

**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form C-101  
August 1, 2011

Permit 330096

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

1. Operator Name and Address DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102		2. OGRID Number 6137
		3. API Number 30-025-50832
4. Property Code 330177	5. Property Name PARSELTONGUE 15 10 STATE COM	6. Well No. 032H

**7. Surface Location**

UL - Lot O	Section 15	Township 23S	Range 33E	Lot Idn O	Feet From 525	N/S Line S	Feet From 2446	E/W Line E	County Lea
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**8. Proposed Bottom Hole Location**

UL - Lot B	Section 10	Township 23S	Range 33E	Lot Idn B	Feet From 20	N/S Line N	Feet From 1640	E/W Line E	County Lea
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**9. Pool Information**

BELL LAKE;WOLFCAMP, NORTH	5170
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**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3719
16. Multiple N	17. Proposed Depth 22795	18. Formation Wolfcamp	19. Contractor	20. Spud Date 12/19/2022
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	13.5	10.75	40.5	1326	526	0
Int1	9.875	8.625	32	11995	1030	0
Prod	7.875	5.5	17	22795	1546	9995

**Casing/Cement Program: Additional Comments**

Please see attached drill plan for additional information.
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**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	
Annular	10000	10000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.	<b>OIL CONSERVATION DIVISION</b>	
Signature:		
Printed Name: Electronically filed by Jeff Walla	Approved By: Paul F Kautz	
Title: Supervisor Land	Title: Geologist	
Email Address: Jeff.Walla@dmn.com	Approved Date: 12/7/2022	Expiration Date: 12/7/2024
Date: 12/6/2022	Phone: 575-748-9925	Conditions of Approval Attached

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

**DISTRICT IV**  
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

☐ AMENDED REPORT

Certificate No. 22404	B.L. LAMAN
	DRAWN BY: CM

Intent ☒ As Drilled ☐

API #		
Operator Name: DEVON ENERGY PRODUCTION COMPANY, LP.	Property Name: PARSELTONGUE 15-10 STATE COM	Well Number 32H

## Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
O	15	23S	33E		71	SOUTH	1640	EAST	LEA
Latitude					Longitude				NAD
32.2976					-103.5571				83

## First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
O	15	23	33		100	SOUTH	1640	EAST	LEA
Latitude					Longitude				NAD
32.297735					103.556981				83

## Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
B	10	23	33		100	NORTH	1640	EAST	LEA
Latitude					Longitude				NAD
32.326221					103.556993				83

Is this well the defining well for the Horizontal Spacing Unit? ☐ NIs this well an infill well? ☐ Y

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API # 30-025-48469		
Operator Name: DEVON ENERGY PRODUCTION COMPANY, LP	Property Name: PARSELTONGUE 15-10 STATE COM	Well Number 24H

KZ 06/29/2018

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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form APD Conditions

Permit 330096

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: DEVON ENERGY PRODUCTION COMPANY, LP [6137] 333 West Sheridan Ave. Oklahoma City, OK 73102	API Number: 30-025-50832
	Well: PARSELTONGUE 15 10 STATE COM #032H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

## NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

### Section 1 – Plan Description

Effective May 25, 2021

**I. Operator:** Devon Energy Production Company, L.P. **OGRID:** 6137 **Date:** 12 /01 / 2022

**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: \_\_\_\_\_

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
See Attached						

**IV. Central Delivery Point Name:** North Thistle 15 CTB 2 [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
See Attached						

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

North Thistle 15 CTB 2									
Well Name	API	ULSTR	N/S Footage	Call	E/W Footage	Call	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Parseltongue 15-10 State Com 20H	30-025-48503	15-235-33E	480	FSL	1314	FWL	(+/-) 2049 BOPD	(+/-) 3215 MCFD	(+/-) 4011BWPD
Parseltongue 15-10 State Com 21H	30-025-48504	15-235-33E	480	FSL	1344	FWL	(+/-) 2049 BOPD	(+/-) 3215 MCFD	(+/-) 4011BWPD
Parseltongue 15-10 State Com 22H	30-025-48505	15-235-33E	480	FSL	1374	FWL	(+/-) 2049 BOPD	(+/-) 3215 MCFD	(+/-) 4011BWPD
Parseltongue 15-10 State Com 29H	30-025-49653	15-235-33E	480	FSL	1404	FWL	(+/-) 2049 BOPD	(+/-) 3215 MCFD	(+/-) 4011BWPD
Parseltongue 15-10 State Com 26H	30-025-48471	15-235-33E	418	FSL	2425	FWL	(+/-) 1261 BOPD	(+/-) 1395 MCFD	(+/-) 4677 BWPD
Parseltongue 15-10 State Com 27H	30-025-48472	15-235-33E	418	FSL	2455	FWL	(+/-) 1261 BOPD	(+/-) 1395 MCFD	(+/-) 4677 BWPD
Parseltongue 15-10 State Com 23H	30-025-48486	15-235-33E	560	FSL	665	FEL	(+/-) 2049 BOPD	(+/-) 3215 MCFD	(+/-) 4011BWPD
Parseltongue 15-10 State Com 24H	30-025-48487	15-235-33E	560	FSL	635	FEL	(+/-) 2049 BOPD	(+/-) 3215 MCFD	(+/-) 4011BWPD
Parseltongue 15-10 State Com 25H	30-025-48488	15-235-33E	560	FSL	605	FEL	(+/-) 2049 BOPD	(+/-) 3215 MCFD	(+/-) 4011BWPD
Parseltongue 15-10 State Com 30H		15-235-33E	560	FSL	695	FEL	(+/-) 2049 BOPD	(+/-) 3215 MCFD	(+/-) 4011BWPD
Parseltongue 15-10 State Com 31H		15-235-33E	525	FSL	2476	FEL	(+/-) 2049 BOPD	(+/-) 3215 MCFD	(+/-) 4011BWPD
Parseltongue 15-10 State Com 32H		15-235-33E	525	FSL	2446	FEL	(+/-) 2049 BOPD	(+/-) 3215 MCFD	(+/-) 4011BWPD

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Parseltongue 15-10 State Com 20H	30-025-48503	3/14/2022	4/13/2022	8/11/2022	8/11/2022	8/11/2022
Parseltongue 15-10 State Com 21H	30-025-48504	4/27/2022	5/27/2022	9/24/2022	9/24/2022	9/24/2022
Parseltongue 15-10 State Com 22H	30-025-48505	5/19/2022	6/18/2022	10/16/2022	10/16/2022	10/16/2022
Parseltongue 15-10 State Com 29H	30-025-49653	4/5/2022	5/5/2022	9/2/2022	9/2/2022	9/2/2022
Parseltongue 15-10 State Com 26H	30-025-48471	2/12/2023	3/14/2023	7/12/2023	7/12/2023	7/12/2023
Parseltongue 15-10 State Com 27H	30-025-48472	10/4/2023	11/3/2023	3/2/2024	3/2/2024	3/2/2024
Parseltongue 15-10 State Com 23H	30-025-48486	1/25/2023	2/24/2023	6/24/2023	6/24/2023	6/24/2023
Parseltongue 15-10 State Com 24H	30-025-48487	2/16/2023	3/18/2023	7/16/2023	7/16/2023	7/16/2023
Parseltongue 15-10 State Com 25H	30-025-48488	1/3/2023	2/2/2023	6/2/2023	6/2/2023	6/2/2023
Parseltongue 15-10 State Com 30H		12/28/2022	1/27/2023	5/27/2023	5/27/2023	5/27/2023
Parseltongue 15-10 State Com 31H		12/28/2022	1/27/2023	5/27/2023	5/27/2023	5/27/2023
Parseltongue 15-10 State Com 32H		12/28/2022	1/27/2023	5/27/2023	5/27/2023	5/27/2023

\* Dates are approximate and subject to change

**Section 2 – Enhanced Plan****EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

**IX. Anticipated Natural Gas Production:**

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

**X. Natural Gas Gathering System (NGGS):**

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

### **Section 3 - Certifications**

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

### **Section 4 - Notices**

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:


(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.



I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	
Printed Name:	Jeffrey Walla
Title:	Surface Land & Regulatory Manager
E-mail Address:	Jeff.Walla@dvn.com
Date:	12/01/2022
Phone:	405-552-8154
<b>OIL CONSERVATION DIVISION</b> (Only applicable when submitted as a standalone form)	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	



## VI. Separation Equipment

Devon Energy Production Company, L.P. utilizes a "stage separation" process in which oil and gas separation is carried out through a series of separators operating at successively reduced pressures. Hydrocarbon liquids are produced into a high-pressure inlet separator, then carried through one or more lower pressure separation vessels before entering the storage tanks. The purpose of this separation process is to attain maximum recovery of liquid hydrocarbons from the fluids and allow maximum capture of produced gas into the sales pipeline. Devon utilizes a series of Low-Pressure Compression units to capture gas off the staged separation and send it to the sales pipeline. This process minimizes the amount of flash gas that enters the end-stage storage tanks that is subsequently vented or flared.



## VII. Operational Practices

Devon Energy Production Company, L. P. will employ best management practices and control technologies to maximize the recovery and minimize waste of natural gas through venting and flaring.

- During drilling operations, Devon will utilize flares and/or combustors to capture and control natural gas, where technically feasible. If flaring is deemed technically in-feasible, Devon will employ best management practices to minimize or reduce venting to the extent possible.
- During completions operations, Devon will utilize Green Completion methods to capture gas produced during well completions that is otherwise vented or flared. If capture is technically in-feasible, flares and/or combustors will be used to capture and control flow back fluids entering into frac tanks during initial flowback. Upon indication of first measurable hydrocarbon volumes, Devon will turn operations to onsite separation vessels and flow to the gathering pipeline.
- During production operations, Devon will take every practical effort to minimize waste of natural gas through venting and flaring by:
  - Designing and constructing facilities in a manner consistent to achieve maximum capture and control of hydrocarbon liquids & produced gas
  - Utilizing a closed-loop capture system to collect and route produced gas to sales line via low pressure compression, or to a flare/combustor
  - Flaring in lieu of venting, where technically feasible
  - Utilizing auto-ignitors or continuous pilots, with thermocouples connected to Scada, to quickly detect and resolve issues related to malfunctioning flares/combustors
  - Employ the use of automatic tank gauging to minimize storage tank venting during loading events
  - Installing air-driven or electric-driven pneumatics & combustion engines, where technically feasible to minimize venting to the atmosphere
  - Confirm equipment is properly maintained and repaired through a preventative maintenance and repair program to ensure equipment meets all manufacturer specifications
  - Conduct and document AVO inspections on the frequency set forth in Part 27 to detect and repair any onsite leaks as quickly and efficiently as is feasible



#### VIII. Best Management Practices during Maintenance

Devon Energy Production Company, L.P. will utilize best management practices to minimize venting during active and planned maintenance activities. Devon is operating under guidance that production facilities permitted under NOI permits have no provisions to allow high pressure flaring and high pressure flaring is only allowed in disruption scenarios so long as the duration is less than eight hours. When technically feasible, flaring during maintenance activities will be utilized in lieu of venting to the atmosphere. Devon will work with third-party operators during scheduled maintenance of downstream pipeline or processing plants to address those events ahead of time to minimize venting. Actions considered include identifying alternative capture approaches or planning to temporarily reduce production or shut in the well to address these circumstances.

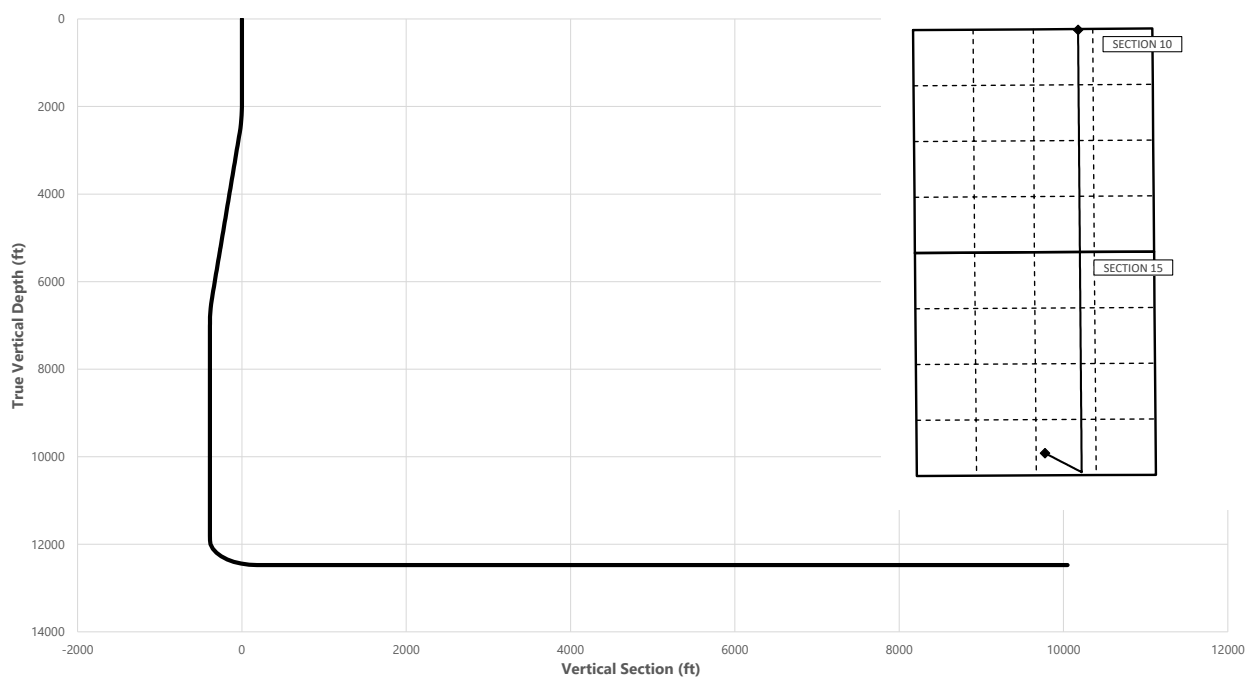
Parseltongue 15-10 State Com 32H



**Well:** Parseltongue 15-10 State Com 32H  
**County:** Lea  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

**Geodetic System:** US State Plane 1983  
**Datum:** North American Datum 1927  
**Ellipsoid:** Clarke 1866  
**Zone:** 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
2000.00	0.00	119.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2600.00	12.00	119.00	2595.62	-30.35	54.75	-26.29	2.00	Hold Tangent
6454.50	12.00	119.00	6365.89	-418.87	755.67	-362.87	0.00	Drop to Vertical
7054.50	0.00	119.00	6961.51	-449.22	810.42	-389.16	2.00	Hold Vertical
11995.03	0.00	359.56	11902.04	-449.22	810.42	-389.16	0.00	KOP
12895.03	90.00	359.56	12475.00	123.72	806.02	181.94	10.00	Landing Point
22794.60	90.00	359.56	12475.00	10023.00	730.00	10049.55	0.00	BHL



Key Depths	MD (ft)	TVD (ft)
Rustler	1301.00	1301.00
Salt	1816.00	1816.00
Base of Salt	5291.19	5228.00
Delaware	5357.64	5293.00
Cherry Canyon	7165.98	7073.00
Brushy Canyon	7866.98	7774.00
1st Bone Spring Lime	9215.98	9123.00
Bone Spring 1st	10360.98	10268.00
Bone Spring 2nd	10866.98	10774.00
3rd Bone Spring Lime	11451.98	11359.00
Bone Spring 3rd	12088.40	11995.00
Wolfcamp / Point of Penetration	12492.00	12339.00
exit	22714.60	12475.01

**SHL**  
**KOP**  
**Point of Penetration**  
**Exit**  
**BHL**

MD (ft)	TVD (ft)	Lat (°)	Long (°)	Section Footages
0.00	0.00	32.2988	-103.5597	525' FSL, 2446' FEL of Sec 15 in T23S, R33E
11995.03	11902.04	32.2976	-103.5571	71' FSL, 1640' FEL of Sec 15 in T23S, R33E
12492.00	12339.00	32.2977	-103.5570	100' FSL, 1640' FEL of Sec 15 in T23S, R33E
22714.60	12475.01	32.3262	-103.5570	100' FNL, 1640' FEL of Sec 10 in T23S, R33E
22794.60	12475.00	32.3263	-103.5571	20' FNL, 1640' FEL of Sec 10 in T23S, R33E

Parseltongue 15-10 State Com 32H



Well: Parseltongue 15-10 State Com 32H  
 County: Lea  
 Wellbore: Permit Plan  
 Design: Permit Plan #1

Geodetic System: US State Plane 1983  
 Datum: North American Datum 1927  
 Ellipsoid: Clarke 1866  
 Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	119.00	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	119.00	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	119.00	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	119.00	400.00	0.00	0.00	0.00	0.00	
500.00	0.00	119.00	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	119.00	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	119.00	700.00	0.00	0.00	0.00	0.00	
800.00	0.00	119.00	800.00	0.00	0.00	0.00	0.00	
900.00	0.00	119.00	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	119.00	1000.00	0.00	0.00	0.00	0.00	
1100.00	0.00	119.00	1100.00	0.00	0.00	0.00	0.00	
1200.00	0.00	119.00	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	119.00	1300.00	0.00	0.00	0.00	0.00	
1301.00	0.00	119.00	1301.00	0.00	0.00	0.00	0.00	Rustler
1400.00	0.00	119.00	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	119.00	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	119.00	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	119.00	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	119.00	1800.00	0.00	0.00	0.00	0.00	
1816.00	0.00	119.00	1816.00	0.00	0.00	0.00	0.00	Salt
1900.00	0.00	119.00	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	119.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	119.00	2099.98	-0.85	1.53	-0.73	2.00	
2200.00	4.00	119.00	2199.84	-3.38	6.10	-2.93	2.00	
2300.00	6.00	119.00	2299.45	-7.61	13.73	-6.59	2.00	
2400.00	8.00	119.00	2398.70	-13.52	24.38	-11.71	2.00	
2500.00	10.00	119.00	2497.47	-21.10	38.07	-18.28	2.00	
2600.00	12.00	119.00	2595.62	-30.35	54.75	-26.29	2.00	Hold Tangent
2700.00	12.00	119.00	2693.44	-40.43	72.94	-35.02	0.00	
2800.00	12.00	119.00	2791.25	-50.51	91.12	-43.76	0.00	
2900.00	12.00	119.00	2889.07	-60.59	109.31	-52.49	0.00	
3000.00	12.00	119.00	2986.88	-70.67	127.49	-61.22	0.00	
3100.00	12.00	119.00	3084.70	-80.75	145.68	-69.95	0.00	
3200.00	12.00	119.00	3182.51	-90.83	163.86	-78.69	0.00	
3300.00	12.00	119.00	3280.33	-100.91	182.04	-87.42	0.00	
3400.00	12.00	119.00	3378.14	-110.99	200.23	-96.15	0.00	
3500.00	12.00	119.00	3475.96	-121.07	218.41	-104.88	0.00	
3600.00	12.00	119.00	3573.77	-131.15	236.60	-113.61	0.00	
3700.00	12.00	119.00	3671.59	-141.23	254.78	-122.35	0.00	
3800.00	12.00	119.00	3769.40	-151.31	272.97	-131.08	0.00	
3900.00	12.00	119.00	3867.22	-161.39	291.15	-139.81	0.00	
4000.00	12.00	119.00	3965.03	-171.47	309.33	-148.54	0.00	
4100.00	12.00	119.00	4062.84	-181.55	327.52	-157.28	0.00	
4200.00	12.00	119.00	4160.66	-191.63	345.70	-166.01	0.00	
4300.00	12.00	119.00	4258.47	-201.71	363.89	-174.74	0.00	
4400.00	12.00	119.00	4356.29	-211.79	382.07	-183.47	0.00	
4500.00	12.00	119.00	4454.10	-221.86	400.26	-192.20	0.00	
4600.00	12.00	119.00	4551.92	-231.94	418.44	-200.94	0.00	
4700.00	12.00	119.00	4649.73	-242.02	436.63	-209.67	0.00	
4800.00	12.00	119.00	4747.55	-252.10	454.81	-218.40	0.00	
4900.00	12.00	119.00	4845.36	-262.18	472.99	-227.13	0.00	
5000.00	12.00	119.00	4943.18	-272.26	491.18	-235.86	0.00	
5100.00	12.00	119.00	5040.99	-282.34	509.36	-244.60	0.00	
5200.00	12.00	119.00	5138.81	-292.42	527.55	-253.33	0.00	
5291.19	12.00	119.00	5228.00	-301.61	544.13	-261.29	0.00	Base of Salt
5300.00	12.00	119.00	5236.62	-302.50	545.73	-262.06	0.00	
5357.64	12.00	119.00	5293.00	-308.31	556.21	-267.09	0.00	Delaware
5400.00	12.00	119.00	5334.44	-312.58	563.92	-270.79	0.00	
5500.00	12.00	119.00	5432.25	-322.66	582.10	-279.53	0.00	
5600.00	12.00	119.00	5530.07	-332.74	600.28	-288.26	0.00	
5700.00	12.00	119.00	5627.88	-342.82	618.47	-296.99	0.00	
5800.00	12.00	119.00	5725.70	-352.90	636.65	-305.72	0.00	
5900.00	12.00	119.00	5823.51	-362.98	654.84	-314.45	0.00	
6000.00	12.00	119.00	5921.33	-373.06	673.02	-323.19	0.00	
6100.00	12.00	119.00	6019.14	-383.14	691.21	-331.92	0.00	
6200.00	12.00	119.00	6116.95	-393.22	709.39	-340.65	0.00	
6300.00	12.00	119.00	6214.77	-403.30	727.58	-349.38	0.00	
6400.00	12.00	119.00	6312.58	-413.38	745.76	-358.11	0.00	
6454.50	12.00	119.00	6365.89	-418.87	755.67	-362.87	0.00	Drop to Vertical

Parseltongue 15-10 State Com 32H



**Well:** Parseltongue 15-10 State Com 32H  
**County:** Lea  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

**Geodetic System:** US State Plane 1983  
**Datum:** North American Datum 1927  
**Ellipsoid:** Clarke 1866  
**Zone:** 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
6500.00	11.09	119.00	6410.47	-423.29	763.63	-366.70	2.00	
6600.00	9.09	119.00	6508.92	-431.78	778.96	-374.06	2.00	
6700.00	7.09	119.00	6607.92	-438.60	791.26	-379.97	2.00	
6800.00	5.09	119.00	6707.35	-443.75	800.54	-384.42	2.00	
6900.00	3.09	119.00	6807.09	-447.21	806.78	-387.42	2.00	
7000.00	1.09	119.00	6907.02	-448.97	809.97	-388.95	2.00	
7054.50	0.00	119.00	6961.51	-449.22	810.42	-389.16	2.00	Hold Vertical
7100.00	0.00	359.56	7007.02	-449.22	810.42	-389.17	0.00	
7165.98	0.00	359.56	7073.00	-449.22	810.42	-389.17	0.00	Cherry Canyon
7200.00	0.00	359.56	7107.02	-449.22	810.42	-389.17	0.00	
7300.00	0.00	359.56	7207.02	-449.22	810.42	-389.17	0.00	
7400.00	0.00	359.56	7307.02	-449.22	810.42	-389.17	0.00	
7500.00	0.00	359.56	7407.02	-449.22	810.42	-389.17	0.00	
7600.00	0.00	359.56	7507.02	-449.22	810.42	-389.17	0.00	
7700.00	0.00	359.56	7607.02	-449.22	810.42	-389.17	0.00	
7800.00	0.00	359.56	7707.02	-449.22	810.42	-389.17	0.00	
7866.98	0.00	359.56	7774.00	-449.22	810.42	-389.17	0.00	Brushy Canyon
7900.00	0.00	359.56	7807.02	-449.22	810.42	-389.17	0.00	
8000.00	0.00	359.56	7907.02	-449.22	810.42	-389.17	0.00	
8100.00	0.00	359.56	8007.02	-449.22	810.42	-389.17	0.00	
8200.00	0.00	359.56	8107.02	-449.22	810.42	-389.17	0.00	
8300.00	0.00	359.56	8207.02	-449.22	810.42	-389.17	0.00	
8400.00	0.00	359.56	8307.02	-449.22	810.42	-389.17	0.00	
8500.00	0.00	359.56	8407.02	-449.22	810.42	-389.17	0.00	
8600.00	0.00	359.56	8507.02	-449.22	810.42	-389.17	0.00	
8700.00	0.00	359.56	8607.02	-449.22	810.42	-389.17	0.00	
8800.00	0.00	359.56	8707.02	-449.22	810.42	-389.17	0.00	
8900.00	0.00	359.56	8807.02	-449.22	810.42	-389.17	0.00	
9000.00	0.00	359.56	8907.02	-449.22	810.42	-389.17	0.00	
9100.00	0.00	359.56	9007.02	-449.22	810.42	-389.17	0.00	
9200.00	0.00	359.56	9107.02	-449.22	810.42	-389.17	0.00	
9215.98	0.00	359.56	9123.00	-449.22	810.42	-389.17	0.00	1st Bone Spring Lime
9300.00	0.00	359.56	9207.02	-449.22	810.42	-389.17	0.00	
9400.00	0.00	359.56	9307.02	-449.22	810.42	-389.17	0.00	
9500.00	0.00	359.56	9407.02	-449.22	810.42	-389.17	0.00	
9600.00	0.00	359.56	9507.02	-449.22	810.42	-389.17	0.00	
9700.00	0.00	359.56	9607.02	-449.22	810.42	-389.17	0.00	
9800.00	0.00	359.56	9707.02	-449.22	810.42	-389.17	0.00	
9900.00	0.00	359.56	9807.02	-449.22	810.42	-389.17	0.00	
10000.00	0.00	359.56	9907.02	-449.22	810.42	-389.17	0.00	
10100.00	0.00	359.56	10007.02	-449.22	810.42	-389.17	0.00	
10200.00	0.00	359.56	10107.02	-449.22	810.42	-389.17	0.00	
10300.00	0.00	359.56	10207.02	-449.22	810.42	-389.17	0.00	
10360.98	0.00	359.56	10268.00	-449.22	810.42	-389.17	0.00	Bone Spring 1st
10400.00	0.00	359.56	10307.02	-449.22	810.42	-389.17	0.00	
10500.00	0.00	359.56	10407.02	-449.22	810.42	-389.17	0.00	
10600.00	0.00	359.56	10507.02	-449.22	810.42	-389.17	0.00	
10700.00	0.00	359.56	10607.02	-449.22	810.42	-389.17	0.00	
10800.00	0.00	359.56	10707.02	-449.22	810.42	-389.17	0.00	
10866.98	0.00	359.56	10774.00	-449.22	810.42	-389.17	0.00	Bone Spring 2nd
10900.00	0.00	359.56	10807.02	-449.22	810.42	-389.17	0.00	
11000.00	0.00	359.56	10907.02	-449.22	810.42	-389.17	0.00	
11100.00	0.00	359.56	11007.02	-449.22	810.42	-389.17	0.00	
11200.00	0.00	359.56	11107.02	-449.22	810.42	-389.17	0.00	
11300.00	0.00	359.56	11207.02	-449.22	810.42	-389.17	0.00	
11400.00	0.00	359.56	11307.02	-449.22	810.42	-389.17	0.00	
11451.98	0.00	359.56	11359.00	-449.22	810.42	-389.17	0.00	3rd Bone Spring Lime
11500.00	0.00	359.56	11407.02	-449.22	810.42	-389.17	0.00	
11600.00	0.00	359.56	11507.02	-449.22	810.42	-389.17	0.00	
11700.00	0.00	359.56	11607.02	-449.22	810.42	-389.17	0.00	
11800.00	0.00	359.56	11707.02	-449.22	810.42	-389.17	0.00	
11900.00	0.00	359.56	11807.02	-449.22	810.42	-389.17	0.00	
11995.03	0.00	359.56	11902.04	-449.22	810.42	-389.16	0.00	KOP
12000.00	0.50	359.56	11907.02	-449.20	810.42	-389.15	10.00	
12088.40	9.34	359.56	11995.00	-441.63	810.36	-381.60	10.00	Bone Spring 3rd
12100.00	10.50	359.56	12006.43	-439.64	810.35	-379.61	10.00	
12200.00	20.50	359.56	12102.67	-412.95	810.14	-353.01	10.00	
12300.00	30.50	359.56	12192.82	-369.96	809.81	-310.16	10.00	
12400.00	40.50	359.56	12274.13	-311.97	809.37	-252.35	10.00	
12492.00	49.70	359.56	12339.00	-246.88	808.87	-187.47	10.00	Wolfcamp / Point of Penetration

Parseltongue 15-10 State Com 32H



**Well:** Parseltongue 15-10 State Com 32H  
**County:** Lea  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

**Geodetic System:** US State Plane 1983  
**Datum:** North American Datum 1927  
**Ellipsoid:** Clarke 1866  
**Zone:** 3001 - NM East (NAD83)

MD (ft)	INC (")	AZI (")	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
12500.00	50.50	359.56	12344.13	-240.74	808.82	-181.35	10.00	
12600.00	60.50	359.56	12400.71	-158.44	808.19	-99.31	10.00	
12700.00	70.50	359.56	12442.13	-67.56	807.49	-8.72	10.00	
12800.00	80.50	359.56	12467.14	29.13	806.75	87.65	10.00	
12895.03	90.00	359.56	12475.00	123.72	806.02	181.94	10.00	Landing Point
12900.00	90.00	359.56	12475.00	128.69	805.98	186.90	0.00	
13000.00	90.00	359.56	12475.00	228.69	805.22	286.58	0.00	
13100.00	90.00	359.56	12475.00	328.68	804.45	386.25	0.00	
13200.00	90.00	359.56	12475.00	428.68	803.68	485.93	0.00	
13300.00	90.00	359.56	12475.00	528.68	802.91	585.61	0.00	
13400.00	90.00	359.56	12475.00	628.68	802.14	685.28	0.00	
13500.00	90.00	359.56	12475.00	728.67	801.37	784.96	0.00	
13600.00	90.00	359.56	12475.00	828.67	800.61	884.64	0.00	
13700.00	90.00	359.56	12475.00	928.67	799.84	984.31	0.00	
13800.00	90.00	359.56	12475.00	1028.66	799.07	1083.99	0.00	
13900.00	90.00	359.56	12475.00	1128.66	798.30	1183.67	0.00	
14000.00	90.00	359.56	12475.00	1228.66	797.53	1283.35	0.00	
14100.00	90.00	359.56	12475.00	1328.66	796.76	1383.02	0.00	
14200.00	90.00	359.56	12475.00	1428.65	795.99	1482.70	0.00	
14300.00	90.00	359.56	12475.00	1528.65	795.23	1582.38	0.00	
14400.00	90.00	359.56	12475.00	1628.65	794.46	1682.05	0.00	
14500.00	90.00	359.56	12475.00	1728.64	793.69	1781.73	0.00	
14600.00	90.00	359.56	12475.00	1828.64	792.92	1881.41	0.00	
14700.00	90.00	359.56	12475.00	1928.64	792.15	1981.09	0.00	
14800.00	90.00	359.56	12475.00	2028.63	791.38	2080.76	0.00	
14900.00	90.00	359.56	12475.00	2128.63	790.61	2180.44	0.00	
15000.00	90.00	359.56	12475.00	2228.63	789.85	2280.12	0.00	
15100.00	90.00	359.56	12475.00	2328.63	789.08	2379.79	0.00	
15200.00	90.00	359.56	12475.00	2428.62	788.31	2479.47	0.00	
15300.00	90.00	359.56	12475.00	2528.62	787.54	2579.15	0.00	
15400.00	90.00	359.56	12475.00	2628.62	786.77	2678.82	0.00	
15500.00	90.00	359.56	12475.00	2728.61	786.00	2778.50	0.00	
15600.00	90.00	359.56	12475.00	2828.61	785.24	2878.18	0.00	
15700.00	90.00	359.56	12475.00	2928.61	784.47	2977.86	0.00	
15800.00	90.00	359.56	12475.00	3028.60	783.70	3077.53	0.00	
15900.00	90.00	359.56	12475.00	3128.60	782.93	3177.21	0.00	
16000.00	90.00	359.56	12475.00	3228.60	782.16	3276.89	0.00	
16100.00	90.00	359.56	12475.00	3328.60	781.39	3376.56	0.00	
16200.00	90.00	359.56	12475.00	3428.59	780.62	3476.24	0.00	
16300.00	90.00	359.56	12475.00	3528.59	779.86	3575.92	0.00	
16400.00	90.00	359.56	12475.00	3628.59	779.09	3675.59	0.00	
16500.00	90.00	359.56	12475.00	3728.58	778.32	3775.27	0.00	
16600.00	90.00	359.56	12475.01	3828.58	777.55	3874.95	0.00	
16700.00	90.00	359.56	12475.01	3928.58	776.78	3974.63	0.00	
16800.00	90.00	359.56	12475.01	4028.58	776.01	4074.30	0.00	
16900.00	90.00	359.56	12475.01	4128.57	775.25	4173.98	0.00	
17000.00	90.00	359.56	12475.01	4228.57	774.48	4273.66	0.00	
17100.00	90.00	359.56	12475.01	4328.57	773.71	4373.33	0.00	
17200.00	90.00	359.56	12475.01	4428.56	772.94	4473.01	0.00	
17300.00	90.00	359.56	12475.01	4528.56	772.17	4572.69	0.00	
17400.00	90.00	359.56	12475.01	4628.56	771.40	4672.37	0.00	
17500.00	90.00	359.56	12475.01	4728.55	770.63	4772.04	0.00	
17600.00	90.00	359.56	12475.01	4828.55	769.87	4871.72	0.00	
17700.00	90.00	359.56	12475.01	4928.55	769.10	4971.40	0.00	
17800.00	90.00	359.56	12475.01	5028.55	768.33	5071.07	0.00	
17900.00	90.00	359.56	12475.01	5128.54	767.56	5170.75	0.00	
18000.00	90.00	359.56	12475.01	5228.54	766.79	5270.43	0.00	
18100.00	90.00	359.56	12475.01	5328.54	766.02	5370.10	0.00	
18200.00	90.00	359.56	12475.01	5428.53	765.26	5469.78	0.00	
18300.00	90.00	359.56	12475.01	5528.53	764.49	5569.46	0.00	
18400.00	90.00	359.56	12475.01	5628.53	763.72	5669.14	0.00	
18500.00	90.00	359.56	12475.01	5728.53	762.95	5768.81	0.00	
18600.00	90.00	359.56	12475.01	5828.52	762.18	5868.49	0.00	
18700.00	90.00	359.56	12475.01	5928.52	761.41	5968.17	0.00	
18800.00	90.00	359.56	12475.01	6028.52	760.64	6067.84	0.00	
18900.00	90.00	359.56	12475.01	6128.51	759.88	6167.52	0.00	
19000.00	90.00	359.56	12475.01	6228.51	759.11	6267.20	0.00	
19100.00	90.00	359.56	12475.01	6328.51	758.34	6366.88	0.00	
19200.00	90.00	359.56	12475.01	6428.50	757.57	6466.55	0.00	
19300.00	90.00	359.56	12475.01	6528.50	756.80	6566.23	0.00	



Parseltongue 15-10 State Com 32H



**Well:** Parseltongue 15-10 State Com 32H  
**County:** Lea  
**Wellbore:** Permit Plan  
**Design:** Permit Plan #1

**Geodetic System:** US State Plane 1983  
**Datum:** North American Datum 1927  
**Ellipsoid:** Clarke 1866  
**Zone:** 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
19400.00	90.00	359.56	12475.01	6628.50	756.03	6665.91	0.00	
19500.00	90.00	359.56	12475.01	6728.50	755.27	6765.58	0.00	
19600.00	90.00	359.56	12475.01	6828.49	754.50	6865.26	0.00	
19700.00	90.00	359.56	12475.01	6928.49	753.73	6964.94	0.00	
19800.00	90.00	359.56	12475.01	7028.49	752.96	7064.61	0.00	
19900.00	90.00	359.56	12475.01	7128.48	752.19	7164.29	0.00	
20000.00	90.00	359.56	12475.01	7228.48	751.42	7263.97	0.00	
20100.00	90.00	359.56	12475.01	7328.48	750.65	7363.65	0.00	
20200.00	90.00	359.56	12475.01	7428.48	749.89	7463.32	0.00	
20300.00	90.00	359.56	12475.01	7528.47	749.12	7563.00	0.00	
20400.00	90.00	359.56	12475.01	7628.47	748.35	7662.68	0.00	
20500.00	90.00	359.56	12475.01	7728.47	747.58	7762.35	0.00	
20600.00	90.00	359.56	12475.01	7828.46	746.81	7862.03	0.00	
20700.00	90.00	359.56	12475.01	7928.46	746.04	7961.71	0.00	
20800.00	90.00	359.56	12475.01	8028.46	745.28	8061.38	0.00	
20900.00	90.00	359.56	12475.01	8128.45	744.51	8161.06	0.00	
21000.00	90.00	359.56	12475.01	8228.45	743.74	8260.74	0.00	
21100.00	90.00	359.56	12475.01	8328.45	742.97	8360.42	0.00	
21200.00	90.00	359.56	12475.01	8428.45	742.20	8460.09	0.00	
21300.00	90.00	359.56	12475.01	8528.44	741.43	8559.77	0.00	
21400.00	90.00	359.56	12475.01	8628.44	740.66	8659.45	0.00	
21500.00	90.00	359.56	12475.01	8728.44	739.90	8759.12	0.00	
21600.00	90.00	359.56	12475.01	8828.43	739.13	8858.80	0.00	
21700.00	90.00	359.56	12475.01	8928.43	738.36	8958.48	0.00	
21800.00	90.00	359.56	12475.01	9028.43	737.59	9058.16	0.00	
21900.00	90.00	359.56	12475.01	9128.42	736.82	9157.83	0.00	
22000.00	90.00	359.56	12475.01	9228.42	736.05	9257.51	0.00	
22100.00	90.00	359.56	12475.01	9328.42	735.29	9357.19	0.00	
22200.00	90.00	359.56	12475.01	9428.42	734.52	9456.86	0.00	
22300.00	90.00	359.56	12475.01	9528.41	733.75	9556.54	0.00	
22400.00	90.00	359.56	12475.01	9628.41	732.98	9656.22	0.00	
22500.00	90.00	359.56	12475.01	9728.41	732.21	9755.89	0.00	
22600.00	90.00	359.56	12475.01	9828.40	731.44	9855.57	0.00	
22700.00	90.00	359.56	12475.01	9928.40	730.67	9955.25	0.00	
22714.60	90.00	359.56	12475.01	9943.00	730.56	9969.80	0.00	exit
22794.60	90.00	359.56	12475.00	10023.00	730.00	10049.55	0.00	BHL

Parseltongue 15-10 State Com 32H

**Well:** Parseltongue 15-10 State Com 32H

**County:** Lea

**Wellbore:** Permit Plan

**Design:** Permit Plan #1

**Geodetic System:** US State Plane 1983

**Datum:** North American Datum 1927

**Ellipsoid:** Clarke 1866

**Zone:** 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	



**Devon Energy Center  
333 West Sheridan Avenue  
Oklahoma City, Oklahoma 73102-5015**

# **Hydrogen Sulfide (H<sub>2</sub>S) Contingency Plan**

**For**

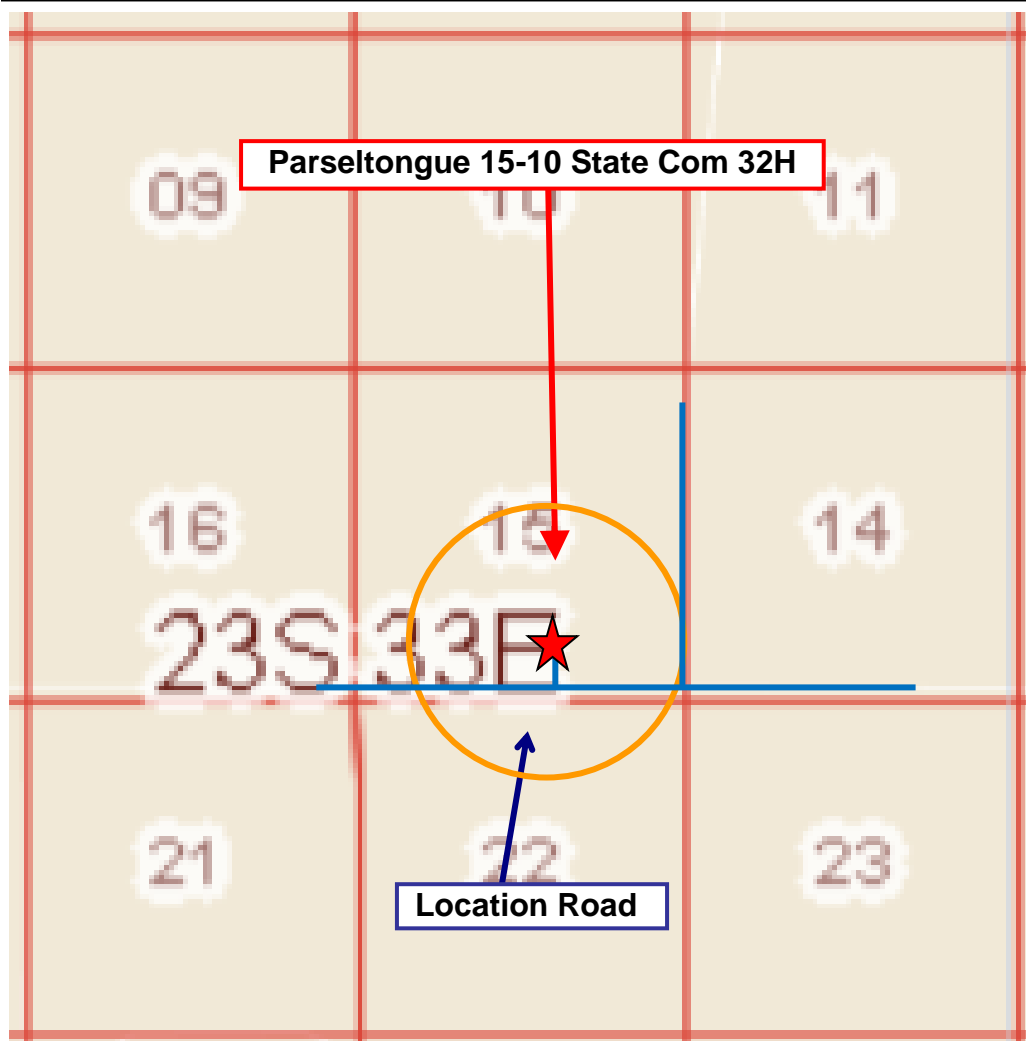
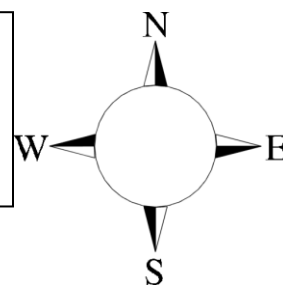
**Parseltongue 15-10 State Com 32H**

**Sec-15 T-23S R-33E  
525' FSL & 2446' FEL  
LAT. = 32.298907' N (NAD83)  
LONG = 103.559590' W**

**Lea County NM**

## Parseltongue 15-10 State Com 32H

This is an open drilling site. H<sub>2</sub>S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H<sub>2</sub>S, including warning signs, wind indicators and H<sub>2</sub>S monitor.



Assumed 100 ppm ROE = 3000' (Radius of Exposure)  
100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

### Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crews should then block the entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

**Assumed 100 ppm ROE = 3000'**

## 100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

### Emergency Procedures

In the event of a release of gas containing H<sub>2</sub>S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H<sub>2</sub>S monitors and air packs in order to control the release.
- Use the “buddy system” to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
  - Detection of H<sub>2</sub>S, and
  - Measures for protection against the gas,
  - Equipment used for protection and emergency response.

### **Ignition of Gas Source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

### **Characteristics of H<sub>2</sub>S and SO<sub>2</sub>**

<b>Common Name</b>	<b>Chemical Formula</b>	<b>Specific Gravity</b>	<b>Threshold Limit</b>	<b>Hazardous Limit</b>	<b>Lethal Concentration</b>
<b>Hydrogen Sulfide</b>	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
<b>Sulfur Dioxide</b>	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm

### **Contacting Authorities**

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

## Hydrogen Sulfide Drilling Operation Plan

### I. HYDROGEN SULFIDE (H<sub>2</sub>S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H<sub>2</sub>S metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan.

### II. HYDROGEN SULFIDE TRAINING

Note: All H<sub>2</sub>S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H<sub>2</sub>S.

**1. Well Control Equipment**

- A. Flare line
- B. Choke manifold – Remotely Operated
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer and rotating head.
- E. Mud/Gas Separator

**2. Protective equipment for essential personnel:**

30-minute SCBA units located at briefing areas, as indicated on well site diagram, with escape units available in the top doghouse. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

**3. H<sub>2</sub>S detection and monitoring equipment:**

Portable H<sub>2</sub>S monitors positioned on location for best coverage and response. These units have warning lights which activate when H<sub>2</sub>S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:

- Bell nipple
- Possum Belly/Shale shaker
- Rig floor
- Choke manifold
- Cellar

**Visual warning systems:**

- A. Wind direction indicators as shown on well site diagram
- B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

**4. Mud program:**

The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to surface. Proper mud weight, safe drilling practices and the use of H<sub>2</sub>S scavengers will minimize hazards when penetrating H<sub>2</sub>S bearing zones.

**5. Metallurgy:**

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H<sub>2</sub>S trim.
- B. All elastomers used for packing and seals shall be H<sub>2</sub>S trim.

**6. Communication:**

- A. Company personnel have/use cellular telephones in the field.
- B. Land line (telephone) communications at Office

**7. Well testing:**

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H<sub>2</sub>S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.



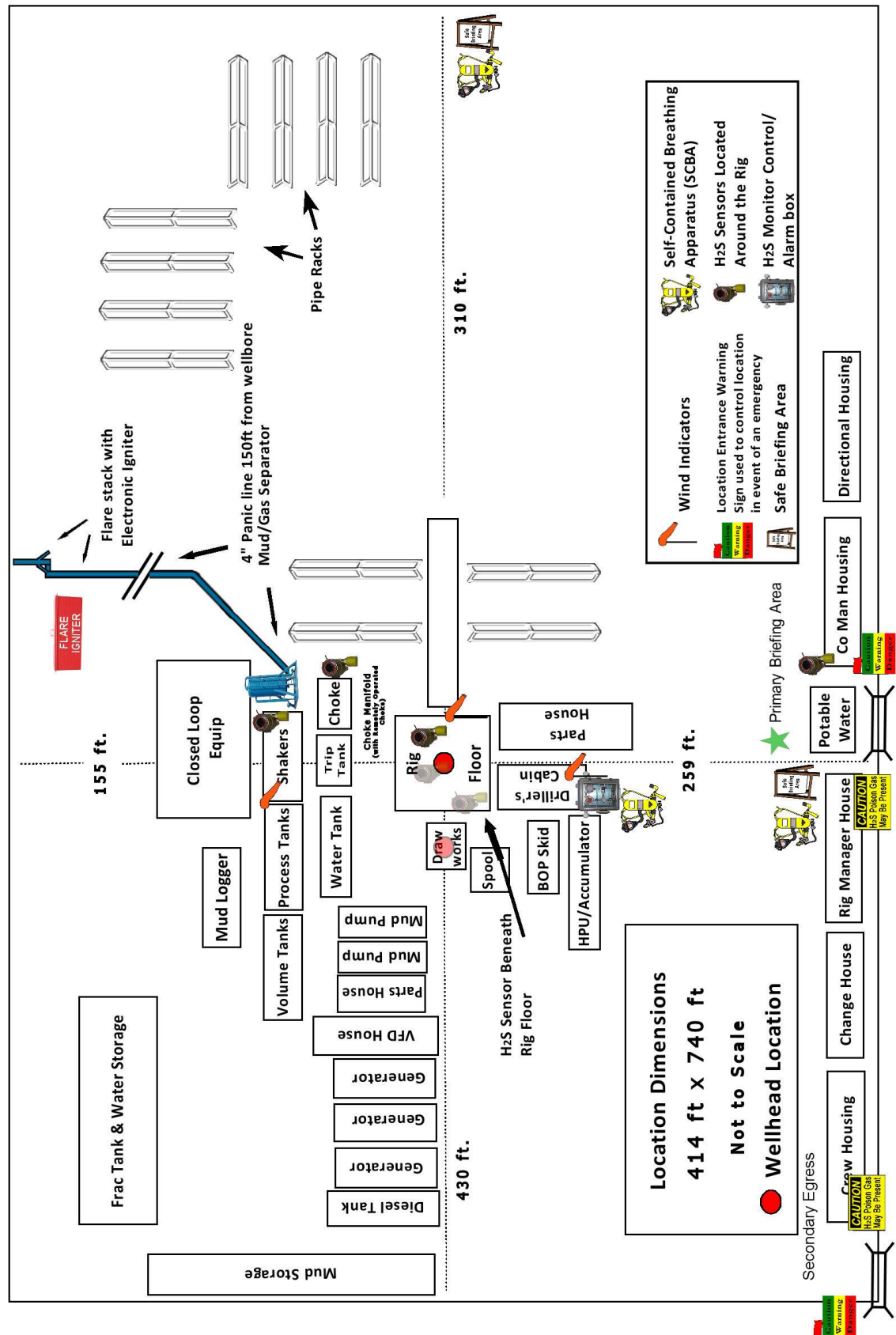
<b><u>Devon Energy Corp. Company Call List</u></b>			
<b>Employee/Company Contact Representative</b>	<b>Position</b>	<b>Phone Number</b>	<b>After Hours Number</b>
Jonathan Fisher (North)	Drilling Manager	832-967-7912	
Jason Hildebrand (South)	Drilling Manager	405-552-6514	
Rich Downey	Drilling VP	405-228-2415	
Josh Harvey	EHS Manger	405-228-2440	918-500-5536
Laura Wright	EHS Supervisor	405-552-5334	832-969-8145
Robert Glover	EHS Professional	575-703-5712	575-703-5712
Lane Frank	Lead EHS	580-579-7052	580-579-7052
Rickey Porter	Lead EHS	903-720-8315	903-720-8315
Brock Vise	Lead EHS	918-413-3291	918-413-3291
<b><u>Agency Call List</u></b>			
<b><u>Lea County (575)</u></b>	<b>Hobbs</b>		
	Lea County Communication Authority		397-9265
	State Police		885-3138
	City Police		397-9265
	Sheriff's Office		396-3611
	<b>Ambulance</b>		<b>911</b>
	Fire Department		397-9308
	LEPC (Local Emergency Planning Committee)		393-2870
	NMOCD		393-6161
	US Bureau of Land Management (Hobbs Office Closed)		393-0002
<b><u>Eddy County (575)</u></b>	<b>Carlsbad</b>		
	State Police		885-3137
	City Police		885-2111
	Sheriff's Office		887-7551
	<b>Ambulance</b>		<b>911</b>
	Fire Department		885-3125
	LEPC (Local Emergency Planning Committee)		887-3798
	<b>US Bureau of Land Management (Carlsbad)</b>		(575)-706-1920
			(575)-234-5909
	BLM – CFO		(575) 234-5972
	<b>BLM – PET Petroleum Engineering Tech. ON CALL – Cement Notifications or Emergency issues.</b>		<b>(575) 689-5981</b>
	NM Emergency Response Commission (Santa Fe)		(505) 476-9600
	24 HR		(505) 827-9126
	National Emergency Response Center		(800) 424-8802
	National Pollution Control Center: Direct		(703) 872-6000
	For Oil Spills		(800) 280-7118
	<b>Emergency Services</b>		
	Wild Well Control		(281) 784-4700
	Cudd Pressure Control	(915) 699-0139	(915) 563-3356
	Halliburton		(575) 746-2757
	B. J. Services		(575) 746-3569

<b>Give GPS position:</b>	Native Air – Emergency Helicopter – Hobbs	(575) 347-9836
	For Air Ambulance - <b>Eddy County</b> Dispatch	(575)-616-7155
	For Air Ambulance - <b>Lea County</b> (LCCA)	(575)-397-9265
	Poison Control (24/7)	(800) 222-1222
	Oil & Gas Pipeline 24 Hour Service	(800) 364-4366
	NOAA – Website - <a href="http://www.nhc.noaa.gov">www.nhc.noaa.gov</a>	
	National Pollution Control Center	202-795-6958
	NPCC – Oil Spills	800-280-7118
	BNSF Railroad Resource Operations	800-832-5452
	NM OSHA – Santa Fe	505-222-9595
		877-610-6742
		505-476-8700

Prepared in conjunction with  
Dave Small



# Devon Energy - Well Pad Rig Location Layout Safety Equipment Location





## Parseltongue 15-10 State Com 32H

**1. Geologic Formations**

TVD of target	12475	Pilot hole depth	N/A
MD at TD:	22795	Deepest expected fresh water	

**Basin**

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	1301		
Salt	1816		
Base of Salt	5228		
Delaware	5293		
Cherry Canyon	7073		
Brushy Canyon	7774		
1st Bone Spring Lime	9123		
Bone Spring 1st	10268		
Bone Spring 2nd	10774		
3rd Bone Spring Lime	11359		
Bone Spring 3rd	11995		
Wolfcamp	12339		

\*H2S, water flows, loss of circulation, abnormal pressures, etc.

## Parseltongue 15-10 State Com 32H

**2. Casing Program**

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Casing Interval		Casing Interval	
					From (MD)	To (MD)	From (TVD)	To (TVD)
13 1/2	10 3/4	40 1/2	H40	BTC	0	1326	0	1326
9 7/8	8 5/8	32	P110	Sprint FJ	0	11995	0	11995
7 7/8	5 1/2	17	P110	BTC	0	22795	0	12475

• All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for contingency casing.

**3. Cementing Program**

Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy canyon to surface.

If necessary, a top out consisting of 500 sacks of Class C cement will be executed as a contingency.

Devon will report to the BLM the volume of fluid (limited to 1 bbls) used to flush intermediate casing valves following backside cementing procedures. Devon will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program. Devon will report to the BLM the volume of fluid (limited to 1 bbls) used to flush intermediate casing valves following backside cementing procedures

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	526	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	550	Surf	13.0	2.3	2nd State: Bradenhead Squeeze - Lead: Class C Cement + additives
	480	7866	13.2	1.44	Tail: Class H / C + additives
Production	117	9995	9	3.27	Lead: Class H / C + additives
	1429	11995	13.2	1.44	Tail: Class H / C + additives

Casing String	% Excess
Surface	50%
Intermediate 1	30%
Prod	10%

## Parseltongue 15-10 State Com 32H

**4. Pressure Control Equipment (Three String Design)**

BOP installed and tested before drilling which hole?		Size?	Min. Required WP	Type	✓	Tested to:
Int 1	13-5/8"	5M	Annular		X	50% of rated working pressure
			Blind Ram		X	5M
			Pipe Ram			
			Double Ram		X	
			Other*			
Production	13-5/8"	10M	Annular (5M)		X	100% of rated working pressure
			Blind Ram		X	10M
			Pipe Ram			
			Double Ram		X	
			Other*			
			Annular (5M)			
			Blind Ram			
			Pipe Ram			
			Double Ram			
			Other*			
N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.					
Y	A variance is requested to run a 5 M annular on a 10M system					

## Parseltongue 15-10 State Com 32H

**5. Mud Program (Three String Design)**

Section	Type	Weight (ppg)
Surface	FW Gel	8.5-9
Intermediate	DBE / Cut Brine	10-10.5
Production	OBM	10-10.5

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

**6. Logging and Testing Procedures**

Logging, Coring and Testing	
X	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain.
	Coring? If yes, explain.

Additional logs planned		Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

**7. Drilling Conditions**

Condition	Specify what type and where?
BH pressure at deepest TVD	6811
Abnormal temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H<sub>2</sub>S) monitors will be installed prior to drilling out the surface shoe. If H<sub>2</sub>S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered measured values and formations will be provided to the BLM.

N	H <sub>2</sub> S is present
Y	H <sub>2</sub> S plan attached.



## Parseltongue 15-10 State Com 32H

**8. Other facets of operation**

Is this a walking operation? Potentially

- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the next well.
- 3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed from the pad until all wells have production casing run/cemented.

Will be pre-setting casing? Potentially

- 1 Spudder rig will move in and batch drill surface hole.
  - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.,
- 2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
- 3 The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
- 4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
- 5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pad.
- 6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 7 Drilling operations will be performed with drilling rig. At that time an approved BOP stack will be nipped up and tested on the wellhead before drilling operations commence on each well.
  - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments

X Directional Plan  
           Other, describe