

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**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.5. Lease Serial No.
NMNM105213

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
FULLY LOADED 12-1 FED COM 622H9. API Well No.
30-015-47578-00-X110. Field and Pool or Exploratory Area
PURPLE SAGE-WOLFCAMP (GAS)11. County or Parish, State
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

DEVON ENERGY PRODUCTION COMPANY

Contact: JENNY HARMS

E-mail: jennifer.harms@dev.com

3a. Address

6488 SEVEN RIVERS HIGHWAY
ARTESIA, NM 88210

3b. Phone No. (include area code)

Ph: 405-552-6560

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 12 T24S R29E SWNW 1656FNL 1243FWL
32.234875 N Lat, 103.942596 W Lon

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat 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.

SHL/BHL

Devon Energy Production Co., L.P. (Devon) respectfully requests to move the SHL/BHL Please see attached revised C102, Drill plan, directional plan.

Permitted SHL: SWNW 1656 FNL, 1243 FWL, 12-24S-29E
Proposed SHL: SWNW, 1656 FNL, 1273 FWL, 12-24S-29E

Permitted BHL: LOT 3, 20 FNL, 1650 FWL, 1-24S-29E
Proposed BHL: LOT 3, 20 FNL, 2310 FWL, 1-24S-29E

Accepted - KMS NMOCD

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #536398 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION COMPANY, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 11/04/2020 (21PP0459SE)**

Name (Printed/Typed) JENNY HARMS

Title REGULATORY COMPLIANCE ANALYST

Signature (Electronic Submission)

Date 11/04/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By CODY LAYTON

Title ASSIST FIELD MANAGER LANDS MINERALS

Date 11/13/2020

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 Carlsbad

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 ****

Revisions to Operator-Submitted EC Data for Sundry Notice #536398

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM105213	NMNM105213
Agreement:		
Operator:	DEVON ENERGY PRODUCTION CO LP 333 W SHERIDAN AVE OKLAHOMA CITY, OK 73102 Ph: 405-552-6560	DEVON ENERGY PRODUCTION COMPAN 6488 SEVEN RIVERS HIGHWAY ARTESIA, NM 88210 Ph: 575.748.3371
Admin Contact:	JENNY HARMS REGULATORY COMPLIANCE ANALYST E-Mail: jennifer.harms@dvn.com Ph: 405-552-6560	JENNY HARMS REGULATORY COMPLIANCE ANALYST E-Mail: jennifer.harms@dvn.com Ph: 405-552-6560
Tech Contact:	JENNY HARMS REGULATORY COMPLIANCE ANALYST E-Mail: jennifer.harms@dvn.com Ph: 405-552-6560	JENNY HARMS REGULATORY COMPLIANCE ANALYST E-Mail: jennifer.harms@dvn.com Ph: 405-552-6560
Location:		
State:	NM	NM
County:	EDDY	EDDY
Field/Pool:	PURPLE SAGE; WOLFCAMP	PURPLE SAGE-WOLFCAMP (GAS)
Well/Facility:	FULLY LOADED 12-1 FED COM 622H Sec 12 T24S R29E 1656FNL 1243FWL	FULLY LOADED 12-1 FED COM 622H Sec 12 T24S R29E SWNW 1656FNL 1243FWL 32.234875 N Lat, 103.942596 W Lon

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011

Submit one copy to
appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-47578	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP (GAS)
⁴ Property Code	⁵ Property Name FULLY LOADED 12-1 FED COM	⁶ Well Number 622H
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	⁹ Elevation 3101.2'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	12	24-S	29-E		1656	NORTH	1273	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 3	1	24-S	29-E		20	NORTH	2310	WEST	EDDY

¹² Dedicated Acres 479.33	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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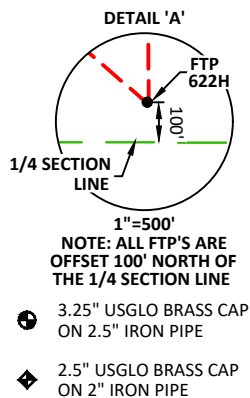
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

**¹⁶ FULLY LOADED
12-1 FED COM 622H**
ELEV: 3101.2'
LAT: 32.234872°
LON: -103.942500°
N: 449399.97
E: 662181.73

FIRST TAKE POINT
LAT: 32.232384°
LON: -103.939145°
N: 448498.58
E: 663222.42

LAST TAKE POINT
LAT: 32.253682°
LON: -103.939260°
N: 456246.43
E: 663158.36

BOTTOM HOLE LOCATION
LAT: 32.253902°
LON: -103.939261°
N: 456326.41
E: 663157.67



NOTES:

- BEARINGS SHOWN ARE GRID BASED ON THE NEW MEXICO STATE PLANE EAST ZONE COORDINATE SYSTEM (3001), NAD 83 (2011), BASED FROM GPS OBSERVATIONS, OCCUPYING A WHS CONTROL POINT (5/8" REBAR), LOCATED AT NORTH: 457834.965, EAST: 670241.029, ELEVATION: 2306.69, DETERMINED BY AN OPUS SOLUTION ON DECEMBER 3RD, 2018.
- DISTANCES DEPICTED HEREON ARE REPORTED AS GROUND DISTANCE IN US SURVEY FEET USING A COMBINED SCALE FACTOR OF 1.000221019
- ELEVATIONS ARE OF NAVD 88 COMPUTED USING GEIOD 12B.

¹⁷ OPERATOR CERTIFICATION

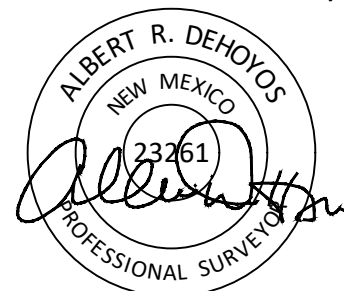
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jenny Harms 11-4-2020
Signature Date
JENNY HARMS
Printed Name
JENNY.HARMS@DVN.COM
E-mail Address

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

10/19/2020
Date of Survey
Signature and Seal of Professional Surveyor:



Certificate No. 23261 Albert Dehoyos
Drawn by: JSP Checked by: ARD Date: 10/16/2020

Intent ☒As Drilled ☐

API #

30-015-47578

Operator Name:

DEVON ENERGY PRODUCTION COMPANY, L.P.

Property Name:

FULLY LOADED 12-1 FED COM

Well Number

622H

Kick Off Point (KOP)

UL	Section 12	Township 24S	Range 32E	Lot	Feet 2595 FNL	From N/S	Feet 2310 FWL	From E/W	County EDDY
Latitude 32.23217817					Longitude -103.93914490			NAD 83	

First Take Point (FTP)

UL F	Section 12	Township 24-S	Range 29-E	Lot	Feet 2554	From N/S NORTH	Feet 2310	From E/W WEST	County EDDY
Latitude 32.232384°					Longitude -103.939145°			NAD 83	

Last Take Point (LTP)

UL 3	Section 1	Township 24-S	Range 29-E	Lot	Feet 100	From N/S NORTH	Feet 2310	From E/W WEST	County EDDY
Latitude 32.253682°					Longitude -103.939260°			NAD 83	

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

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

API #

Operator Name:

Property Name:

Well Number

KZ 06/29/2018

1. Geologic Formations

TVD of target	10461	Pilot hole depth	N/A
MD at TD:	18223	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	358		
Salt	593		
Base of Salt	3093		
Lamar	3093		
Bell Canyon	3328		
Cherry Canyon	4188		
Brushy Canyon	5768		
1st Bone Spring Lime	7008		
1st Bone Spring Sand	8043		
Bone Spring 2nd	8718		
3rd Bone Spring Lime	9168		
Bone Spring 3rd	9963		
Wolfcamp	10310		

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

2. Casing Program (Primary Design)

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Casing Interval		Casing Interval	
					From (MD)	To (MD)	From (TVD)	To (TVD)
17 1/2	13 3/8	48	H40	STC	0	383	0	383
9 7/8	8 5/8	32	P110	TLW	0	9963	0	9963
7 7/8	5 1/2	17	P110	BTC	0	18223	0	10461

• 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 (Primary Design)

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	316	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	336	Surf	9	3.27	Lead: Class C Cement + additives
	465	4000' above	13.2	1.44	Tail: Class H / C + additives
Int 1 Intermediate Squeeze	As Needed	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
	336	Surf	9	3.27	Lead: Class C Cement + additives
	465	4000' above	13.2	1.44	Tail: Class H / C + additives
Production	117	8027	9	3.27	Lead: Class H / C + additives
	1085	10027	13.2	1.44	Tail: Class H / C + additives

Casing String	% Excess
Surface	50%
Intermediate 1	30%
Intermediate 1 (Two Stage)	25%
Prod	10%

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"	5M	Annular (5M)		X	50% of rated working pressure
				Blind Ram		X	5M
				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						

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
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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	5712
Abnormal temperature	No

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

Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S 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 ₂ S is present
Y	H ₂ S plan attached.

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 pa.
- 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. A that time an approved BOP stack will be nipped up and tested on the wellhead before drilling operations commences 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

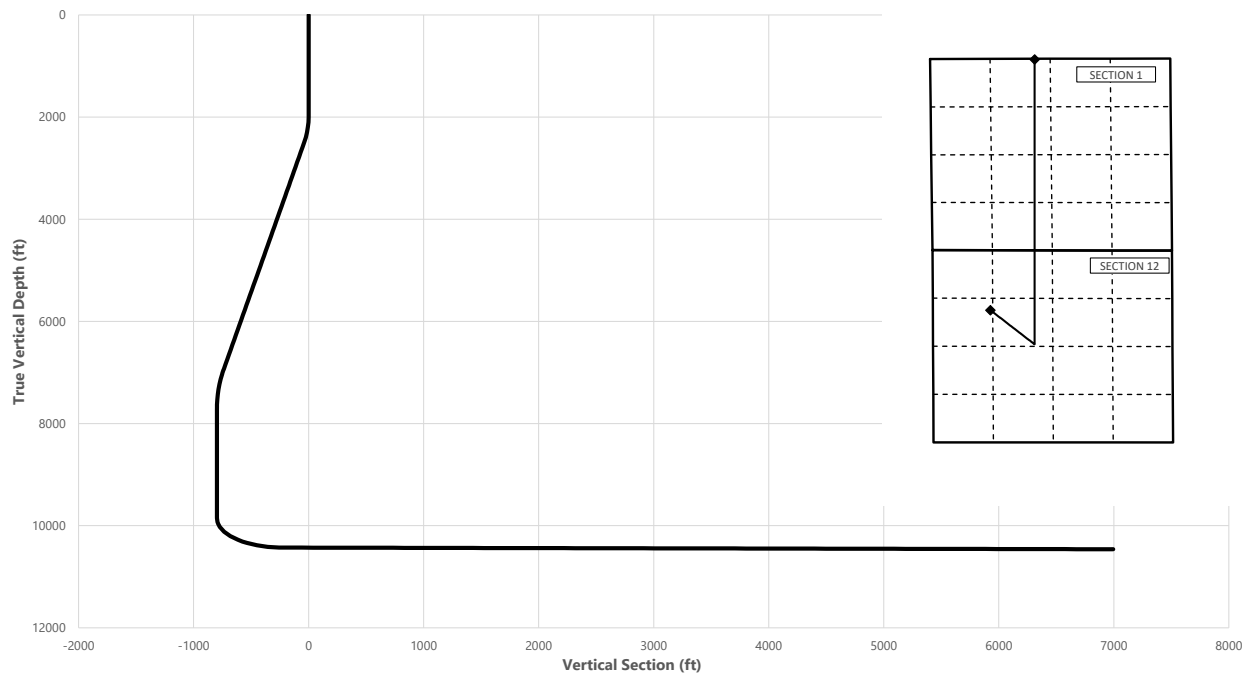
<u>X</u>	Directional Plan
<u> </u>	Other, describe



Well: FULLY LOADED 12-1 FED COM 622H
County: Eddy
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	134.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2500.00	15.00	134.00	2494.31	-45.21	46.81	-38.23	1.00	Hold Tangent
7113.35	15.00	134.00	6950.47	-874.65	905.72	-739.72	0.00	Drop to Vertical
7863.35	0.00	134.00	7691.93	-942.45	975.94	-797.07	2.00	Hold Vertical
10027.47	0.00	0.00	9856.05	-942.45	975.94	-797.07	0.00	KOP
10924.96	89.75	0.00	10429.00	-372.01	975.94	-232.20	10.00	Landing Point
18223.48	89.75	0.00	10461.00	6926.44	975.94	6994.86	0.00	BHL



Key Depths	MD (ft)	TVD (ft)
Rustler	0.00	0.00
Salt	593.00	593.00
Base of Salt	3119.81	3093.00
Lamar	3119.81	3093.00
Bell Canyon	3363.10	3328.00
Cherry Canyon	4253.44	4188.00
Brushy Canyon	5889.18	5768.00
1st Bone Spring Lime	7172.76	7008.00
1st Bone Spring Sand	8214.43	8043.00
Bone Spring 2nd	8889.43	8718.00
3rd Bone Spring Lime	9339.43	9168.00
Bone Spring 3rd	10135.06	9963.00
Wolfcamp / Point of Penetration	10551.48	10310.00
EXIT	18143.48	10460.66

SHL
KOP
Point of Penetration
Exit
BHL

MD (ft)	TVD (ft)	Lat (°)	Long (°)	Section Footages
0.00	0.00	32.2348	-103.9426	1656' FNL, 1273' FWL of Sec 12 in T24S, R29E
10027.47	9856.05	32.2322	-103.9394	2595' FNL, 2310' FWL of Sec 12 in T24S, R29E
10551.48	10310.00	32.2324	-103.9391	2554' FNL, 2310' FWL of Sec 12 in T24S, R29E
18143.48	10460.66	32.2537	-103.9393	100' FNL, 2310' FWL of Sec 1 in T24S, R29E
18223.48	10461.00	32.2538	-103.9393	20' FNL, 2310' FWL of Sec 1 in T24S, R29E



Well: FULLY LOADED 12-1 FED COM 622H
County: Eddy
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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	134.00	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	134.00	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	134.00	300.00	0.00	0.00	0.00	0.00	
358.00	0.00	134.00	358.00	0.00	0.00	0.00	0.00	Rustler
400.00	0.00	134.00	400.00	0.00	0.00	0.00	0.00	
500.00	0.00	134.00	500.00	0.00	0.00	0.00	0.00	
593.00	0.00	134.00	593.00	0.00	0.00	0.00	0.00	Salt
600.00	0.00	134.00	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	134.00	700.00	0.00	0.00	0.00	0.00	
800.00	0.00	134.00	800.00	0.00	0.00	0.00	0.00	
900.00	0.00	134.00	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	134.00	1000.00	0.00	0.00	0.00	0.00	
1100.00	0.00	134.00	1100.00	0.00	0.00	0.00	0.00	
1200.00	0.00	134.00	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	134.00	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	134.00	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	134.00	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	134.00	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	134.00	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	134.00	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	134.00	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	134.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	3.00	134.00	2099.95	-1.82	1.88	-1.54	3.00	
2200.00	6.00	134.00	2199.63	-7.27	7.53	-6.15	3.00	
2300.00	9.00	134.00	2298.77	-16.33	16.91	-13.81	3.00	
2400.00	12.00	134.00	2397.08	-28.99	30.02	-24.52	3.00	
2500.00	15.00	134.00	2494.31	-45.21	46.81	-38.23	1.00	Hold Tangent
2600.00	15.00	134.00	2590.90	-63.19	65.43	-53.44	0.00	
2700.00	15.00	134.00	2687.49	-81.16	84.05	-68.64	0.00	
2800.00	15.00	134.00	2784.09	-99.14	102.67	-83.85	0.00	
2900.00	15.00	134.00	2880.68	-117.12	121.28	-99.05	0.00	
3000.00	15.00	134.00	2977.27	-135.10	139.90	-114.26	0.00	
3100.00	15.00	134.00	3073.86	-153.08	158.52	-129.47	0.00	
3119.81	15.00	134.00	3093.00	-156.64	162.21	-132.48	0.00	Base of Salt, Lamar
3200.00	15.00	134.00	3170.46	-171.06	177.14	-144.67	0.00	
3300.00	15.00	134.00	3267.05	-189.04	195.76	-159.88	0.00	
3363.10	15.00	134.00	3328.00	-200.38	207.50	-169.47	0.00	Bell Canyon
3400.00	15.00	134.00	3363.64	-207.02	214.37	-175.08	0.00	
3500.00	15.00	134.00	3460.23	-225.00	232.99	-190.29	0.00	
3600.00	15.00	134.00	3556.83	-242.98	251.61	-205.49	0.00	
3700.00	15.00	134.00	3653.42	-260.95	270.23	-220.70	0.00	
3800.00	15.00	134.00	3750.01	-278.93	288.85	-235.90	0.00	
3900.00	15.00	134.00	3846.60	-296.91	307.46	-251.11	0.00	
4000.00	15.00	134.00	3943.20	-314.89	326.08	-266.32	0.00	
4100.00	15.00	134.00	4039.79	-332.87	344.70	-281.52	0.00	
4200.00	15.00	134.00	4136.38	-350.85	363.32	-296.73	0.00	
4253.44	15.00	134.00	4188.00	-360.46	373.27	-304.85	0.00	Cherry Canyon
4300.00	15.00	134.00	4232.97	-368.83	381.93	-311.93	0.00	
4400.00	15.00	134.00	4329.57	-386.81	400.55	-327.14	0.00	
4500.00	15.00	134.00	4426.16	-404.79	419.17	-342.34	0.00	
4600.00	15.00	134.00	4522.75	-422.77	437.79	-357.55	0.00	
4700.00	15.00	134.00	4619.34	-440.74	456.41	-372.75	0.00	
4800.00	15.00	134.00	4715.94	-458.72	475.02	-387.96	0.00	
4900.00	15.00	134.00	4812.53	-476.70	493.64	-403.17	0.00	
5000.00	15.00	134.00	4909.12	-494.68	512.26	-418.37	0.00	
5100.00	15.00	134.00	5005.72	-512.66	530.88	-433.58	0.00	
5200.00	15.00	134.00	5102.31	-530.64	549.50	-448.78	0.00	
5300.00	15.00	134.00	5198.90	-548.62	568.11	-463.99	0.00	
5400.00	15.00	134.00	5295.49	-566.60	586.73	-479.19	0.00	
5500.00	15.00	134.00	5392.09	-584.58	605.35	-494.40	0.00	
5600.00	15.00	134.00	5488.68	-602.56	623.97	-509.60	0.00	
5700.00	15.00	134.00	5585.27	-620.54	642.59	-524.81	0.00	
5800.00	15.00	134.00	5681.86	-638.51	661.20	-540.02	0.00	
5889.18	15.00	134.00	5768.00	-654.55	677.81	-553.57	0.00	Brushy Canyon
5900.00	15.00	134.00	5778.46	-656.49	679.82	-555.22	0.00	
6000.00	15.00	134.00	5875.05	-674.47	698.44	-570.43	0.00	
6100.00	15.00	134.00	5971.64	-692.45	717.06	-585.63	0.00	
6200.00	15.00	134.00	6068.23	-710.43	735.67	-600.84	0.00	
6300.00	15.00	134.00	6164.83	-728.41	754.29	-616.04	0.00	



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Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
6400.00	15.00	134.00	6261.42	-746.39	772.91	-631.25	0.00	
6500.00	15.00	134.00	6358.01	-764.37	791.53	-646.45	0.00	
6600.00	15.00	134.00	6454.60	-782.35	810.15	-661.66	0.00	
6700.00	15.00	134.00	6551.20	-800.33	828.76	-676.86	0.00	
6800.00	15.00	134.00	6647.79	-818.30	847.38	-692.07	0.00	
6900.00	15.00	134.00	6744.38	-836.28	866.00	-707.28	0.00	
7000.00	15.00	134.00	6840.97	-854.26	884.62	-722.48	0.00	
7100.00	15.00	134.00	6937.57	-872.24	903.24	-737.69	0.00	
7113.35	15.00	134.00	6950.47	-874.65	905.72	-739.72	0.00	Drop to Vertical
7172.76	13.81	134.00	7008.00	-884.91	916.35	-748.40	2.00	1st Bone Spring Lime
7200.00	13.27	134.00	7034.49	-889.34	920.94	-752.15	2.00	
7300.00	11.27	134.00	7132.20	-904.10	936.22	-764.63	2.00	
7400.00	9.27	134.00	7230.59	-916.48	949.04	-775.10	2.00	
7500.00	7.27	134.00	7329.55	-926.47	959.39	-783.55	2.00	
7600.00	5.27	134.00	7428.94	-934.05	967.24	-789.96	2.00	
7700.00	3.27	134.00	7528.66	-939.22	972.59	-794.33	2.00	
7800.00	1.27	134.00	7628.58	-941.97	975.44	-796.66	2.00	
7863.35	0.00	134.00	7691.93	-942.45	975.94	-797.07	2.00	Hold Vertical
7900.00	0.00	0.00	7728.57	-942.45	975.94	-797.07	0.00	
8000.00	0.00	0.00	7828.57	-942.45	975.94	-797.07	0.00	
8100.00	0.00	0.00	7928.57	-942.45	975.94	-797.07	0.00	
8200.00	0.00	0.00	8028.57	-942.45	975.94	-797.07	0.00	
8214.43	0.00	0.00	8043.00	-942.45	975.94	-797.07	0.00	1st Bone Spring Sand
8300.00	0.00	0.00	8128.57	-942.45	975.94	-797.07	0.00	
8400.00	0.00	0.00	8228.57	-942.45	975.94	-797.07	0.00	
8500.00	0.00	0.00	8328.57	-942.45	975.94	-797.07	0.00	
8600.00	0.00	0.00	8428.57	-942.45	975.94	-797.07	0.00	
8700.00	0.00	0.00	8528.57	-942.45	975.94	-797.07	0.00	
8800.00	0.00	0.00	8628.57	-942.45	975.94	-797.07	0.00	
8889.43	0.00	0.00	8718.00	-942.45	975.94	-797.07	0.00	Bone Spring 2nd
8900.00	0.00	0.00	8728.57	-942.45	975.94	-797.07	0.00	
9000.00	0.00	0.00	8828.57	-942.45	975.94	-797.07	0.00	
9100.00	0.00	0.00	8928.57	-942.45	975.94	-797.07	0.00	
9200.00	0.00	0.00	9028.57	-942.45	975.94	-797.07	0.00	
9300.00	0.00	0.00	9128.57	-942.45	975.94	-797.07	0.00	
9339.43	0.00	0.00	9168.00	-942.45	975.94	-797.07	0.00	3rd Bone Spring Lime
9400.00	0.00	0.00	9228.57	-942.45	975.94	-797.07	0.00	
9500.00	0.00	0.00	9328.57	-942.45	975.94	-797.07	0.00	
9600.00	0.00	0.00	9428.57	-942.45	975.94	-797.07	0.00	
9700.00	0.00	0.00	9528.57	-942.45	975.94	-797.07	0.00	
9800.00	0.00	0.00	9628.57	-942.45	975.94	-797.07	0.00	
9900.00	0.00	0.00	9728.57	-942.45	975.94	-797.07	0.00	
10000.00	0.00	0.00	9828.57	-942.45	975.94	-797.07	0.00	
10027.47	0.00	0.00	9856.05	-942.45	975.94	-797.07	0.00	KOP
10100.00	7.25	0.00	9928.38	-937.87	975.94	-792.53	10.00	
10135.06	10.76	0.00	9963.00	-932.38	975.94	-787.10	10.00	Bone Spring 3rd
10200.00	17.25	0.00	10025.98	-916.67	975.94	-771.54	10.00	
10300.00	27.25	0.00	10118.41	-878.85	975.94	-734.09	10.00	
10400.00	37.25	0.00	10202.88	-825.56	975.94	-681.31	10.00	
10500.00	47.25	0.00	10276.80	-758.40	975.94	-614.82	10.00	
10551.48	52.40	0.00	10310.00	-719.08	975.94	-575.88	10.00	Wolfcamp / Point of Penetration
10600.00	57.25	0.00	10337.94	-679.43	975.94	-536.62	10.00	
10700.00	67.25	0.00	10384.44	-591.04	975.94	-449.09	10.00	
10800.00	77.25	0.00	10414.88	-495.92	975.94	-354.90	10.00	
10900.00	87.25	0.00	10428.35	-396.96	975.94	-256.91	10.00	
10924.96	89.75	0.00	10429.00	-372.01	975.94	-232.20	10.00	Landing Point
11000.00	89.75	0.00	10429.33	-296.97	975.94	-157.90	0.00	
11100.00	89.75	0.00	10429.77	-196.97	975.94	-58.88	0.00	
11200.00	89.75	0.00	10430.21	-96.97	975.94	40.14	0.00	
11300.00	89.75	0.00	10430.64	3.03	975.94	139.16	0.00	
11400.00	89.75	0.00	10431.08	103.03	975.94	238.18	0.00	
11500.00	89.75	0.00	10431.52	203.02	975.94	337.21	0.00	
11600.00	89.75	0.00	10431.96	303.02	975.94	436.23	0.00	
11700.00	89.75	0.00	10432.40	403.02	975.94	535.25	0.00	
11800.00	89.75	0.00	10432.84	503.02	975.94	634.27	0.00	
11900.00	89.75	0.00	10433.28	603.02	975.94	733.29	0.00	
12000.00	89.75	0.00	10433.71	703.02	975.94	832.31	0.00	
12100.00	89.75	0.00	10434.15	803.02	975.94	931.33	0.00	
12200.00	89.75	0.00	10434.59	903.02	975.94	1030.35	0.00	
12300.00	89.75	0.00	10435.03	1003.02	975.94	1129.37	0.00	



Well: FULLY LOADED 12-1 FED COM 622H
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Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	
12400.00	89.75	0.00	10435.47	1103.02	975.94	1228.39	0.00	
12500.00	89.75	0.00	10435.91	1203.01	975.94	1327.41	0.00	
12600.00	89.75	0.00	10436.35	1303.01	975.94	1426.44	0.00	
12700.00	89.75	0.00	10436.78	1403.01	975.94	1525.46	0.00	
12800.00	89.75	0.00	10437.22	1503.01	975.94	1624.48	0.00	
12900.00	89.75	0.00	10437.66	1603.01	975.94	1723.50	0.00	
13000.00	89.75	0.00	10438.10	1703.01	975.94	1822.52	0.00	
13100.00	89.75	0.00	10438.54	1803.01	975.94	1921.54	0.00	
13200.00	89.75	0.00	10438.98	1903.01	975.94	2020.56	0.00	
13300.00	89.75	0.00	10439.42	2003.01	975.94	2119.58	0.00	
13400.00	89.75	0.00	10439.85	2103.01	975.94	2218.60	0.00	
13500.00	89.75	0.00	10440.29	2203.01	975.94	2317.62	0.00	
13600.00	89.75	0.00	10440.73	2303.00	975.94	2416.64	0.00	
13700.00	89.75	0.00	10441.17	2403.00	975.94	2515.67	0.00	
13800.00	89.75	0.00	10441.61	2503.00	975.94	2614.69	0.00	
13900.00	89.75	0.00	10442.05	2603.00	975.94	2713.71	0.00	
14000.00	89.75	0.00	10442.49	2703.00	975.94	2812.73	0.00	
14100.00	89.75	0.00	10442.93	2803.00	975.94	2911.75	0.00	
14200.00	89.75	0.00	10443.36	2903.00	975.94	3010.77	0.00	
14300.00	89.75	0.00	10443.80	3003.00	975.94	3109.79	0.00	
14400.00	89.75	0.00	10444.24	3103.00	975.94	3208.81	0.00	
14500.00	89.75	0.00	10444.68	3203.00	975.94	3307.83	0.00	
14600.00	89.75	0.00	10445.12	3302.99	975.94	3406.85	0.00	
14700.00	89.75	0.00	10445.56	3402.99	975.94	3505.87	0.00	
14800.00	89.75	0.00	10446.00	3502.99	975.94	3604.90	0.00	
14900.00	89.75	0.00	10446.43	3602.99	975.94	3703.92	0.00	
15000.00	89.75	0.00	10446.87	3702.99	975.94	3802.94	0.00	
15100.00	89.75	0.00	10447.31	3802.99	975.94	3901.96	0.00	
15200.00	89.75	0.00	10447.75	3902.99	975.94	4000.98	0.00	
15300.00	89.75	0.00	10448.19	4002.99	975.94	4100.00	0.00	
15400.00	89.75	0.00	10448.63	4102.99	975.94	4199.02	0.00	
15500.00	89.75	0.00	10449.07	4202.99	975.94	4298.04	0.00	
15600.00	89.75	0.00	10449.50	4302.98	975.94	4397.06	0.00	
15700.00	89.75	0.00	10449.94	4402.98	975.94	4496.08	0.00	
15800.00	89.75	0.00	10450.38	4502.98	975.94	4595.10	0.00	
15900.00	89.75	0.00	10450.82	4602.98	975.94	4694.13	0.00	
16000.00	89.75	0.00	10451.26	4702.98	975.94	4793.15	0.00	
16100.00	89.75	0.00	10451.70	4802.98	975.94	4892.17	0.00	
16200.00	89.75	0.00	10452.14	4902.98	975.94	4991.19	0.00	
16300.00	89.75	0.00	10452.57	5002.98	975.94	5090.21	0.00	
16400.00	89.75	0.00	10453.01	5102.98	975.94	5189.23	0.00	
16500.00	89.75	0.00	10453.45	5202.98	975.94	5288.25	0.00	
16600.00	89.75	0.00	10453.89	5302.98	975.94	5387.27	0.00	
16700.00	89.75	0.00	10454.33	5402.97	975.94	5486.29	0.00	
16800.00	89.75	0.00	10454.77	5502.97	975.94	5585.31	0.00	
16900.00	89.75	0.00	10455.21	5602.97	975.94	5684.34	0.00	
17000.00	89.75	0.00	10455.64	5702.97	975.94	5783.36	0.00	
17100.00	89.75	0.00	10456.08	5802.97	975.94	5882.38	0.00	
17200.00	89.75	0.00	10456.52	5902.97	975.94	5981.40	0.00	
17300.00	89.75	0.00	10456.96	6002.97	975.94	6080.42	0.00	
17400.00	89.75	0.00	10457.40	6102.97	975.94	6179.44	0.00	
17500.00	89.75	0.00	10457.84	6202.97	975.94	6278.46	0.00	
17600.00	89.75	0.00	10458.28	6302.97	975.94	6377.48	0.00	
17700.00	89.75	0.00	10458.71	6402.96	975.94	6476.50	0.00	
17800.00	89.75	0.00	10459.15	6502.96	975.94	6575.52	0.00	
17900.00	89.75	0.00	10459.59	6602.96	975.94	6674.54	0.00	
18000.00	89.75	0.00	10460.03	6702.96	975.94	6773.57	0.00	
18100.00	89.75	0.00	10460.47	6802.96	975.94	6872.59	0.00	
18143.48	89.75	0.00	10460.66	6846.44	975.94	6915.64	0.00	EXIT
18200.00	89.75	0.00	10460.91	6902.96	975.94	6971.61	0.00	
18223.48	89.75	0.00	10461.00	6926.44	975.94	6994.86	0.00	BHL



Well: FULLY LOADED 12-1 FED COM 622H
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MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	

1. Geologic Formations

TVD of target	10461	Pilot hole depth	N/A
MD at TD:	18223	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	358		
Salt	593		
Base of Salt	3093		
Lamar	3093		
Bell Canyon	3328		
Cherry Canyon	4188		
Brushy Canyon	5768		
1st Bone Spring Lime	7008		
1st Bone Spring Sand	8043		
Bone Spring 2nd	8718		
3rd Bone Spring Lime	9168		
Bone Spring 3rd	9963		
Wolfcamp	10310		

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

2. Casing Program (Primary Design)

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Casing Interval		Casing Interval	
					From (MD)	To (MD)	From (TVD)	To (TVD)
17 1/2	13 3/8	48	H40	STC	0	383	0	383
9 7/8	8 5/8	32	P110	TLW	0	9963	0	9963
7 7/8	5 1/2	17	P110	BTC	0	18223	0	10461

• 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 (Primary Design)

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	316	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	336	Surf	9	3.27	Lead: Class C Cement + additives
	465	4000' above	13.2	1.44	Tail: Class H / C + additives
Int 1 Intermediate Squeeze	As Needed	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
	336	Surf	9	3.27	Lead: Class C Cement + additives
	465	4000' above	13.2	1.44	Tail: Class H / C + additives
Production	117	8027	9	3.27	Lead: Class H / C + additives
	1085	10027	13.2	1.44	Tail: Class H / C + additives

Casing String	% Excess
Surface	50%
Intermediate 1	30%
Intermediate 1 (Two Stage)	25%
Prod	10%

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"	5M	Annular (5M)		X	50% of rated working pressure
				Blind Ram		X	5M
				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						

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
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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	5712
Abnormal temperature	No

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

Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S 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 ₂ S is present
Y	H ₂ S plan attached.

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 pa.
- 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. A that time an approved BOP stack will be nipped up and tested on the wellhead before drilling operations commences 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

<u>X</u>	Directional Plan
<u> </u>	Other, describe