AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Sundry Print Report

02/23/2022

Well Name: COTTON DRAW UNIT	**Well Location:** T24S / R31E / SEC 26 / NWNW / 32.1945388 / -103.7531854	**County or Parish/State:** EDDY / NM
Well Number: 604H	**Type of Well:** OIL WELL	**Allottee or Tribe Name:**
Lease Number: NMNM012121	**Unit or CA Name:** COTTON DRAW UNIT	**Unit or CA Number:** NMNM70928X
US Well Number: 3001547302	**Well Status:** Drilling Well	**Operator:** DEVON ENERGY PRODUCTION COMPANY LP

Notice of Intent

Sundry ID: 2658343

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 02/22/2022

Time Sundry Submitted: 02:01

Date proposed operation will begin: 02/22/2022

Procedure Description: SKID SUNDRY: Devon Energy Production Co., L.P. (Devon) respectfully requests: 1) Walk the rig 30' to the new SHL of 385 FNL & 1255 FWL, Sec 26, 24S, 31E 2) Name replacement wellbore COTTON DRAW UNIT 604Y, as the new drill and complete location will be COTTON DRAW UNIT 604H with a new API. 3) Drill replacement wellbore as proposed in the attached directional plan. No expanded surface disturbance will be required. Please see all attachments. Time of events: 2/21/2021 – Drilling spoke with Zota Stevens with the BLM, to discuss drilling complications with the subject well. Email: "As discussed, we walked back over to resume drilling our Cotton Draw Unit 604H after finishing our previous 3 wells on the pad. We left off this 604H by setting and cementing our 8-5/8" intermediate casing back in November (batch drilling), with no issues. Once we got back over the well yesterday, we were unable to get a good casing test. We went hunting to find the leak in the casing, and have just found it at 3212' MD. We would like to temporarily plug back this well, skid over and drill a new well to replace this one. We are going to set a CIBP at 3,000' MD right now, then test it, and install our TA cap. In the meantime, we are going to begin conductor operations 30' east of our current well. And prepare to hopefully spud it late tomorrow night." BLM Approval to continue drilling: "You are approve to set a CIBP and fully secure the well making sure it is static before moving to the new well. Contact BLM engineer who is in charge of Devon when you have a plan to continue drilling / P&A this well. " Zota Stevens Petroleum Engineer

Application

Well Name: COTTON DRAW UNIT	**Well Location:** T24S / R31E / SEC 26 / NWNW / 32.1945388 / -103.7531854	**County or Parish/State:** EDDY / NM
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Section 6 - Other

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

Operator Certification

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Jenny Harms **Signed on:** 02/22/2022

Title: Regulatory Compliance Professional

Street Address: 333 West Sheridan Avenue

City: Oklahoma City **State:** OK **Zip:** 73102

Phone: (405)552-6560

Email address: jennifer.harms@dvn.com

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

Well Name: COTTON DRAW UNIT	**Well Location:** T24S / R31E / SEC 26 / NWNW / 32.1945388 / -103.7531854	**County or Parish/State:** EDDY / NM
Well Number: 604H	**Type of Well:** OIL WELL	**Allottee or Tribe Name:**
Lease Number: NMNM012121	**Unit or CA Name:** COTTON DRAW UNIT	**Unit or CA Number:** NMNM70928X
US Well Number: 3001547302	**Well Status:** Drilling Well	**Operator:** DEVON ENERGY PRODUCTION COMPANY LP

NOI Attachments

Procedure Description

COTTON_DRAW_UNIT_604H_SIGNE_2_22_2022_20220222140007.pdf

MB_Wellhd_10M_13.375_8.625_5.5_20220222132534.PDF

COTTON_DRAW_UNIT_604H.pdf___New_Well_20220222132450.pdf

Devon_Energy___Cotton_Draw_Unit_604H_Plan_1_20220222132402.pdf

Conditions of Approval

Additional Reviews

Services_National_Operations_Center_Eforms_Fluid_and_Solid_Minerals_3160_003__10__20220223100612.pdf

Operator Certification

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: JENNY HARMS

Signed on: FEB 22, 2022 02:00 PM

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory Compliance Professional

Street Address: 333 West Sheridan Avenue

City: Oklahoma City **State:** OK

Phone: (405) 552-6560

Email address: jennifer.harms@dvn.com

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 02/23/2022

Signature: Chris Walls

Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM 0012121

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.: COTTON DRAW UNIT 604H

2. Name of Operator: DEVON ENERGY PRODUCTION COMPANY LP

9. API Well No.: 30-015-49302

3a. Address: 333 WEST SHERIDAN AVE. OKLAHOMA CITY, OK 7310

3b. Phone No. *(include area code)*: 405-552-6560

10. Field and Pool, or Exploratory: PURPLE SAGE-WOLFCAMP

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: NWNW/ 385 FNL/ 1255 FWL/ LAT: 32.1945389 /LNG: -103.7530720

At proposed prod. zone: SWSW/ 20 FSL / 1251 FWL/ LAT: 32.1522517 LNG: -103.7531777

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 26/T24S/R31E/NMP

14. Distance in miles and direction from nearest town or post office*

12. County or Parish: EDDY

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 385 feet

16. No of acres in lease: 1280

17. Spacing Unit dedicated to this well: 480

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 507 feet

19. Proposed Depth: 12513 TVD / 28002 MD

20. BLM/BIA Bond No. in file: FED: NMB000801

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3535.6

22. Approximate date work will start*: 02/23/2022

23. Estimated duration: 45 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature: Jenny Harms

Name *(Printed/Typed)*: JENNY HARMS PH: 405-5526560

Date: 2/23/2022

Title: REGULATORY COMPLIANCE PROFESSIONAL

Approved by *(Signature)*: CHRISTOPHER WALLS Digitally signed by CHRISTOPHER WALLS Date: 2022.02.23 10:02:06 -07'00'

Name *(Printed/Typed)*: Chris Walls

Date: 2/23/2022

Title: REGULATORY COMPLIANCE PROFESSIONAL

Office: CFO

Application approval 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.

Conditions of approval, if any, are attached.

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.

(Continued on page 2)

*(Instructions on page 2)

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	[2] Pool Code	[3] Pool Name
30-015-49302	[98220]	PURPLE SAGE; WOLFCAMP (GAS)

[4] Property Code	[5] Property Name	[6] Well Number
300635	COTTON DRAW UNIT	604H

[7] OGRID No.	[8] Operator Name	[9] Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, L.P.	3535.6

[10] Surface Location

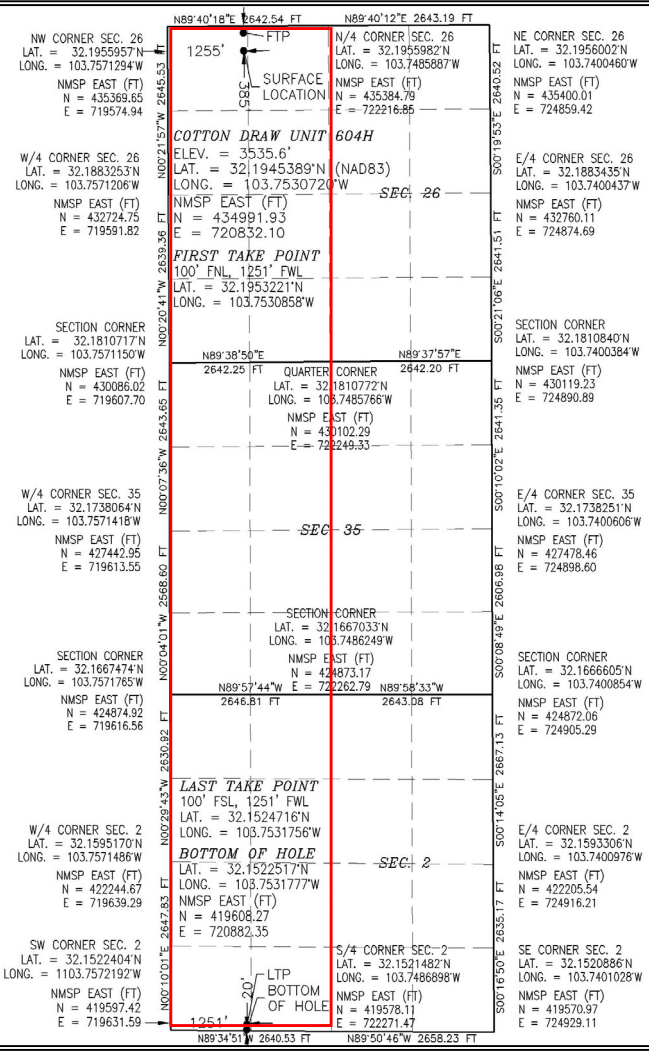
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	26	24 S	31 E		385	NORTH	1255	WEST	EDDY

[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
M	2	25 S	31 E		20	SOUTH	1251	WEST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
960			

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.



[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
2-22-2022
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.

FEBRUARY 22, 2022
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number: FILIMON F. JARAMILLO PLS 12797

FILIMON F. JARAMILLO 12797 REGISTERED PROFESSIONAL SURVEYOR SURVEY NO. 7993E

Intent [X] As Drilled [ ]

API #

Operator Name:	Property Name:	Well Number
DEVON ENERGY PRODUCTION COMPANY, L.P.	COTTON DRAW UNIT	604H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	26	24S	31E		100 FNL		1308 FWL		EDDY

Latitude	Longitude	NAD
32.19522796	-103.75298693	83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
D	26	24S	31E		100	NORTH	1251	WEST	EDDY

Latitude	Longitude	NAD
32.1953221	103.7530858	83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	2	25S	31E		100	SOUTH	1251	WEST	EDDY

Latitude	Longitude	NAD
32.1524716	103.7531756	83

Is this well the defining well for the Horizontal Spacing Unit? NO

Is this well an infill well? YES

If infill is yes please 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

ACCESS ROAD PLAT (7600351R)

ACCESS ROAD TO COTTON DRAW 26 WELLPAD 1

(COTTON DRAW UNIT 601H, 602H, 603H, 604H, 520H, 521H, 522H, & 604Y)

DEVON ENERGY PRODUCTION COMPANY, L.P.

CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 26, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
FEBRUARY 22, 2022

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 26, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

SOUTHWEST ACCESS ROAD

BEGINNING AT A POINT WITHIN THE NW/4 NW/4 OF SAID SECTION 26, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE NORTHWEST CORNER OF SAID SECTION 26, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N76°56'29"W, A DISTANCE OF 930.30 FEET;
THENCE S00°21'52"E A DISTANCE OF 429.65 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S45°21'49"E A DISTANCE OF 35.33 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N89°36'02"E A DISTANCE OF 24.94 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHWEST CORNER OF SAID SECTION 26, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N55°17'01"W, A DISTANCE OF 1166.76 FEET;

SAID STRIP OF LAND BEING 489.92 FEET OR 29.69 RODS IN LENGTH, CONTAINING 0.337 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NW/4 NW/4 489.92 L.F. 29.69 RODS 0.337 ACRES

SOUTHEAST ACCESS ROAD

BEGINNING AT A POINT WITHIN THE NE/4 NW/4 OF SAID SECTION 26, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE NORTH QUARTER CORNER OF SAID SECTION 26, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N76°54'37"E, A DISTANCE OF 910.00 FEET;
THENCE S00°21'54"E A DISTANCE OF 468.95 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S89°38'25"W A DISTANCE OF 279.87 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTH QUARTER CORNER OF SAID SECTION 26, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N59°48'30"E, A DISTANCE OF 1345.80 FEET;

SAID STRIP OF LAND BEING 748.82 FEET OR 45.38 RODS IN LENGTH, CONTAINING 0.516 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 NW/4 748.82 L.F. 45.38 RODS 0.516 ACRES

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 22ND DAY OF FEBRUARY 2022

FILIMON F. JARAMILLO PLS. 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

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, LP **OGRID:** 6137 **Date:** 6 / 7 / 2021

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 attachment.						

IV. Central Delivery Point Name: See attachment [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 attachment						

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.

NATURAL GAS MANAGEMENT PLAN
Section 1 - Plan Description

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	Central Delivery Point Name:
COTTON DRAW UNIT 601H		26-24S-31E	1135	FWL	385	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 602H		26-24S-31E	1165	FWL	385	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 603H		26-24S-31E	1195	FWL	385	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 604H		26-24S-31E	1255	FWL	385	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 605H		26-24S-31E	2530	FWL	385	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 606H		26-24S-31E	2560	FWL	385	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 607H		26-24S-31E	2590	FWL	385	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 608H		26-24S-31E	2620	FWL	385	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 609H		26-24S-31E	1415	FEL	180	FNL	2000	5000	7000	COTTON DRAW 25 CTB 5
COTTON DRAW UNIT 610H		26-24S-31E	1385	FEL	180	FNL	2000	5000	7000	COTTON DRAW 25 CTB 5
COTTON DRAW UNIT 611H		26-24S-31E	1355	FEL	180	FNL	2000	5000	7000	COTTON DRAW 25 CTB 5
COTTON DRAW UNIT 612H		26-24S-31E	1325	FEL	180	FNL	2000	5000	7000	COTTON DRAW 25 CTB 5
COTTON DRAW UNIT 520H		26-24S-31E	1130	FWL	535	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 521H		26-24S-31E	1160	FWL	535	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 522H		26-24S-31E	1190	FWL	535	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 523H		26-24S-31E	2540	FEL	535	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 524H		26-24S-31E	2510	FEL	535	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 525H		26-24S-31E	1385	FEL	305	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 526H		26-24S-31E	1355	FEL	305	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2
COTTON DRAW UNIT 527H		26-24S-31E	1325	FEL	305	FNL	4500	15000	15000	COTTON DRAW 26 CTB 2

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
COTTON DRAW UNIT 601H	n/a	1/21/2022	2/20/2022	6/20/2022	6/20/2022	6/20/2022
COTTON DRAW UNIT 602H	n/a	10/31/2021	11/30/2021	3/30/2022	3/30/2022	3/30/2022
COTTON DRAW UNIT 603H	n/a	2/16/2022	3/18/2022	7/16/2022	7/16/2022	7/16/2022
COTTON DRAW UNIT 604H	n/a	12/14/2021	1/13/2022	5/13/2022	5/13/2022	5/13/2022
COTTON DRAW UNIT 605H	n/a	11/12/2021	12/12/2021	4/11/2022	4/11/2022	4/11/2022
COTTON DRAW UNIT 606H	n/a	12/17/2021	1/16/2022	5/16/2022	5/16/2022	5/16/2022
COTTON DRAW UNIT 607H	n/a	6/7/2022	7/7/2022	11/4/2022	11/4/2022	11/4/2022
COTTON DRAW UNIT 608H	n/a	6/7/2022	7/7/2022	11/4/2022	11/4/2022	11/4/2022
COTTON DRAW UNIT 609H	n/a	6/7/2022	7/7/2022	11/4/2022	11/4/2022	11/4/2022
COTTON DRAW UNIT 610H	n/a	6/7/2022	7/7/2022	11/4/2022	11/4/2022	11/4/2022
COTTON DRAW UNIT 611H	n/a	6/7/2022	7/7/2022	11/4/2022	11/4/2022	11/4/2022
COTTON DRAW UNIT 612H	n/a	6/7/2022	7/7/2022	11/4/2022	11/4/2022	11/4/2022
COTTON DRAW UNIT 520H	n/a	6/7/2022	7/7/2022	11/4/2022	11/4/2022	11/4/2022
COTTON DRAW UNIT 521H	n/a	6/7/2022	7/7/2022	11/4/2022	11/4/2022	11/4/2022
COTTON DRAW UNIT 522H	n/a	6/7/2022	7/7/2022	11/4/2022	11/4/2022	11/4/2022
COTTON DRAW UNIT 523H	n/a	6/7/2022	7/7/2022	11/4/2022	11/4/2022	11/4/2022
COTTON DRAW UNIT 524H	n/a	6/7/2022	7/7/2022	11/4/2022	11/4/2022	11/4/2022
COTTON DRAW UNIT 525H	n/a	6/7/2022	7/7/2022	11/4/2022	11/4/2022	11/4/2022
COTTON DRAW UNIT 526H	n/a	6/7/2022	7/7/2022	11/4/2022	11/4/2022	11/4/2022
COTTON DRAW UNIT 527H	n/a	6/7/2022	7/7/2022	11/4/2022	11/4/2022	11/4/2022

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:
Title:
E-mail Address:
Date:
Phone:

OIL CONSERVATION DIVISION **(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. lf 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.

COTTON DRAW UNIT 604H

1. Geologic Formations

TVD of target	12513	Pilot hole depth	N/A
MD at TD:	28002	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	660		
Salt	1010		
Base of Salt	4400		
Cherry Canyon	5360		
Brushy Canyon	6680		
1st Bone Spring Lime	8290		
Bone Spring 1st	9300		
Bone Spring 2nd	9920		
3rd Bone Spring Lime	10440		
Bone Spring 3rd	11215		
Wolfcamp	11700		

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

COTTON DRAW UNIT 604H

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	685	0	685
9 7/8	8 5/8	32	P110	TLW	0	11952	0	11936
7 7/8	5 1/2	17	P110	BTC	0	28002	0	12513

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

3. Cementing Program (Primary Design)
Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the 8-5/8'' intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (6,700') 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 350 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. The final cement top will be verified by Echo-meter. 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.

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	534	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	350	Surf	9	3.27	2nd Stage: Bradenhead Squeeze - Lead: Class C Cement + additives
	600	6700'	13.2	1.44	Tail: Class H / C + additives
Production	108	9952	9	3.27	Lead: Class H /C + additives
	2135	11952	13.2	1.44	Tail: Class H / C + additives

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

COTTON DRAW UNIT 604H

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	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

COTTON DRAW UNIT 604H

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 Rpeort and sbumitted 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	Specfiy what type and where?
BH pressure at deepest TVD	6832
Abnormal temperature	No

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

Hydrogren 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	H2S is present
Y	H2S 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 nippled 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

X Directional Plan
_____ Other, describe

devon

Commitment Runs Deep

Design Plan
Operation and Maintenance Plan
Closure Plan

SENM – Closed Loop Systems
June 2010

I. Design Plan

Devon uses MI SWACO closed loop system (CLS). The MI SWACO CLS is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

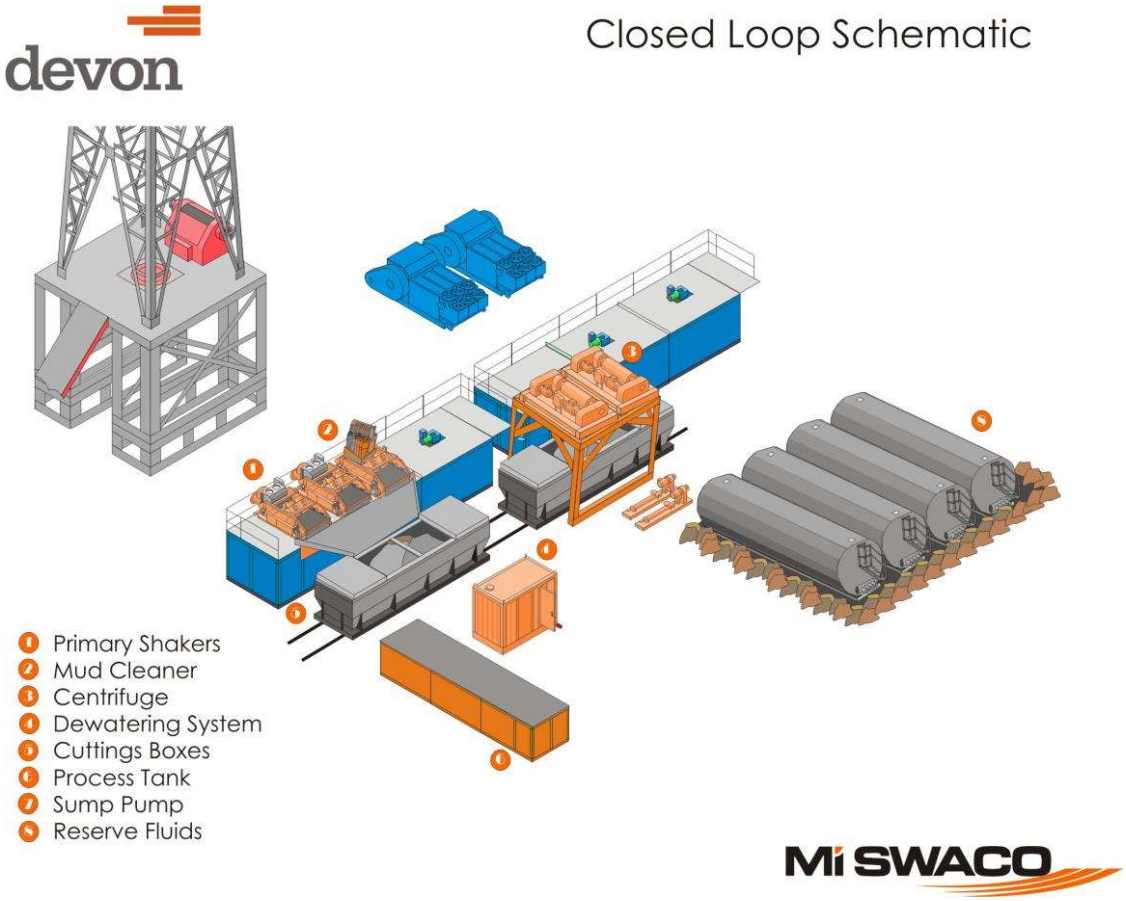
Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

II. Operations and Maintenance Plan

Primary Shakers: The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

Mud Cleaner: The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.



Centrifuges: The centrifuges can be one or two in number depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

Dewatering System: The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds ultra fine solids into a mass that is within the centrifuge operating design. The

dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

Cuttings Boxes: Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

Process Tank: (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

Sump and Sump Pump: The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

Reserve Fluids (Tank Farm): A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

A MI SWACO field supervisor manages from 3-5 wells. They are responsible for training personnel, supervising installations, and inspecting sites for compliance of MI SWACO safety and operational policy.

III. Closure Plan

A maximum 340' X 340' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.

Devon Energy

Eddy County, NM (NAD83)
Cotton Draw Unit
Cotton Draw Unit 604H

Wellbore #1

Plan: Plan 1

Standard Planning Report

22 February, 2022

Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Cotton Draw Unit 604H
Company:	Devon Energy	**TVD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Site:	Cotton Draw Unit	**North Reference:**	Grid
Well:	Cotton Draw Unit 604H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Project Eddy County, NM (NAD83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Cotton Draw Unit

Site Position:		**Northing:**	435,369.65 usft	**Latitude:**	32.195596
From:	Map	**Easting:**	719,574.94 usft	**Longitude:**	-103.757130
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well Cotton Draw Unit 604H

Well Position	**+N/-S**	0.00 usft	**Northing:**	434,991.93 usft	**Latitude:**	32.194539
	+E/-W	0.00 usft	**Easting:**	720,832.10 usft	**Longitude:**	-103.753072
Position Uncertainty		0.50 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,535.60 usft
Grid Convergence:		0.31 °				

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2022	2/21/2022	6.47	59.80	47,609.10000000

Design Plan 1

Audit Notes:

Version:	**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.82

Plan Survey Tool Program **Date** 2/22/2022

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	28,002.69	Plan 1 (Wellbore #1)	MWD+HRGM	
				OWSG MWD + HRGM	

Planning Report

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Company:	Devon Energy	**TVD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Site:	Cotton Draw Unit	**North Reference:**	Grid
Well:	Cotton Draw Unit 604H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,833.13	6.50	21.97	2,832.21	22.75	9.18	1.50	1.50	0.00	21.97	
4,867.84	6.50	21.97	4,853.84	236.25	95.33	0.00	0.00	0.00	0.00	
5,795.98	0.00	0.00	5,780.00	285.00	115.00	0.70	-0.70	0.00	180.00	
12,052.51	0.00	0.00	12,036.53	285.00	115.00	0.00	0.00	0.00	0.00	
12,802.51	90.00	186.88	12,514.00	-189.03	57.81	12.00	12.00	0.00	186.88	T1
13,111.84	90.00	186.88	12,514.00	-496.12	20.76	0.00	0.00	0.00	0.00	T1
13,465.91	90.35	179.81	12,512.91	-849.37	0.13	2.00	0.10	-2.00	-87.16	PBHL - CDU 604Y
21,091.69	90.35	179.81	12,466.33	-8,474.96	25.90	0.00	0.00	0.00	0.00	
21,125.69	89.67	179.81	12,466.32	-8,508.96	26.02	2.00	-2.00	0.00	-180.00	PBHL - CDU 604Y
24,945.75	89.67	179.81	12,488.33	-12,328.94	38.93	0.00	0.00	0.00	0.00	
25,038.75	87.81	179.81	12,490.37	-12,421.91	39.24	2.00	-2.00	0.00	180.00	PBHL - CDU 604Y
28,002.69	87.81	179.81	12,603.63	-15,383.66	49.25	0.00	0.00	0.00	0.00	PBHL - CDU 604Y

Planning Report

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Company:	Devon Energy	**TVD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Site:	Cotton Draw Unit	**North Reference:**	Grid
Well:	Cotton Draw Unit 604H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge									
2,500.00	1.50	21.97	2,499.99	1.21	0.49	-1.21	1.50	1.50	0.00
2,600.00	3.00	21.97	2,599.91	4.85	1.96	-4.85	1.50	1.50	0.00
2,700.00	4.50	21.97	2,699.69	10.92	4.41	-10.91	1.50	1.50	0.00
2,800.00	6.00	21.97	2,799.27	19.40	7.83	-19.38	1.50	1.50	0.00
2,833.13	6.50	21.97	2,832.21	22.75	9.18	-22.72	1.50	1.50	0.00
EOB									
2,900.00	6.50	21.97	2,898.64	29.77	12.01	-29.73	0.00	0.00	0.00
3,000.00	6.50	21.97	2,998.00	40.26	16.24	-40.21	0.00	0.00	0.00
3,100.00	6.50	21.97	3,097.36	50.75	20.48	-50.69	0.00	0.00	0.00
3,200.00	6.50	21.97	3,196.72	61.24	24.71	-61.17	0.00	0.00	0.00
3,300.00	6.50	21.97	3,296.07	71.74	28.95	-71.64	0.00	0.00	0.00
3,400.00	6.50	21.97	3,395.43	82.23	33.18	-82.12	0.00	0.00	0.00
3,500.00	6.50	21.97	3,494.79	92.72	37.41	-92.60	0.00	0.00	0.00
3,600.00	6.50	21.97	3,594.15	103.22	41.65	-103.08	0.00	0.00	0.00
3,700.00	6.50	21.97	3,693.51	113.71	45.88	-113.56	0.00	0.00	0.00
3,800.00	6.50	21.97	3,792.86	124.20	50.12	-124.04	0.00	0.00	0.00
3,900.00	6.50	21.97	3,892.22	134.70	54.35	-134.52	0.00	0.00	0.00
4,000.00	6.50	21.97	3,991.58	145.19	58.59	-145.00	0.00	0.00	0.00
4,100.00	6.50	21.97	4,090.94	155.68	62.82	-155.48	0.00	0.00	0.00
4,200.00	6.50	21.97	4,190.29	166.18	67.05	-165.96	0.00	0.00	0.00
4,300.00	6.50	21.97	4,289.65	176.67	71.29	-176.44	0.00	0.00	0.00
4,400.00	6.50	21.97	4,389.01	187.16	75.52	-186.92	0.00	0.00	0.00
4,500.00	6.50	21.97	4,488.37	197.65	79.76	-197.40	0.00	0.00	0.00
4,600.00	6.50	21.97	4,587.73	208.15	83.99	-207.88	0.00	0.00	0.00
4,700.00	6.50	21.97	4,687.08	218.64	88.22	-218.36	0.00	0.00	0.00
4,800.00	6.50	21.97	4,786.44	229.13	92.46	-228.84	0.00	0.00	0.00
4,867.84	6.50	21.97	4,853.84	236.25	95.33	-235.95	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Cotton Draw Unit 604H
Company:	Devon Energy	**TVD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Site:	Cotton Draw Unit	**North Reference:**	Grid
Well:	Cotton Draw Unit 604H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
EOH									
4,900.00	6.27	21.97	4,885.81	239.57	96.67	-239.26	0.70	-0.70	0.00
5,000.00	5.57	21.97	4,985.27	249.14	100.53	-248.81	0.70	-0.70	0.00
5,100.00	4.87	21.97	5,084.86	257.58	103.93	-257.24	0.70	-0.70	0.00
5,200.00	4.17	21.97	5,184.54	264.89	106.88	-264.54	0.70	-0.70	0.00
5,300.00	3.47	21.97	5,284.32	271.07	109.38	-270.72	0.70	-0.70	0.00
5,400.00	2.77	21.97	5,384.17	276.12	111.42	-275.76	0.70	-0.70	0.00
5,500.00	2.07	21.97	5,484.08	280.04	113.00	-279.67	0.70	-0.70	0.00
5,600.00	1.37	21.97	5,584.04	282.82	114.12	-282.46	0.70	-0.70	0.00
5,700.00	0.67	21.97	5,684.02	284.48	114.79	-284.11	0.70	-0.70	0.00
5,795.98	0.00	0.00	5,780.00	285.00	115.00	-284.63	0.70	-0.70	0.00
EOD									
5,800.00	0.00	0.00	5,784.02	285.00	115.00	-284.63	0.00	0.00	0.00
5,900.00	0.00	0.00	5,884.02	285.00	115.00	-284.63	0.00	0.00	0.00
6,000.00	0.00	0.00	5,984.02	285.00	115.00	-284.63	0.00	0.00	0.00
6,100.00	0.00	0.00	6,084.02	285.00	115.00	-284.63	0.00	0.00	0.00
6,200.00	0.00	0.00	6,184.02	285.00	115.00	-284.63	0.00	0.00	0.00
6,300.00	0.00	0.00	6,284.02	285.00	115.00	-284.63	0.00	0.00	0.00
6,400.00	0.00	0.00	6,384.02	285.00	115.00	-284.63	0.00	0.00	0.00
6,500.00	0.00	0.00	6,484.02	285.00	115.00	-284.63	0.00	0.00	0.00
6,600.00	0.00	0.00	6,584.02	285.00	115.00	-284.63	0.00	0.00	0.00
6,700.00	0.00	0.00	6,684.02	285.00	115.00	-284.63	0.00	0.00	0.00
6,800.00	0.00	0.00	6,784.02	285.00	115.00	-284.63	0.00	0.00	0.00
6,900.00	0.00	0.00	6,884.02	285.00	115.00	-284.63	0.00	0.00	0.00
7,000.00	0.00	0.00	6,984.02	285.00	115.00	-284.63	0.00	0.00	0.00
7,100.00	0.00	0.00	7,084.02	285.00	115.00	-284.63	0.00	0.00	0.00
7,200.00	0.00	0.00	7,184.02	285.00	115.00	-284.63	0.00	0.00	0.00
7,300.00	0.00	0.00	7,284.02	285.00	115.00	-284.63	0.00	0.00	0.00
7,400.00	0.00	0.00	7,384.02	285.00	115.00	-284.63	0.00	0.00	0.00
7,500.00	0.00	0.00	7,484.02	285.00	115.00	-284.63	0.00	0.00	0.00
7,600.00	0.00	0.00	7,584.02	285.00	115.00	-284.63	0.00	0.00	0.00
7,700.00	0.00	0.00	7,684.02	285.00	115.00	-284.63	0.00	0.00	0.00
7,800.00	0.00	0.00	7,784.02	285.00	115.00	-284.63	0.00	0.00	0.00
7,900.00	0.00	0.00	7,884.02	285.00	115.00	-284.63	0.00	0.00	0.00
8,000.00	0.00	0.00	7,984.02	285.00	115.00	-284.63	0.00	0.00	0.00
8,100.00	0.00	0.00	8,084.02	285.00	115.00	-284.63	0.00	0.00	0.00
8,200.00	0.00	0.00	8,184.02	285.00	115.00	-284.63	0.00	0.00	0.00
8,300.00	0.00	0.00	8,284.02	285.00	115.00	-284.63	0.00	0.00	0.00
8,400.00	0.00	0.00	8,384.02	285.00	115.00	-284.63	0.00	0.00	0.00
8,500.00	0.00	0.00	8,484.02	285.00	115.00	-284.63	0.00	0.00	0.00
8,600.00	0.00	0.00	8,584.02	285.00	115.00	-284.63	0.00	0.00	0.00
8,700.00	0.00	0.00	8,684.02	285.00	115.00	-284.63	0.00	0.00	0.00
8,800.00	0.00	0.00	8,784.02	285.00	115.00	-284.63	0.00	0.00	0.00
8,900.00	0.00	0.00	8,884.02	285.00	115.00	-284.63	0.00	0.00	0.00
9,000.00	0.00	0.00	8,984.02	285.00	115.00	-284.63	0.00	0.00	0.00
9,100.00	0.00	0.00	9,084.02	285.00	115.00	-284.63	0.00	0.00	0.00
9,200.00	0.00	0.00	9,184.02	285.00	115.00	-284.63	0.00	0.00	0.00
9,300.00	0.00	0.00	9,284.02	285.00	115.00	-284.63	0.00	0.00	0.00
9,400.00	0.00	0.00	9,384.02	285.00	115.00	-284.63	0.00	0.00	0.00
9,500.00	0.00	0.00	9,484.02	285.00	115.00	-284.63	0.00	0.00	0.00
9,600.00	0.00	0.00	9,584.02	285.00	115.00	-284.63	0.00	0.00	0.00
9,700.00	0.00	0.00	9,684.02	285.00	115.00	-284.63	0.00	0.00	0.00
9,800.00	0.00	0.00	9,784.02	285.00	115.00	-284.63	0.00	0.00	0.00
9,900.00	0.00	0.00	9,884.02	285.00	115.00	-284.63	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Cotton Draw Unit 604H
Company:	Devon Energy	**TVD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Site:	Cotton Draw Unit	**North Reference:**	Grid
Well:	Cotton Draw Unit 604H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,000.00	0.00	0.00	9,984.02	285.00	115.00	-284.63	0.00	0.00	0.00
10,100.00	0.00	0.00	10,084.02	285.00	115.00	-284.63	0.00	0.00	0.00
10,200.00	0.00	0.00	10,184.02	285.00	115.00	-284.63	0.00	0.00	0.00
10,300.00	0.00	0.00	10,284.02	285.00	115.00	-284.63	0.00	0.00	0.00
10,400.00	0.00	0.00	10,384.02	285.00	115.00	-284.63	0.00	0.00	0.00
10,500.00	0.00	0.00	10,484.02	285.00	115.00	-284.63	0.00	0.00	0.00
10,600.00	0.00	0.00	10,584.02	285.00	115.00	-284.63	0.00	0.00	0.00
10,700.00	0.00	0.00	10,684.02	285.00	115.00	-284.63	0.00	0.00	0.00
10,800.00	0.00	0.00	10,784.02	285.00	115.00	-284.63	0.00	0.00	0.00
10,900.00	0.00	0.00	10,884.02	285.00	115.00	-284.63	0.00	0.00	0.00
11,000.00	0.00	0.00	10,984.02	285.00	115.00	-284.63	0.00	0.00	0.00
11,100.00	0.00	0.00	11,084.02	285.00	115.00	-284.63	0.00	0.00	0.00
11,200.00	0.00	0.00	11,184.02	285.00	115.00	-284.63	0.00	0.00	0.00
11,300.00	0.00	0.00	11,284.02	285.00	115.00	-284.63	0.00	0.00	0.00
11,400.00	0.00	0.00	11,384.02	285.00	115.00	-284.63	0.00	0.00	0.00
11,500.00	0.00	0.00	11,484.02	285.00	115.00	-284.63	0.00	0.00	0.00
11,600.00	0.00	0.00	11,584.02	285.00	115.00	-284.63	0.00	0.00	0.00
11,700.00	0.00	0.00	11,684.02	285.00	115.00	-284.63	0.00	0.00	0.00
11,800.00	0.00	0.00	11,784.02	285.00	115.00	-284.63	0.00	0.00	0.00
11,900.00	0.00	0.00	11,884.02	285.00	115.00	-284.63	0.00	0.00	0.00
12,000.00	0.00	0.00	11,984.02	285.00	115.00	-284.63	0.00	0.00	0.00
12,052.51	0.00	0.00	12,036.53	285.00	115.00	-284.63	0.00	0.00	0.00
KOP									
12,100.00	5.70	186.88	12,083.94	282.66	114.72	-282.29	12.00	12.00	0.00
12,200.00	17.70	186.88	12,181.68	262.56	112.29	-262.20	12.00	12.00	0.00
12,300.00	29.70	186.88	12,273.08	222.73	107.49	-222.39	12.00	12.00	0.00
12,400.00	41.70	186.88	12,354.14	164.91	100.51	-164.59	12.00	12.00	0.00
12,500.00	53.70	186.88	12,421.33	91.61	91.67	-91.32	12.00	12.00	0.00
12,600.00	65.70	186.88	12,471.69	6.05	81.35	-5.79	12.00	12.00	0.00
12,700.00	77.70	186.88	12,503.03	-88.03	70.00	88.26	12.00	12.00	0.00
12,800.00	89.70	186.88	12,513.99	-186.53	58.11	186.72	12.00	12.00	0.00
12,802.51	90.00	186.88	12,514.00	-189.03	57.81	189.21	12.00	12.00	0.00
Land Point									
12,900.00	90.00	186.88	12,514.00	-285.81	46.13	285.96	0.00	0.00	0.00
13,000.00	90.00	186.88	12,514.00	-385.09	34.16	385.20	0.00	0.00	0.00
13,100.00	90.00	186.88	12,514.00	-484.37	22.18	484.44	0.00	0.00	0.00
13,111.84	90.00	186.88	12,514.00	-496.12	20.76	496.19	0.00	0.00	0.00
EOH									
13,200.00	90.09	185.12	12,513.93	-583.80	11.55	583.84	2.00	0.10	-2.00
13,300.00	90.19	183.12	12,513.69	-683.54	4.36	683.55	2.00	0.10	-2.00
13,400.00	90.29	181.12	12,513.28	-783.46	0.66	783.46	2.00	0.10	-2.00
13,465.91	90.35	179.81	12,512.91	-849.37	0.13	849.37	2.00	0.10	-2.00
EOB									
13,500.00	90.35	179.81	12,512.70	-883.46	0.24	883.45	0.00	0.00	0.00
13,600.00	90.35	179.81	12,512.09	-983.46	0.58	983.45	0.00	0.00	0.00
13,700.00	90.35	179.81	12,511.48	-1,083.45	0.92	1,083.45	0.00	0.00	0.00
13,800.00	90.35	179.81	12,510.87	-1,183.45	1.26	1,183.45	0.00	0.00	0.00
13,900.00	90.35	179.81	12,510.26	-1,283.45	1.60	1,283.45	0.00	0.00	0.00
14,000.00	90.35	179.81	12,509.65	-1,383.45	1.93	1,383.44	0.00	0.00	0.00
14,100.00	90.35	179.81	12,509.04	-1,483.44	2.27	1,483.44	0.00	0.00	0.00
14,200.00	90.35	179.81	12,508.43	-1,583.44	2.61	1,583.44	0.00	0.00	0.00
14,300.00	90.35	179.81	12,507.82	-1,683.44	2.95	1,683.44	0.00	0.00	0.00
14,400.00	90.35	179.81	12,507.21	-1,783.44	3.28	1,783.44	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Cotton Draw Unit 604H
Company:	Devon Energy	**TVD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Site:	Cotton Draw Unit	**North Reference:**	Grid
Well:	Cotton Draw Unit 604H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,500.00	90.35	179.81	12,506.60	-1,883.43	3.62	1,883.44	0.00	0.00	0.00
14,600.00	90.35	179.81	12,505.98	-1,983.43	3.96	1,983.43	0.00	0.00	0.00
14,700.00	90.35	179.81	12,505.37	-2,083.43	4.30	2,083.43	0.00	0.00	0.00
14,800.00	90.35	179.81	12,504.76	-2,183.43	4.64	2,183.43	0.00	0.00	0.00
14,900.00	90.35	179.81	12,504.15	-2,283.42	4.97	2,283.43	0.00	0.00	0.00
15,000.00	90.35	179.81	12,503.54	-2,383.42	5.31	2,383.43	0.00	0.00	0.00
15,100.00	90.35	179.81	12,502.93	-2,483.42	5.65	2,483.42	0.00	0.00	0.00
15,200.00	90.35	179.81	12,502.32	-2,583.42	5.99	2,583.42	0.00	0.00	0.00
15,300.00	90.35	179.81	12,501.71	-2,683.41	6.33	2,683.42	0.00	0.00	0.00
15,400.00	90.35	179.81	12,501.10	-2,783.41	6.66	2,783.42	0.00	0.00	0.00
15,500.00	90.35	179.81	12,500.49	-2,883.41	7.00	2,883.42	0.00	0.00	0.00
15,600.00	90.35	179.81	12,499.88	-2,983.41	7.34	2,983.42	0.00	0.00	0.00
15,700.00	90.35	179.81	12,499.27	-3,083.40	7.68	3,083.41	0.00	0.00	0.00
15,800.00	90.35	179.81	12,498.65	-3,183.40	8.02	3,183.41	0.00	0.00	0.00
15,900.00	90.35	179.81	12,498.04	-3,283.40	8.35	3,283.41	0.00	0.00	0.00
16,000.00	90.35	179.81	12,497.43	-3,383.40	8.69	3,383.41	0.00	0.00	0.00
16,100.00	90.35	179.81	12,496.82	-3,483.39	9.03	3,483.41	0.00	0.00	0.00
16,200.00	90.35	179.81	12,496.21	-3,583.39	9.37	3,583.40	0.00	0.00	0.00
16,300.00	90.35	179.81	12,495.60	-3,683.39	9.71	3,683.40	0.00	0.00	0.00
16,400.00	90.35	179.81	12,494.99	-3,783.39	10.04	3,783.40	0.00	0.00	0.00
16,500.00	90.35	179.81	12,494.38	-3,883.38	10.38	3,883.40	0.00	0.00	0.00
16,600.00	90.35	179.81	12,493.77	-3,983.38	10.72	3,983.40	0.00	0.00	0.00
16,700.00	90.35	179.81	12,493.16	-4,083.38	11.06	4,083.39	0.00	0.00	0.00
16,800.00	90.35	179.81	12,492.55	-4,183.38	11.40	4,183.39	0.00	0.00	0.00
16,900.00	90.35	179.81	12,491.93	-4,283.38	11.73	4,283.39	0.00	0.00	0.00
17,000.00	90.35	179.81	12,491.32	-4,383.37	12.07	4,383.39	0.00	0.00	0.00
17,100.00	90.35	179.81	12,490.71	-4,483.37	12.41	4,483.39	0.00	0.00	0.00
17,200.00	90.35	179.81	12,490.10	-4,583.37	12.75	4,583.39	0.00	0.00	0.00
17,300.00	90.35	179.81	12,489.49	-4,683.37	13.09	4,683.38	0.00	0.00	0.00
17,400.00	90.35	179.81	12,488.88	-4,783.36	13.42	4,783.38	0.00	0.00	0.00
17,500.00	90.35	179.81	12,488.27	-4,883.36	13.76	4,883.38	0.00	0.00	0.00
17,600.00	90.35	179.81	12,487.66	-4,983.36	14.10	4,983.38	0.00	0.00	0.00
17,700.00	90.35	179.81	12,487.05	-5,083.36	14.44	5,083.38	0.00	0.00	0.00
17,800.00	90.35	179.81	12,486.44	-5,183.35	14.78	5,183.37	0.00	0.00	0.00
17,900.00	90.35	179.81	12,485.83	-5,283.35	15.11	5,283.37	0.00	0.00	0.00
18,000.00	90.35	179.81	12,485.22	-5,383.35	15.45	5,383.37	0.00	0.00	0.00
18,100.00	90.35	179.81	12,484.60	-5,483.35	15.79	5,483.37	0.00	0.00	0.00
18,200.00	90.35	179.81	12,483.99	-5,583.34	16.13	5,583.37	0.00	0.00	0.00
18,300.00	90.35	179.81	12,483.38	-5,683.34	16.47	5,683.36	0.00	0.00	0.00
18,400.00	90.35	179.81	12,482.77	-5,783.34	16.80	5,783.36	0.00	0.00	0.00
18,500.00	90.35	179.81	12,482.16	-5,883.34	17.14	5,883.36	0.00	0.00	0.00
18,600.00	90.35	179.81	12,481.55	-5,983.33	17.48	5,983.36	0.00	0.00	0.00
18,700.00	90.35	179.81	12,480.94	-6,083.33	17.82	6,083.36	0.00	0.00	0.00
18,800.00	90.35	179.81	12,480.33	-6,183.33	18.16	6,183.36	0.00	0.00	0.00
18,900.00	90.35	179.81	12,479.72	-6,283.33	18.49	6,283.35	0.00	0.00	0.00
19,000.00	90.35	179.81	12,479.11	-6,383.32	18.83	6,383.35	0.00	0.00	0.00
19,100.00	90.35	179.81	12,478.50	-6,483.32	19.17	6,483.35	0.00	0.00	0.00
19,200.00	90.35	179.81	12,477.88	-6,583.32	19.51	6,583.35	0.00	0.00	0.00
19,300.00	90.35	179.81	12,477.27	-6,683.32	19.85	6,683.35	0.00	0.00	0.00
19,400.00	90.35	179.81	12,476.66	-6,783.31	20.18	6,783.34	0.00	0.00	0.00
19,500.00	90.35	179.81	12,476.05	-6,883.31	20.52	6,883.34	0.00	0.00	0.00
19,600.00	90.35	179.81	12,475.44	-6,983.31	20.86	6,983.34	0.00	0.00	0.00
19,700.00	90.35	179.81	12,474.83	-7,083.31	21.20	7,083.34	0.00	0.00	0.00
19,800.00	90.35	179.81	12,474.22	-7,183.30	21.54	7,183.34	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Cotton Draw Unit 604H
Company:	Devon Energy	**TVD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Site:	Cotton Draw Unit	**North Reference:**	Grid
Well:	Cotton Draw Unit 604H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,900.00	90.35	179.81	12,473.61	-7,283.30	21.87	7,283.33	0.00	0.00	0.00
20,000.00	90.35	179.81	12,473.00	-7,383.30	22.21	7,383.33	0.00	0.00	0.00
20,100.00	90.35	179.81	12,472.39	-7,483.30	22.55	7,483.33	0.00	0.00	0.00
20,200.00	90.35	179.81	12,471.78	-7,583.29	22.89	7,583.33	0.00	0.00	0.00
20,300.00	90.35	179.81	12,471.17	-7,683.29	23.23	7,683.33	0.00	0.00	0.00
20,400.00	90.35	179.81	12,470.55	-7,783.29	23.56	7,783.33	0.00	0.00	0.00
20,500.00	90.35	179.81	12,469.94	-7,883.29	23.90	7,883.32	0.00	0.00	0.00
20,600.00	90.35	179.81	12,469.33	-7,983.29	24.24	7,983.32	0.00	0.00	0.00
20,700.00	90.35	179.81	12,468.72	-8,083.28	24.58	8,083.32	0.00	0.00	0.00
20,800.00	90.35	179.81	12,468.11	-8,183.28	24.92	8,183.32	0.00	0.00	0.00
20,900.00	90.35	179.81	12,467.50	-8,283.28	25.25	8,283.32	0.00	0.00	0.00
21,000.00	90.35	179.81	12,466.89	-8,383.28	25.59	8,383.31	0.00	0.00	0.00
21,091.69	90.35	179.81	12,466.33	-8,474.96	25.90	8,475.00	0.00	0.00	0.00
EOH									
21,100.00	90.18	179.81	12,466.29	-8,483.27	25.93	8,483.31	2.00	-2.00	0.00
21,125.69	89.67	179.81	12,466.32	-8,508.96	26.02	8,509.00	2.00	-2.00	0.00
EOD									
21,200.00	89.67	179.81	12,466.75	-8,583.27	26.27	8,583.31	0.00	0.00	0.00
21,300.00	89.67	179.81	12,467.33	-8,683.27	26.60	8,683.31	0.00	0.00	0.00
21,400.00	89.67	179.81	12,467.90	-8,783.27	26.94	8,783.31	0.00	0.00	0.00
21,500.00	89.67	179.81	12,468.48	-8,883.26	27.28	8,883.31	0.00	0.00	0.00
21,600.00	89.67	179.81	12,469.06	-8,983.26	27.62	8,983.30	0.00	0.00	0.00
21,700.00	89.67	179.81	12,469.63	-9,083.26	27.96	9,083.30	0.00	0.00	0.00
21,800.00	89.67	179.81	12,470.21	-9,183.26	28.29	9,183.30	0.00	0.00	0.00
21,900.00	89.67	179.81	12,470.78	-9,283.26	28.63	9,283.30	0.00	0.00	0.00
22,000.00	89.67	179.81	12,471.36	-9,383.25	28.97	9,383.30	0.00	0.00	0.00
22,100.00	89.67	179.81	12,471.94	-9,483.25	29.31	9,483.30	0.00	0.00	0.00
22,200.00	89.67	179.81	12,472.51	-9,583.25	29.65	9,583.29	0.00	0.00	0.00
22,300.00	89.67	179.81	12,473.09	-9,683.25	29.98	9,683.29	0.00	0.00	0.00
22,400.00	89.67	179.81	12,473.66	-9,783.24	30.32	9,783.29	0.00	0.00	0.00
22,500.00	89.67	179.81	12,474.24	-9,883.24	30.66	9,883.29	0.00	0.00	0.00
22,600.00	89.67	179.81	12,474.81	-9,983.24	31.00	9,983.29	0.00	0.00	0.00
22,700.00	89.67	179.81	12,475.39	-10,083.24	31.34	10,083.29	0.00	0.00	0.00
22,800.00	89.67	179.81	12,475.97	-10,183.24	31.67	10,183.28	0.00	0.00	0.00
22,900.00	89.67	179.81	12,476.54	-10,283.23	32.01	10,283.28	0.00	0.00	0.00
23,000.00	89.67	179.81	12,477.12	-10,383.23	32.35	10,383.28	0.00	0.00	0.00
23,100.00	89.67	179.81	12,477.69	-10,483.23	32.69	10,483.28	0.00	0.00	0.00
23,200.00	89.67	179.81	12,478.27	-10,583.23	33.03	10,583.28	0.00	0.00	0.00
23,300.00	89.67	179.81	12,478.85	-10,683.22	33.36	10,683.28	0.00	0.00	0.00
23,400.00	89.67	179.81	12,479.42	-10,783.22	33.70	10,783.27	0.00	0.00	0.00
23,500.00	89.67	179.81	12,480.00	-10,883.22	34.04	10,883.27	0.00	0.00	0.00
23,600.00	89.67	179.81	12,480.57	-10,983.22	34.38	10,983.27	0.00	0.00	0.00
23,700.00	89.67	179.81	12,481.15	-11,083.22	34.72	11,083.27	0.00	0.00	0.00
23,800.00	89.67	179.81	12,481.73	-11,183.21	35.05	11,183.27	0.00	0.00	0.00
23,900.00	89.67	179.81	12,482.30	-11,283.21	35.39	11,283.27	0.00	0.00	0.00
24,000.00	89.67	179.81	12,482.88	-11,383.21	35.73	11,383.26	0.00	0.00	0.00
24,100.00	89.67	179.81	12,483.45	-11,483.21	36.07	11,483.26	0.00	0.00	0.00
24,200.00	89.67	179.81	12,484.03	-11,583.20	36.41	11,583.26	0.00	0.00	0.00
24,300.00	89.67	179.81	12,484.61	-11,683.20	36.74	11,683.26	0.00	0.00	0.00
24,400.00	89.67	179.81	12,485.18	-11,783.20	37.08	11,783.26	0.00	0.00	0.00
24,500.00	89.67	179.81	12,485.76	-11,883.20	37.42	11,883.26	0.00	0.00	0.00
24,600.00	89.67	179.81	12,486.33	-11,983.20	37.76	11,983.25	0.00	0.00	0.00
24,700.00	89.67	179.81	12,486.91	-12,083.19	38.10	12,083.25	0.00	0.00	0.00
24,800.00	89.67	179.81	12,487.49	-12,183.19	38.43	12,183.25	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Cotton Draw Unit 604H
Company:	Devon Energy	**TVD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Site:	Cotton Draw Unit	**North Reference:**	Grid
Well:	Cotton Draw Unit 604H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
24,900.00	89.67	179.81	12,488.06	-12,283.19	38.77	12,283.25	0.00	0.00	0.00
24,945.75	89.67	179.81	12,488.33	-12,328.94	38.93	12,329.00	0.00	0.00	0.00
EOH									
25,000.00	88.59	179.81	12,489.15	-12,383.18	39.11	12,383.24	2.00	-2.00	0.00
25,038.75	87.81	179.81	12,490.37	-12,421.91	39.24	12,421.97	2.00	-2.00	0.00
EOD									
25,100.00	87.81	179.81	12,492.71	-12,483.12	39.45	12,483.18	0.00	0.00	0.00
25,200.00	87.81	179.81	12,496.53	-12,583.04	39.79	12,583.10	0.00	0.00	0.00
25,300.00	87.81	179.81	12,500.35	-12,682.97	40.12	12,683.03	0.00	0.00	0.00
25,400.00	87.81	179.81	12,504.17	-12,782.89	40.46	12,782.96	0.00	0.00	0.00
25,500.00	87.81	179.81	12,508.00	-12,882.82	40.80	12,882.89	0.00	0.00	0.00
25,600.00	87.81	179.81	12,511.82	-12,982.75	41.14	12,982.81	0.00	0.00	0.00
25,700.00	87.81	179.81	12,515.64	-13,082.67	41.47	13,082.74	0.00	0.00	0.00
25,800.00	87.81	179.81	12,519.46	-13,182.60	41.81	13,182.67	0.00	0.00	0.00
25,900.00	87.81	179.81	12,523.28	-13,282.53	42.15	13,282.59	0.00	0.00	0.00
26,000.00	87.81	179.81	12,527.10	-13,382.45	42.49	13,382.52	0.00	0.00	0.00
26,100.00	87.81	179.81	12,530.92	-13,482.38	42.82	13,482.45	0.00	0.00	0.00
26,200.00	87.81	179.81	12,534.75	-13,582.31	43.16	13,582.37	0.00	0.00	0.00
26,300.00	87.81	179.81	12,538.57	-13,682.23	43.50	13,682.30	0.00	0.00	0.00
26,400.00	87.81	179.81	12,542.39	-13,782.16	43.84	13,782.23	0.00	0.00	0.00
26,500.00	87.81	179.81	12,546.21	-13,882.08	44.18	13,882.16	0.00	0.00	0.00
26,600.00	87.81	179.81	12,550.03	-13,982.01	44.51	13,982.08	0.00	0.00	0.00
26,700.00	87.81	179.81	12,553.85	-14,081.94	44.85	14,082.01	0.00	0.00	0.00
26,800.00	87.81	179.81	12,557.67	-14,181.86	45.19	14,181.94	0.00	0.00	0.00
26,900.00	87.81	179.81	12,561.49	-14,281.79	45.53	14,281.86	0.00	0.00	0.00
27,000.00	87.81	179.81	12,565.32	-14,381.72	45.86	14,381.79	0.00	0.00	0.00
27,100.00	87.81	179.81	12,569.14	-14,481.64	46.20	14,481.72	0.00	0.00	0.00
27,200.00	87.81	179.81	12,572.96	-14,581.57	46.54	14,581.64	0.00	0.00	0.00
27,300.00	87.81	179.81	12,576.78	-14,681.50	46.88	14,681.57	0.00	0.00	0.00
27,400.00	87.81	179.81	12,580.60	-14,781.42	47.22	14,781.50	0.00	0.00	0.00
27,500.00	87.81	179.81	12,584.42	-14,881.35	47.55	14,881.42	0.00	0.00	0.00
27,600.00	87.81	179.81	12,588.24	-14,981.28	47.89	14,981.35	0.00	0.00	0.00
27,700.00	87.81	179.81	12,592.07	-15,081.20	48.23	15,081.28	0.00	0.00	0.00
27,800.00	87.81	179.81	12,595.89	-15,181.13	48.57	15,181.21	0.00	0.00	0.00
27,900.00	87.81	179.81	12,599.71	-15,281.05	48.90	15,281.13	0.00	0.00	0.00
28,000.00	87.81	179.81	12,603.53	-15,380.98	49.24	15,381.06	0.00	0.00	0.00
28,002.69	87.81	179.81	12,603.63	-15,383.66	49.25	15,383.74	0.00	0.00	0.00
PBHL									

Planning Report

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well Cotton Draw Unit 604H
Company:	Devon Energy	**TVD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Project:	Eddy County, NM (NAD83)	**MD Reference:**	GE 3535.6' + KB 30' @ 3565.60usft
Site:	Cotton Draw Unit	**North Reference:**	Grid
Well:	Cotton Draw Unit 604H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan 1		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP	0.00	0.00	0.00	-15,303.68	50.47	419,688.26	720,882.56	32.152472	-103.753176
- plan misses target center by 12591.37usft at 27441.13usft MD (12582.17 TVD, -14822.52 N, 47.35 E)									
- Point									
FTP	0.00	0.00	0.00	284.90	-5.81	435,276.83	720,826.29	32.195322	-103.753086
- plan misses target center by 284.95usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									
PBHL - CDU 604Y	0.00	0.00	0.00	-15,383.66	49.25	419,608.27	720,881.35	32.152252	-103.753181
- plan misses target center by 12594.43usft at 27521.06usft MD (12585.23 TVD, -14902.39 N, 47.62 E)									
- Point									
T1	0.00	0.00	0.00	-496.12	20.76	434,495.81	720,852.86	32.193175	-103.753014
- plan misses target center by 496.56usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
2,400.00	2,400.00	0.00	0.00	Begin Nudge
2,833.13	2,832.21	22.75	9.18	EOB
4,867.84	4,853.84	236.25	95.33	EOH
5,795.98	5,780.00	285.00	115.00	EOD
12,052.51	12,036.53	285.00	115.00	KOP
12,802.51	12,514.00	-189.03	57.81	Land Point
13,111.84	12,514.00	-496.12	20.76	EOH
13,465.91	12,512.91	-849.37	0.13	EOB
21,091.69	12,466.33	-8,474.96	25.90	EOH
21,125.69	12,466.32	-8,508.96	26.02	EOD
24,945.75	12,488.33	-12,328.94	38.93	EOH
25,038.75	12,490.37	-12,421.91	39.24	EOD
28,002.69	12,603.63	-15,383.66	49.25	PBHL

devon

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

Hydrogen Sulfide (H_2S) Contingency Plan

For

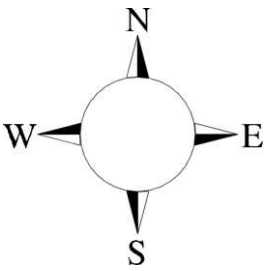
Cotton Draw Unit 604H

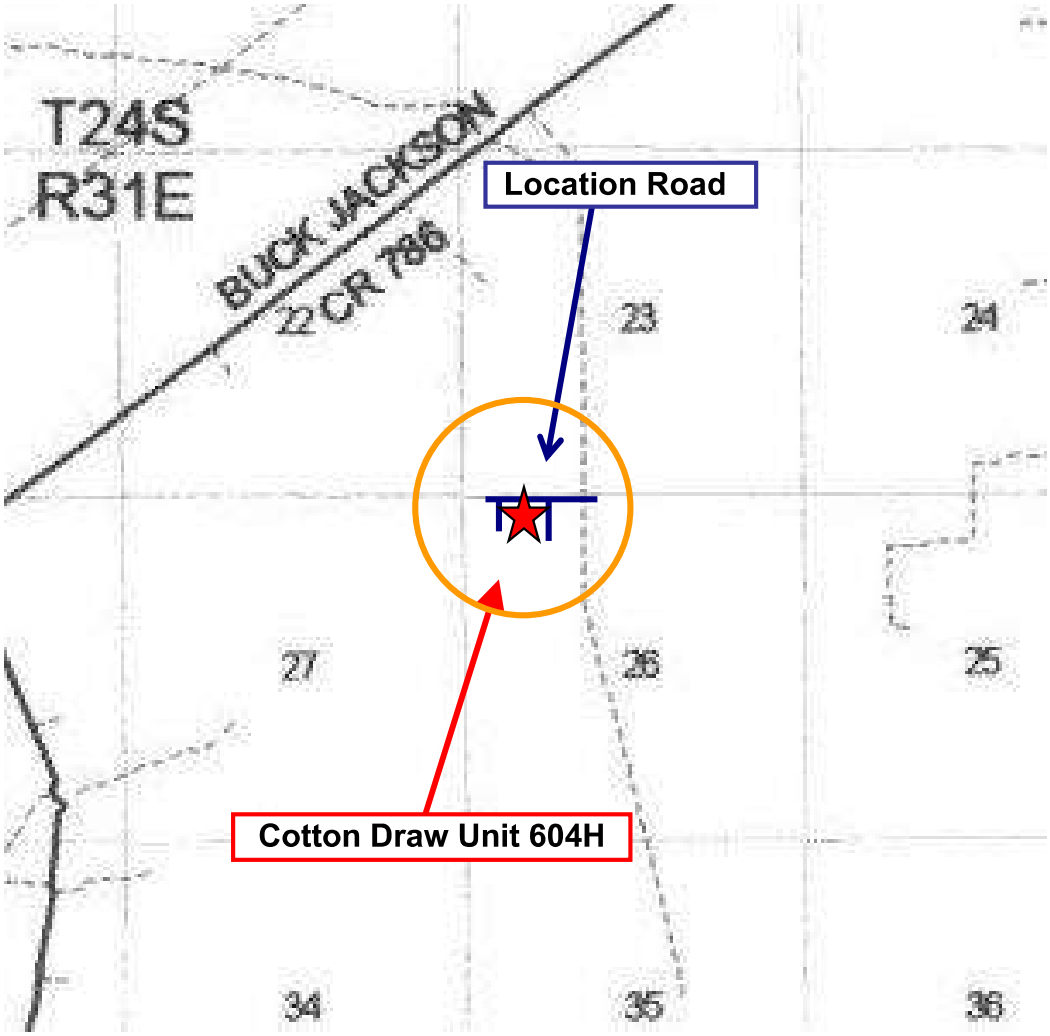
Sec-26 T-24S R-31E
385 FNL & 1255' FWL
LAT. = 32.1945389 N (NAD83)
LONG = 103.7530720 W

Eddy County NM

Cotton Draw Unit 604H

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H_2S, including warning signs, wind indicators and H_2S monitor.





Assumed 100 ppm ROE = 3000' (Radius of Exposure)
100 ppm H2S 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_2S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H_2S, 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_2S 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_2S, 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_2). 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_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	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_2S) 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_2S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H_2S 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_2S 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_2S Drilling Operations Plan.

There will be weekly H_2S and well control drills for all personnel in each crew.

II. HYDROGEN SULFIDE TRAINING

Note: All H_2S 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_2S.

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.

   Fire extinguishers are located at various locations around the rig. First Aid supplies are located in the top doghouse and the rig manger's office.

3. **H_2S detection and monitoring equipment:**

   Portable H_2S monitors positioned on location for best coverage and response. These units have warning lights which activate when H_2S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:

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

4. **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.

5. **Mud program:**

   The mud program has been designed to minimize the volume of H_2S circulated to surface. Proper mud weight, safe drilling practices and the use of H_2S scavengers will minimize hazards when penetrating H_2S bearing zones.

6. **Metallurgy:**

   All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H_2S trim.

   All elastomers used for packing and seals shall be H_2S trim.

7. **Communication:**

   a. Company personnel have/use cellular telephones in the field.

   b. Land line (telephone) communications at Office

8. **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_2S environment will use the closed chamber method of testing.

   b. There will be no drill stem testing.

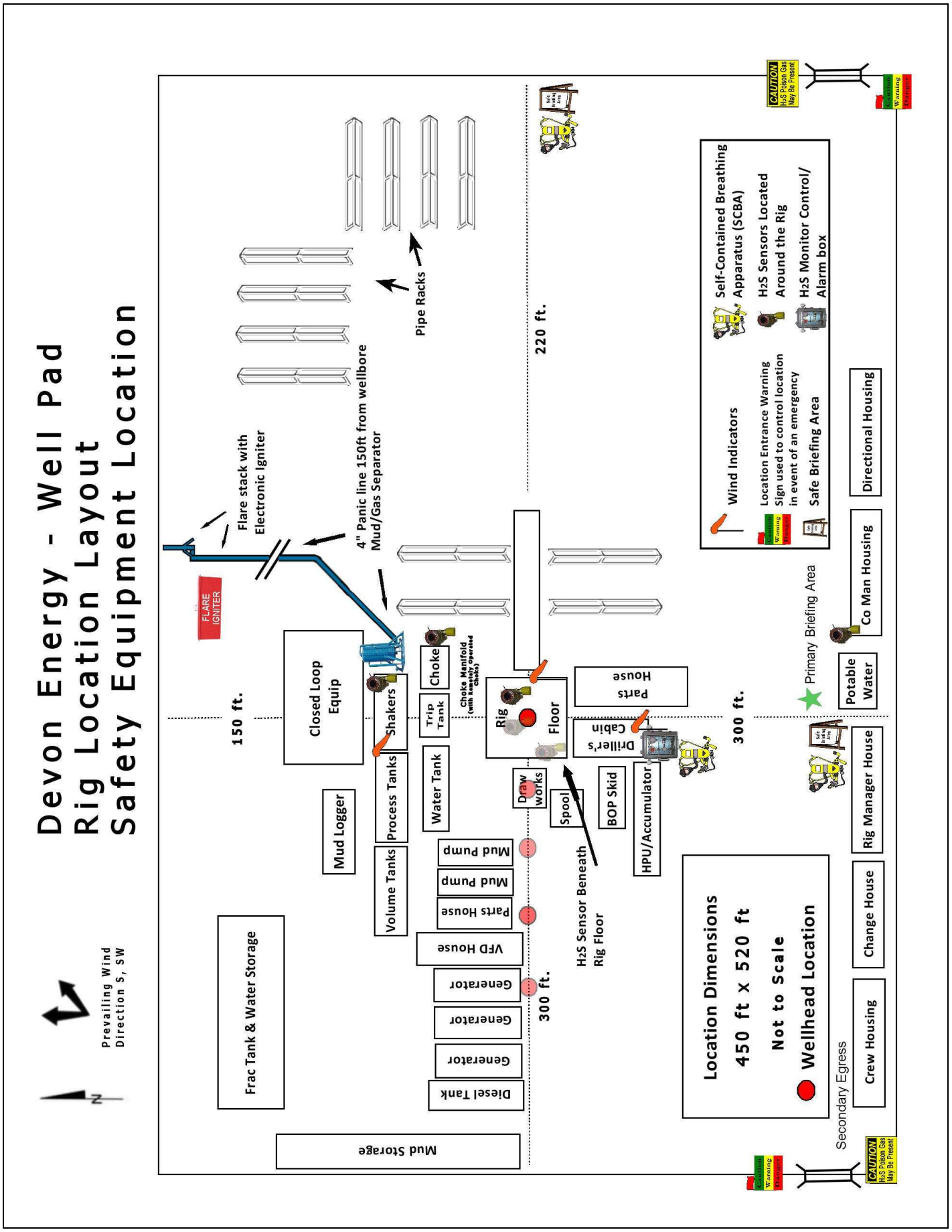
Devon Energy Corp. Company Call List

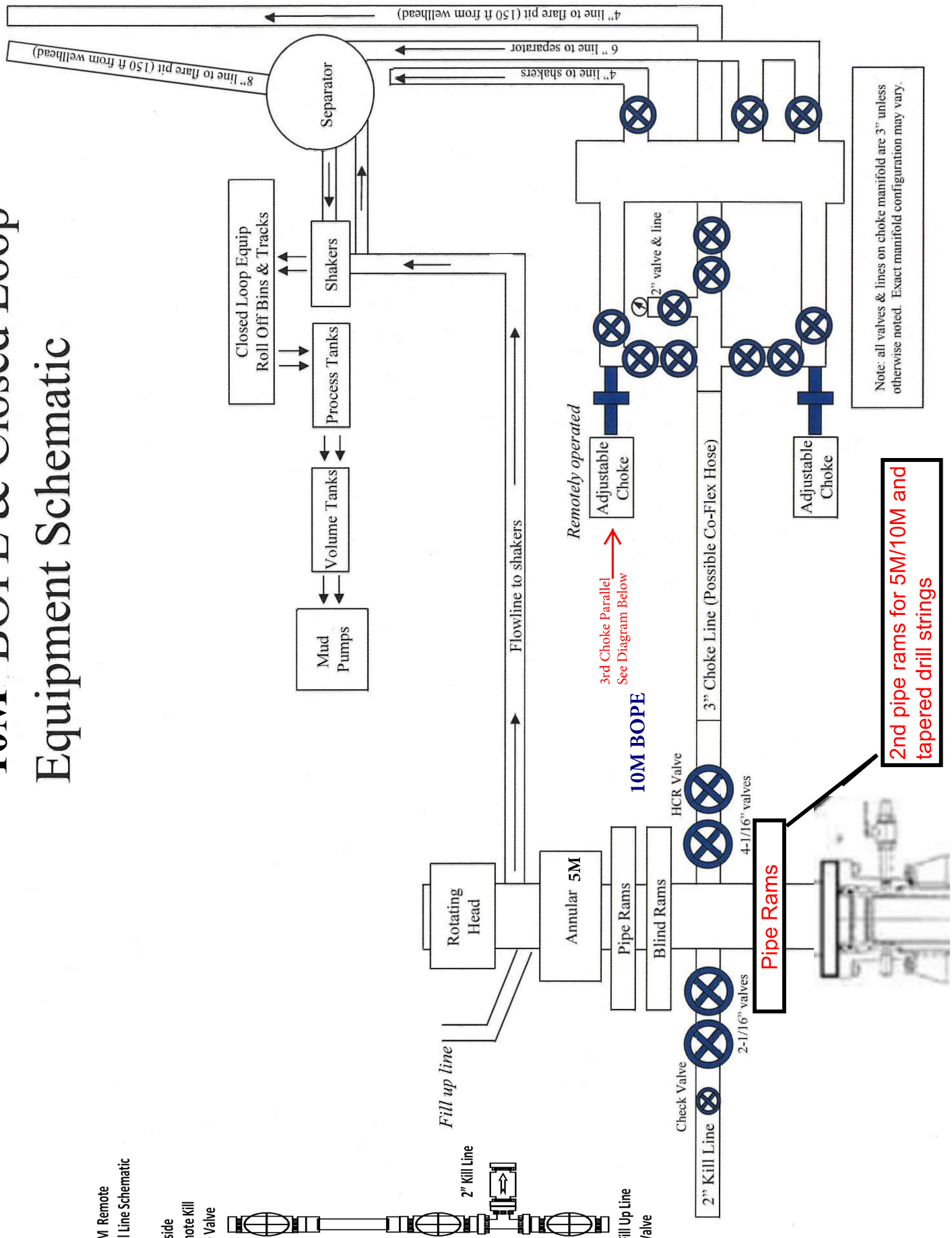
Employee/Company Contact Representative	Position	Phone Number	After Hours Number
Jonathan Fisher (North)	Drilling Manager	832-967-7912	
Jason Hildebrand (South)	Drilling Manager	405-552-6514	
Rich Downey	Drilling VP	405-228-2415	
Josh Harvey	EHS Manger	405-228-2440	918-500-5536
Laura Wright	EHS Supervisor	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

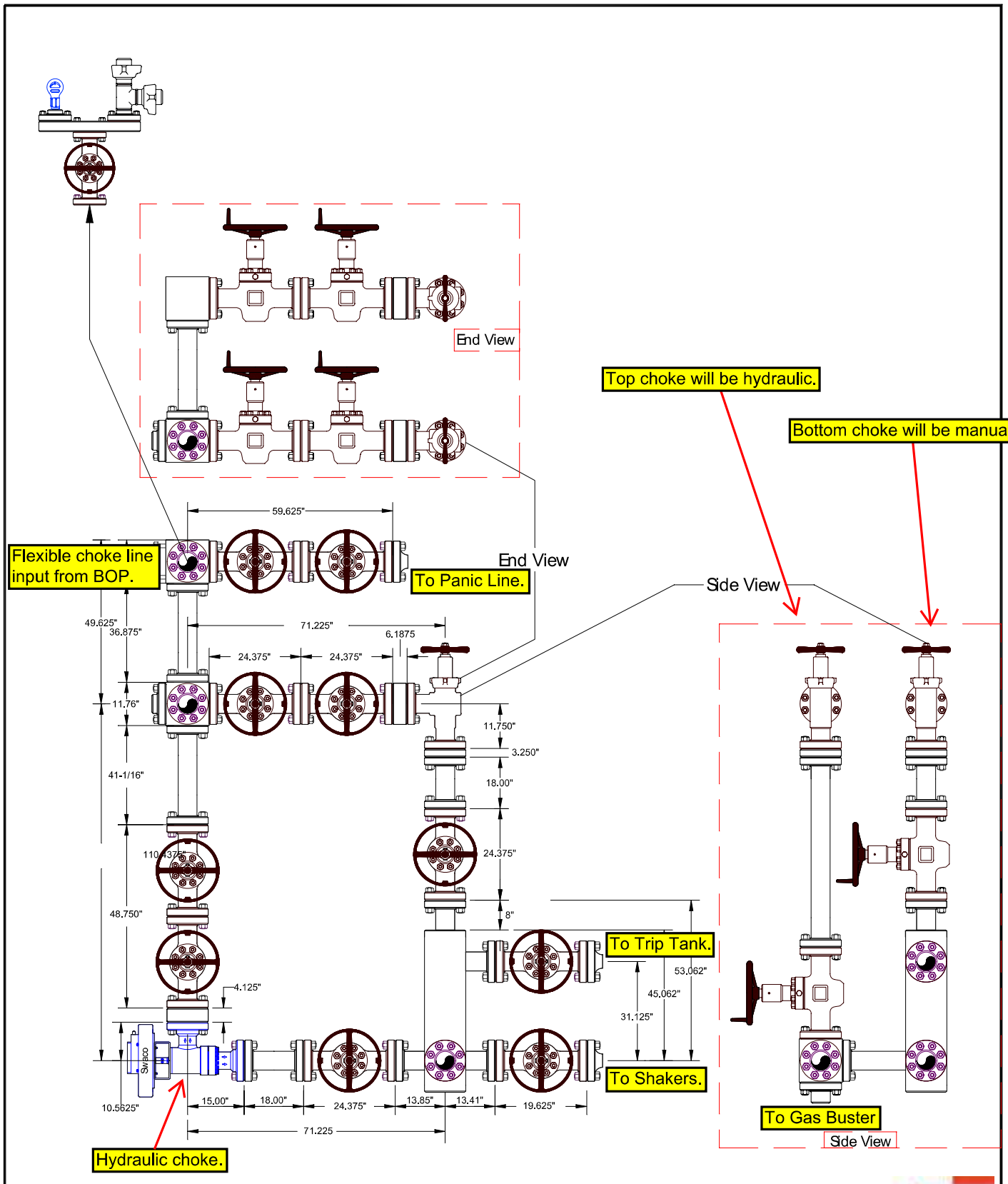
Agency Call List

Lea County (575)	**Hobbs**	
	Lea County Communication Authority	397-9265
	State Police	885-3138
	City Police	397-9265
	Sheriff's Office	396-3611
	Ambulance	**911**
	Fire Department	397-9308
	LEPC (Local Emergency Planning Committee)	393-2870
	NMOCD	393-6161
	US Bureau of Land Management (Hobbs Office Closed)	393-0002
Eddy County (575)	**Carlsbad**	
	State Police	885-3137
	City Police	885-2111
	Sheriff's Office	887-7551
	Ambulance	**911**
	Fire Department	885-3125
	LEPC (Local Emergency Planning Committee)	887-3798
	US Bureau of Land Management (Carlsbad) BLM – CFO **BLM – PET Petroleum Engineering Tech. ON CALL – Cement Notifications or Emergency issues.**	(575)-706-1920 (575)-234-5909 (575) 234-5972 **(575) 689-5981**
	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
	Emergency Services	
	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
Give GPS position:	Native Air – Emergency Helicopter – Hobbs	(575) 347-9836
	For Air Ambulance - **Eddy County** Dispatch	(575)-616-7155
	For Air Ambulance - **Lea County** (LCCA)	(575)-397-9265
	Poison Control (24/7)	(800) 222-1222
	Oil & Gas Pipeline 24 Hour Service	(800) 364-4366
	NOAA – Website - www.nhc.noaa.gov	
	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
	NM OSHA (Reporting)	877-610-6742 505-476-8700


Devon Energy - Well Pad
Rig Location Layout
Safety Equipment Location
Prevailing Wind
Direction S, SW
N
Flare stack with
Electronic Igniter
FLARE
IGNITER
4" Panic line 150ft from wellbore
Mud/Gas Separator
Pipe Racks
220 ft.
150 ft.
300 ft.
300 ft.
Closed Loop
Equip
Shakers
Choke
Choke Manifold
(with Remotely Operated
Choke)
Trip
Tank
Rig
Floor
Parts
House
Driller's
Cabin
Mud Logger
Process Tanks
Water Tank
Draw
works
Spool
BOP Skid
HPU/Accumulator
Volume Tanks
Mud Pump
Mud Pump
Parts House
VFD House
Generator
Generator
Generator
Diesel Tank
Mud Storage
Frac Tank & Water Storage
H2S Sensor Beneath
Rig Floor
Wind Indicators
Self-Contained Breathing
Apparatus (SCBA)
Location Entrance Warning
Sign used to control location
in event of an emergency
H2S Sensors Located
Around the Rig
Safe Briefing Area
H2S Monitor Control/
Alarm box
Primary Briefing Area
Directional Housing
Co Man Housing
Potable
Water
Rig Manager House
Change House
Crew Housing
Secondary Egress
Location Dimensions
450 ft x 520 ft
Not to Scale
Wellhead Location
CAUTION
H2S Poison Gas
May Be Present
Caution
Warning
Danger


10M BOPE & Closed Loop
Equipment Schematic
8" line to flare pit (150 ft from wellhead)
4" line to flare pit (150 ft from wellhead)
6 " line to separator
4" line to shakers
Separator
Closed Loop Equip
Roll Off Bins & Tracks
Shakers
Process Tanks
Volume Tanks
Mud Pumps
Flowline to shakers
Remotely operated
Adjustable Choke
3rd Choke Parallel
See Diagram Below
2" valve & line
Note: all valves & lines on choke manifold are 3" unless otherwise noted. Exact manifold configuration may vary.
3" Choke Line (Possible Co-Flex Hose)
Adjustable Choke
10M BOPE
HCR Valve
4-1/16" valves
Rotating Head
Annular 5M
Pipe Rams
Blind Rams
Pipe Rams
2nd pipe rams for 5M/10M and tapered drill strings
Check Valve
2-1/16" valves
2" Kill Line
Fill up line
2" Kill Line
Fill Up Line Valve
OM Remote
ill Line Schematic
tside
mote Kill
e Valve


End View
Top choke will be hydraulic.
Bottom choke will be manual.
59.625"
Flexible choke line input from BOP.
End View
To Panic Line.
Side View
49.625"
36.875"
71.225"
6.1875
24.375"
24.375"
11.76"
11.750"
3.250"
41-1/16"
18.00"
24.375"
48.750"
8"
To Trip Tank.
53.062"
45.062"
31.125"
4.125"
To Shakers.
10.5625"
15.00"
18.00"
24.375"
13.85"
13.41"
19.625"
71.225
To Gas Buster
Side View
Hydraulic choke.
Helmerich & Payne
Flex 3 Rig w/ 3 Chokes
devon
Name: Mike Potts
Date: 6-23-2010
Working Pressure: 10M
J-5132-E

A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

Devon proposes using a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi.

- Wellhead will be installed by wellhead representatives.
- If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- Wellhead representative will install the test plug for the initial BOP test.
- Wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 5M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.
- If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.
- Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.
- Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.

After running the surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 5M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 5,000 psi high pressure test. The 5,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.

After running the intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 10M will be installed and tested, with 5M annular being tested to 100% of rated working pressure.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 10,000 psi WP.

Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.

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

CONDITIONS

Action 83790

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 83790
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
kpickford	• NSL Will require an administrative order for non-standard location prior to placing the well on production	2/24/2022
kpickford	Adhere to other previous NMOCD Conditions of Approval for 30-015-47302	2/24/2022