

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of work ☒ DRILL ☐ REENTER		7 If Unit or CA Agreement, Name and No	
1b Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		8 Lease Name and Well No Gaucho 21 Federal 2H <308647>	
2 Name of Operator Devon Energy Production Company, LP <60137>		9 API Well No 30-025-40626	
3a Address 20 North Broadway Oklahoma City, Oklahoma City 73102-8260		3b Phone No. (include area code) 405-228-8699	
4 Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 375 FSL & 375 FWL Unit M At proposed prod zone 375 FNL & 375 FWL Unit D PP: 375 FSL & 375 FWL		10 Field and Pool, or Exploratory Cinta Roje, Delaware <979467>	
14 Distance in miles and direction from nearest town or post office* Approximately		12 County or Parish Lea County	
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any) 200'		16 No of acres in lease 1920 Acres	
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. See Attached Map		17 Spacing Unit dedicated to this well 160 Acres	
21 Elevations (Show whether DF, KDB, RT, GL, etc) 3438' GL		20 BLM/BIA Bond No on file CO-1104	
22 Approximate date work will start*		23 Estimated duration 45 days	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, shall be attached to this form

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

25 Signature 	Name (Printed/Typed) Judy A. Barnett	Date 01/30/2012
Title Regulatory Specialist		

Approved by (Signature) 	Name (Printed/Typed) CARLSBAD FIELD OFFICE	Date JUN - 7 2012
Title FIELD MANAGER		

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

APPROVAL FOR TWO YEARS

Title 18 USC Section 1001 and Title 43 USC Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

*(Instructions on page 2)

Capitan Controlled Water Basin

Ka 06/15/12

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

DRILLING PROGRAM

Devon Energy Production Company, LP

Gaucha21 Federal 2H

Surface Location: 375' FSL & 375' FWL, Unit M, Sec 21 T22S R34E, Lea, NM

Bottom Hole Location: 375' FNL & 375' FWL, Unit D, Sec 21 T22S R34E, Lea, NM

1. **Geologic Name of Surface Formation**
2. **Quaternary**
3. **Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:**

a. Fresh Water	600'	FW
b. Rustler	1657'	
c. Top Salt	1737'	
d. Base Salt	4875'	
e. Delaware	5207'	Oil/Gas
f. Cherry Canyon	5607'	Oil/Gas
g. Brushy Canyon	7207'	Oil/Gas
h. L. Brushy Canyon	8283'	Oil/Gas
i. L. Brushy A Sand	8432'	Oil/Gas
j. Bone Spring Lime	8477'	Oil/Gas
Total Depth	12,716'	

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 1,700' and circulating cement back to surface. The Delaware is isolated by setting 9 5/8" casing at 5,150' and circulating cement to surface. The Bone Spring will be isolated by setting 5 1/2" casing to total depth and circulating cement above the base of the 9 5/8" casing.

Casing Program:

	<u>Hole Size</u>	<u>Hole Interval</u>	<u>OD Csg</u>	<u>Casing Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
See COA	17 1/2"	0' - 1,700'	13 3/8"	0' - 1,700'	54.5#	ST&C	J-55
	12 1/4"	1,700' - 5,150'	9 5/8"	0' - 5,150'	36#	LT&C	HCK-55
	8 3/4"	5,150' - 7,700'	5 1/2"	0 - 7,700'	17#	LT&C	HCP-110
	8 3/4"	7,700' - 12,716'	5 1/2"	7,700' - 12,716'	17#	BT&C	HCP-110

An 8-3/4" Pilot Hole will be drilled to 8677' TVD and cemented back to KOP. The cement plug details and geometry are included below in the Cementing Program. *All casing is new and API approved.*

Design Parameter Factors:

<u>Casing Size</u>	<u>Collapse Design Factor</u>	<u>Burst Design Factor</u>	<u>Tension Design Factor</u>
13 3/8"	1.42	3.43	5.55
9 5/8" 36#	1.14	1.31	3.04
5 1/2" 17#	2.07	2.95	1.70
5 1/2" 17#	1.90	2.71	3.33

The maximum possible collapse load that the intermediate casing will experience will result from evacuated casing with the pore pressure exerting a collapse load at TD. The pore pressure is estimated to be 9.5 ppg for this calculation. This results in a collapse design factor of 1.14 for 9-5/8" 36# HCK-55 LTC casing at a depth of 5,150-ft. While running the intermediate casing, the casing will never be completely evacuated. There is no potential for the intermediate casing to be used as a production string.

Cement Program: (all cement volumes based on at least 25% excess)

4.	Pilot Hole	Plug Geometry 7800' to 8677' w/ 375 sx CI H + 0.15% bwoc R-3 + 46.4% FW, 15 6 ppg, Yld: 1.18 cf/sx
	13 3/8" Surface	Lead: 1150 sx 60:40 CI C + 5% bwoc Sodium Chloride + 0.125#/sx CF + 1% bwoc Sodium Metasilicate + 3 #/sx LCM-1 + 89.7% FW 12.6 ppg, Yield: 1.73 cf/sx TOC @ surface. Tail: 300 sacks CI C + 2% bwoc Calcium Chloride + 0.125#/sx CF + 1% bwoc Sodium Metasilicate + 3#/sx LCM-1 + 89.7% FW 14.8 ppg Yld: 1.35 cf/sx.
	9 5/8" Intermediate	Lead: 1240 sx (35'65) Poz (Fly Ash): CI C + 5% bwoc Sodium Chloride + 0.125E/sx CF + 5#/sx LCM-1 + 0.2% bwoc FL-52 + 6% bwoc Bentonite + 99.2% FW 12.60 ppg Yield: 2.00 cf/sx. TOC @ surface Tail: 400 sx (60:40) Poz (Fly Ash) CI C + 5% bwoc Sodium Chloride + 0.125#/sx CF + 0.3% bwoc Sodium Metasilicate + 4% bwoc MPA-5 + 65.5% FW 12.60 ppg Yld: 1.38 cf/sx
	5 1/2" Production	1st Stage Lead: 350 sx (35'65) Poz (Fly Ash) CI H + 3% bwoc Sodium Chloride + 0.125#/sx CF + 3#/sx LCM-1 + 6% bwoc Bentonite + 0.7% bwoc FL-52A + 102.5% FW 12.50 ppg Yield: 2.01 cf/sx Tail: 1,240 sx (50'50) Poz (Fly Ash): CI H + 5% bwoc Sodium Chloride + 0.3% bwoc cd-32 + 0.5% bwoc Sodium Metasilicate 0.5% bwoc FL-52A + 57.3% FW 12.50 ppg Yield: 1.28 cf/sx DV TOOL @ ~6,500' 2nd Stage Lead: 240 sx CI C + 1% bwoc R-3 + 0.125#/sx CF + 3% bwoc Sodium Metasilicate + 157 FW 11.40 ppg Yield: 2.88 cf/sx. TOC @ 4650' 4020 See COA Tail: 100 sx (60:40) Poz (Fly Ash) CI C + 2% bwoc Sodium Chloride + 0.125#/sx CF + 0.2% bwoc Sodium Metasilicate + 4% MPA-5 + 64% FW 11.40 ppg Yield: 1.35 cf/sx.

ACTUAL CEMENT VOLUMES WILL BE ADJUSTED BASED ON FLUID CALIPER AND CALIPER LOG DATA

Pressure Control Equipment:

The BOP system used to drill the intermediate hole will consist of a 13-5/8" 3M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 3M system prior to drilling out the surface casing shoe.

The BOP system used to drill the production hole will consist of a 13-5/8" 3M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 3M system prior to drilling out the intermediate casing shoe.

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 5,000 psi WP.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns.

5. **Proposed Mud Circulation System**

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 1,700' 1745	8.8-9.0	30-34	NC	FW
1,700' - 5,150'	9.8-10.0	28-32	NC	Brine
5,150' - 12,716'	8.6-9.0	28-32	NC-12	FW

The necessary mud products for weight addition and fluid loss control will be on location at all times.

6. **Auxiliary Well Control and Monitoring Equipment:**

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

7. **Logging, Coring, and Testing Program:**

- Drill stem tests will be based on geological sample shows.
- If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.
- The open hole electrical logging program will be:
 - Total Depth to Intermediate Casing Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron - Z Density log with Gamma Ray and Caliper.
 - Total Depth to Surface Compensated Neutron with Gamma Ray
 - No coring program is planned
 - Additional testing will be initiated subsequent to setting the 5 1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

8. **Potential Hazards:**

- No abnormal pressures or temperatures are expected. There is no known presence of H2S in this area. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3744 psi and Estimated BHT 130°. No H2S is anticipated to be encountered.

9. **Anticipated Starting Date and Duration of Operations:**

- Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.



Devon Energy, Inc.

Lea County (NAD83)

Gaucho "21" Federal

#2H

OH

Plan: Plan #1

PathfinderX & Y Report

24 January, 2012

PATHFINDER®

A Schlumberger Company



Azimuths to Gnd North
True North -0.46°
Magnetic North 7.02°

Magnetic Field
Strength 48653.8 nT
Dip Angle 60.32°
Date 1/24/2012
Model IGRF2010

Project Lea County (NAD83)
Site. Gaucho "21" Federal
Well #2H
Wellbore. OH
Plan Plan #1 (#2H/OH)

PROJECT DETAILS Lea County (NAD83)
Geodetic System US State Plane 1983
Datum North American Datum 1983
Ellipsoid GRS 1980
Zone New Mexico Eastern Zone
System Datum Mean Sea Level
Local North Grid

WELL DETAILS #2H

Ground Elevation 3438.9
RKB Elevation KB = 26.2 @ 3465.1 usf (H&P 416)
Rig Name H&P 416

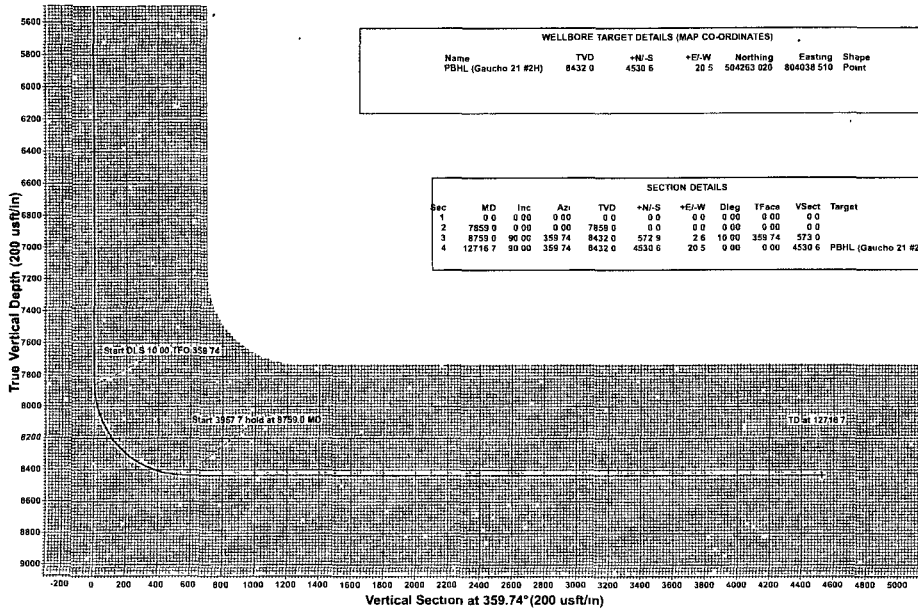
+N-S	+E-W	Northing	Easting	Latitude	Longitude	Spot
0.0	0.0	499732.430	804059.050	32°22'15.465 N	103°28'56.573 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N-S	+E-W	Northing	Easting	Shape
PBHL (Gaucho 21 #2H)	8432.9	4538.6	28.5	504263.020	804038.519	Point

SECTION DETAILS

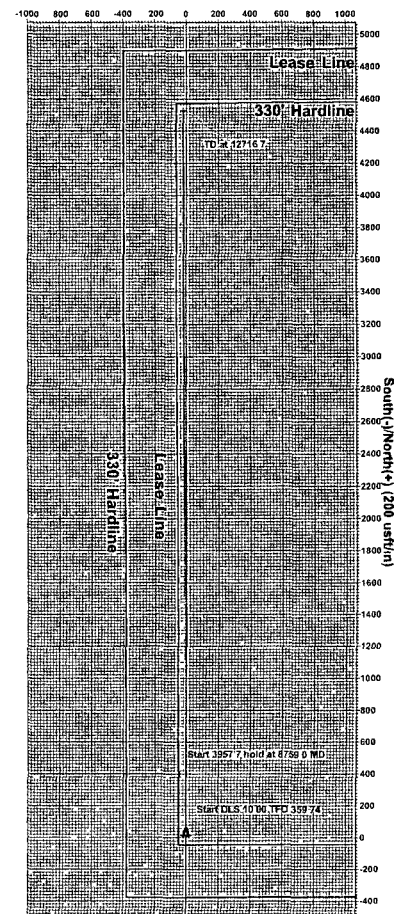
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Diag	IFace	VFace	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	7859.9	0.00	0.00	7859.9	0.0	0.0	0.00	0.00	0.0	
3	8759.0	90.00	359.74	8432.0	572.9	2.6	10.00	359.74	573.0	
4	12716.7	90.00	359.74	8432.0	4538.6	20.5	9.00	0.00	4539.6	PBHL (Gaucho 21 #2H)



PATHFINDER

A Schlumberger Company

West(-)/East(+) (200 usf/in)



Plan Plan #1 (#2H/OH)
Created By: Sam B. Rife Date: 9/10/2012



Pathfinder
PathfinderX & Y Report



Company	Devon Energy, Inc	Local Co-ordinate Reference	Site Gaucho "21" Federal
Project	Lea County (NAD83)	TVD Reference	KB = 26 2 @ 3465 1usft (H&P 416)
Site	Gaucho "21" Federal	MD Reference	KB = 26 2 @ 3465 1usft (H&P 416)
Well	#2H	North Reference	Grid
Wellbore	OH	Survey Calculation Method	Minimum Curvature
Design	Plan #1	Database	EDM 5000 1 Single User Db

Project	Lea County (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	Gaucho "21" Federal		
Site Position		Northing	499,732 430 usft
From:	Map	Easting:	804,059 050 usft
Position Uncertainty:	0 0 usft	Slot Radius	13-3/16 "
		Latitude	32° 22' 15 465 N
		Longitude:	103° 28' 56 573 W
		Grid Convergence:	0 46 °

Well #2H						
Well Position	+N/-S	0 0 usft	Northing.	499,732 430 usft	Latitude.	32° 22' 15 465 N
	+E/-W	0 0 usft	Easting	804,059 050 usft	Longitude:	103° 28' 56 573 W
Position Uncertainty		0 0 usft	Wellhead Elevation:	usft	Ground Level.	3,438 9 usft

Wellbore		OH			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/24/2012	7 48	60 32	48,654

Design: Plan #1				
Audit Notes:				
Version:	Phase	PLAN	Tie On Depth.	0 0
Vertical Section	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)
	0 0	0 0	0 0	359.74

Survey Tool Program	Date	1/24/2012		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
0 0	12,716 7	Plan #1 (OH)	Pathfinder	Pathfinder MWD



Pathfinder
PathfinderX & Y Report



Company:	Devon Energy, Inc	Local Co-ordinate Reference:	Site Gaucho "21" Federal
Project:	Lea County (NAD83)	TVD Reference:	KB = 26 2 @ 3465 1usft (H&P 416)
Site:	Gaucho "21" Federal	MD Reference:	KB = 26 2 @ 3465 1usft (H&P 416)
Well:	#2H	North Reference:	Gnd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000 1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
0 0	0 00	0 00	0 00	-3,465 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
100 0	0 00	0 00	100 0	-3,365 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
200 0	0 00	0 00	200 0	-3,265 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
300 0	0 00	0 00	300 0	-3,165 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
400 0	0 00	0 00	400 0	-3,065 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
500 0	0 00	0 00	500 0	-2,965 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
600 0	0 00	0 00	600 0	-2,865 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
700 0	0 00	0 00	700 0	-2,765 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
800 0	0 00	0 00	800 0	-2,665 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
900 0	0 00	0 00	900 0	-2,565 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
1,000 0	0 00	0 00	1,000 0	-2,465 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
1,100 0	0 00	0 00	1,100 0	-2,365 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
1,200 0	0 00	0 00	1,200 0	-2,265 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
1,300 0	0 00	0 00	1,300 0	-2,165 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
1,400 0	0 00	0 00	1,400 0	-2,065 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
1,500 0	0 00	0 00	1,500 0	-1,965 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
1,600 0	0 00	0 00	1,600 0	-1,865 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
1,700 0	0 00	0 00	1,700 0	-1,765 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
1,800 0	0 00	0 00	1,800 0	-1,665 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
1,900 0	0 00	0 00	1,900 0	-1,565 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
2,000 0	0 00	0 00	2,000 0	-1,465 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
2,100 0	0 00	0 00	2,100 0	-1,365 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
2,200 0	0 00	0 00	2,200 0	-1,265 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
2,300 0	0 00	0 00	2,300 0	-1,165 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
2,400 0	0 00	0 00	2,400 0	-1,065 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
2,500 0	0 00	0 00	2,500 0	-965 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
2,600 0	0 00	0 00	2,600 0	-865 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	



Pathfinder
PathfinderX & Y Report



Company:	Devon Energy, Inc	Local Co-ordinate Reference:	Site Gaucho "21" Federal
Project:	Lea County (NAD83)	TVD Reference:	KB = 26 2 @ 3465 1usft (H&P 416)
Site:	Gaucho "21" Federal	MD Reference:	KB = 26 2 @ 3465 1usft (H&P 416)
Well:	#2H	North Reference:	Gnd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000 1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	D Leg (°/100usft)	Northing (usft)	Easting (usft)	
2,700 0	0 00	0 00	2,700 0	-765 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
2,800 0	0 00	0 00	2,800 0	-665 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
2,900 0	0 00	0 00	2,900 0	-565 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
3,000 0	0 00	0 00	3,000 0	-465 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
3,100 0	0 00	0 00	3,100 0	-365 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
3,200 0	0 00	0 00	3,200 0	-265 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
3,300 0	0 00	0 00	3,300 0	-165 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
3,400 0	0 00	0 00	3,400 0	-65 1	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
3,500 0	0 00	0 00	3,500 0	34 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
3,600 0	0 00	0 00	3,600 0	134 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
3,700 0	0 00	0 00	3,700 0	234 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
3,800 0	0 00	0 00	3,800 0	334 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
3,900 0	0 00	0 00	3,900 0	434 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
4,000 0	0 00	0 00	4,000 0	534 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
4,100 0	0 00	0 00	4,100 0	634 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
4,200 0	0 00	0 00	4,200 0	734 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
4,300 0	0 00	0 00	4,300 0	834 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
4,400 0	0 00	0 00	4,400 0	934 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
4,500 0	0 00	0 00	4,500 0	1,034 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
4,600 0	0 00	0 00	4,600 0	1,134 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
4,700 0	0 00	0 00	4,700 0	1,234 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
4,800 0	0 00	0 00	4,800 0	1,334 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
4,900 0	0 00	0 00	4,900 0	1,434 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
5,000 0	0 00	0 00	5,000 0	1,534 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
5,100 0	0 00	0 00	5,100 0	1,634 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
5,200 0	0 00	0 00	5,200 0	1,734 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	
5,300 0	0 00	0 00	5,300 0	1,834 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05	



Pathfinder
PathfinderX & Y Report



Company:	Devon Energy, Inc	Local Co-ordinate Reference:	Site Gaucha "21" Federal
Project:	Lea County (NAD83)	TVD Reference:	KB = 26.2 @ 3465 1usft (H&P 416)
Site:	Gaucha "21" Federal	MD Reference:	KB = 26.2 @ 3465 1usft (H&P 416)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000 1 Single User Db

Planned Survey													
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	D Leg (°/100usft)	Northing (usft)	Easting (usft)			
5,400 0	0 00	0 00	5,400 0	1,934 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
5,500 0	0 00	0 00	5,500 0	2,034 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
5,600 0	0 00	0 00	5,600 0	2,134 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
5,700 0	0 00	0 00	5,700 0	2,234 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
5,800 0	0 00	0 00	5,800 0	2,334 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
5,900 0	0 00	0 00	5,900 0	2,434 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
6,000 0	0 00	0 00	6,000 0	2,534 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
6,100 0	0 00	0 00	6,100 0	2,634 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
6,200 0	0 00	0 00	6,200 0	2,734 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
6,300 0	0 00	0 00	6,300 0	2,834 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
6,400 0	0 00	0 00	6,400 0	2,934 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
6,500 0	0 00	0 00	6,500 0	3,034 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
6,600 0	0 00	0 00	6,600 0	3,134 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
6,700 0	0 00	0 00	6,700 0	3,234 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
6,800 0	0 00	0 00	6,800 0	3,334 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
6,900 0	0 00	0 00	6,900 0	3,434 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
7,000 0	0 00	0 00	7,000 0	3,534 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
7,100 0	0 00	0 00	7,100 0	3,634 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
7,200 0	0 00	0 00	7,200 0	3,734 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
7,300 0	0 00	0 00	7,300 0	3,834 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
7,400 0	0 00	0 00	7,400 0	3,934 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
7,500 0	0 00	0 00	7,500 0	4,034 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
7,600 0	0 00	0 00	7,600 0	4,134 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
7,700 0	0 00	0 00	7,700 0	4,234 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
7,800 0	0 00	0 00	7,800 0	4,334 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
7,859 0	0 00	0 00	7,859 0	4,393 9	0 0	0 0	0 0	0 00	499,732 43	804,059 05			
7,900 0	4 10	359 74	7,900 0	4,434 9	1 5	0 0	1 5	10 00	499,733 90	804,059 04			



Pathfinder
PathfinderX & Y Report



Company	Devon Energy, Inc	Local Co-ordinate Reference	Site Gaucho "21" Federal
Project	Lea County (NAD83)	TVD Reference	KB = 26 2 @ 3465 1usft (H&P 416)
Site	Gaucho "21" Federal	MD Reference	KB = 26 2 @ 3465 1usft (H&P 416)
Well	#2H	North Reference	Gnd
Wellbore	OH	Survey Calculation Method	Minimum Curvature
Design	Plan #1	Database	EDM 5000 1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Az (azimuth) (°)	TVD (usft)	TVOSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	D Leg (°/100usft)	Northing (usft)	Easting (usft)	
7,950 0	9 10	359 74	7,949 6	4,484 5	7 2	0 0	7 2	10 00	499,739 64	804,059 02	
8,000 0	14 10	359 74	7,998 6	4,533 5	17 3	-0 1	17 3	10 00	499,749 69	804,058 97	
8,050 0	19 10	359 74	8,046 5	4,581 4	31 5	-0 1	31 5	10 00	499,763 97	804,058 91	
8,100 0	24 10	359 74	8,093 0	4,627 9	49 9	-0 2	49 9	10 00	499,782 37	804,058 82	
8,150 0	29 10	359 74	8,137 6	4,672 5	72 3	-0 3	72 3	10 00	499,804 75	804,058 72	
8,200 0	34 10	359 74	8,180 2	4,715 1	98 5	-0 4	98 5	10 00	499,830 94	804,058 60	
8,250 0	39 10	359 74	8,220 4	4,755 3	128 3	-0 6	128 3	10 00	499,860 74	804,058 47	
8,300 0	44 10	359 74	8,257 7	4,792 6	161 5	-0 7	161 5	10 00	499,893 93	804,058 32	
8,350 0	49 10	359 74	8,292 1	4,827 0	197 8	-0 9	197 8	10 00	499,930 25	804,058 15	
8,400 0	54 10	359 74	8,323 1	4,858 0	237 0	-1 1	237 0	10 00	499,969 42	804,057 98	
8,450 0	59 10	359 74	8,350 6	4,885 5	278 7	-1 3	278 7	10 00	500,011 15	804,057 79	
8,500 0	64 10	359 74	8,374 4	4,909 3	322 7	-1 5	322 7	10 00	500,055 12	804,057 59	
8,550 0	69 10	359 74	8,394 3	4,929 2	368 6	-1 7	368 6	10 00	500,100 99	804,057 38	
8,600 0	74 10	359 74	8,410 0	4,944 9	416 0	-1 9	416 0	10 00	500,148 42	804,057 16	
8,650 0	79 10	359 74	8,421 6	4,956 5	464 6	-2 1	464 6	10 00	500,197 04	804,056 94	
8,700 0	84 10	359 74	8,428 9	4,963 8	514 1	-2 3	514 1	10 00	500,246 49	804,056 72	
8,750 0	89 10	359 74	8,431 9	4,966 8	564 0	-2 6	564 0	10 00	500,296 38	804,056 49	
8,759 0	90 00	359 74	8,432 0	4,966 9	572 9	-2 6	573 0	10 00	500,305 38	804,056 45	
8,800 0	90 00	359 74	8,432 0	4,966 9	614 0	-2 8	614 0	0 00	500,346 38	804,056 27	
8,900 0	90 00	359 74	8,432 0	4,966 9	714 0	-3 2	714 0	0 00	500,446 38	804,055 81	
9,000 0	90 00	359 74	8,432 0	4,966 9	813 9	-3 7	814 0	0 00	500,546 38	804,055 36	
9,100 0	90 00	359 74	8,432 0	4,966 9	913 9	-4 1	914 0	0 00	500,646 38	804,054 91	
9,200 0	90 00	359 74	8,432 0	4,966 9	1,013 9	-4 6	1,014 0	0 00	500,746 38	804,054 45	
9,300 0	90 00	359 74	8,432 0	4,966 9	1,113 9	-5 1	1,114 0	0 00	500,846 38	804,054 00	
9,400 0	90 00	359 74	8,432 0	4,966 9	1,213 9	-5 5	1,214 0	0 00	500,946 38	804,053 55	
9,500 0	90 00	359 74	8,432 0	4,966 9	1,313 9	-6 0	1,314 0	0 00	501,046 37	804,053 09	
9,600 0	90 00	359 74	8,432 0	4,966 9	1,413 9	-6 4	1,414 0	0 00	501,146 37	804,052 64	



Pathfinder
PathfinderX & Y Report



Company:	Devon Energy, Inc	Local Co-ordinate Reference:	Site Gaucho "21" Federal
Project:	Lea County (NAD83)	TVD Reference:	KB = 26 2 @ 3465 1usft (H&P 416)
Site:	Gaucho "21" Federal	MD Reference:	KB = 26 2 @ 3465 1usft (H&P 416)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000-1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	D Leg (°/100usft)	Northing (usft)	Easting (usft)	
9,700 0	90 00	359 74	8,432 0	4,966 9	1,513 9	-6 9	1,514 0	0 00	501,246 37	804,052 19	
9,800 0	90 00	359 74	8,432 0	4,966 9	1,613 9	-7 3	1,614 0	0 00	501,346 37	804,051 73	
9,900 0	90 00	359 74	8,432 0	4,966 9	1,713 9	-7 8	1,714 0	0 00	501,446 37	804,051 28	
10,000 0	90 00	359 74	8,432 0	4,966 9	1,813 9	-8 2	1,814 0	0 00	501,546 37	804,050 83	
10,100 0	90 00	359 74	8,432 0	4,966 9	1,913 9	-8 7	1,914 0	0 00	501,646 37	804,050 37	
10,200 0	90 00	359 74	8,432 0	4,966 9	2,013 9	-9 1	2,014 0	0 00	501,746 37	804,049 92	
10,300 0	90 00	359 74	8,432 0	4,966 9	2,113 9	-9 6	2,114 0	0 00	501,846 37	804,049 47	
10,400 0	90 00	359 74	8,432 0	4,966 9	2,213 9	-10 0	2,214 0	0 00	501,946 37	804,049 01	
10,500 0	90 00	359 74	8,432 0	4,966 9	2,313 9	-10 5	2,314 0	0 00	502,046 36	804,048 56	
10,600 0	90 00	359 74	8,432 0	4,966 9	2,413 9	-10 9	2,414 0	0 00	502,146 36	804,048 11	
10,700 0	90 00	359 74	8,432 0	4,966 9	2,513 9	-11 4	2,514 0	0 00	502,246 36	804,047 65	
10,800 0	90 00	359 74	8,432 0	4,966 9	2,613 9	-11 9	2,614 0	0 00	502,346 36	804,047 20	
10,900 0	90 00	359 74	8,432 0	4,966 9	2,713 9	-12 3	2,714 0	0 00	502,446 36	804,046 75	
11,000 0	90 00	359 74	8,432 0	4,966 9	2,813 9	-12 8	2,814 0	0 00	502,546 36	804,046 29	
11,100 0	90 00	359 74	8,432 0	4,966 9	2,913 9	-13 2	2,914 0	0 00	502,646 36	804,045 84	
11,200 0	90 00	359 74	8,432 0	4,966 9	3,013 9	-13 7	3,014 0	0 00	502,746 36	804,045 39	
11,300 0	90 00	359 74	8,432 0	4,966 9	3,113 9	-14 1	3,114 0	0 00	502,846 36	804,044 93	
11,400 0	90 00	359 74	8,432 0	4,966 9	3,213 9	-14 6	3,214 0	0 00	502,946 35	804,044 48	
11,500 0	90 00	359 74	8,432 0	4,966 9	3,313 9	-15 0	3,314 0	0 00	503,046 35	804,044 03	
11,600 0	90 00	359 74	8,432 0	4,966 9	3,413 9	-15 5	3,414 0	0 00	503,146 35	804,043 57	
11,700 0	90 00	359 74	8,432 0	4,966 9	3,513 9	-15 9	3,514 0	0 00	503,246 35	804,043 12	
11,800 0	90 00	359 74	8,432 0	4,966 9	3,613 9	-16 4	3,614 0	0 00	503,346 35	804,042 67	
11,900 0	90 00	359 74	8,432 0	4,966 9	3,713 9	-16 8	3,714 0	0 00	503,446 35	804,042 21	
12,000 0	90 00	359 74	8,432 0	4,966 9	3,813 9	-17 3	3,814 0	0 00	503,546 35	804,041 76	
12,100 0	90 00	359 74	8,432 0	4,966 9	3,913 9	-17 7	3,914 0	0 00	503,646 35	804,041 31	
12,200 0	90 00	359 74	8,432 0	4,966 9	4,013 9	-18 2	4,014 0	0 00	503,746 35	804,040 85	
12,300 0	90 00	359 74	8,432 0	4,966 9	4,113 9	-18 7	4,114 0	0 00	503,846 35	804,040 40	



Pathfinder
PathfinderX & Y Report



Company:	Devon Energy, Inc	Local Co-ordinate Reference:	Site Gaucho "21" Federal
Project:	Lea County (NAD83)	TVD Reference:	KB = 26 2 @ 3465 1usft (H&P 416)
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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #1	Database:	EDM 5000 1 Single User Db

Planned Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (7100usft)	Northing (usft)	Easting (usft)	
12,400 0	90 00	359 74	8,432 0	4,966 9	4,213 9	-19 1	4,214 0	0 00	503,946 34	804,039 95	
12,500 0	90 00	359 74	8,432 0	4,966 9	4,313 9	-19 6	4,314 0	0 00	504,046 34	804,039 49	
12,600 0	90 00	359 74	8,432 0	4,966 9	4,413 9	-20 0	4,414 0	0 00	504,146 34	804,039 04	
12,700 0	90 00	359 74	8,432 0	4,966 9	4,513 9	-20 5	4,514 0	0 00	504,246 34	804,038 59	
12,716 7	90 00	359 74	8,432 0	4,966 9	4,530 6	-20 5	4,530 6	0 00	504,263 02	804,038 51	

Checked By	_____	Approved By	_____	Date	_____
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NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, LP

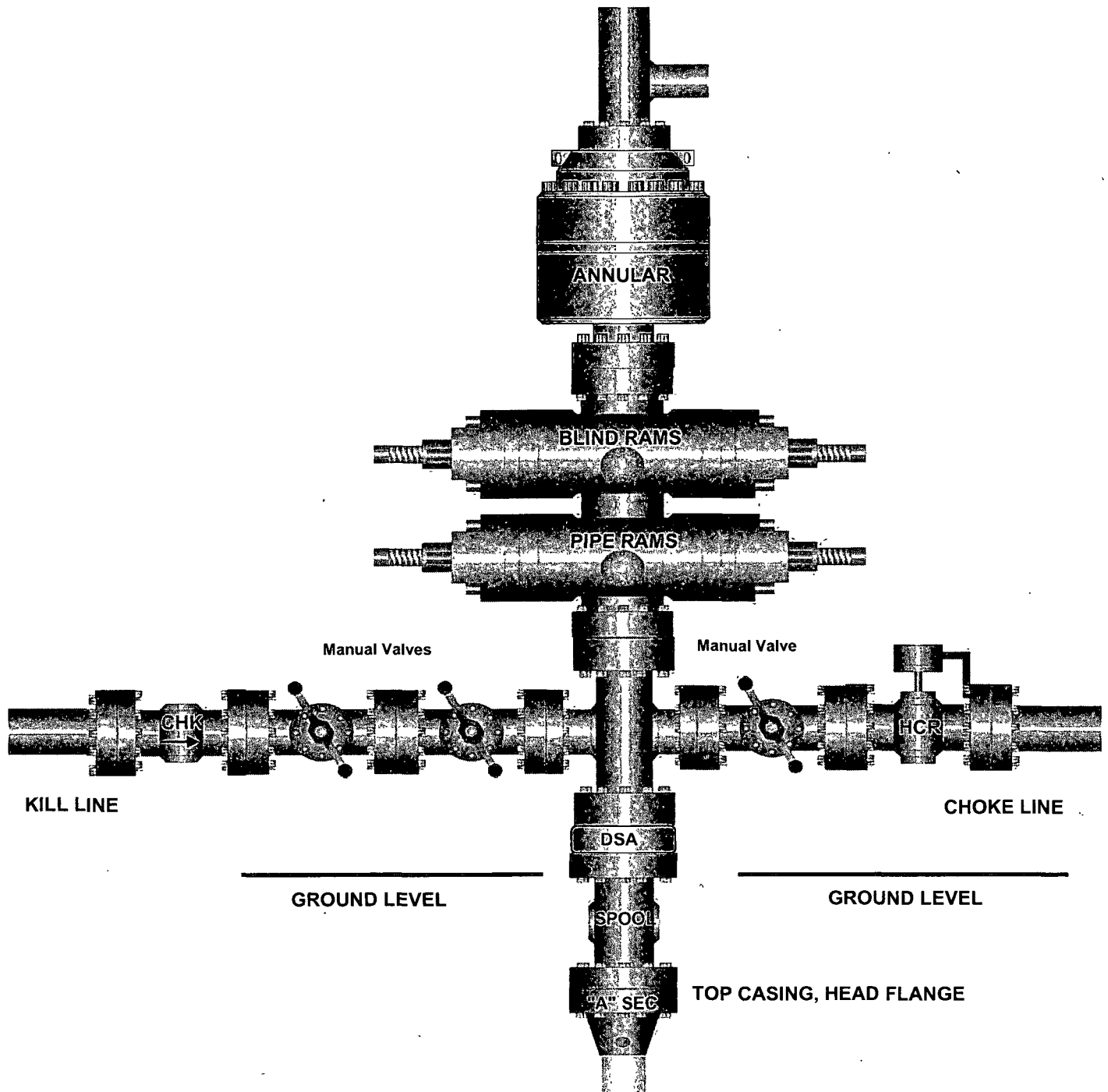
Gaucha21 Federal 2H

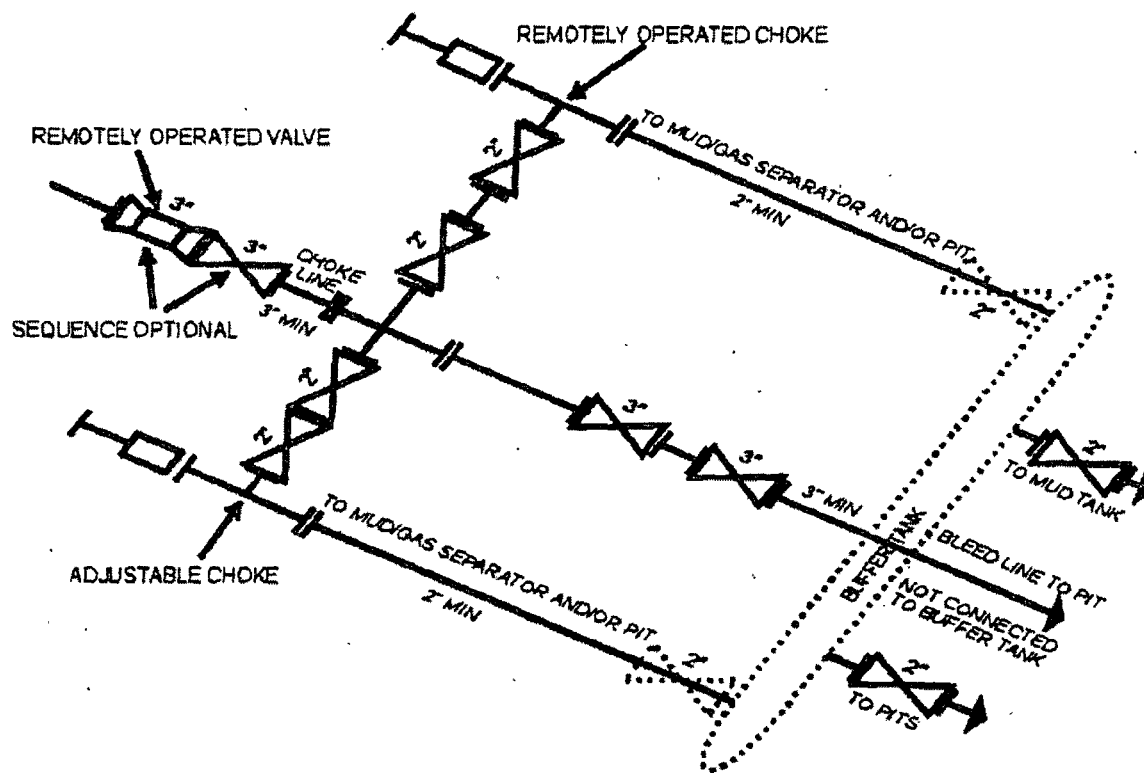
Surface Location: 375' FSL & 375' FWL, Unit M, Sec 21 T22S R34E, Lea, NM

Bottom Hole Location: 375' FNL & 375' FWL, Unit D, Sec 21 T22S R34E, Lea, NM

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a kelly cock attached to the kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

13-5/8" x 3,000 psi BOP Stack



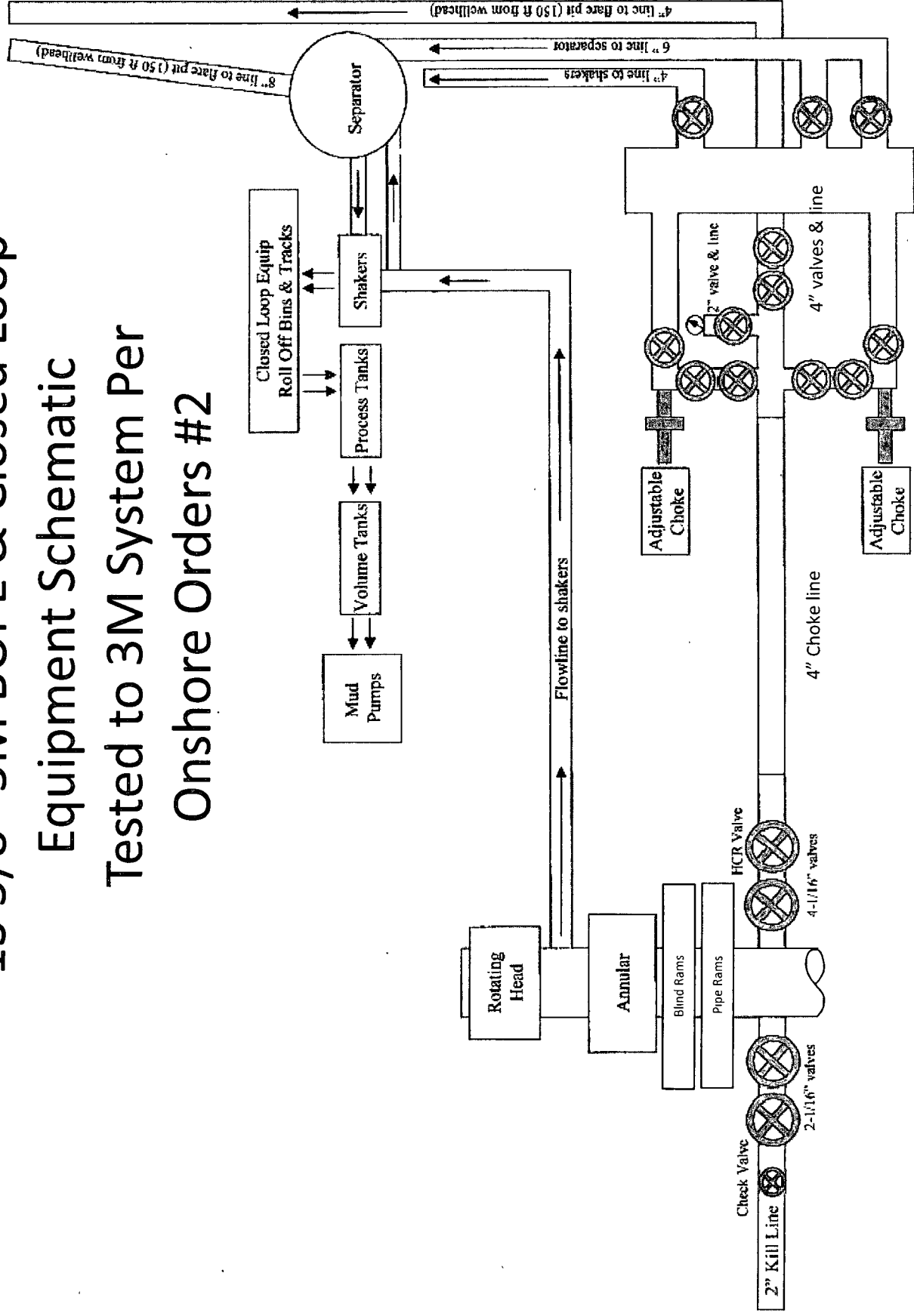


5M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

Although not required for any of the choke manifold systems, buffer tanks are sometimes installed downstream of the choke assemblies for the purpose of manifolding the bleed lines together. When buffer tanks are employed, valves shall be installed upstream to isolate a failure or malfunction without interrupting flow control. Though not shown on 2M, 3M, 10M, OR 15M drawings, it would also be applicable to those situations.

[54 FR 39528, Sept. 27, 1989]

13 5/8" 5M BOPE & Closed Loop Equipment Schematic Tested to 3M System Per Onshore Orders #2



Note: All valves & lines on choke manifold are 2" unless otherwise noted. Exact manifold configuration may vary.



Fluid Technology

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as intended and suitable for the application regardless of whether the hose is secured or unsecured in its configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Production, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a failure; but in no way does the lifting and safety equipment affect the performance of the hoses providing the hoses have been handled and installed correctly. It is good practice to use lifting & safety equipment but not mandatory.

Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

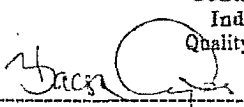
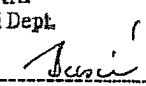
ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

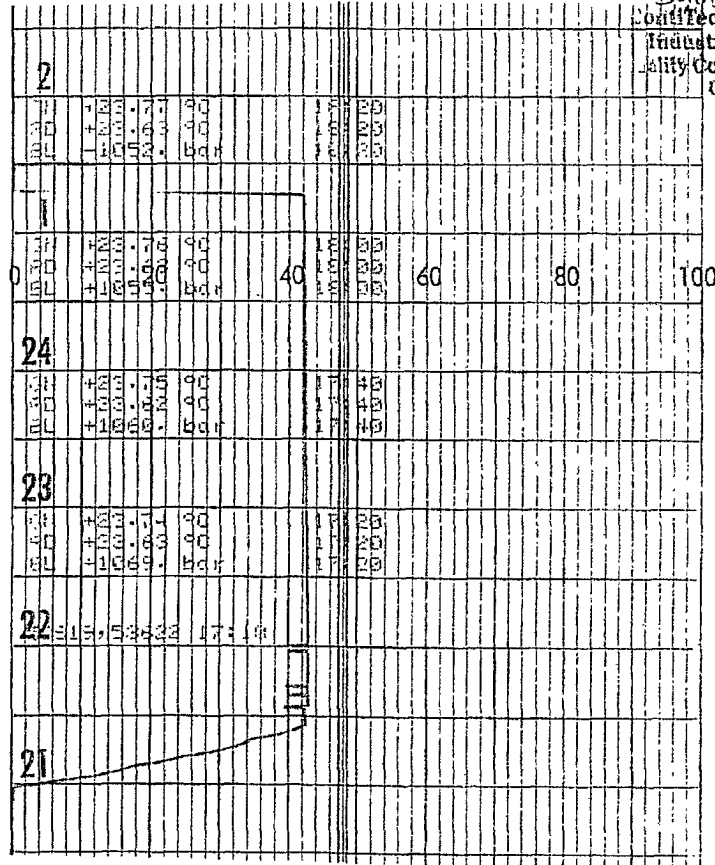
Robin Hodgson
Sales Manager
ContiTech Beattie Corp

ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.contitechbeattie.com



QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 1713	
PURCHASER: ContiTech Beattie Co.				P.O. N°: 002808	
CONTITECH ORDER N°: 426127		HOSE TYPE: 3" ID Choke and Kill Hose			
HOSE SERIAL N°: 53622		NOMINAL / ACTUAL LENGTH: 10,67 m			
W.P. 68,96 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature See attachment. (1 page) ↑ 10 mm = 10 Min. → 10 mm = 25 MPa					
COUPLINGS Type		Serial N°		Quality	
3" coupling with 4 1/16" Flange end		5503 2029		AISI 4130 AISI 4130	
				Heat N° N1590P 27566	
INFOCHIP INSTALLED				API Spec 16 C Temperature rate:"B"	
All metal parts are flawless				Hose conform to NACE MR 01-75	
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.					
COUNTRY OF ORIGIN HUNGARY/EU					
Date: 25. August. 2008		Inspector		Quality Control ContiTech Rubber Industrial Kft. Quality Control Dept.  	

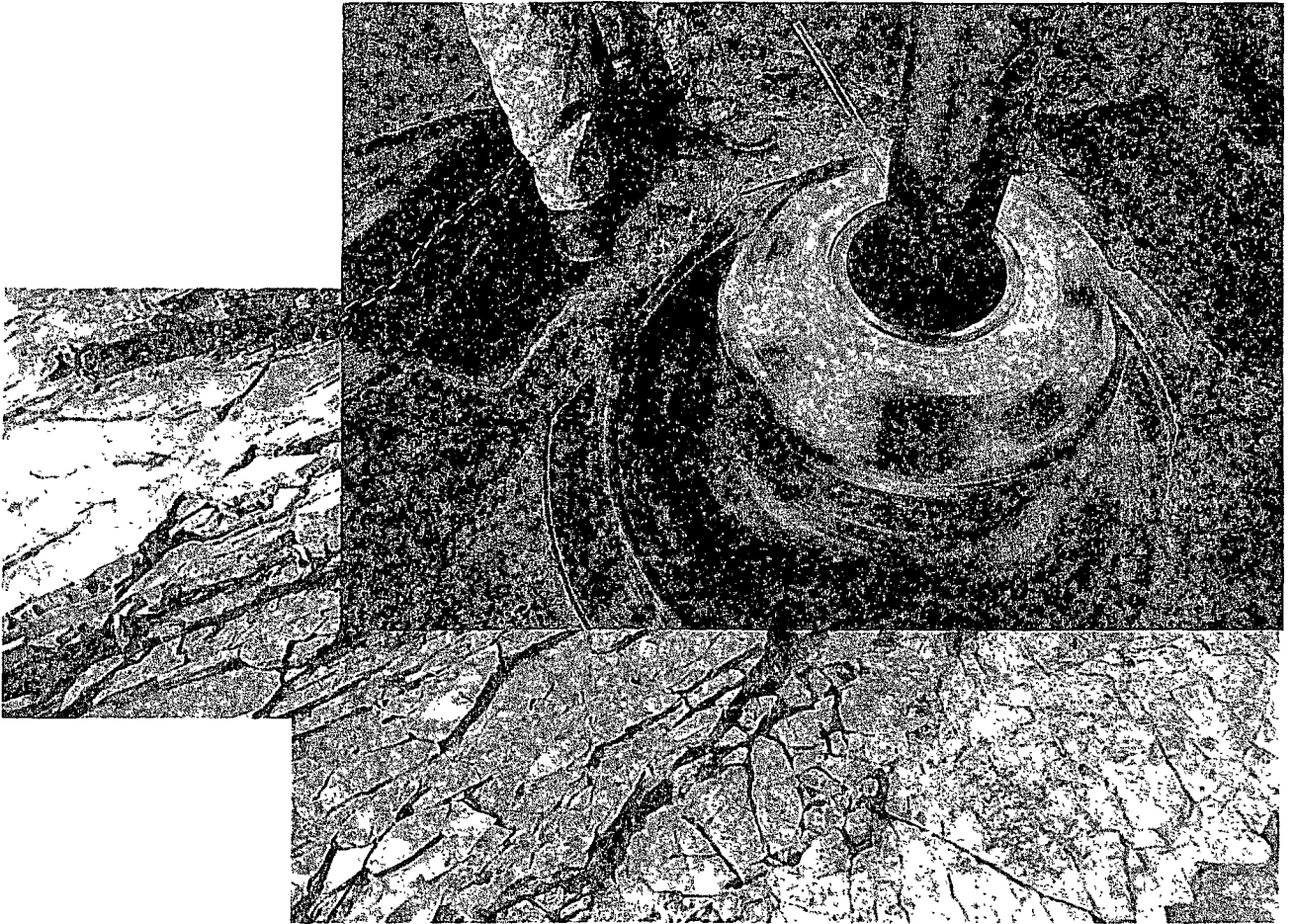
HARTMANN &



ContiTech Rubber
Industrial Kft.
Quality Control Dept.
(2)



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.

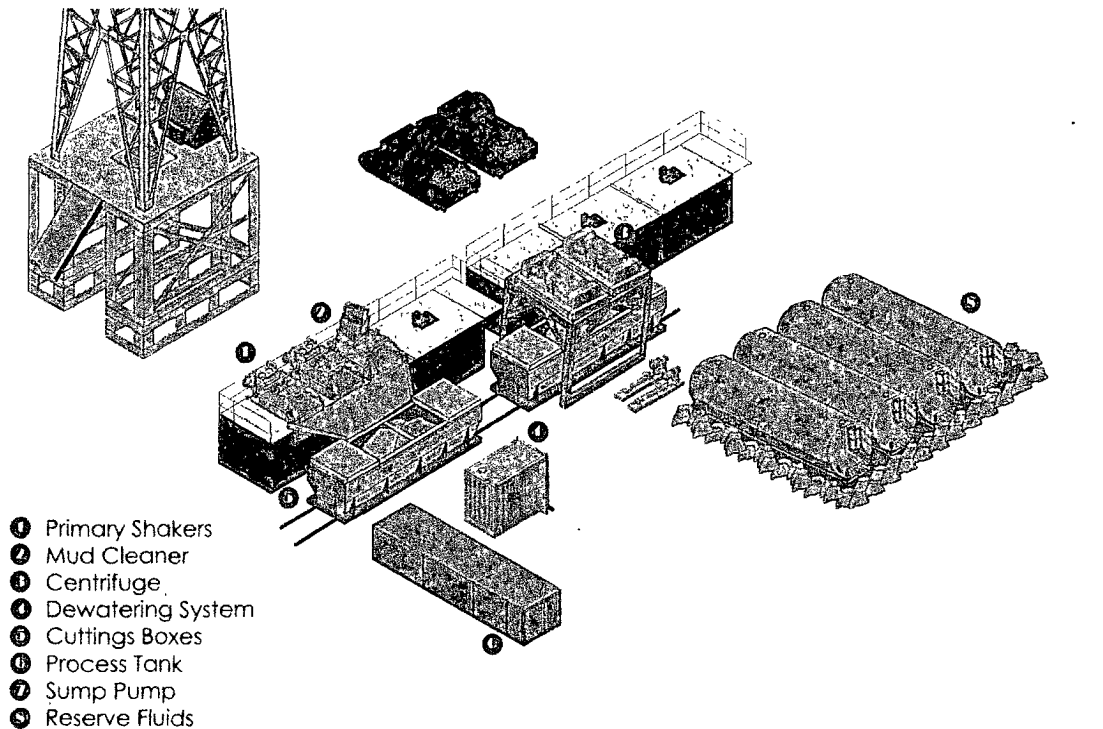
II. Operations and Maintenance Plan

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.

devon

Closed Loop Schematic



Mi SWACO

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.

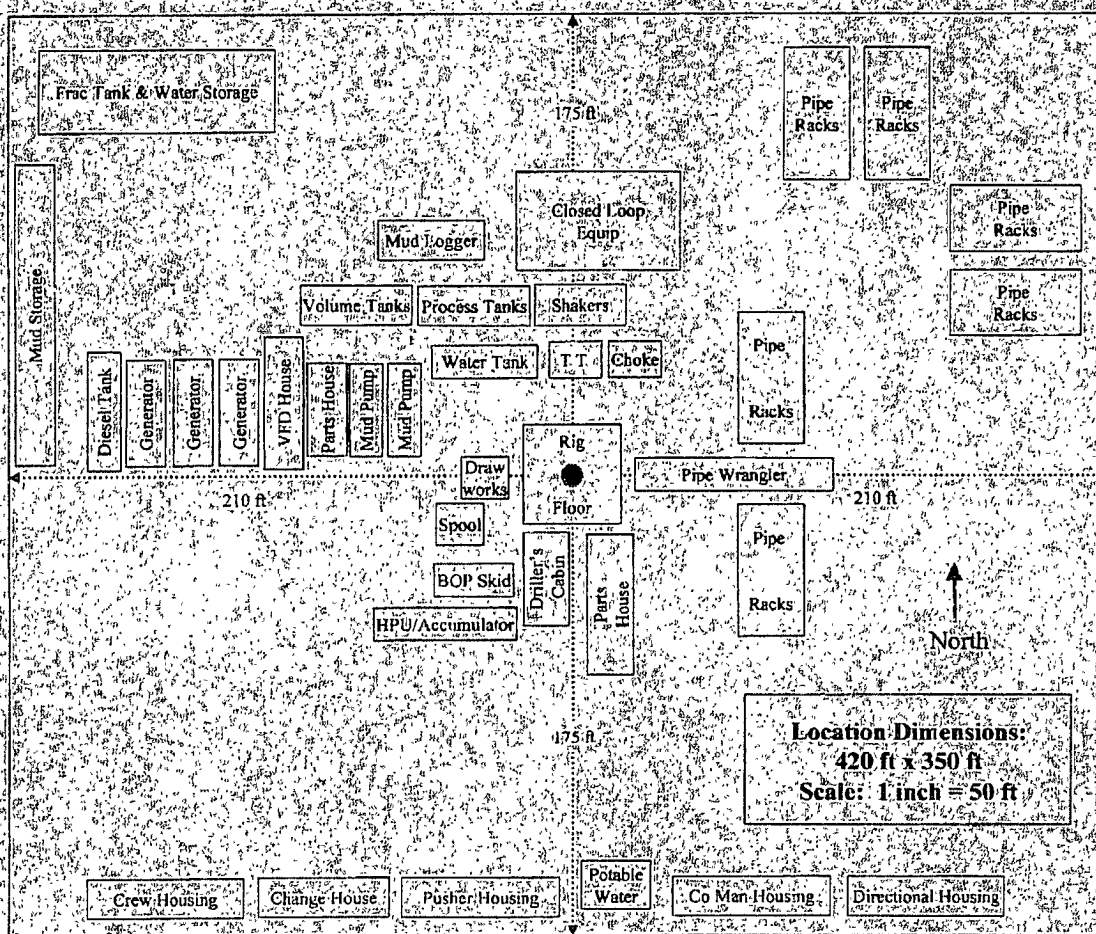
These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the 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.

H&P Flex Rig Location Layout



Topsoil to be placed on the Southside - Tanks NORTH for Safety Requirements