		itics	NMSF078876			
APPLICATION FOR PER	RMIT TO DRILLEOF	ningion riela c Rifleente A <sup>ana</sup>	igenie	6. If Indian, Allote	e or Tribe l	Vame	
la. Type of work:	REENTER			7 If Unit or CA Ag Canyon Largo Un		me and No.	
lb. Type of Well: Oil Well 🗸 Gas Well	Other Sin	ngle Zone Multi	ple Zone	Lease Name and Well No.     Canyon Largo Unit #513			
2. Name of Operator Huntington Energy, L.L.C.			:	9. API Well No. 30-03	7-311	51	
3a. Address 908 N.W. 71st St. Oklahoma City, OK 73116	3b. Phone No. 405-840-98	. (include area code) 376		10. Field and Pool, or Basin Dakota			
4. Location of Well (Report location clearly and in according to the At surface 505' FSL & 158' FEL  At proposed prod. zone	ordance with arry State requirem	ents.*)	P	11. Sec., T. R. M. or Blk. and Survey or Area Sec 33, T25N-R7W			
14. Distance in miles and direction from nearest town or p +/- 35 miles SE from Blanco	ost office*			12. County or Parish Rio Arriba		13. State NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of ac 2561.64	cres in lease	17. Spacing 320 <i>E Z</i>	ng Unit dedicated to this well  COVD JAN 22 '13			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed 7350'				/BIA Bond No. on fileIL CUNS. DIV. 20076 DIST. 3		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6986' GL	1	22. Approximate date work will start* 12/15/2012			23. Estimated duration approx. 30 days		
The following, completed in accordance with the requireme	24. Attack		tached to this	; form:			
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National For SUPO must be filed with the appropriate Forest Service</li> </ol>	orest System Lands, the	<ul><li>4. Bond to cover the Item 20 above).</li><li>5. Operator certific</li></ul>	ne operation	s unless covered by an		·	
25. Signature ather	,	Printed/Typed) ine Smith			Date 10/18/20	)12	
Title Regulatory	N	(D · , ) (T - 7)			ln.		
Approved by (Signature), Title  AFM	Office 2	Printed/Typed)  F			Date	7/13	
Application approval does not warrant or certify that the al conduct operations thereon. Conditions of approval, if any, are attached.	pplicant holds legal or equita	ble title to those right	s in the subje	ect lease which would e	ntitle the ap	plicant to	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, States any false, fictitious or fraudulent statements or representations.	make it a crime for any per sentations as to any matter wit	son knowingly and whin its jurisdiction.	illfully to ma	ke to any department o	r agency of	the United	
(Continued on page 2) Huntington Will	Submit C/02	AN NSL	For M.	on Cally histo	ructions	on page 2)	

3LM'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

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

NOTIFY AZTEC OCD 24 HRS.

PRIOR TO CASING & CEMENT This action is subject to technical and procedural review pursuant to 43 CFR 3165 2 JAN 2 8 2013 ca and appeal pursuant to 43 CFR 3165 &

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

1220 S. St. Francis Dr., Santa Fc, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 23 2012 1220 South St. Francis Dr.

Santa Fe, NM 87505 Farmington Field Office

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

### WELL LOCATION AND ACREAGE DEDICATION PLAT

State of New Mexico

API Number	<sup>2</sup> Pool Code	<sup>2</sup> Pool Code <sup>3</sup> Pool Name			
30-039-31151	71599 Basin Dakota				
<sup>4</sup> Property Code	<sup>5</sup> Property Name				
32660	CANYON LARGO UNIT				
7 OGRID No.	B Opcrator Name				
208706	HUNTINGTON ENERGY, LLC				

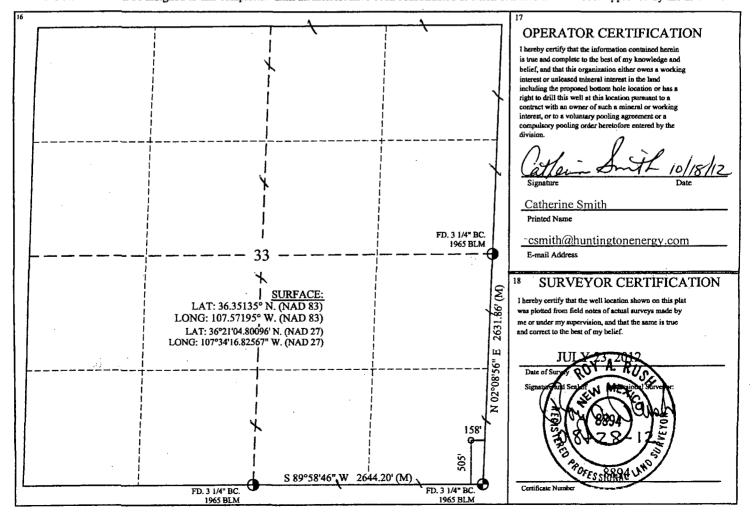
#### "Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	33	25-N	7-W		505	SOUTH	158	EAST	RIO ARRIBA

#### "Bottom Hole Location If Different From Surface

ſ	UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
ļ									;	
I	12 Dedicated Acres			<sup>13</sup> Joint or Infil	1	<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.		
	E/320							NSL 67	706	

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



#### **OPERATIONS PLAN**

Well Name: Canyon Largo Unit #513

Location: 505' FSL, 158' FEL, SESE, Lot P, Sec 33, T25N, R7W

Rio Arriba County, NM

Formation: Basin Dakota Elevation: 6986' GL

Measured Depth (Tops)
Surface
1906'
2090'
2419'
2543'
2639'
2927'
3415'
4117'
4143'
4879'
5024'
5961'
6773'
6862'
7108'
7258'
7350'

#### Logging Program:

Mud  $\log - 2000$ ' to TD

Open hole logs-GR/Neutron, CBL/GR - TD to surface

Cores & DST's - none

#### Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0 - 320	Spud	8.4-8.9	40-50	no control
320 - 7350	LSND	8.4-9.0	40-60	8-12

Pit levels will be visually monitored to detect gain or loss of fluid control.

#### Casing Program:

Ousnig	Hole Size	Depth Interval	Csg. Size	<u>Wt.</u>	<u>Grade</u>
	12 ¼"	0' - 320'	8 5/8"	24.0#	J-55
	7 7/8"	0' - 7350'	4 ½"	11.6#	N-80
Tubing	Program:	0' – 7350'	2 3/8"	4.7#	J-55

# BOP Specifications, Wellhead and Tests:

# Surface to TD -

11" 3000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes. Drilling Spool may or may not be employed.

<sup>2&</sup>quot; nominal, 3000 psi minimum choke manifold (Reference Figure #2).

#### Completion Operations:

6" 3000 psi double gate BOP stack (Reference Figure #1). After nipple-up prior to completion, pipe rams and casing top will be tested to 3000 psi for 15 minutes.

#### Surface to Total Depth:

2" nominal, 3000 psi minimum choke manifold (Reference Figure #2).

#### Wellhead:

8 5/8" x 4 ½" x 1 ½" x 1 ½" x 3000 psi tree assembly.

#### General:

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper Kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- A BOP pit level drill will be conducted weekly for each drilling crew.
- All of the BOP tests and drills will be recorded in the daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

#### Cementing:

8 5/8" surface casing -

Cement to surface w/265 sx Class "G" cement w/3% calcium chloride and  $\frac{1}{4}$ /sx cellophane flakes (312 cu. ft. of slurry, 200% excess to circulate to surface).

WOC 8 hr. prior to drilling out surface casing. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

# Production Casing - 4 1/2"

Lead with 700 sx 65/35 Standard Poz w/6% gel, ¼# Flocele, 10# Gilsonite, 3/10% Halad 9, 1/10% HR5 (1.96 yld). Tail w/900 sx 50/50 Standard Poz w/35 Gel, 9/10% Halad9, 2/10% CFR 3, 5# Gilsonite, ¼# Flocele (1.47 yld).

#### Alternate Two-stage cement job as follows:

First Stage: Cement to circulate to stage tool @ 5066'. Lead with 700 sx Class "G" 50/50 poz (13#, 1.47 yd) w/3% gel, 0.25 pps Celloflake, 5 pps Gilsonite, 0.25 pps Fluid loss, 0.15% dispersant, 0.1% retarder. WOC 4 hours prior to pumping second stage. (Slurry volume: 1029 cu. ft. Excess slurry: 50%). DV Tool at 5000 ft.

Second Stage: Cement to circulate to surface. Cement with 700 sx Class "G" (12#, 2.9yd) TXI Liteweight cement w/2.5% sodium metasilicate, 2% calcium chloride, 10 pps Gilsonite, 0.5 pps Celloflake, 0.2% antifoam. WOC a minimum of 18 hours prior to cleanout. (Slurry volume: 1914 cu. ft. Excess slurry: 50%). Tail w/50 sx Class "B" w/1/4# Flocele (15.6#, 1.18 yd), (Slurry 59 cu. ft., Excess 50%).

Float shoe on bottom. Three centralizers run every other joint above shoe. Thirty-five centralizers - one every 4<sup>th</sup> joint to the base of the Ojo Alamo @ 2448'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 2448'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

# Additional Information:

The Dakota formations will be completed. If Dakota is non-commercial, Devils Fork Gallup will be completed.

- No abnormal temperatures or hazards are anticipated.
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The east half of the Section 33 is dedicated to this well.
- This gas is dedicated.
- Anticipated pore pressure

Fruitland Coal	300 psi
Pictured Cliffs	500 psi
Mesa Verde	700 psi
Dakota	3000 psi



# CEMENT TEST REPORT Halllburton Energy Services Farmington District Laboratory 4109 E. Main Farmington, NM 87499

To:

Randy Snyder

Halliburton Energy Services

Report: FLMM4071 Dale:

5-Feb-04

Company:

Mud Drilled

Total Depth: 400

BHST: 90 +/- deg F

BHCT: 80 +/-- deg F

All tests performed according to modified API RP Spec 10, 1997

Slurry: Surface

Thickening Time:

Free Water:

Settling:

Fluid Loss:

2:50 to 70 BC

0.00%

۵.00%

1.158

Design

100%

Standard Cement

2.00% .25 #/sk

CaCl2 Flocele

Surface Cement

Density: 15.6 lb/gal

Yield: 1.18 cuft/sk

Water: 5\_24 gal/sk

Compressive Strength

UCA @80 deg F (BHCT)- 3000 psi

Rheology

deg F	BD	
600	57	
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200	34	-  -  -  -  -  -  -  -
- ממר	25	
<b>6</b> 0	21	
30	18	· , , • · · .
<b>5</b>	12	
.3	10	
PV	25	
YP -	17	

	psi	time
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	<i>50</i> 0	4:30:00
1		10:03:00
1	1628	12:00:00
	2580	24:00:00
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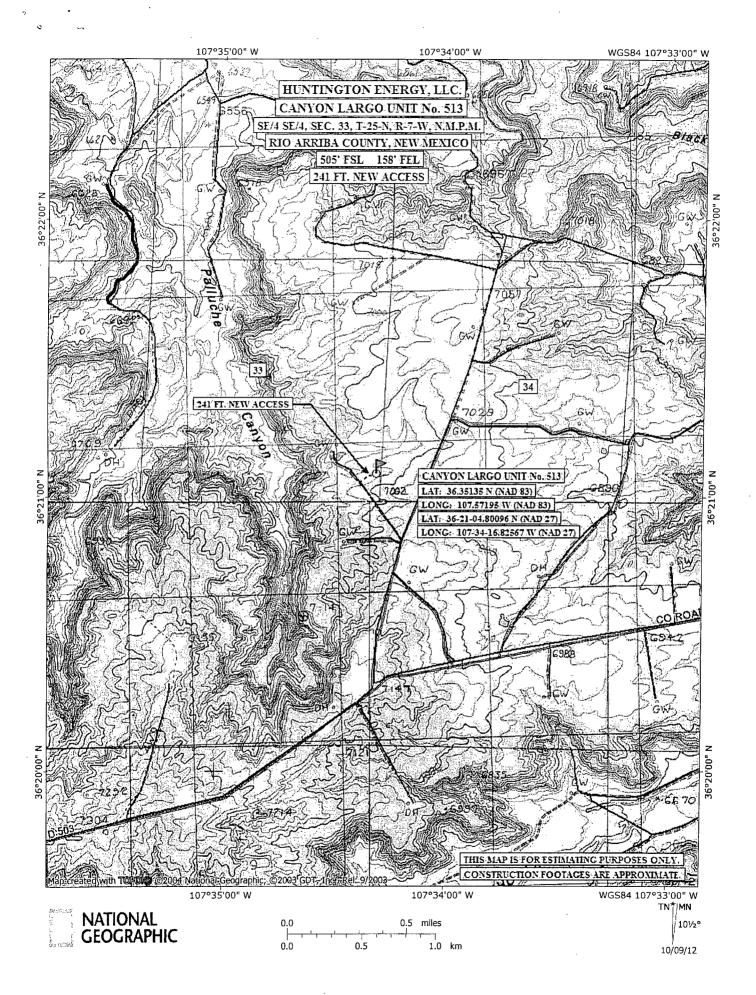
Bill Loughridge

Senior Scientist

Note: This report is for information and the content is limited to the sample described. Haliburton Energy Services makes no warrenties. express or implied, as to the accuracy of the contents or results. Any user of this report agrees Hallburton shall not be liable for any loss or damage, regardless of cause, including any act or omission of Hamourion, resulting from the use hereof.

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COMPANY COMPANY REF	Huntin Ron Lac Patterso		LLC			REP. TELE. # N/STATE	6/24/20 793-70 NM		
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Lead	ADDITIVES T	5% Gel - 1/4	## Flocel	e - 10# Gi	Isonite	- 3/10% Hal	ad 9 - 1/		
_	MIXED AT	<u> 12.4 L.</u>	BS/GAL TYPE	YIELD	1.96	WATER	9,46	GAL/SK	
•	SACKS_ ADDITIVES_							· · · · · · · · · · · · · · · · · · ·	
•	MIXED AT	LE	BS/GAL	YIELD_		WATER _		_GAL/SK	
Tail -	SACKS_	900	TYPE 5	50/50/Std/	Poz 4 CER 3	3 - 5# Gilsor	i <del>+</del>	<u> </u>	
	MIXED AT	13 LE	S/GAL	YIELD	1.47	WATER	5,37	GAL/SK	
	SACKS		TYPE_		•				
1	ADDITIVES _ MIXED AT _	LB	S/GAL	YIELD_		_WATER _		GALISK	
THIRD STAGE	SACKS_		TYPE_					•	
	ADDITIVES	18	S/GAL	YIELD		WATER		GAL/SK	
•	SACKS_		TYPE_					SALON	
	ADDITIVES _		S/GAL	YIELD	•	WATER	· · · · · · · · · · · · · · · · · · ·	GAL/SK	
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		JIDE SHOE DAT SHOE	·	1	TYPE TYPE	Trophy Sea	I- Auto		
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4-1/2	51 CF	AGE TOOL NTRALIZER	.s	23	TYPE TYPE	4 1/2X7 7/B	<del>T</del>	PINS	
THREAD:	W.	ALL CLEANE SERT FLOAT	ERS		TYPE LIMIT	T CLAMP!	<b>a</b> 1	VELD-A	
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# HUNTINGTON ENERGY, L.L.C. CANYON LARGO UNIT RIO ARRIBA CO., NM

# BOP STACK - 3000 PSI

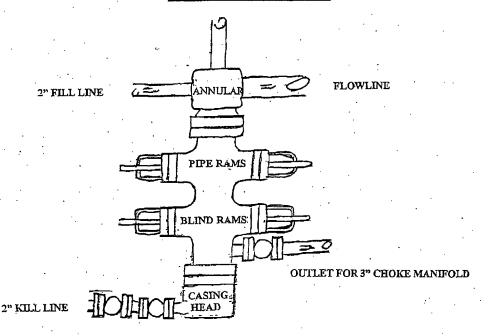


FIGURE 1

# CHOKE MANIFOLD - 3000 PSI

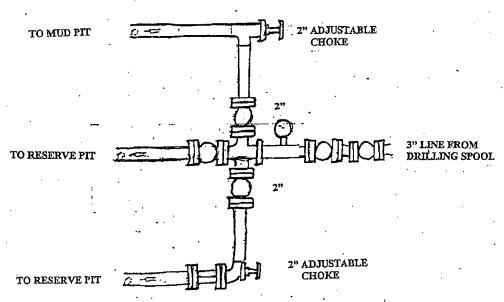


FIGURE 2