

Form 3160-3
(March 2012)
Split Estate
HOBBS OCD
DEC 17 2013
RECEIVED

UNORTHODOX
LOCATION

OCD Hobbs

ATS-13-1074

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

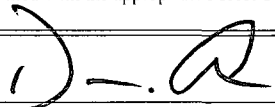
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☒ DRILL ☐ REENTER		5. Lease Serial No. BHL NMNM098247, NMNM092781
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Devon Energy Production Company, L.P.		7. If Unit or CA Agreement, Name and No. NM 94480X
3a. Address 333 W. Sheridan Ave. Oklahoma City, OK 73102	3b. Phone No. (include area code) 405-552-7848	8. Lease Name and Well No. GAUCHO UNIT 13H <30863>
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 100 FNL & 575 FEL Unit A PP: 100 FNL & 575 FEL At proposed prod. zone 330 FNL & 660 FEL Unit A; 17-22S-34E		9. API Well No. 30-025-41565
14. Distance in miles and direction from nearest town or post office* Approximately 19 miles southwest of Eunice, NM		10. Field and Pool, or Exploratory WC-025-0-003223421L; Ojo Chiso West, Bone Spring <97922>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 100'	16. No. of acres in lease NMNM098247, 320 acres; NMNM092781, 800 acres	11. Sec., T. R. M. or Blk. and Survey or Area 20-22S-34E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. See attached map	19. Proposed Depth TVD: 10,448' MD: 15,235'	12. County or Parish Lea County
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3,466.0' GL	22. Approximate date work will start* 09/01/2013	13. State NM
20. BLM/BIA Bond No. on file CO-1104 & NMB-000801		
23. Estimated duration 25 days		

24. Attachments To Be Pad Drilled w/ Gaucho Unit 12H

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must 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 must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature 	Name (Printed/Typed) David H. Cook	Date 08/01/2013
Title Regulatory Specialist		
Approved by (Signature) /S/ STEPHEN J. CAFFEY	Name (Printed/Typed)	Date DEC 13 2013
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

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 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)

Capitan Controlled Water Basin
*(Instructions on page 2)

Ka
12/19/13

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements
& Special Stipulations Attached

DEC 30 2013

PM

DRILLING PROGRAM
Devon Energy Production Company, LP
Gaucha Unit 13H

Surface Location: 100 FNL & 575 FEL, Unit A, Sec 20 T22S R34E, Lea, NM
Bottom Hole Location: 330 FNL & 660 FEL, Unit A, Sec 17 T22S R34E, Lea, NM

1. Geologic Name of Surface Formation

a. Quaternary

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:

a. Fresh Water	300'	
b. Rustler	1,640'	
c. Top of Salt	1,925'	
d. Base of Salt	3,700'	
e. Yates	3,930'	
f. Queen	4,100'	Oil/Gas
g. Grayburg	4,710'	Oil/Gas
h. Delaware	5,256'	Oil/Gas
i. Cherry Canyon	6,016'	Oil/Gas
j. Lower Brushy Canyon	8,264'	Oil/Gas
k. Bone Spring Lime	8,443'	Oil/Gas
l. 1 st Bone Spring Sand	9,497'	Oil/Gas
m. 2 nd Bone Spring Sand	10,046'	Oil/Gas

Total Depth 15,235' MD 10,448' TVD

3. Casing Program: (All casing is new and API approved.)

<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>
17-1/2"	0 – 1,750	13-3/8"	0 – 1,750	54.5#	STC	J-55
12-1/4"	1,750 – 5,150	9-5/8"	0 – 5,150	40#	BTC	HCK-55
8-3/4"	5,150 – 9,750	5-1/2"	0 – 9,750	17#	LTC	HCP-110
8-3/4"	9,750 – 15,235	5-1/2"	9,750 – 15,235	17#	BTC	HCP-110

MAXIMUM LATERAL TVD **10,448'**

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" 54.5# J-55 STC	1.38	3.33	9.53
9-5/8" 40# HCK-55 BTC	1.58	1.47	4.50
5-1/2" 17# HCP-110 LTC	1.84	2.28	3.43
5-1/2" 17# HCP-110 BTC	1.75	2.18	2.19

4. Cement Program:

String	Slurry	Amount and Type of Cement
Surface <i>13 3/4</i>	Lead	1000 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.125 lbs/sk Poly-E-Flake + 4% bwoc Bentonite + 70.1% Fresh Water, 13.5 ppg, 1.75 cf/sk
	Tail	550 sacks Class C Cement + 1% bwoc Calcium Chloride + 0.125 lbs/sack Poly-E-Flake + 63.1% Fresh Water, 14.8 ppg, 1.34 cf/sk
9-5/8" Intermediate	Lead	1060 sacks (65:35) Class H Cement:Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 70.9 % Fresh Water, 12.9 ppg, 1.85 cf/sk
	Tail	430 sacks Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.9% Fresh Water, 14.8 ppg, 1.33 cf/sk
Production <i>5 1/2"</i> <i>See COA</i>	Lead # 1	390 sacks (50:50) Class H Cement:Poz (Fly Ash) + 10% BWOC Bentonite + 0.15% SA-1015 + 0.1% BWOC HR-601 + 0.25 lb/sk D-Air 5000 + 80.01 % Fresh Water, 11.5 ppg, 2.57 cf/sk
	Lead # 2	330 sacks (65:35) Class H Cement:Poz (Fly Ash) + 6% BWOC Bentonite + 0.25% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake + 74.1 % Fresh Water, 12.5 ppg, 1.96 cf/sk
	Tail	1410 sacks (50:50) Class H Cement:Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water, 14.5 ppg, 1.21 cf/sk
	Contingency Plan For loss of Circulation	
	1 st STAGE	
	Lead	480 sacks (50:50) Class H Cement:Poz (Fly Ash) + 10% BWOC Bentonite + 0.15% SA-1015 + 0.1% BWOC HR-601 + 0.25 lb/sk D-Air 5000 + 80.01 % Fresh Water, 11.5 ppg, 2.57 cf/sk
	Tail	1410 sacks (50:50) Class H Cement:Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water, 14.5 ppg, 1.21 cf/sk
	2 nd STAGE (DV tool and ECP at 6000 ft)	
	Lead	130 sacks (65:35) Class H Cement:Poz (Fly Ash) + 6% BWOC Bentonite + 0.25% BWOC HR-601 + 0.125 lbs/sack Poly-E-Flake + 74.1 % Fresh Water, 12.5 ppg, 1.96 cf/sk
	Tail	120 sacks Class C Cement + 63.9% Fresh Water, 14.8 ppg, 1.33 cf/sk

- The above cement volumes based on at least Surface 100% excess, Intermediate 75% excess and Production is 25% excess. Actual cement volumes to be adjusted based on fluid caliper and/or caliper log data.
- If lost circulation is encountered while drilling the production wellbore, a DV tool and ECP will be installed a minimum of 50' below the previous casing shoe and a maximum of 200' above the current shoe. If the DV tool has to be moved, the cement volumes will be adjusted proportionately.



String	TOC
13-3/8" Intermediate	Surface
9-5/8" Intermediate	Surface
5-1/2" Production	4,650' (-500 ft inside of 9-5/8" Casing Shoe)

5.

Pressure Control Equipment

no 50' above Captain Reef

The BOP system used to drill the 12-1/4" and 8-3/4" holes 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 2. A 3M system will be installed and tested prior to drilling out the casing shoes.

The pipe rams will be operated and checked as per Onshore Order 2. 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 **3,000 psi WP**.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line); **if an H&P rig drills this well. Otherwise no flex line is needed.** The line will be kept as straight as possible with minimal turns.

See
COA

6. **Proposed Mud Circulation System:**

Depth Range	Mud Weight	Viscosity	Fluid Loss	Type System
0 – 1,750'	8.5 – 8.9	35 – 45	NC	Fresh Water
1,750' – 5,150'	9.8 – 10	29 – 36	NC	Brine
5,150' – 9,855'	8.4 – 8.8	29 – 36	<100	Cut Brine
9,855' – 15,235'	8.6 – 9.0	29 – 36	<100	Cut Brine

The necessary mud products for weight addition and fluid loss control will be on location at all times. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume. If abnormal pressures are encountered, electronic/mechanical mud monitoring equipment will be installed.

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

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- c. 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.

See
COA

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

- a. Drill stem tests will be based on geological sample shows.
- b. 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.
- c. The open hole electrical logging program will be:
 - i. Total Depth to Intermediate Casing Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
 - ii. Total Depth to Surface Compensated Neutron with Gamma Ray
 - iii. No coring program is planned
 - iv. 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.

9. Potential Hazards:

- a. 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 4550 psi and Estimated BHT 160°. No H₂S is anticipated to be encountered.

10. Anticipated Starting Date and Duration of Operations:

- a. 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 20 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

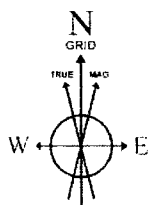
Location: Lea County, NM
Field: (Gaucho) Sec 17, T22S, R34E
Facility: Gaucho Unit No.12H & No.13H

Slot: No.13H SHL
Well: No.13H
Wellbore: No.13H PWB

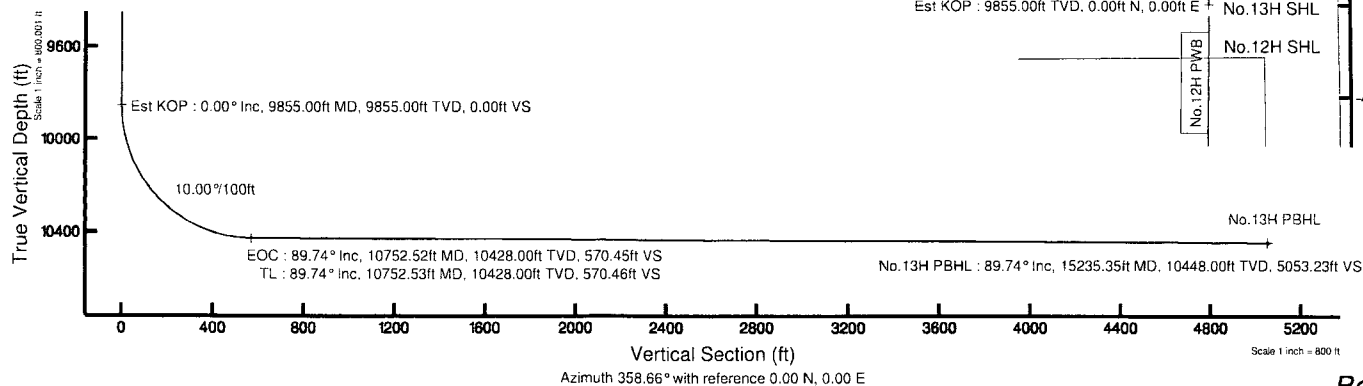
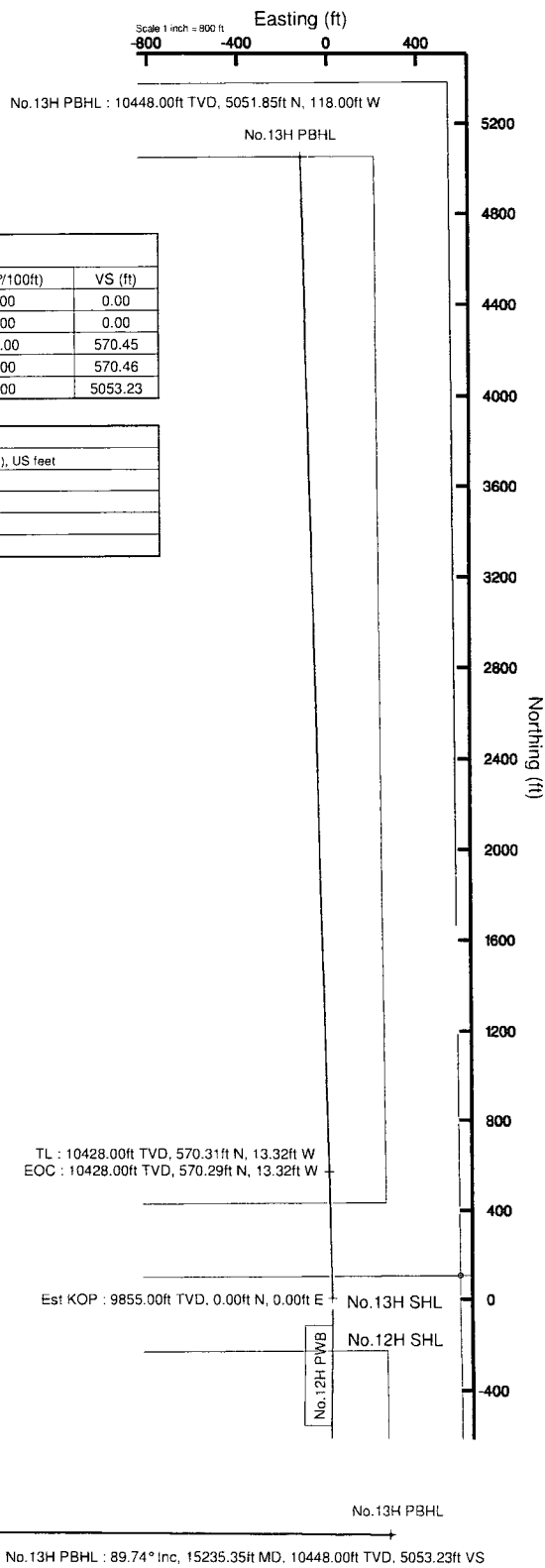


Well Profile Data							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	VS (ft)
Tie On	25.00	0.000	358.662	25.00	0.00	0.00	0.00
Est KOP	9855.00	0.000	358.662	9855.00	0.00	0.00	0.00
EOC	10752.52	89.744	358.662	10428.00	570.29	-13.32	570.45
TL	10752.53	89.744	358.662	10428.00	570.31	-13.32	570.46
No.13H PBHL	15235.35	89.744	358.662	10448.00	5051.85	-118.00	5053.23

Plot reference wellpath is Rev-A.0	
True vertical depths are referenced to Rig on No.13H SHL (KB)	Grid System: NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No.13H SHL (KB)	North Reference: Grid north
Rig on No.13H SHL (KB) to Mean Sea Level: 3491 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No.13H SHL): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: gentbry on 07/30/2013



BGGM (1945.0 to 2015.0) Dip: 60.29° Field: 48501.8 nT
Magnetic North is 7.40 degrees East of True North (at 07/30/2013)
Grid North is 0.45 degrees East of True North
To correct azimuth from True to Grid subtract 0.45 degrees
To correct azimuth from Magnetic to Grid add 6.95 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 6.95 = 96.95





Planned Wellpath Report

Rev-A.0
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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Gentbry
Scale	0.999988	Report Generated	07/30/2013 at 11:04:15 AM
Convergence at slot	0.45° East	Database/Source file	WA Midland/No.13H_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	50.03	-0.35	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W
Facility Reference Pt			803087.17	504479.68	32°23'02.515"N	103°29'07.465"W
Field Reference Pt			800357.93	506259.73	32°23'20.341"N	103°29'39.128"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No.13H SHL (KB) to Facility Vertical Datum	3491.00ft
Horizontal Reference Pt	Slot	Rig on No.13H SHL (KB) to Mean Sea Level	3491.00ft
Vertical Reference Pt	Rig on No.13H SHL (KB)	Rig on No.13H SHL (KB) to Mud Line at Slot (No.13H SHL)	3491.00ft
MD Reference Pt	Rig on No.13H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	358.66°



Planned Wellpath Report

Rev-A.0
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REFERENCE WELLPATH IDENTIFICATION

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Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

WELLPATH DATA (167 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	358.662	0.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
25.00	0.000	358.662	25.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	Tie On
125.00†	0.000	358.662	125.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
225.00†	0.000	358.662	225.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
325.00†	0.000	358.662	325.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
425.00†	0.000	358.662	425.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
525.00†	0.000	358.662	525.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
625.00†	0.000	358.662	625.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
725.00†	0.000	358.662	725.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
825.00†	0.000	358.662	825.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
925.00†	0.000	358.662	925.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
1025.00†	0.000	358.662	1025.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
1125.00†	0.000	358.662	1125.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
1225.00†	0.000	358.662	1225.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
1325.00†	0.000	358.662	1325.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
1425.00†	0.000	358.662	1425.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
1525.00†	0.000	358.662	1525.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
1625.00†	0.000	358.662	1625.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
1640.00†	0.000	358.662	1640.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	Rustler
1725.00†	0.000	358.662	1725.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
1825.00†	0.000	358.662	1825.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
1925.00†	0.000	358.662	1925.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	Top Salt
2025.00†	0.000	358.662	2025.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
2125.00†	0.000	358.662	2125.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
2225.00†	0.000	358.662	2225.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
2325.00†	0.000	358.662	2325.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
2425.00†	0.000	358.662	2425.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
2525.00†	0.000	358.662	2525.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
2625.00†	0.000	358.662	2625.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
2725.00†	0.000	358.662	2725.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
2825.00†	0.000	358.662	2825.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
2925.00†	0.000	358.662	2925.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
3025.00†	0.000	358.662	3025.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
3125.00†	0.000	358.662	3125.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
3225.00†	0.000	358.662	3225.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
3325.00†	0.000	358.662	3325.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
3425.00†	0.000	358.662	3425.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
3525.00†	0.000	358.662	3525.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
3625.00†	0.000	358.662	3625.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
3700.00†	0.000	358.662	3700.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	Base Salt
3725.00†	0.000	358.662	3725.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
3825.00†	0.000	358.662	3825.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
3925.00†	0.000	358.662	3925.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
3930.00†	0.000	358.662	3930.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	Yates
4025.00†	0.000	358.662	4025.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

WELLPATH DATA (167 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4125.00†	0.000	358.662	4125.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
4225.00†	0.000	358.662	4225.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
4325.00†	0.000	358.662	4325.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
4425.00†	0.000	358.662	4425.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
4525.00†	0.000	358.662	4525.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
4625.00†	0.000	358.662	4625.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
4725.00†	0.000	358.662	4725.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
4825.00†	0.000	358.662	4825.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
4925.00†	0.000	358.662	4925.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
5025.00†	0.000	358.662	5025.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
5125.00†	0.000	358.662	5125.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
5225.00†	0.000	358.662	5225.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
5256.00†	0.000	358.662	5256.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	Delaware
5325.00†	0.000	358.662	5325.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
5425.00†	0.000	358.662	5425.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
5525.00†	0.000	358.662	5525.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
5625.00†	0.000	358.662	5625.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
5725.00†	0.000	358.662	5725.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
5825.00†	0.000	358.662	5825.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
5925.00†	0.000	358.662	5925.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
6016.00†	0.000	358.662	6016.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	Cherry Canyon
6025.00†	0.000	358.662	6025.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
6125.00†	0.000	358.662	6125.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
6225.00†	0.000	358.662	6225.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
6325.00†	0.000	358.662	6325.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
6425.00†	0.000	358.662	6425.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
6525.00†	0.000	358.662	6525.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
6625.00†	0.000	358.662	6625.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
6725.00†	0.000	358.662	6725.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
6825.00†	0.000	358.662	6825.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
6925.00†	0.000	358.662	6925.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
7025.00†	0.000	358.662	7025.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
7125.00†	0.000	358.662	7125.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
7225.00†	0.000	358.662	7225.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
7325.00†	0.000	358.662	7325.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
7425.00†	0.000	358.662	7425.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
7525.00†	0.000	358.662	7525.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
7625.00†	0.000	358.662	7625.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
7725.00†	0.000	358.662	7725.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
7825.00†	0.000	358.662	7825.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
7925.00†	0.000	358.662	7925.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
8025.00†	0.000	358.662	8025.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
8125.00†	0.000	358.662	8125.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
8225.00†	0.000	358.662	8225.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
8264.00†	0.000	358.662	8264.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	Lwr Brushy Canyon



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

WELLPATH DATA (167 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8325.00†	0.000	358.662	8325.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
8425.00†	0.000	358.662	8425.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
8443.00†	0.000	358.662	8443.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	Bone Spring Lime
8525.00†	0.000	358.662	8525.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
8625.00†	0.000	358.662	8625.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
8725.00†	0.000	358.662	8725.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
8825.00†	0.000	358.662	8825.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
8925.00†	0.000	358.662	8925.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
9025.00†	0.000	358.662	9025.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
9125.00†	0.000	358.662	9125.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
9225.00†	0.000	358.662	9225.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
9325.00†	0.000	358.662	9325.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
9425.00†	0.000	358.662	9425.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
9497.00†	0.000	358.662	9497.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	1st Bone Spring Sand
9525.00†	0.000	358.662	9525.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
9625.00†	0.000	358.662	9625.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
9725.00†	0.000	358.662	9725.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
9825.00†	0.000	358.662	9825.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	
9855.00	0.000	358.662	9855.00	0.00	0.00	0.00	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W	0.00	Est KOP
9925.00†	6.999	358.662	9924.83	4.27	4.27	0.10	803086.72	504533.98	32°23'03.052"N	103°29'07.466"W	10.00	
10025.00†	16.999	358.662	10022.52	25.03	25.03	-0.58	803086.24	504554.74	32°23'03.257"N	103°29'07.469"W	10.00	
10049.73†	19.471	358.662	10046.00	32.77	32.76	-0.77	803086.05	504562.47	32°23'03.334"N	103°29'07.471"W	10.00	2nd Bone Spring Sand
10125.00†	26.998	358.662	10115.12	62.44	62.43	-1.46	803085.36	504592.14	32°23'03.627"N	103°29'07.476"W	10.00	
10225.00†	36.997	358.662	10199.82	115.36	115.33	-2.69	803084.13	504645.04	32°23'04.151"N	103°29'07.486"W	10.00	
10325.00†	46.996	358.662	10274.04	182.19	182.14	-4.25	803082.57	504711.85	32°23'04.812"N	103°29'07.498"W	10.00	
10425.00†	56.995	358.662	10335.54	260.88	260.81	-6.09	803080.73	504790.52	32°23'05.591"N	103°29'07.512"W	10.00	
10525.00†	66.994	358.662	10382.43	349.06	348.97	-8.15	803078.67	504878.67	32°23'06.463"N	103°29'07.528"W	10.00	
10625.00†	76.994	358.662	10413.31	444.04	443.92	-10.37	803076.45	504973.63	32°23'07.403"N	103°29'07.545"W	10.00	
10725.00†	86.993	358.662	10427.22	542.94	542.80	-12.68	803074.14	505072.50	32°23'08.381"N	103°29'07.563"W	10.00	
10752.52†	89.744	358.662	10428.00	570.45	570.29	-13.32	803073.50	505099.99	32°23'08.653"N	103°29'07.567"W	10.00	EOG
10752.53	89.744	358.662	10428.00	570.46	570.31	-13.32	803073.50	505100.01	32°23'08.654"N	103°29'07.567"W	2.00	TL
10825.00†	89.744	358.662	10428.32	642.93	642.75	-15.01	803071.81	505172.46	32°23'09.371"N	103°29'07.581"W	0.00	
10925.00†	89.744	358.662	10428.77	742.93	742.73	-17.35	803069.47	505272.43	32°23'10.360"N	103°29'07.598"W	0.00	
11025.00†	89.744	358.662	10429.22	842.93	842.70	-19.68	803067.14	505372.40	32°23'11.349"N	103°29'07.616"W	0.00	
11125.00†	89.744	358.662	10429.66	942.93	942.67	-22.02	803064.80	505472.37	32°23'12.339"N	103°29'07.634"W	0.00	
11225.00†	89.744	358.662	10430.11	1042.93	1042.64	-24.35	803062.47	505572.34	32°23'13.328"N	103°29'07.652"W	0.00	
11325.00†	89.744	358.662	10430.55	1142.92	1142.61	-26.69	803060.13	505672.31	32°23'14.317"N	103°29'07.670"W	0.00	
11425.00†	89.744	358.662	10431.00	1242.92	1242.58	-29.02	803057.80	505772.28	32°23'15.307"N	103°29'07.688"W	0.00	
11525.00†	89.744	358.662	10431.45	1342.92	1342.56	-31.36	803055.46	505872.25	32°23'16.296"N	103°29'07.706"W	0.00	
11625.00†	89.744	358.662	10431.89	1442.92	1442.53	-33.69	803053.13	505972.22	32°23'17.285"N	103°29'07.724"W	0.00	
11725.00†	89.744	358.662	10432.34	1542.92	1542.50	-36.03	803050.79	506072.19	32°23'18.275"N	103°29'07.742"W	0.00	
11825.00†	89.744	358.662	10432.78	1642.92	1642.47	-38.36	803048.46	506172.16	32°23'19.264"N	103°29'07.760"W	0.00	
11925.00†	89.744	358.662	10433.23	1742.92	1742.44	-40.70	803046.12	506272.13	32°23'20.254"N	103°29'07.778"W	0.00	
12025.00†	89.744	358.662	10433.68	1842.92	1842.42	-43.03	803043.79	506372.10	32°23'21.243"N	103°29'07.796"W	0.00	
12125.00†	89.744	358.662	10434.12	1942.92	1942.39	-45.37	803041.45	506472.07	32°23'22.232"N	103°29'07.814"W	0.00	



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

WELLPATH DATA (167 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
1225.00†	89.744	358.662	10434.57	2042.92	2042.36	-47.71	803039.12	506572.04	32°23'23.222"N	103°29'07.832"W	0.00	
12325.00†	89.744	358.662	10435.02	2142.91	2142.33	-50.04	803036.78	506672.01	32°23'24.211"N	103°29'07.850"W	0.00	
12425.00†	89.744	358.662	10435.46	2242.91	2242.30	-52.38	803034.45	506771.98	32°23'25.200"N	103°29'07.868"W	0.00	
12525.00†	89.744	358.662	10435.91	2342.91	2342.27	-54.71	803032.11	506871.95	32°23'26.190"N	103°29'07.886"W	0.00	
12625.00†	89.744	358.662	10436.35	2442.91	2442.25	-57.05	803029.78	506971.92	32°23'27.179"N	103°29'07.904"W	0.00	
12725.00†	89.744	358.662	10436.80	2542.91	2542.22	-59.38	803027.44	507071.89	32°23'28.168"N	103°29'07.922"W	0.00	
12825.00†	89.744	358.662	10437.25	2642.91	2642.19	-61.72	803025.10	507171.86	32°23'29.158"N	103°29'07.940"W	0.00	
12925.00†	89.744	358.662	10437.69	2742.91	2742.16	-64.05	803022.77	507271.83	32°23'30.147"N	103°29'07.958"W	0.00	
13025.00†	89.744	358.662	10438.14	2842.91	2842.13	-66.39	803020.43	507371.80	32°23'31.136"N	103°29'07.976"W	0.00	
13125.00†	89.744	358.662	10438.58	2942.91	2942.10	-68.72	803018.10	507471.77	32°23'32.126"N	103°29'07.994"W	0.00	
13225.00†	89.744	358.662	10439.03	3042.91	3042.08	-71.06	803015.76	507571.74	32°23'33.115"N	103°29'08.012"W	0.00	
13325.00†	89.744	358.662	10439.48	3142.90	3142.05	-73.39	803013.43	507671.71	32°23'34.105"N	103°29'08.030"W	0.00	
13425.00†	89.744	358.662	10439.92	3242.90	3242.02	-75.73	803011.09	507771.68	32°23'35.094"N	103°29'08.048"W	0.00	
13525.00†	89.744	358.662	10440.37	3342.90	3341.99	-78.06	803008.76	507871.65	32°23'36.083"N	103°29'08.066"W	0.00	
13625.00†	89.744	358.662	10440.82	3442.90	3441.96	-80.40	803006.42	507971.62	32°23'37.073"N	103°29'08.084"W	0.00	
13725.00†	89.744	358.662	10441.26	3542.90	3541.93	-82.73	803004.09	508071.59	32°23'38.062"N	103°29'08.102"W	0.00	
13825.00†	89.744	358.662	10441.71	3642.90	3641.91	-85.07	803001.75	508171.56	32°23'39.051"N	103°29'08.120"W	0.00	
13925.00†	89.744	358.662	10442.15	3742.90	3741.88	-87.40	802999.42	508271.53	32°23'40.041"N	103°29'08.138"W	0.00	
14025.00†	89.744	358.662	10442.60	3842.90	3841.85	-89.74	802997.08	508371.50	32°23'41.030"N	103°29'08.156"W	0.00	
14125.00†	89.744	358.662	10443.05	3942.90	3941.82	-92.07	802994.75	508471.47	32°23'42.019"N	103°29'08.174"W	0.00	
14225.00†	89.744	358.662	10443.49	4042.90	4041.79	-94.41	802992.41	508571.45	32°23'43.009"N	103°29'08.192"W	0.00	
14325.00†	89.744	358.662	10443.94	4142.89	4141.77	-96.74	802990.08	508671.42	32°23'43.998"N	103°29'08.210"W	0.00	
14425.00†	89.744	358.662	10444.38	4242.89	4241.74	-99.08	802987.74	508771.39	32°23'44.988"N	103°29'08.228"W	0.00	
14525.00†	89.744	358.662	10444.83	4342.89	4341.71	-101.41	802985.41	508871.36	32°23'45.977"N	103°29'08.246"W	0.00	
14625.00†	89.744	358.662	10445.28	4442.89	4441.68	-103.75	802983.07	508971.33	32°23'46.966"N	103°29'08.264"W	0.00	
14725.00†	89.744	358.662	10445.72	4542.89	4541.65	-106.08	802980.74	509071.30	32°23'47.956"N	103°29'08.282"W	0.00	
14825.00†	89.744	358.662	10446.17	4642.89	4641.62	-108.42	802978.40	509171.27	32°23'48.945"N	103°29'08.300"W	0.00	
14925.00†	89.744	358.662	10446.62	4742.89	4741.60	-110.75	802976.07	509271.24	32°23'49.934"N	103°29'08.318"W	0.00	
15025.00†	89.744	358.662	10447.06	4842.89	4841.57	-113.09	802973.73	509371.21	32°23'50.924"N	103°29'08.336"W	0.00	
15125.00†	89.744	358.662	10447.51	4942.89	4941.54	-115.42	802971.40	509471.18	32°23'51.913"N	103°29'08.354"W	0.00	
15225.00†	89.744	358.662	10447.95	5042.89	5041.51	-117.76	802969.06	509571.15	32°23'52.902"N	103°29'08.372"W	0.00	
15235.35	89.744	358.662	10448.00†	5053.23	5051.85	-118.00	802968.82	509581.49	32°23'53.005"N	103°29'08.374"W	0.00	No.13H PBHL



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
1) No.13H PBHL	15235.35	10448.00	5051.85	-118.00	802968.82	509581.49	32°23'53.005"N	103°29'08.374"W	point

SURVEY PROGRAM - Ref Wellbore: No.13H PWB Ref Wellpath: Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
3491.00	15235.35	NaviTrak (Standard)		No.13H PWB



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 4.0.1
North Reference	Grid	User	Gentbry
Scale	0.999988	Report Generated	11/8/2013 at 11:38:42 AM
Convergence at slot	0.45° East	Database/Source file	MidlandDB/No.13H_PWB_CR.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	50.03	-0.35	803086.82	504529.71	32°23'03.010"N	103°29'07.465"W
Facility Reference Pt			803087.17	504479.68	32°23'02.515"N	103°29'07.465"W
Field Reference Pt			800357.93	506259.73	32°23'20.341"N	103°29'39.128"W

WELLPATH DATUM

Calculation method	Minimum Curvature	Rig on No.13H SHL (KB) to Facility Vertical Datum	3491.00ft
Horizontal Reference Pt	Slot	Rig on No.13H SHL (KB) to Mean Sea Level	3491.00ft
Vertical Reference Pt	Rig on No.13H SHL (KB)	Rig on No.13H SHL (KB) to Mud Line at Slot (No.13H SHL)	3491.00ft
MD Reference Pt	Rig on No.13H SHL (KB)		
Field Vertical Reference	Mean Sea Level		

POSITIONAL UNCERTAINTY CALCULATION SETTINGS

Ellipse Confidence Limit	3.00 Std Dev	Ellipse Start MD	25.00ft	Surface Position Uncertainty	included
Declination	7.40° East of TN	Dip Angle	60.29°	Mag Field Strength	48502 nT
Slot Surface Uncertainty @ 1SD		Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @ 1SD		Horizontal	8.200ft	Vertical	1.000ft

Positional Uncertainty values in the WELLPATH DATA table are the projection of the ellipsoid of uncertainty onto the vertical and horizontal planes

ANTI-COLLISION RULE

Rule Name	Baker Hughes Stop Drilling	Rule Based On	Ratio
Plane of Rule	Closest Approach	Threshold Value	1.00
Subtract Casing & Hole Size	yes	Apply Cone of Safety	no

SURVEY PROGRAM - Ref Wellbore: No.13H PWB Ref Wellpath: Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	15235.35	NaviTrak (Standard)		No.13H PWB



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CALCULATION RANGE & CUTOFF

From: 25.00ft MD	To: 15235.35ft MD	C-C Cutoff: (none)
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OFFSET WELL CLEARANCE SUMMARY (4 Offset Wellpaths selected) Ratios are calculated in Closest Approach plane

Offset Facility	Offset Slot	Offset Well	Offset Wellbore	Offset Wellpath	C-C Clearance Distance			ACR Separation Ratio			
					Ref MD [ft]	Min C-C Clear Dist [ft]	Diverging from MD [ft]	Ref MD of Min Ratio [ft]	Min Ratio	Min Ratio Dvrg from [ft]	ACR Status
Gaucho Unit No.12H & No.13H	No.12H SHL	No.12H	No.12H PWB	Rev-A.0	25.00	50.03	9855.00	9855.00	0.71	12425.00	FAIL
Gaucho Unit No.6 (Offset)	No.6 SHL	No.6	No.6 AWB	No.6 AWP	10952.19	109.61	10952.19	10953.97	1.26	10953.97	PASS
Gaucho Unit No.10H & No.11H	No.11H SHL	No.11H	No.11H PWB	Rev-A.0	10487.50	1149.60	15235.35	15235.35	5.16	15235.35	PASS
Gaucho Unit No.10H & No.11H	No.10H SHL	No.10H	No.10H PWB	Rev-B.0	10380.62	1201.34	10380.62	10558.49	13.36	10558.49	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.12H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.12H & No.13H Slot: No.12H SHL Well: No.12H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
25.00	25.00	0.00	0.00	24.80	25.00	-50.03	0.35	179.60	50.03	0.30	166.77	PASS
125.00†	125.00	0.00	0.00	124.80	125.00	-50.03	0.35	179.60	50.03	0.94	53.46	PASS
225.00†	225.00	0.00	0.00	224.80	225.00	-50.03	0.35	179.60	50.03	1.56	32.14	PASS
325.00†	325.00	0.00	0.00	324.80	325.00	-50.03	0.35	179.60	50.03	2.24	22.36	PASS
425.00†	425.00	0.00	0.00	424.80	425.00	-50.03	0.35	179.60	50.03	2.94	17.04	PASS
525.00†	525.00	0.00	0.00	524.80	525.00	-50.03	0.35	179.60	50.03	3.64	13.74	PASS
625.00†	625.00	0.00	0.00	624.80	625.00	-50.03	0.35	179.60	50.03	4.35	11.49	PASS
725.00†	725.00	0.00	0.00	724.80	725.00	-50.03	0.35	179.60	50.03	5.07	9.88	PASS
825.00†	825.00	0.00	0.00	824.80	825.00	-50.03	0.35	179.60	50.03	5.78	8.66	PASS
925.00†	925.00	0.00	0.00	924.80	925.00	-50.03	0.35	179.60	50.03	6.49	7.70	PASS
1025.00†	1025.00	0.00	0.00	1024.80	1025.00	-50.03	0.35	179.60	50.03	7.21	6.94	PASS
1125.00†	1125.00	0.00	0.00	1124.80	1125.00	-50.03	0.35	179.60	50.03	7.93	6.31	PASS
1225.00†	1225.00	0.00	0.00	1224.80	1225.00	-50.03	0.35	179.60	50.03	8.64	5.79	PASS
1325.00†	1325.00	0.00	0.00	1324.80	1325.00	-50.03	0.35	179.60	50.03	9.36	5.35	PASS
1425.00†	1425.00	0.00	0.00	1424.80	1425.00	-50.03	0.35	179.60	50.03	10.08	4.96	PASS
1525.00†	1525.00	0.00	0.00	1524.80	1525.00	-50.03	0.35	179.60	50.03	10.80	4.63	PASS
1625.00†	1625.00	0.00	0.00	1624.80	1625.00	-50.03	0.35	179.60	50.03	11.51	4.35	PASS
1725.00†	1725.00	0.00	0.00	1724.80	1725.00	-50.03	0.35	179.60	50.03	12.23	4.09	PASS
1825.00†	1825.00	0.00	0.00	1824.80	1825.00	-50.03	0.35	179.60	50.03	12.95	3.86	PASS
1925.00†	1925.00	0.00	0.00	1924.80	1925.00	-50.03	0.35	179.60	50.03	13.67	3.66	PASS
2025.00†	2025.00	0.00	0.00	2024.80	2025.00	-50.03	0.35	179.60	50.03	14.38	3.48	PASS
2125.00†	2125.00	0.00	0.00	2124.80	2125.00	-50.03	0.35	179.60	50.03	15.10	3.31	PASS
2225.00†	2225.00	0.00	0.00	2224.80	2225.00	-50.03	0.35	179.60	50.03	15.82	3.16	PASS
2325.00†	2325.00	0.00	0.00	2324.80	2325.00	-50.03	0.35	179.60	50.03	16.54	3.03	PASS
2425.00†	2425.00	0.00	0.00	2424.80	2425.00	-50.03	0.35	179.60	50.03	17.26	2.90	PASS
2525.00†	2525.00	0.00	0.00	2524.80	2525.00	-50.03	0.35	179.60	50.03	17.97	2.78	PASS
2625.00†	2625.00	0.00	0.00	2624.80	2625.00	-50.03	0.35	179.60	50.03	18.69	2.68	PASS
2725.00†	2725.00	0.00	0.00	2724.80	2725.00	-50.03	0.35	179.60	50.03	19.41	2.58	PASS
2825.00†	2825.00	0.00	0.00	2824.80	2825.00	-50.03	0.35	179.60	50.03	20.13	2.49	PASS
2925.00†	2925.00	0.00	0.00	2924.80	2925.00	-50.03	0.35	179.60	50.03	20.85	2.40	PASS
3025.00†	3025.00	0.00	0.00	3024.80	3025.00	-50.03	0.35	179.60	50.03	21.57	2.32	PASS
3125.00†	3125.00	0.00	0.00	3124.80	3125.00	-50.03	0.35	179.60	50.03	22.28	2.25	PASS
3225.00†	3225.00	0.00	0.00	3224.80	3225.00	-50.03	0.35	179.60	50.03	23.00	2.18	PASS
3325.00†	3325.00	0.00	0.00	3324.80	3325.00	-50.03	0.35	179.60	50.03	23.72	2.11	PASS
3425.00†	3425.00	0.00	0.00	3424.80	3425.00	-50.03	0.35	179.60	50.03	24.44	2.05	PASS
3525.00†	3525.00	0.00	0.00	3524.80	3525.00	-50.03	0.35	179.60	50.03	25.16	1.99	PASS
3625.00†	3625.00	0.00	0.00	3624.80	3625.00	-50.03	0.35	179.60	50.03	25.88	1.93	PASS
3725.00†	3725.00	0.00	0.00	3724.80	3725.00	-50.03	0.35	179.60	50.03	26.59	1.88	PASS
3825.00†	3825.00	0.00	0.00	3824.80	3825.00	-50.03	0.35	179.60	50.03	27.31	1.83	PASS
3925.00†	3925.00	0.00	0.00	3924.80	3925.00	-50.03	0.35	179.60	50.03	28.03	1.78	PASS
4025.00†	4025.00	0.00	0.00	4024.80	4025.00	-50.03	0.35	179.60	50.03	28.75	1.74	PASS
4125.00†	4125.00	0.00	0.00	4124.80	4125.00	-50.03	0.35	179.60	50.03	29.47	1.70	PASS
4225.00†	4225.00	0.00	0.00	4224.80	4225.00	-50.03	0.35	179.60	50.03	30.19	1.66	PASS
4325.00†	4325.00	0.00	0.00	4324.80	4325.00	-50.03	0.35	179.60	50.03	30.91	1.62	PASS
4425.00†	4425.00	0.00	0.00	4424.80	4425.00	-50.03	0.35	179.60	50.03	31.62	1.58	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.12H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.12H & No.13H Slot: No.12H SHL Well: No.12H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
4525.00†	4525.00	0.00	0.00	4524.80	4525.00	-50.03	0.35	179.60	50.03	32.34	1.55	PASS
4625.00†	4625.00	0.00	0.00	4624.80	4625.00	-50.03	0.35	179.60	50.03	33.06	1.51	PASS
4725.00†	4725.00	0.00	0.00	4724.80	4725.00	-50.03	0.35	179.60	50.03	33.78	1.48	PASS
4825.00†	4825.00	0.00	0.00	4824.80	4825.00	-50.03	0.35	179.60	50.03	34.50	1.45	PASS
4925.00†	4925.00	0.00	0.00	4924.80	4925.00	-50.03	0.35	179.60	50.03	35.22	1.42	PASS
5025.00†	5025.00	0.00	0.00	5024.80	5025.00	-50.03	0.35	179.60	50.03	35.93	1.39	PASS
5125.00†	5125.00	0.00	0.00	5124.80	5125.00	-50.03	0.35	179.60	50.03	36.65	1.36	PASS
5225.00†	5225.00	0.00	0.00	5224.80	5225.00	-50.03	0.35	179.60	50.03	37.37	1.34	PASS
5325.00†	5325.00	0.00	0.00	5324.80	5325.00	-50.03	0.35	179.60	50.03	38.09	1.31	PASS
5425.00†	5425.00	0.00	0.00	5424.80	5425.00	-50.03	0.35	179.60	50.03	38.81	1.29	PASS
5525.00†	5525.00	0.00	0.00	5524.80	5525.00	-50.03	0.35	179.60	50.03	39.53	1.27	PASS
5625.00†	5625.00	0.00	0.00	5624.80	5625.00	-50.03	0.35	179.60	50.03	40.25	1.24	PASS
5725.00†	5725.00	0.00	0.00	5724.80	5725.00	-50.03	0.35	179.60	50.03	40.96	1.22	PASS
5825.00†	5825.00	0.00	0.00	5824.80	5825.00	-50.03	0.35	179.60	50.03	41.68	1.20	PASS
5925.00†	5925.00	0.00	0.00	5924.80	5925.00	-50.03	0.35	179.60	50.03	42.40	1.18	PASS
6025.00†	6025.00	0.00	0.00	6024.80	6025.00	-50.03	0.35	179.60	50.03	43.12	1.16	PASS
6125.00†	6125.00	0.00	0.00	6124.80	6125.00	-50.03	0.35	179.60	50.03	43.84	1.14	PASS
6225.00†	6225.00	0.00	0.00	6224.80	6225.00	-50.03	0.35	179.60	50.03	44.56	1.12	PASS
6325.00†	6325.00	0.00	0.00	6324.80	6325.00	-50.03	0.35	179.60	50.03	45.28	1.11	PASS
6425.00†	6425.00	0.00	0.00	6424.80	6425.00	-50.03	0.35	179.60	50.03	45.99	1.09	PASS
6525.00†	6525.00	0.00	0.00	6524.80	6525.00	-50.03	0.35	179.60	50.03	46.71	1.07	PASS
6625.00†	6625.00	0.00	0.00	6624.80	6625.00	-50.03	0.35	179.60	50.03	47.43	1.05	PASS
6725.00†	6725.00	0.00	0.00	6724.80	6725.00	-50.03	0.35	179.60	50.03	48.15	1.04	PASS
6825.00†	6825.00	0.00	0.00	6824.80	6825.00	-50.03	0.35	179.60	50.03	48.87	1.02	PASS
6925.00†	6925.00	0.00	0.00	6924.80	6925.00	-50.03	0.35	179.60	50.03	49.59	1.01	PASS
7025.00†	7025.00	0.00	0.00	7024.80	7025.00	-50.03	0.35	179.60	50.03	50.31	0.99	FAIL
7125.00†	7125.00	0.00	0.00	7124.80	7125.00	-50.03	0.35	179.60	50.03	51.02	0.98	FAIL
7225.00†	7225.00	0.00	0.00	7224.80	7225.00	-50.03	0.35	179.60	50.03	51.74	0.97	FAIL
7325.00†	7325.00	0.00	0.00	7324.80	7325.00	-50.03	0.35	179.60	50.03	52.46	0.95	FAIL
7425.00†	7425.00	0.00	0.00	7424.80	7425.00	-50.03	0.35	179.60	50.03	53.18	0.94	FAIL
7525.00†	7525.00	0.00	0.00	7524.80	7525.00	-50.03	0.35	179.60	50.03	53.90	0.93	FAIL
7625.00†	7625.00	0.00	0.00	7624.80	7625.00	-50.03	0.35	179.60	50.03	54.62	0.92	FAIL
7725.00†	7725.00	0.00	0.00	7724.80	7725.00	-50.03	0.35	179.60	50.03	55.34	0.90	FAIL
7825.00†	7825.00	0.00	0.00	7824.80	7825.00	-50.03	0.35	179.60	50.03	56.05	0.89	FAIL
7925.00†	7925.00	0.00	0.00	7924.80	7925.00	-50.03	0.35	179.60	50.03	56.77	0.88	FAIL
8025.00†	8025.00	0.00	0.00	8024.80	8025.00	-50.03	0.35	179.60	50.03	57.49	0.87	FAIL
8125.00†	8125.00	0.00	0.00	8124.80	8125.00	-50.03	0.35	179.60	50.03	58.21	0.86	FAIL
8225.00†	8225.00	0.00	0.00	8224.80	8225.00	-50.03	0.35	179.60	50.03	58.93	0.85	FAIL
8325.00†	8325.00	0.00	0.00	8324.80	8325.00	-50.03	0.35	179.60	50.03	59.65	0.84	FAIL
8425.00†	8425.00	0.00	0.00	8424.80	8425.00	-50.03	0.35	179.60	50.03	60.37	0.83	FAIL
8525.00†	8525.00	0.00	0.00	8524.80	8525.00	-50.03	0.35	179.60	50.03	61.08	0.82	FAIL
8625.00†	8625.00	0.00	0.00	8624.80	8625.00	-50.03	0.35	179.60	50.03	61.80	0.81	FAIL
8725.00†	8725.00	0.00	0.00	8724.80	8725.00	-50.03	0.35	179.60	50.03	62.52	0.80	FAIL
8825.00†	8825.00	0.00	0.00	8824.80	8825.00	-50.03	0.35	179.60	50.03	63.24	0.79	FAIL
8925.00†	8925.00	0.00	0.00	8924.80	8925.00	-50.03	0.35	179.60	50.03	63.96	0.78	FAIL



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.12H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.12H & No.13H Slot: No.12H SHL Well: No.12H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
9025.00†	9025.00	0.00	0.00	9024.80	9025.00	-50.03	0.35	179.60	50.03	64.68	0.77	FAIL
9125.00†	9125.00	0.00	0.00	9124.80	9125.00	-50.03	0.35	179.60	50.03	65.40	0.77	FAIL
9225.00†	9225.00	0.00	0.00	9224.80	9225.00	-50.03	0.35	179.60	50.03	66.11	0.76	FAIL
9325.00†	9325.00	0.00	0.00	9324.80	9325.00	-50.03	0.35	179.60	50.03	66.83	0.75	FAIL
9425.00†	9425.00	0.00	0.00	9424.80	9425.00	-50.03	0.35	179.60	50.03	67.55	0.74	FAIL
9525.00†	9525.00	0.00	0.00	9524.80	9525.00	-50.03	0.35	179.60	50.03	68.27	0.73	FAIL
9625.00†	9625.00	0.00	0.00	9624.80	9625.00	-50.03	0.35	179.60	50.03	68.99	0.73	FAIL
9725.00†	9725.00	0.00	0.00	9724.80	9725.00	-50.03	0.35	179.60	50.03	69.71	0.72	FAIL
9825.00†	9825.00	0.00	0.00	9824.80	9825.00	-50.03	0.35	179.60	50.03	70.43	0.71	FAIL
9855.00	9855.00	0.00	0.00	9854.80	9855.00	-50.03	0.35	179.60	50.03	70.64	0.71	FAIL
9925.00†	9924.83	4.27	-0.10	9918.54	9918.62	-53.33	0.31	179.60	57.94	71.08	0.82	FAIL
10025.00†	10022.52	25.03	-0.58	10000.12	9998.84	-67.81	0.12	179.57	95.81	72.03	1.33	PASS
10125.00†	10115.12	62.43	-1.46	10063.23	10059.00	-86.74	-0.13	179.49	159.38	72.77	2.19	PASS
10225.00†	10199.82	115.33	-2.69	10105.96	10098.40	-103.27	-0.35	179.39	240.99	73.19	3.29	PASS
10325.00†	10274.04	182.14	-4.25	10130.76	10120.66	-114.18	-0.49	179.27	333.69	73.39	4.55	PASS
10425.00†	10335.54	260.81	-6.09	10141.28	10129.96	-119.11	-0.56	179.17	432.01	73.52	5.88	PASS
10525.00†	10382.43	348.97	-8.15	10140.91	10129.63	-118.93	-0.56	179.07	531.88	73.70	7.22	PASS
10625.00†	10413.31	443.92	-10.37	10132.35	10122.08	-114.92	-0.50	178.99	630.25	73.95	8.52	PASS
10725.00†	10427.22	542.80	-12.68	10117.62	10108.93	-108.28	-0.42	178.92	724.82	74.29	9.76	PASS
10752.52	10428.00	570.29	-13.32	10112.70	10104.50	-106.14	-0.39	178.91	749.92	74.37	10.08	PASS
10752.53	10428.00	570.31	-13.32	10112.69	10104.49	-106.13	-0.39	178.91	749.93	74.37	10.08	PASS
10825.00†	10428.32	642.75	-15.01	10099.92	10092.90	-100.75	-0.32	178.87	815.79	74.56	10.94	PASS
10925.00†	10428.77	742.73	-17.35	10084.16	10078.46	-94.47	-0.23	178.83	907.69	74.78	12.14	PASS
11025.00†	10429.22	842.70	-19.68	10070.25	10065.56	-89.25	-0.17	178.80	1000.58	74.98	13.35	PASS
11125.00†	10429.66	942.67	-22.02	10057.90	10054.01	-84.89	-0.11	178.78	1094.29	75.15	14.56	PASS
11225.00†	10430.11	1042.64	-24.35	10046.87	10043.61	-81.20	-0.06	178.76	1188.69	75.30	15.79	PASS
11325.00†	10430.55	1142.61	-26.69	10036.96	10034.22	-78.06	-0.02	178.75	1283.68	75.44	17.02	PASS
11425.00†	10431.00	1242.58	-29.02	10028.02	10025.69	-75.36	0.02	178.74	1379.17	75.57	18.25	PASS
11525.00†	10431.45	1342.56	-31.36	10019.91	10017.93	-73.03	0.05	178.73	1475.08	75.72	19.48	PASS
11625.00†	10431.89	1442.53	-33.69	10012.54	10010.83	-71.01	0.07	178.72	1571.38	75.88	20.71	PASS
11725.00†	10432.34	1542.50	-36.03	10005.79	10004.33	-69.24	0.10	178.72	1667.99	76.03	21.94	PASS
11825.00†	10432.78	1642.47	-38.36	9999.61	9998.34	-67.68	0.12	178.71	1764.89	76.18	23.17	PASS
11925.00†	10433.23	1742.44	-40.70	9993.91	9992.81	-66.31	0.14	178.71	1862.05	76.32	24.40	PASS
12025.00†	10433.68	1842.42	-43.03	9988.66	9987.70	-65.09	0.15	178.70	1959.42	76.48	25.62	PASS
12125.00†	10434.12	1942.39	-45.37	9983.79	9982.96	-64.00	0.17	178.70	2056.99	76.66	26.83	PASS
12225.00†	10434.57	2042.36	-47.71	9979.27	9978.55	-63.03	0.18	178.70	2154.74	76.96	28.00	PASS
12325.00†	10435.02	2142.33	-50.04	9975.07	9974.43	-62.15	0.19	178.70	2252.64	77.10	29.22	PASS
12425.00†	10435.46	2242.30	-52.38	9971.14	9970.59	-61.36	0.20	178.69	2350.69	77.27	30.48	PASS
12525.00†	10435.91	2342.27	-54.71	9967.47	9966.99	-60.65	0.21	178.69	2448.86	77.44	31.79	PASS
12625.00†	10436.35	2442.25	-57.05	9964.04	9963.62	-60.00	0.22	178.69	2547.15	77.61	33.19	PASS
12725.00†	10436.80	2542.22	-59.38	9960.81	9960.44	-59.41	0.23	178.69	2645.55	77.78	34.61	PASS
12825.00†	10437.25	2642.19	-61.72	9957.77	9957.45	-58.87	0.23	178.69	2744.04	77.95	36.07	PASS
12925.00†	10437.69	2742.16	-64.05	9954.91	9954.63	-58.37	0.24	178.69	2842.62	78.12	37.56	PASS
13025.00†	10438.14	2842.13	-66.39	9952.21	9951.97	-57.92	0.25	178.68	2941.28	78.29	39.08	PASS
13125.00†	10438.58	2942.10	-68.72	9949.66	9949.46	-57.51	0.25	178.68	3040.01	78.46	40.64	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.12H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.12H & No.13H Slot: No.12H SHL Well: No.12H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13225.00†	10439.03	3042.08	-71.06	9947.24	9947.07	-57.12	0.26	178.68	3138.81	77.43	40.54	PASS
13325.00†	10439.48	3142.05	-73.39	9944.95	9944.81	-56.77	0.26	178.68	3237.67	77.53	41.76	PASS
13425.00†	10439.92	3242.02	-75.73	9942.77	9942.65	-56.44	0.27	178.68	3336.60	77.63	42.98	PASS
13525.00†	10440.37	3341.99	-78.06	9940.70	9940.61	-56.13	0.27	178.68	3435.57	77.72	44.20	PASS
13625.00†	10440.82	3441.96	-80.40	9938.74	9938.66	-55.85	0.27	178.68	3534.60	77.82	45.42	PASS
13725.00†	10441.26	3541.93	-82.73	9936.86	9936.80	-55.59	0.28	178.68	3633.67	77.92	46.64	PASS
13825.00†	10441.71	3641.91	-85.07	9935.07	9935.03	-55.34	0.28	178.68	3732.78	78.01	47.85	PASS
13925.00†	10442.15	3741.88	-87.40	9933.36	9933.34	-55.11	0.28	178.68	3831.93	78.11	49.06	PASS
14025.00†	10442.60	3841.85	-89.74	9931.73	9931.71	-54.90	0.29	178.68	3931.12	78.21	50.27	PASS
14125.00†	10443.05	3941.82	-92.07	9930.16	9930.17	-54.69	0.29	178.68	4030.35	78.31	51.47	PASS
14225.00†	10443.49	4041.79	-94.41	9928.66	9928.68	-54.51	0.29	178.68	4129.61	78.41	52.67	PASS
14325.00†	10443.94	4141.77	-96.74	9927.23	9927.25	-54.33	0.29	178.68	4228.90	78.51	53.87	PASS
14425.00†	10444.38	4241.74	-99.08	9925.85	9925.89	-54.16	0.30	178.68	4328.22	78.61	55.06	PASS
14525.00†	10444.83	4341.71	-101.41	9924.53	9924.58	-54.01	0.30	178.67	4427.56	78.71	56.25	PASS
14625.00†	10445.28	4441.68	-103.75	9923.26	9923.31	-53.86	0.30	178.67	4526.93	78.82	57.43	PASS
14725.00†	10445.72	4541.65	-106.08	9922.04	9922.10	-53.72	0.30	178.67	4626.33	78.93	58.61	PASS
14825.00†	10446.17	4641.62	-108.42	9920.86	9920.93	-53.59	0.30	178.67	4725.75	79.04	59.79	PASS
14925.00†	10446.62	4741.60	-110.75	9919.73	9919.80	-53.46	0.30	178.67	4825.19	79.15	60.96	PASS
15025.00†	10447.06	4841.57	-113.09	9918.64	9918.72	-53.34	0.31	178.67	4924.65	79.26	62.13	PASS
15125.00†	10447.51	4941.54	-115.42	9917.58	9917.67	-53.23	0.31	178.67	5024.13	79.37	63.30	PASS
15225.00†	10447.95	5041.51	-117.76	9916.56	9916.65	-53.12	0.31	178.67	5123.62	79.49	64.46	PASS
15235.35	10448.00	5051.85	-118.00	9916.46	9916.55	-53.11	0.31	178.67	5133.92	79.50	64.58	PASS

POSITIONAL UNCERTAINTY - Offset Wellbore: No.12H PWB Offset Wellpath: Rev-A.0

Slot Surface Uncertainty @ 1SD	Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @ 1SD	Horizontal	8.200ft	Vertical	1.000ft

SURVEY PROGRAM - Offset Wellbore: No.12H PWB Offset Wellpath: Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	14984.49	NaviTrak (Standard)		No.12H PWB

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: No.12H PWB Offset Wellpath: Rev-A.0

MD Reference: Rig on No.12H SHL (KB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	25.00ft



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.6 AWB Offset Wellpath: No.6 AWP

Facility: Gaucho Unit No.6 (Offset) Slot: No.6 SHL Well: No.6 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
25.00	25.00	0.00	0.00	15.47	24.47	758.54	-89.98	353.24	763.86	24.60	31.05	PASS
125.00†	125.00	0.00	0.00	112.05	121.05	758.80	-90.13	353.23	764.14	49.21	15.53	PASS
225.00†	225.00	0.00	0.00	207.95	216.94	759.52	-90.42	353.21	764.93	49.22	15.54	PASS
325.00†	325.00	0.00	0.00	303.65	312.64	760.72	-91.20	353.16	766.27	49.24	15.56	PASS
425.00†	425.00	0.00	0.00	403.19	412.16	762.20	-92.65	353.07	767.91	49.28	15.58	PASS
525.00†	525.00	0.00	0.00	503.70	512.63	763.61	-94.69	352.93	769.56	49.32	15.60	PASS
625.00†	625.00	0.00	0.00	605.71	614.60	764.76	-97.61	352.73	771.04	49.37	15.62	PASS
725.00†	725.00	0.00	0.00	708.49	717.31	765.51	-101.20	352.47	772.21	49.43	15.62	PASS
825.00†	825.00	0.00	0.00	810.44	819.19	765.91	-104.83	352.21	773.07	49.50	15.62	PASS
925.00†	925.00	0.00	0.00	911.18	919.87	766.14	-108.41	351.95	773.79	49.57	15.61	PASS
1025.00†	1025.00	0.00	0.00	1013.36	1021.99	766.16	-111.98	351.68	774.30	49.65	15.60	PASS
1125.00†	1125.00	0.00	0.00	1114.23	1122.80	765.98	-115.45	351.43	774.64	49.73	15.58	PASS
1225.00†	1225.00	0.00	0.00	1214.65	1223.16	765.74	-118.76	351.18	774.90	49.82	15.55	PASS
1325.00†	1325.00	0.00	0.00	1315.27	1323.73	765.45	-122.00	350.94	775.11	49.93	15.53	PASS
1425.00†	1425.00	0.00	0.00	1416.91	1425.32	764.98	-125.24	350.70	775.17	50.03	15.49	PASS
1525.00†	1525.00	0.00	0.00	1518.27	1526.63	764.32	-128.41	350.46	775.04	50.15	15.46	PASS
1625.00†	1625.00	0.00	0.00	1619.02	1627.33	763.54	-131.47	350.23	774.78	50.27	15.41	PASS
1725.00†	1725.00	0.00	0.00	1719.49	1727.75	762.71	-134.35	350.01	774.46	50.39	15.37	PASS
1825.00†	1825.00	0.00	0.00	1820.39	1828.61	761.80	-137.06	349.80	774.04	50.53	15.32	PASS
1925.00†	1925.00	0.00	0.00	1920.79	1928.97	760.85	-139.61	349.60	773.56	50.67	15.27	PASS
2025.00†	2025.00	0.00	0.00	2022.07	2030.21	759.75	-142.13	349.40	772.95	50.82	15.21	PASS
2125.00†	2125.00	0.00	0.00	2121.48	2129.59	758.63	-144.60	349.21	772.30	50.97	15.15	PASS
2225.00†	2225.00	0.00	0.00	2219.17	2227.25	757.73	-146.82	349.03	771.82	51.13	15.09	PASS
2325.00†	2325.00	0.00	0.00	2315.64	2323.70	757.36	-148.78	348.89	771.83	51.30	15.04	PASS
2425.00†	2425.00	0.00	0.00	2418.81	2426.85	756.90	-150.67	348.74	771.75	51.49	14.99	PASS
2525.00†	2525.00	0.00	0.00	2518.50	2526.52	756.31	-152.57	348.60	771.54	51.67	14.93	PASS
2625.00†	2625.00	0.00	0.00	2618.62	2626.62	755.73	-154.26	348.46	771.32	51.86	14.87	PASS
2725.00†	2725.00	0.00	0.00	2716.86	2724.86	755.45	-155.19	348.39	771.22	52.06	14.81	PASS
2825.00†	2825.00	0.00	0.00	2815.83	2823.82	755.44	-155.85	348.34	771.35	52.27	14.76	PASS
2925.00†	2925.00	0.00	0.00	2917.54	2925.54	755.36	-156.01	348.33	771.31	52.48	14.70	PASS
3025.00†	3025.00	0.00	0.00	3012.64	3020.64	755.61	-156.12	348.33	771.58	52.70	14.64	PASS
3125.00†	3125.00	0.00	0.00	3110.79	3118.78	756.29	-156.17	348.33	772.27	52.94	14.59	PASS
3225.00†	3225.00	0.00	0.00	3210.10	3218.08	757.22	-155.85	348.37	773.12	53.19	14.54	PASS
3325.00†	3325.00	0.00	0.00	3309.57	3317.55	758.29	-155.25	348.43	774.05	53.44	14.48	PASS
3425.00†	3425.00	0.00	0.00	3409.13	3417.10	759.46	-154.43	348.51	775.05	53.71	14.43	PASS
3525.00†	3525.00	0.00	0.00	3509.27	3517.22	760.70	-153.43	348.60	776.06	53.97	14.38	PASS
3625.00†	3625.00	0.00	0.00	3609.52	3617.46	761.92	-152.34	348.69	777.03	54.25	14.32	PASS
3725.00†	3725.00	0.00	0.00	3708.74	3716.67	763.17	-151.34	348.78	778.08	54.53	14.27	PASS
3825.00†	3825.00	0.00	0.00	3811.57	3819.49	764.31	-150.21	348.88	778.95	54.82	14.21	PASS
3925.00†	3925.00	0.00	0.00	3911.84	3919.75	765.25	-148.97	348.98	779.64	55.11	14.15	PASS
4025.00†	4025.00	0.00	0.00	4012.24	4020.13	766.20	-147.56	349.10	780.29	55.40	14.08	PASS
4125.00†	4125.00	0.00	0.00	4113.59	4121.47	767.03	-146.04	349.22	780.82	55.70	14.02	PASS
4225.00†	4225.00	0.00	0.00	4213.27	4221.14	767.82	-144.49	349.34	781.30	56.00	13.95	PASS
4325.00†	4325.00	0.00	0.00	4314.55	4322.39	768.50	-143.05	349.46	781.71	56.30	13.88	PASS
4425.00†	4425.00	0.00	0.00	4414.54	4422.38	769.12	-141.50	349.58	782.04	56.61	13.81	PASS



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REFERENCE WELLPATH IDENTIFICATION.

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.6 AWB Offset Wellpath: No.6 AWP

Facility: Gaucho Unit No.6 (Offset) Slot: No.6 SHL Well: No.6 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
4525.00†	4525.00	0.00	0.00	4513.95	4521.77	769.82	-139.79	349.71	782.42	56.92	13.74	PASS
4625.00†	4625.00	0.00	0.00	4614.17	4621.97	770.55	-138.03	349.84	782.82	57.24	13.68	PASS
4725.00†	4725.00	0.00	0.00	4714.50	4722.28	771.22	-136.29	349.98	783.18	57.57	13.60	PASS
4825.00†	4825.00	0.00	0.00	4814.18	4821.94	771.91	-134.53	350.11	783.56	57.89	13.53	PASS
4925.00†	4925.00	0.00	0.00	4914.68	4922.43	772.58	-132.77	350.25	783.91	58.23	13.46	PASS
5025.00†	5025.00	0.00	0.00	5014.99	5022.72	773.20	-131.02	350.38	784.22	58.56	13.39	PASS
5125.00†	5125.00	0.00	0.00	5115.54	5123.25	773.76	-129.22	350.52	784.48	58.91	13.32	PASS
5225.00†	5225.00	0.00	0.00	5216.63	5224.33	774.23	-127.50	350.65	784.66	59.25	13.24	PASS
5325.00†	5325.00	0.00	0.00	5319.41	5327.09	774.38	-125.86	350.77	784.54	59.59	13.16	PASS
5425.00†	5425.00	0.00	0.00	5419.82	5427.49	774.30	-124.38	350.87	784.23	59.93	13.08	PASS
5525.00†	5525.00	0.00	0.00	5519.15	5526.81	774.25	-123.11	350.97	783.98	60.28	13.01	PASS
5625.00†	5625.00	0.00	0.00	5619.71	5627.37	774.16	-121.89	351.05	783.70	60.63	12.93	PASS
5725.00†	5725.00	0.00	0.00	5720.41	5728.06	774.02	-120.78	351.13	783.39	60.98	12.85	PASS
5825.00†	5825.00	0.00	0.00	5823.07	5830.72	773.61	-119.39	351.23	782.79	61.33	12.76	PASS
5925.00†	5925.00	0.00	0.00	5922.49	5930.12	773.11	-117.97	351.32	782.07	61.68	12.68	PASS
6025.00†	6025.00	0.00	0.00	6019.71	6027.34	772.75	-117.04	351.39	781.57	62.04	12.60	PASS
6125.00†	6125.00	0.00	0.00	6115.83	6123.45	772.85	-116.38	351.44	781.56	62.41	12.52	PASS
6225.00†	6225.00	0.00	0.00	6216.16	6223.78	773.16	-115.48	351.51	781.74	62.80	12.45	PASS
6325.00†	6325.00	0.00	0.00	6315.88	6323.49	773.49	-114.37	351.59	781.90	63.19	12.37	PASS
6425.00†	6425.00	0.00	0.00	6414.75	6422.35	773.89	-113.60	351.65	782.19	63.59	12.30	PASS
6525.00†	6525.00	0.00	0.00	6515.70	6523.30	774.24	-113.02	351.70	782.45	64.00	12.23	PASS
6625.00†	6625.00	0.00	0.00	6615.43	6623.03	774.56	-112.48	351.74	782.69	64.41	12.15	PASS
6725.00†	6725.00	0.00	0.00	6715.17	6722.77	774.89	-112.00	351.78	782.95	64.83	12.08	PASS
6825.00†	6825.00	0.00	0.00	6814.52	6822.12	775.33	-111.41	351.82	783.29	65.25	12.01	PASS
6925.00†	6925.00	0.00	0.00	6915.98	6923.58	775.65	-110.98	351.86	783.55	65.68	11.93	PASS
7025.00†	7025.00	0.00	0.00	7015.64	7023.23	775.93	-110.51	351.89	783.76	66.10	11.86	PASS
7125.00†	7125.00	0.00	0.00	7116.18	7123.77	776.18	-110.03	351.93	783.94	66.53	11.78	PASS
7225.00†	7225.00	0.00	0.00	7216.35	7223.94	776.40	-109.79	351.95	784.12	66.97	11.71	PASS
7325.00†	7325.00	0.00	0.00	7319.02	7326.61	776.37	-109.56	351.97	784.06	67.39	11.63	PASS
7425.00†	7425.00	0.00	0.00	7419.79	7427.38	776.10	-109.55	351.97	783.80	67.78	11.56	PASS
7525.00†	7525.00	0.00	0.00	7519.72	7527.31	775.80	-109.51	351.97	783.50	68.17	11.49	PASS
7625.00†	7625.00	0.00	0.00	7619.35	7626.94	775.54	-109.42	351.97	783.23	68.56	11.42	PASS
7725.00†	7725.00	0.00	0.00	7718.60	7726.19	775.32	-109.44	351.97	783.01	68.96	11.35	PASS
7825.00†	7825.00	0.00	0.00	7816.82	7824.41	775.28	-109.60	351.95	782.99	69.39	11.28	PASS
7925.00†	7925.00	0.00	0.00	7916.98	7924.57	775.31	-109.86	351.94	783.06	69.83	11.21	PASS
8025.00†	8025.00	0.00	0.00	8017.45	8025.04	775.29	-110.22	351.91	783.09	70.28	11.14	PASS
8125.00†	8125.00	0.00	0.00	8118.08	8125.66	775.18	-110.70	351.87	783.04	70.72	11.07	PASS
8225.00†	8225.00	0.00	0.00	8218.67	8226.25	774.95	-111.32	351.83	782.91	71.16	11.00	PASS
8325.00†	8325.00	0.00	0.00	8318.47	8326.05	774.70	-112.04	351.77	782.76	71.60	10.93	PASS
8425.00†	8425.00	0.00	0.00	8418.06	8425.64	774.46	-112.84	351.71	782.64	72.04	10.86	PASS
8525.00†	8525.00	0.00	0.00	8515.94	8523.52	774.36	-113.84	351.64	782.68	72.49	10.80	PASS
8625.00†	8625.00	0.00	0.00	8613.42	8620.98	774.54	-115.09	351.55	783.06	72.95	10.73	PASS
8725.00†	8725.00	0.00	0.00	8713.42	8720.98	774.88	-116.31	351.46	783.57	73.42	10.67	PASS
8825.00†	8825.00	0.00	0.00	8813.95	8821.51	775.23	-117.34	351.39	784.07	73.90	10.61	PASS
8925.00†	8925.00	0.00	0.00	8916.57	8924.12	775.36	-118.46	351.31	784.36	74.37	10.55	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.6 AWB Offset Wellpath: No.6 AWP

Facility: Gaucho Unit No.6 (Offset) Slot: No.6 SHL Well: No.6 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
9025.00†	9025.00	0.00	0.00	9019.20	9026.74	775.05	-119.75	351.22	784.25	74.84	10.48	PASS
9125.00†	9125.00	0.00	0.00	9117.52	9125.04	774.75	-120.97	351.13	784.14	75.30	10.41	PASS
9225.00†	9225.00	0.00	0.00	9217.07	9224.59	774.65	-122.10	351.04	784.21	75.77	10.35	PASS
9325.00†	9325.00	0.00	0.00	9320.99	9328.51	774.27	-122.98	350.98	783.99	76.24	10.28	PASS
9425.00†	9425.00	0.00	0.00	9421.98	9429.49	773.65	-123.40	350.94	783.44	76.69	10.22	PASS
9525.00†	9525.00	0.00	0.00	9520.33	9527.85	773.12	-123.75	350.91	782.97	77.15	10.15	PASS
9625.00†	9625.00	0.00	0.00	9619.54	9627.06	772.78	-124.20	350.87	782.70	77.61	10.09	PASS
9725.00†	9725.00	0.00	0.00	9722.38	9729.89	772.25	-124.59	350.84	782.25	78.08	10.02	PASS
9825.00†	9825.00	0.00	0.00	9824.00	9831.51	771.44	-124.70	350.82	781.48	78.54	9.95	PASS
9855.00	9855.00	0.00	0.00	9853.71	9861.21	771.19	-124.72	350.81	781.24	78.68	9.93	PASS
9925.00†	9924.83	4.27	-0.10	9922.71	9930.21	770.65	-124.87	350.75	776.49	79.05	9.82	PASS
10025.00†	10022.52	25.03	-0.58	10019.02	10026.52	770.00	-125.22	350.50	755.34	79.95	9.45	PASS
10125.00†	10115.12	62.43	-1.46	10110.88	10118.37	769.45	-125.73	350.03	717.87	81.13	8.85	PASS
10225.00†	10199.82	115.33	-2.69	10194.50	10201.99	769.01	-126.33	349.29	665.27	82.13	8.10	PASS
10325.00†	10274.04	182.14	-4.25	10269.75	10277.24	768.58	-126.89	348.19	599.13	82.93	7.22	PASS
10425.00†	10335.54	260.81	-6.09	10331.69	10339.18	768.10	-127.25	346.57	521.57	83.52	6.24	PASS
10525.00†	10382.43	348.97	-8.15	10378.44	10385.92	767.69	-127.44	344.10	435.40	83.90	5.19	PASS
10625.00†	10413.31	443.92	-10.37	10408.73	10416.22	767.40	-127.52	340.09	344.05	84.12	4.09	PASS
10725.00†	10427.22	542.80	-12.68	10421.73	10429.21	767.27	-127.56	332.90	252.17	84.28	2.99	PASS
10752.52	10428.00	570.29	-13.32	10422.23	10429.71	767.27	-127.56	329.89	227.71	84.34	2.70	PASS
10752.53	10428.00	570.31	-13.32	10422.23	10429.71	767.27	-127.56	329.89	227.70	84.34	2.70	PASS
10825.00†	10428.32	642.75	-15.01	10421.80	10429.28	767.27	-127.56	317.89	167.85	84.70	1.98	PASS
10925.00†	10428.77	742.73	-17.35	10421.21	10428.70	767.28	-127.56	282.56	112.91	86.32	1.31	PASS
10952.19†	10428.89	769.91	-17.98	10421.02	10428.51	767.28	-127.56	268.62	109.61	86.82	1.26	PASS
10953.97†	10428.90	771.69	-18.02	10421.04	10428.53	767.28	-127.56	267.69	109.62	86.84	1.26	PASS
11025.00†	10429.22	842.70	-19.68	10420.63	10428.11	767.28	-127.56	235.04	131.63	86.80	1.52	PASS
11125.00†	10429.66	942.67	-22.02	10420.05	10427.53	767.29	-127.56	211.04	204.70	85.88	2.38	PASS
11225.00†	10430.11	1042.64	-24.35	10419.48	10426.96	767.29	-127.55	200.55	294.07	85.40	3.44	PASS
11325.00†	10430.55	1142.61	-26.69	10418.90	10426.39	767.30	-127.55	195.04	388.65	85.16	4.56	PASS
11425.00†	10431.00	1242.58	-29.02	10418.34	10425.82	767.31	-127.55	191.71	485.41	85.04	5.71	PASS
11525.00†	10431.45	1342.56	-31.36	10417.77	10425.26	767.31	-127.55	189.49	583.26	84.98	6.86	PASS
11625.00†	10431.89	1442.53	-33.69	10417.21	10424.70	767.32	-127.55	187.91	681.74	84.95	8.03	PASS
11725.00†	10432.34	1542.50	-36.03	10416.66	10424.14	767.32	-127.55	186.73	780.60	84.93	9.19	PASS
11825.00†	10432.78	1642.47	-38.36	10416.11	10423.59	767.33	-127.54	185.82	879.72	84.93	10.36	PASS
11925.00†	10433.23	1742.44	-40.70	10415.56	10423.04	767.33	-127.54	185.09	979.02	84.94	11.53	PASS
12025.00†	10433.68	1842.42	-43.03	10415.01	10422.49	767.34	-127.54	184.49	1078.45	84.95	12.69	PASS
12125.00†	10434.12	1942.39	-45.37	10414.47	10421.95	767.35	-127.54	184.00	1177.97	84.97	13.86	PASS
12225.00†	10434.57	2042.36	-47.71	10413.93	10421.42	767.35	-127.54	183.58	1277.57	85.00	15.03	PASS
12325.00†	10435.02	2142.33	-50.04	10413.40	10420.88	767.36	-127.54	183.23	1377.23	85.03	16.20	PASS
12425.00†	10435.46	2242.30	-52.38	10412.87	10420.35	767.36	-127.54	182.92	1476.93	85.06	17.36	PASS
12525.00†	10435.91	2342.27	-54.71	10412.34	10419.82	767.37	-127.53	182.65	1576.67	85.09	18.53	PASS
12625.00†	10436.35	2442.25	-57.05	10411.82	10419.30	767.37	-127.53	182.41	1676.44	85.13	19.69	PASS
12725.00†	10436.80	2542.22	-59.38	10411.30	10418.78	767.38	-127.53	182.20	1776.24	85.17	20.85	PASS
12825.00†	10437.25	2642.19	-61.72	10410.78	10418.26	767.38	-127.53	182.01	1876.06	85.22	22.02	PASS
12925.00†	10437.69	2742.16	-64.05	10410.26	10417.75	767.39	-127.53	181.84	1975.89	85.26	23.17	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.6 AWB Offset Wellpath: No.6 AWP

Facility: Gaucho Unit No.6 (Offset) Slot: No.6 SHL Well: No.6 Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13025.00†	10438.14	2842.13	-66.39	10409.75	10417.24	767.39	-127.53	181.69	2075.75	85.31	24.33	PASS
13125.00†	10438.58	2942.10	-68.72	10409.25	10416.73	767.40	-127.53	181.55	2175.61	85.36	25.49	PASS
13225.00†	10439.03	3042.08	-71.06	10408.74	10416.23	767.40	-127.52	181.42	2275.49	85.41	26.64	PASS
13325.00†	10439.48	3142.05	-73.39	10408.24	10415.72	767.41	-127.52	181.31	2375.38	85.47	27.79	PASS
13425.00†	10439.92	3242.02	-75.73	10407.74	10415.23	767.41	-127.52	181.20	2475.27	85.52	28.94	PASS
13525.00†	10440.37	3341.99	-78.06	10407.25	10414.73	767.42	-127.52	181.10	2575.18	85.58	30.09	PASS
13625.00†	10440.82	3441.96	-80.40	10406.76	10414.24	767.42	-127.52	181.01	2675.09	85.64	31.24	PASS
13725.00†	10441.26	3541.93	-82.73	10406.27	10413.75	767.43	-127.52	180.93	2775.01	85.71	32.38	PASS
13825.00†	10441.71	3641.91	-85.07	10405.78	10413.27	767.43	-127.52	180.85	2874.93	85.77	33.52	PASS
13925.00†	10442.15	3741.88	-87.40	10405.30	10412.78	767.44	-127.52	180.77	2974.86	85.84	34.66	PASS
14025.00†	10442.60	3841.85	-89.74	10404.82	10412.31	767.44	-127.51	180.70	3074.79	85.90	35.79	PASS
14125.00†	10443.05	3941.82	-92.07	10404.35	10411.83	767.45	-127.51	180.64	3174.73	85.97	36.93	PASS
14225.00†	10443.49	4041.79	-94.41	10403.87	10411.36	767.45	-127.51	180.58	3274.67	86.04	38.06	PASS
14325.00†	10443.94	4141.77	-96.74	10403.40	10410.89	767.46	-127.51	180.52	3374.61	86.12	39.19	PASS
14425.00†	10444.38	4241.74	-99.08	10402.93	10410.42	767.46	-127.51	180.47	3474.56	86.19	40.31	PASS
14525.00†	10444.83	4341.71	-101.41	10402.47	10409.95	767.46	-127.51	180.42	3574.51	86.27	41.44	PASS
14625.00†	10445.28	4441.68	-103.75	10402.01	10409.49	767.47	-127.51	180.37	3674.46	86.35	42.56	PASS
14725.00†	10445.72	4541.65	-106.08	10401.55	10409.03	767.47	-127.51	180.33	3774.42	86.43	43.67	PASS
14825.00†	10446.17	4641.62	-108.42	10401.09	10408.58	767.48	-127.50	180.28	3874.38	86.51	44.79	PASS
14925.00†	10446.62	4741.60	-110.75	10400.64	10408.12	767.48	-127.50	180.24	3974.33	86.59	45.90	PASS
15025.00†	10447.06	4841.57	-113.09	10400.19	10407.67	767.49	-127.50	180.20	4074.30	86.68	47.01	PASS
15125.00†	10447.51	4941.54	-115.42	10399.72	10407.21	767.49	-127.50	180.17	4174.26	86.76	48.11	PASS
15225.00†	10447.95	5041.51	-117.76	10399.25	10406.73	767.50	-127.50	180.13	4274.22	86.85	49.21	PASS
15235.35	10448.00	5051.85	-118.00	10399.20	10406.68	767.50	-127.50	180.13	4284.57	86.86	49.33	PASS

POSITIONAL UNCERTAINTY - Offset Wellbore: No.6 AWB Offset Wellpath: No.6 AWP

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	1.000ft

WELLPATH COMPOSITION - Offset Wellbore: No.6 AWB Offset Wellpath: No.6 AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	10870.00	Generic gyro - northseeking (Standard)	VES Gyro <100-10870>	No.6 AWB
10870.00	16671.00	ISCWSA MWD, Rev. 2 (Standard)	Weatherford MWD <10942-16671>	No.6 AWB

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: No.6 AWB Offset Wellpath: No.6 AWP

MD Reference: Rig on No.6 SHL (KB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	25.00ft



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.11H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.10H & No.11H Slot: No.11H SHL Well: No.11H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
25.00	25.00	0.00	0.00	26.90	25.00	291.39	-1156.71	284.14	1192.85	49.20	24.24	PASS
125.00†	125.00	0.00	0.00	126.90	125.00	291.39	-1156.71	284.14	1192.85	49.21	24.24	PASS
225.00†	225.00	0.00	0.00	226.90	225.00	291.39	-1156.71	284.14	1192.85	49.22	24.23	PASS
325.00†	325.00	0.00	0.00	326.90	325.00	291.39	-1156.71	284.14	1192.85	49.25	24.22	PASS
425.00†	425.00	0.00	0.00	426.90	425.00	291.39	-1156.71	284.14	1192.85	49.29	24.20	PASS
525.00†	525.00	0.00	0.00	526.90	525.00	291.39	-1156.71	284.14	1192.85	49.34	24.18	PASS
625.00†	625.00	0.00	0.00	626.90	625.00	291.39	-1156.71	284.14	1192.85	49.39	24.15	PASS
725.00†	725.00	0.00	0.00	726.90	725.00	291.39	-1156.71	284.14	1192.85	49.46	24.12	PASS
825.00†	825.00	0.00	0.00	826.90	825.00	291.39	-1156.71	284.14	1192.85	49.54	24.08	PASS
925.00†	925.00	0.00	0.00	926.90	925.00	291.39	-1156.71	284.14	1192.85	49.63	24.04	PASS
1025.00†	1025.00	0.00	0.00	1026.90	1025.00	291.39	-1156.71	284.14	1192.85	49.73	23.99	PASS
1125.00†	1125.00	0.00	0.00	1126.90	1125.00	291.39	-1156.71	284.14	1192.85	49.84	23.94	PASS
1225.00†	1225.00	0.00	0.00	1226.90	1225.00	291.39	-1156.71	284.14	1192.85	49.95	23.88	PASS
1325.00†	1325.00	0.00	0.00	1326.90	1325.00	291.39	-1156.71	284.14	1192.85	50.08	23.82	PASS
1425.00†	1425.00	0.00	0.00	1426.90	1425.00	291.39	-1156.71	284.14	1192.85	50.22	23.75	PASS
1525.00†	1525.00	0.00	0.00	1526.90	1525.00	291.39	-1156.71	284.14	1192.85	50.37	23.68	PASS
1625.00†	1625.00	0.00	0.00	1626.90	1625.00	291.39	-1156.71	284.14	1192.85	50.53	23.61	PASS
1725.00†	1725.00	0.00	0.00	1726.90	1725.00	291.39	-1156.71	284.14	1192.85	50.70	23.53	PASS
1825.00†	1825.00	0.00	0.00	1826.90	1825.00	291.39	-1156.71	284.14	1192.85	50.88	23.45	PASS
1925.00†	1925.00	0.00	0.00	1926.90	1925.00	291.39	-1156.71	284.14	1192.85	51.06	23.36	PASS
2025.00†	2025.00	0.00	0.00	2026.90	2025.00	291.39	-1156.71	284.14	1192.85	51.26	23.27	PASS
2125.00†	2125.00	0.00	0.00	2126.90	2125.00	291.39	-1156.71	284.14	1192.85	51.47	23.18	PASS
2225.00†	2225.00	0.00	0.00	2226.90	2225.00	291.39	-1156.71	284.14	1192.85	51.68	23.08	PASS
2325.00†	2325.00	0.00	0.00	2326.90	2325.00	291.39	-1156.71	284.14	1192.85	51.91	22.98	PASS
2425.00†	2425.00	0.00	0.00	2426.90	2425.00	291.39	-1156.71	284.14	1192.85	52.14	22.88	PASS
2525.00†	2525.00	0.00	0.00	2526.90	2525.00	291.39	-1156.71	284.14	1192.85	52.38	22.77	PASS
2625.00†	2625.00	0.00	0.00	2626.90	2625.00	291.39	-1156.71	284.14	1192.85	52.63	22.66	PASS
2725.00†	2725.00	0.00	0.00	2726.90	2725.00	291.39	-1156.71	284.14	1192.85	52.89	22.55	PASS
2825.00†	2825.00	0.00	0.00	2826.90	2825.00	291.39	-1156.71	284.14	1192.85	53.16	22.44	PASS
2925.00†	2925.00	0.00	0.00	2926.90	2925.00	291.39	-1156.71	284.14	1192.85	53.44	22.32	PASS
3025.00†	3025.00	0.00	0.00	3026.90	3025.00	291.39	-1156.71	284.14	1192.85	53.72	22.20	PASS
3125.00†	3125.00	0.00	0.00	3126.90	3125.00	291.39	-1156.71	284.14	1192.85	54.01	22.08	PASS
3225.00†	3225.00	0.00	0.00	3226.90	3225.00	291.39	-1156.71	284.14	1192.85	54.31	21.96	PASS
3325.00†	3325.00	0.00	0.00	3326.90	3325.00	291.39	-1156.71	284.14	1192.85	54.62	21.84	PASS
3425.00†	3425.00	0.00	0.00	3426.90	3425.00	291.39	-1156.71	284.14	1192.85	54.94	21.71	PASS
3525.00†	3525.00	0.00	0.00	3526.90	3525.00	291.39	-1156.71	284.14	1192.85	55.26	21.59	PASS
3625.00†	3625.00	0.00	0.00	3626.90	3625.00	291.39	-1156.71	284.14	1192.85	55.59	21.46	PASS
3725.00†	3725.00	0.00	0.00	3726.90	3725.00	291.39	-1156.71	284.14	1192.85	55.93	21.33	PASS
3825.00†	3825.00	0.00	0.00	3826.90	3825.00	291.39	-1156.71	284.14	1192.85	56.28	21.20	PASS
3925.00†	3925.00	0.00	0.00	3926.90	3925.00	291.39	-1156.71	284.14	1192.85	56.63	21.06	PASS
4025.00†	4025.00	0.00	0.00	4026.90	4025.00	291.39	-1156.71	284.14	1192.85	56.99	20.93	PASS
4125.00†	4125.00	0.00	0.00	4126.90	4125.00	291.39	-1156.71	284.14	1192.85	57.35	20.80	PASS
4225.00†	4225.00	0.00	0.00	4226.90	4225.00	291.39	-1156.71	284.14	1192.85	57.73	20.66	PASS
4325.00†	4325.00	0.00	0.00	4326.90	4325.00	291.39	-1156.71	284.14	1192.85	58.11	20.53	PASS
4425.00†	4425.00	0.00	0.00	4426.90	4425.00	291.39	-1156.71	284.14	1192.85	58.49	20.39	PASS



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REFERENCE WELLPATH IDENTIFICATION			
Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.11H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.10H & No.11H Slot: No.11H SHL Well: No.11H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
4525.00†	4525.00	0.00	0.00	4526.90	4525.00	291.39	-1156.71	284.14	1192.85	58.88	20.26	PASS
4625.00†	4625.00	0.00	0.00	4626.90	4625.00	291.39	-1156.71	284.14	1192.85	59.28	20.12	PASS
4725.00†	4725.00	0.00	0.00	4726.90	4725.00	291.39	-1156.71	284.14	1192.85	59.68	19.99	PASS
4825.00†	4825.00	0.00	0.00	4826.90	4825.00	291.39	-1156.71	284.14	1192.85	60.09	19.85	PASS
4925.00†	4925.00	0.00	0.00	4926.90	4925.00	291.39	-1156.71	284.14	1192.85	60.51	19.71	PASS
5025.00†	5025.00	0.00	0.00	5026.90	5025.00	291.39	-1156.71	284.14	1192.85	60.93	19.58	PASS
5125.00†	5125.00	0.00	0.00	5126.90	5125.00	291.39	-1156.71	284.14	1192.85	61.36	19.44	PASS
5225.00†	5225.00	0.00	0.00	5226.90	5225.00	291.39	-1156.71	284.14	1192.85	61.79	19.31	PASS
5325.00†	5325.00	0.00	0.00	5326.90	5325.00	291.39	-1156.71	284.14	1192.85	62.23	19.17	PASS
5425.00†	5425.00	0.00	0.00	5426.90	5425.00	291.39	-1156.71	284.14	1192.85	62.67	19.03	PASS
5525.00†	5525.00	0.00	0.00	5526.90	5525.00	291.39	-1156.71	284.14	1192.85	63.12	18.90	PASS
5625.00†	5625.00	0.00	0.00	5626.90	5625.00	291.39	-1156.71	284.14	1192.85	63.57	18.76	PASS
5725.00†	5725.00	0.00	0.00	5726.90	5725.00	291.39	-1156.71	284.14	1192.85	64.03	18.63	PASS
5825.00†	5825.00	0.00	0.00	5826.90	5825.00	291.39	-1156.71	284.14	1192.85	64.49	18.50	PASS
5925.00†	5925.00	0.00	0.00	5926.90	5925.00	291.39	-1156.71	284.14	1192.85	64.96	18.36	PASS
6025.00†	6025.00	0.00	0.00	6026.90	6025.00	291.39	-1156.71	284.14	1192.85	65.43	18.23	PASS
6125.00†	6125.00	0.00	0.00	6126.90	6125.00	291.39	-1156.71	284.14	1192.85	65.90	18.10	PASS
6225.00†	6225.00	0.00	0.00	6226.90	6225.00	291.39	-1156.71	284.14	1192.85	66.38	17.97	PASS
6325.00†	6325.00	0.00	0.00	6326.90	6325.00	291.39	-1156.71	284.14	1192.85	66.87	17.84	PASS
6425.00†	6425.00	0.00	0.00	6426.90	6425.00	291.39	-1156.71	284.14	1192.85	67.36	17.71	PASS
6525.00†	6525.00	0.00	0.00	6526.90	6525.00	291.39	-1156.71	284.14	1192.85	67.85	17.58	PASS
6625.00†	6625.00	0.00	0.00	6626.90	6625.00	291.39	-1156.71	284.14	1192.85	68.35	17.45	PASS
6725.00†	6725.00	0.00	0.00	6726.90	6725.00	291.39	-1156.71	284.14	1192.85	68.85	17.33	PASS
6825.00†	6825.00	0.00	0.00	6826.90	6825.00	291.39	-1156.71	284.14	1192.85	69.35	17.20	PASS
6925.00†	6925.00	0.00	0.00	6926.90	6925.00	291.39	-1156.71	284.14	1192.85	69.86	17.08	PASS
7025.00†	7025.00	0.00	0.00	7026.90	7025.00	291.39	-1156.71	284.14	1192.85	70.37	16.95	PASS
7125.00†	7125.00	0.00	0.00	7126.90	7125.00	291.39	-1156.71	284.14	1192.85	70.89	16.83	PASS
7225.00†	7225.00	0.00	0.00	7226.90	7225.00	291.39	-1156.71	284.14	1192.85	71.41	16.71	PASS
7325.00†	7325.00	0.00	0.00	7326.90	7325.00	291.39	-1156.71	284.14	1192.85	71.93	16.58	PASS
7425.00†	7425.00	0.00	0.00	7426.90	7425.00	291.39	-1156.71	284.14	1192.85	72.45	16.46	PASS
7525.00†	7525.00	0.00	0.00	7526.90	7525.00	291.39	-1156.71	284.14	1192.85	72.98	16.34	PASS
7625.00†	7625.00	0.00	0.00	7626.90	7625.00	291.39	-1156.71	284.14	1192.85	73.52	16.23	PASS
7725.00†	7725.00	0.00	0.00	7726.90	7725.00	291.39	-1156.71	284.14	1192.85	74.05	16.11	PASS
7825.00†	7825.00	0.00	0.00	7826.90	7825.00	291.39	-1156.71	284.14	1192.85	74.59	15.99	PASS
7925.00†	7925.00	0.00	0.00	7926.90	7925.00	291.39	-1156.71	284.14	1192.85	75.13	15.88	PASS
8025.00†	8025.00	0.00	0.00	8026.90	8025.00	291.39	-1156.71	284.14	1192.85	75.68	15.76	PASS
8125.00†	8125.00	0.00	0.00	8126.90	8125.00	291.39	-1156.71	284.14	1192.85	76.22	15.65	PASS
8225.00†	8225.00	0.00	0.00	8226.90	8225.00	291.39	-1156.71	284.14	1192.85	76.77	15.54	PASS
8325.00†	8325.00	0.00	0.00	8326.90	8325.00	291.39	-1156.71	284.14	1192.85	77.33	15.43	PASS
8425.00†	8425.00	0.00	0.00	8426.90	8425.00	291.39	-1156.71	284.14	1192.85	77.88	15.32	PASS
8525.00†	8525.00	0.00	0.00	8526.90	8525.00	291.39	-1156.71	284.14	1192.85	78.44	15.21	PASS
8625.00†	8625.00	0.00	0.00	8626.90	8625.00	291.39	-1156.71	284.14	1192.85	79.00	15.10	PASS
8725.00†	8725.00	0.00	0.00	8726.90	8725.00	291.39	-1156.71	284.14	1192.85	79.56	14.99	PASS
8825.00†	8825.00	0.00	0.00	8826.90	8825.00	291.39	-1156.71	284.14	1192.85	80.13	14.89	PASS
8925.00†	8925.00	0.00	0.00	8926.90	8925.00	291.39	-1156.71	284.14	1192.85	80.70	14.78	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.11H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.10H & No.11H Slot: No.11H SHL Well: No.11H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
9025.00†	9025.00	0.00	0.00	9026.90	9025.00	291.39	-1156.71	284.14	1192.85	81.27	14.68	PASS
9125.00†	9125.00	0.00	0.00	9126.90	9125.00	291.39	-1156.71	284.14	1192.85	81.84	14.57	PASS
9225.00†	9225.00	0.00	0.00	9226.90	9225.00	291.39	-1156.71	284.14	1192.85	82.42	14.47	PASS
9325.00†	9325.00	0.00	0.00	9326.90	9325.00	291.39	-1156.71	284.14	1192.85	83.00	14.37	PASS
9425.00†	9425.00	0.00	0.00	9426.90	9425.00	291.39	-1156.71	284.14	1192.85	83.58	14.27	PASS
9525.00†	9525.00	0.00	0.00	9526.90	9525.00	291.39	-1156.71	284.14	1192.85	84.16	14.17	PASS
9625.00†	9625.00	0.00	0.00	9626.90	9625.00	291.39	-1156.71	284.14	1192.85	84.74	14.08	PASS
9725.00†	9725.00	0.00	0.00	9726.90	9725.00	291.39	-1156.71	284.14	1192.85	85.33	13.98	PASS
9825.00†	9825.00	0.00	0.00	9826.90	9825.00	291.39	-1156.71	284.14	1192.85	85.92	13.88	PASS
9855.00	9855.00	0.00	0.00	9856.90	9855.00	291.39	-1156.71	284.14	1192.85	86.09	13.86	PASS
9925.00†	9924.83	4.27	-0.10	9926.73	9924.83	291.39	-1156.71	283.94	1191.71	86.50	13.78	PASS
10025.00†	10022.52	25.03	-0.58	10024.42	10022.52	291.39	-1156.71	282.97	1186.41	87.09	13.62	PASS
10125.00†	10115.12	62.43	-1.46	10117.02	10115.12	291.39	-1156.71	281.21	1177.72	87.66	13.44	PASS
10225.00†	10199.82	115.33	-2.69	10201.72	10199.82	291.39	-1156.71	278.67	1167.37	88.20	13.24	PASS
10325.00†	10274.04	182.14	-4.25	10275.94	10274.04	291.39	-1156.71	275.42	1157.62	88.75	13.04	PASS
10425.00†	10335.54	260.81	-6.09	10337.44	10335.54	291.39	-1156.71	271.52	1151.02	89.38	12.88	PASS
10487.50†	10366.66	314.96	-7.36	10372.50	10370.60	291.39	-1156.71	268.83	1149.60	89.87	12.79	PASS
10525.00†	10382.43	348.97	-8.15	10384.33	10382.43	291.39	-1156.71	267.13	1150.00	90.14	12.76	PASS
10625.00†	10413.31	443.92	-10.37	10415.21	10413.31	291.39	-1156.71	262.42	1156.44	91.03	12.70	PASS
10725.00†	10427.22	542.80	-12.68	10429.12	10427.22	291.39	-1156.71	257.61	1171.33	92.03	12.73	PASS
10752.52	10428.00	570.29	-13.32	10429.90	10428.00	291.39	-1156.71	256.29	1176.91	92.31	12.75	PASS
10752.53	10428.00	570.31	-13.32	10429.90	10428.00	291.39	-1156.71	256.29	1176.91	92.31	12.75	PASS
10825.00†	10428.32	642.75	-15.01	10430.22	10428.32	291.39	-1156.71	252.89	1194.54	93.08	12.83	PASS
10925.00†	10428.77	742.73	-17.35	10430.67	10428.77	291.39	-1156.71	248.39	1225.50	94.19	13.01	PASS
11025.00†	10429.22	842.70	-19.68	10431.12	10429.22	291.39	-1156.71	244.13	1263.63	95.31	13.26	PASS
11125.00†	10429.66	942.67	-22.02	10431.56	10429.66	291.39	-1156.71	240.15	1308.31	96.39	13.57	PASS
11225.00†	10430.11	1042.64	-24.35	10432.01	10430.11	291.39	-1156.71	236.44	1358.90	97.40	13.95	PASS
11325.00†	10430.55	1142.61	-26.69	10432.45	10430.55	291.39	-1156.71	233.01	1414.75	98.34	14.39	PASS
11425.00†	10431.00	1242.58	-29.02	12020.07	11311.55	1241.37	-1162.86	269.94	1435.60	101.28	14.17	PASS
11525.00†	10431.45	1342.56	-31.36	12120.05	11310.85	1341.35	-1163.50	269.94	1433.56	104.07	13.77	PASS
11625.00†	10431.89	1442.53	-33.69	12220.03	11310.16	1441.32	-1164.15	269.94	1431.53	107.04	13.37	PASS
11725.00†	10432.34	1542.50	-36.03	12320.01	11309.46	1541.29	-1164.80	269.94	1429.50	110.16	12.98	PASS
11825.00†	10432.78	1642.47	-38.36	12419.99	11308.77	1641.27	-1165.45	269.94	1427.46	113.43	12.58	PASS
11925.00†	10433.23	1742.44	-40.70	12519.97	11308.07	1741.24	-1166.09	269.94	1425.43	116.84	12.20	PASS
12025.00†	10433.68	1842.42	-43.03	12619.95	11307.37	1841.22	-1166.74	269.94	1423.40	120.37	11.83	PASS
12125.00†	10434.12	1942.39	-45.37	12719.93	11306.68	1941.19	-1167.39	269.94	1421.36	124.01	11.46	PASS
12225.00†	10434.57	2042.36	-47.71	12819.91	11305.98	2041.17	-1168.03	269.94	1419.33	127.75	11.11	PASS
12325.00†	10435.02	2142.33	-50.04	12919.89	11305.29	2141.14	-1168.68	269.94	1417.30	131.59	10.77	PASS
12425.00†	10435.46	2242.30	-52.38	13019.87	11304.59	2241.12	-1169.33	269.94	1415.26	135.51	10.44	PASS
12525.00†	10435.91	2342.27	-54.71	13119.84	11303.90	2341.09	-1169.98	269.94	1413.23	139.51	10.13	PASS
12625.00†	10436.35	2442.25	-57.05	13219.82	11303.20	2441.07	-1170.62	269.94	1411.20	143.59	9.83	PASS
12725.00†	10436.80	2542.22	-59.38	13319.80	11302.51	2541.04	-1171.27	269.94	1409.16	147.73	9.54	PASS
12825.00†	10437.25	2642.19	-61.72	13419.78	11301.81	2641.02	-1171.92	269.94	1407.13	151.93	9.26	PASS
12925.00†	10437.69	2742.16	-64.05	13519.76	11301.12	2740.99	-1172.56	269.94	1405.10	156.18	9.00	PASS
13025.00†	10438.14	2842.13	-66.39	13619.74	11300.42	2840.97	-1173.21	269.94	1403.07	160.49	8.74	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.11H PWB Offset Wellpath: Rev-A.0

Facility: Gaucho Unit No.10H & No.11H Slot: No.11H SHL Well: No.11H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13125.00†	10438.58	2942.10	-68.72	13719.72	11299.73	2940.94	-1173.86	269.94	1401.03	164.85	8.50	PASS
13225.00†	10439.03	3042.08	-71.06	13819.70	11299.03	3040.92	-1174.50	269.94	1399.00	169.24	8.27	PASS
13325.00†	10439.48	3142.05	-73.39	13919.68	11298.33	3140.89	-1175.15	269.94	1396.97	173.68	8.04	PASS
13425.00†	10439.92	3242.02	-75.73	14019.66	11297.64	3240.87	-1175.80	269.94	1394.93	178.16	7.83	PASS
13525.00†	10440.37	3341.99	-78.06	14119.64	11296.94	3340.84	-1176.45	269.94	1392.90	182.67	7.63	PASS
13625.00†	10440.82	3441.96	-80.40	14219.62	11296.25	3440.81	-1177.09	269.94	1390.87	187.21	7.43	PASS
13725.00†	10441.26	3541.93	-82.73	14319.60	11295.55	3540.79	-1177.74	269.94	1388.83	191.78	7.24	PASS
13825.00†	10441.71	3641.91	-85.07	14419.58	11294.86	3640.76	-1178.39	269.94	1386.80	196.37	7.06	PASS
13925.00†	10442.15	3741.88	-87.40	14519.55	11294.16	3740.74	-1179.03	269.94	1384.77	201.00	6.89	PASS
14025.00†	10442.60	3841.85	-89.74	14619.53	11293.47	3840.71	-1179.68	269.94	1382.73	205.64	6.72	PASS
14125.00†	10443.05	3941.82	-92.07	14719.51	11292.77	3940.69	-1180.33	269.94	1380.70	210.31	6.57	PASS
14225.00†	10443.49	4041.79	-94.41	14819.49	11292.08	4040.66	-1180.98	269.94	1378.67	215.00	6.41	PASS
14325.00†	10443.94	4141.77	-96.74	14919.47	11291.38	4140.64	-1181.62	269.94	1376.63	219.71	6.27	PASS
14425.00†	10444.38	4241.74	-99.08	15019.45	11290.68	4240.61	-1182.27	269.94	1374.60	224.43	6.12	PASS
14525.00†	10444.83	4341.71	-101.41	15119.43	11289.99	4340.59	-1182.92	269.94	1372.57	229.17	5.99	PASS
14625.00†	10445.28	4441.68	-103.75	15219.41	11289.29	4440.56	-1183.56	269.94	1370.54	233.93	5.86	PASS
14725.00†	10445.72	4541.65	-106.08	15319.39	11288.60	4540.54	-1184.21	269.94	1368.50	238.70	5.73	PASS
14825.00†	10446.17	4641.62	-108.42	15419.37	11287.90	4640.51	-1184.86	269.94	1366.47	243.49	5.61	PASS
14925.00†	10446.62	4741.60	-110.75	15519.35	11287.21	4740.49	-1185.51	269.94	1364.44	248.29	5.50	PASS
15025.00†	10447.06	4841.57	-113.09	15619.33	11286.51	4840.46	-1186.15	269.94	1362.40	253.10	5.38	PASS
15125.00†	10447.51	4941.54	-115.42	15719.31	11285.82	4940.44	-1186.80	269.94	1360.37	257.92	5.27	PASS
15225.00†	10447.95	5041.51	-117.76	15819.29	11285.12	5040.41	-1187.45	269.94	1358.34	262.75	5.17	PASS
15235.35	10448.00	5051.85	-118.00	15822.39	11285.10	5043.51	-1187.47	269.55	1358.15	263.08	5.16	PASS

POSITIONAL UNCERTAINTY - Offset Wellbore: No.11H PWB Offset Wellpath: Rev-A.0

Slot Surface Uncertainty @ 1SD	Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @ 1SD	Horizontal	8.200ft	Vertical	1.000ft

SURVEY PROGRAM - Offset Wellbore: No.11H PWB Offset Wellpath: Rev-A.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	15822.39	NaviTrak (Standard)		No.11H PWB

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: No.11H PWB Offset Wellpath: Rev-A.0

MD Reference: Rig on No.11H SHL (KB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	25.00ft



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.10H PWB Offset Wellpath: Rev-B.0

Facility: Gaucho Unit No.10H & No.11H Slot: No.10H SHL Well: No.10H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
25.00	25.00	0.00	0.00	26.60	25.00	290.99	-1206.70	283.56	1241.29	49.20	25.23	PASS
125.00†	125.00	0.00	0.00	126.60	125.00	290.99	-1206.70	283.56	1241.29	49.21	25.22	PASS
225.00†	225.00	0.00	0.00	226.60	225.00	290.99	-1206.70	283.56	1241.29	49.22	25.22	PASS
325.00†	325.00	0.00	0.00	326.60	325.00	290.99	-1206.70	283.56	1241.29	49.25	25.20	PASS
425.00†	425.00	0.00	0.00	426.60	425.00	290.99	-1206.70	283.56	1241.29	49.29	25.18	PASS
525.00†	525.00	0.00	0.00	526.60	525.00	290.99	-1206.70	283.56	1241.29	49.34	25.16	PASS
625.00†	625.00	0.00	0.00	626.60	625.00	290.99	-1206.70	283.56	1241.29	49.39	25.13	PASS
725.00†	725.00	0.00	0.00	726.60	725.00	290.99	-1206.70	283.56	1241.29	49.46	25.10	PASS
825.00†	825.00	0.00	0.00	826.60	825.00	290.99	-1206.70	283.56	1241.29	49.54	25.06	PASS
925.00†	925.00	0.00	0.00	926.60	925.00	290.99	-1206.70	283.56	1241.29	49.63	25.01	PASS
1025.00†	1025.00	0.00	0.00	1026.60	1025.00	290.99	-1206.70	283.56	1241.29	49.73	24.96	PASS
1125.00†	1125.00	0.00	0.00	1126.60	1125.00	290.99	-1206.70	283.56	1241.29	49.84	24.91	PASS
1225.00†	1225.00	0.00	0.00	1226.60	1225.00	290.99	-1206.70	283.56	1241.29	49.95	24.85	PASS
1325.00†	1325.00	0.00	0.00	1326.60	1325.00	290.99	-1206.70	283.56	1241.29	50.08	24.78	PASS
1425.00†	1425.00	0.00	0.00	1426.60	1425.00	290.99	-1206.70	283.56	1241.29	50.22	24.72	PASS
1525.00†	1525.00	0.00	0.00	1526.60	1525.00	290.99	-1206.70	283.56	1241.29	50.37	24.64	PASS
1625.00†	1625.00	0.00	0.00	1626.60	1625.00	290.99	-1206.70	283.56	1241.29	50.53	24.57	PASS
1725.00†	1725.00	0.00	0.00	1726.60	1725.00	290.99	-1206.70	283.56	1241.29	50.70	24.48	PASS
1825.00†	1825.00	0.00	0.00	1829.67	1828.07	290.84	-1206.70	283.55	1241.26	50.88	24.40	PASS
1925.00†	1925.00	0.00	0.00	1941.11	1939.46	287.52	-1206.68	283.40	1240.55	51.08	24.29	PASS
2025.00†	2025.00	0.00	0.00	2051.92	2049.99	279.93	-1206.64	283.06	1238.94	51.29	24.16	PASS
2125.00†	2125.00	0.00	0.00	2151.54	2149.23	271.24	-1206.60	282.67	1236.95	51.50	24.02	PASS
2225.00†	2225.00	0.00	0.00	2251.15	2248.47	262.56	-1206.56	282.28	1235.02	51.73	23.87	PASS
2325.00†	2325.00	0.00	0.00	2350.77	2347.71	253.88	-1206.52	281.88	1233.15	51.97	23.73	PASS
2425.00†	2425.00	0.00	0.00	2450.39	2446.95	245.20	-1206.48	281.49	1231.34	52.22	23.58	PASS
2525.00†	2525.00	0.00	0.00	2550.01	2546.19	236.51	-1206.44	281.09	1229.59	52.49	23.43	PASS
2625.00†	2625.00	0.00	0.00	2649.63	2645.43	227.83	-1206.40	280.70	1227.89	52.76	23.27	PASS
2725.00†	2725.00	0.00	0.00	2749.25	2744.67	219.15	-1206.36	280.30	1226.26	53.05	23.12	PASS
2825.00†	2825.00	0.00	0.00	2848.87	2843.91	210.47	-1206.32	279.90	1224.68	53.34	22.96	PASS
2925.00†	2925.00	0.00	0.00	2944.52	2939.24	202.65	-1206.28	279.54	1223.26	53.65	22.80	PASS
3025.00†	3025.00	0.00	0.00	3037.68	3032.27	197.81	-1206.26	279.31	1222.39	53.94	22.66	PASS
3125.00†	3125.00	0.00	0.00	3131.06	3125.63	196.00	-1206.25	279.23	1222.07	54.24	22.53	PASS
3225.00†	3225.00	0.00	0.00	3230.43	3225.00	195.98	-1206.25	279.23	1222.06	54.54	22.41	PASS
3325.00†	3325.00	0.00	0.00	3330.43	3325.00	195.98	-1206.25	279.23	1222.06	54.84	22.28	PASS
3425.00†	3425.00	0.00	0.00	3430.43	3425.00	195.98	-1206.25	279.23	1222.06	55.16	22.15	PASS
3525.00†	3525.00	0.00	0.00	3530.43	3525.00	195.98	-1206.25	279.23	1222.06	55.49	22.03	PASS
3625.00†	3625.00	0.00	0.00	3630.43	3625.00	195.98	-1206.25	279.23	1222.06	55.82	21.89	PASS
3725.00†	3725.00	0.00	0.00	3730.43	3725.00	195.98	-1206.25	279.23	1222.06	56.16	21.76	PASS
3825.00†	3825.00	0.00	0.00	3830.43	3825.00	195.98	-1206.25	279.23	1222.06	56.50	21.63	PASS
3925.00†	3925.00	0.00	0.00	3930.43	3925.00	195.98	-1206.25	279.23	1222.06	56.85	21.50	PASS
4025.00†	4025.00	0.00	0.00	4030.43	4025.00	195.98	-1206.25	279.23	1222.06	57.21	21.36	PASS
4125.00†	4125.00	0.00	0.00	4130.43	4125.00	195.98	-1206.25	279.23	1222.06	57.58	21.22	PASS
4225.00†	4225.00	0.00	0.00	4230.43	4225.00	195.98	-1206.25	279.23	1222.06	57.95	21.09	PASS
4325.00†	4325.00	0.00	0.00	4330.43	4325.00	195.98	-1206.25	279.23	1222.06	58.33	20.95	PASS
4425.00†	4425.00	0.00	0.00	4430.43	4425.00	195.98	-1206.25	279.23	1222.06	58.72	20.81	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.10H PWB Offset Wellpath: Rev-B.0

Facility: Gaucho Unit No.10H & No.11H Slot: No.10H SHL Well: No.10H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
4525.00†	4525.00	0.00	0.00	4530.43	4525.00	195.98	-1206.25	279.23	1222.06	59.11	20.67	PASS
4625.00†	4625.00	0.00	0.00	4630.43	4625.00	195.98	-1206.25	279.23	1222.06	59.51	20.54	PASS
4725.00†	4725.00	0.00	0.00	4730.43	4725.00	195.98	-1206.25	279.23	1222.06	59.91	20.40	PASS
4825.00†	4825.00	0.00	0.00	4830.43	4825.00	195.98	-1206.25	279.23	1222.06	60.32	20.26	PASS
4925.00†	4925.00	0.00	0.00	4930.43	4925.00	195.98	-1206.25	279.23	1222.06	60.74	20.12	PASS
5025.00†	5025.00	0.00	0.00	5030.43	5025.00	195.98	-1206.25	279.23	1222.06	61.16	19.98	PASS
5125.00†	5125.00	0.00	0.00	5130.43	5125.00	195.98	-1206.25	279.23	1222.06	61.58	19.84	PASS
5225.00†	5225.00	0.00	0.00	5230.43	5225.00	195.98	-1206.25	279.23	1222.06	62.02	19.71	PASS
5325.00†	5325.00	0.00	0.00	5330.43	5325.00	195.98	-1206.25	279.23	1222.06	62.45	19.57	PASS
5425.00†	5425.00	0.00	0.00	5430.43	5425.00	195.98	-1206.25	279.23	1222.06	62.90	19.43	PASS
5525.00†	5525.00	0.00	0.00	5530.43	5525.00	195.98	-1206.25	279.23	1222.06	63.34	19.29	PASS
5625.00†	5625.00	0.00	0.00	5630.43	5625.00	195.98	-1206.25	279.23	1222.06	63.80	19.16	PASS
5725.00†	5725.00	0.00	0.00	5730.43	5725.00	195.98	-1206.25	279.23	1222.06	64.25	19.02	PASS
5825.00†	5825.00	0.00	0.00	5830.43	5825.00	195.98	-1206.25	279.23	1222.06	64.71	18.88	PASS
5925.00†	5925.00	0.00	0.00	5930.43	5925.00	195.98	-1206.25	279.23	1222.06	65.18	18.75	PASS
6025.00†	6025.00	0.00	0.00	6030.43	6025.00	195.98	-1206.25	279.23	1222.06	65.65	18.61	PASS
6125.00†	6125.00	0.00	0.00	6130.43	6125.00	195.98	-1206.25	279.23	1222.06	66.13	18.48	PASS
6225.00†	6225.00	0.00	0.00	6230.43	6225.00	195.98	-1206.25	279.23	1222.06	66.61	18.35	PASS
6325.00†	6325.00	0.00	0.00	6330.43	6325.00	195.98	-1206.25	279.23	1222.06	67.09	18.21	PASS
6425.00†	6425.00	0.00	0.00	6430.43	6425.00	195.98	-1206.25	279.23	1222.06	67.58	18.08	PASS
6525.00†	6525.00	0.00	0.00	6530.43	6525.00	195.98	-1206.25	279.23	1222.06	68.07	17.95	PASS
6625.00†	6625.00	0.00	0.00	6630.43	6625.00	195.98	-1206.25	279.23	1222.06	68.57	17.82	PASS
6725.00†	6725.00	0.00	0.00	6730.43	6725.00	195.98	-1206.25	279.23	1222.06	69.07	17.69	PASS
6825.00†	6825.00	0.00	0.00	6830.43	6825.00	195.98	-1206.25	279.23	1222.06	69.58	17.56	PASS
6925.00†	6925.00	0.00	0.00	6930.43	6925.00	195.98	-1206.25	279.23	1222.06	70.08	17.44	PASS
7025.00†	7025.00	0.00	0.00	7030.43	7025.00	195.98	-1206.25	279.23	1222.06	70.59	17.31	PASS
7125.00†	7125.00	0.00	0.00	7130.43	7125.00	195.98	-1206.25	279.23	1222.06	71.11	17.19	PASS
7225.00†	7225.00	0.00	0.00	7230.43	7225.00	195.98	-1206.25	279.23	1222.06	71.63	17.06	PASS
7325.00†	7325.00	0.00	0.00	7330.43	7325.00	195.98	-1206.25	279.23	1222.06	72.15	16.94	PASS
7425.00†	7425.00	0.00	0.00	7430.43	7425.00	195.98	-1206.25	279.23	1222.06	72.68	16.82	PASS
7525.00†	7525.00	0.00	0.00	7530.43	7525.00	195.98	-1206.25	279.23	1222.06	73.21	16.69	PASS
7625.00†	7625.00	0.00	0.00	7630.43	7625.00	195.98	-1206.25	279.23	1222.06	73.74	16.57	PASS
7725.00†	7725.00	0.00	0.00	7730.43	7725.00	195.98	-1206.25	279.23	1222.06	74.27	16.45	PASS
7825.00†	7825.00	0.00	0.00	7830.43	7825.00	195.98	-1206.25	279.23	1222.06	74.81	16.34	PASS
7925.00†	7925.00	0.00	0.00	7930.43	7925.00	195.98	-1206.25	279.23	1222.06	75.35	16.22	PASS
8025.00†	8025.00	0.00	0.00	8030.43	8025.00	195.98	-1206.25	279.23	1222.06	75.90	16.10	PASS
8125.00†	8125.00	0.00	0.00	8130.43	8125.00	195.98	-1206.25	279.23	1222.06	76.44	15.99	PASS
8225.00†	8225.00	0.00	0.00	8230.43	8225.00	195.98	-1206.25	279.23	1222.06	76.99	15.87	PASS
8325.00†	8325.00	0.00	0.00	8330.43	8325.00	195.98	-1206.25	279.23	1222.06	77.55	15.76	PASS
8425.00†	8425.00	0.00	0.00	8430.43	8425.00	195.98	-1206.25	279.23	1222.06	78.10	15.65	PASS
8525.00†	8525.00	0.00	0.00	8530.43	8525.00	195.98	-1206.25	279.23	1222.06	78.66	15.54	PASS
8625.00†	8625.00	0.00	0.00	8630.43	8625.00	195.98	-1206.25	279.23	1222.06	79.22	15.43	PASS
8725.00†	8725.00	0.00	0.00	8730.43	8725.00	195.98	-1206.25	279.23	1222.06	79.78	15.32	PASS
8825.00†	8825.00	0.00	0.00	8830.43	8825.00	195.98	-1206.25	279.23	1222.06	80.35	15.21	PASS
8925.00†	8925.00	0.00	0.00	8930.43	8925.00	195.98	-1206.25	279.23	1222.06	80.92	15.10	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.10H PWB Offset Wellpath: Rev-B.0

Facility: Gaucho Unit No.10H & No.11H Slot: No.10H SHL Well: No.10H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
9025.00†	9025.00	0.00	0.00	9030.43	9025.00	195.98	-1206.25	279.23	1222.06	81.49	15.00	PASS
9125.00†	9125.00	0.00	0.00	9130.43	9125.00	195.98	-1206.25	279.23	1222.06	82.06	14.89	PASS
9225.00†	9225.00	0.00	0.00	9230.43	9225.00	195.98	-1206.25	279.23	1222.06	82.64	14.79	PASS
9325.00†	9325.00	0.00	0.00	9330.43	9325.00	195.98	-1206.25	279.23	1222.06	83.21	14.69	PASS
9425.00†	9425.00	0.00	0.00	9430.43	9425.00	195.98	-1206.25	279.23	1222.06	83.79	14.58	PASS
9525.00†	9525.00	0.00	0.00	9530.43	9525.00	195.98	-1206.25	279.23	1222.06	84.37	14.48	PASS
9625.00†	9625.00	0.00	0.00	9630.43	9625.00	195.98	-1206.25	279.23	1222.06	84.96	14.38	PASS
9725.00†	9725.00	0.00	0.00	9730.43	9725.00	195.98	-1206.25	279.23	1222.06	85.54	14.29	PASS
9825.00†	9825.00	0.00	0.00	9830.43	9825.00	195.98	-1206.25	279.23	1222.06	86.13	14.19	PASS
9855.00	9855.00	0.00	0.00	9860.43	9855.00	195.98	-1206.25	279.23	1222.06	86.31	14.16	PASS
9925.00†	9924.83	4.27	-0.10	9930.26	9924.83	195.98	-1206.25	279.03	1221.29	86.72	14.08	PASS
10025.00†	10022.52	25.03	-0.58	10027.95	10022.52	195.98	-1206.25	278.07	1217.72	87.29	13.95	PASS
10125.00†	10115.12	62.43	-1.46	10120.55	10115.12	195.98	-1206.25	276.33	1212.17	87.84	13.80	PASS
10225.00†	10199.82	115.33	-2.69	10205.25	10199.82	195.98	-1206.25	273.83	1206.25	88.37	13.65	PASS
10325.00†	10274.04	182.14	-4.25	10279.47	10274.04	195.98	-1206.25	270.66	1202.07	88.94	13.52	PASS
10380.62†	10309.95	224.58	-5.25	10313.75	10308.32	195.98	-1206.25	268.64	1201.34	89.30	13.45	PASS
10425.00†	10335.54	260.81	-6.09	10340.97	10335.54	195.98	-1206.25	266.91	1201.90	89.59	13.41	PASS
10525.00†	10382.43	348.97	-8.15	10387.86	10382.43	195.98	-1206.25	262.72	1207.82	90.37	13.37	PASS
10558.49†	10394.61	380.15	-8.88	10400.05	10394.62	195.98	-1206.25	261.26	1211.45	90.68	13.36	PASS
10625.00†	10413.31	443.92	-10.37	10418.74	10413.31	195.98	-1206.25	258.29	1221.31	91.27	13.38	PASS
10725.00†	10427.22	542.80	-12.68	10432.65	10427.22	195.98	-1206.25	253.80	1242.93	92.25	13.47	PASS
10752.52	10428.00	570.29	-13.32	10433.43	10428.00	195.98	-1206.25	252.58	1250.27	92.52	13.51	PASS
10752.53	10428.00	570.31	-13.32	10433.43	10428.00	195.98	-1206.25	252.58	1250.28	92.52	13.51	PASS
10825.00†	10428.32	642.75	-15.01	10433.75	10428.32	195.98	-1206.25	249.44	1272.26	93.26	13.64	PASS
10925.00†	10428.77	742.73	-17.35	10434.20	10428.77	195.98	-1206.25	245.30	1308.59	94.31	13.87	PASS
11025.00†	10429.22	842.70	-19.68	10434.65	10429.22	195.98	-1206.25	241.41	1351.36	95.37	14.17	PASS
11125.00†	10429.66	942.67	-22.02	10435.09	10429.66	195.98	-1206.25	237.77	1399.98	96.39	14.52	PASS
11225.00†	10430.11	1042.64	-24.35	10435.54	10430.11	195.98	-1206.25	234.38	1453.86	97.36	14.93	PASS
11325.00†	10430.55	1142.61	-26.69	10435.98	10430.55	195.98	-1206.25	231.25	1512.44	98.26	15.39	PASS
11425.00†	10431.00	1242.58	-29.02	10436.43	10431.00	195.98	-1206.25	228.36	1575.19	99.08	15.90	PASS
11525.00†	10431.45	1342.56	-31.36	10436.88	10431.45	195.98	-1206.25	225.70	1641.64	99.82	16.45	PASS
11625.00†	10431.89	1442.53	-33.69	10437.32	10431.89	195.98	-1206.25	223.25	1711.36	100.49	17.03	PASS
11725.00†	10432.34	1542.50	-36.03	10437.77	10432.34	195.98	-1206.25	220.99	1783.96	101.09	17.65	PASS
11825.00†	10432.78	1642.47	-38.36	10438.22	10432.78	195.98	-1206.25	218.92	1859.11	101.62	18.29	PASS
11925.00†	10433.23	1742.44	-40.70	10438.66	10433.23	195.98	-1206.25	217.01	1936.50	102.11	18.97	PASS
12025.00†	10433.68	1842.42	-43.03	10439.11	10433.68	195.98	-1206.25	215.24	2015.89	102.54	19.66	PASS
12125.00†	10434.12	1942.39	-45.37	10439.55	10434.12	195.98	-1206.25	213.61	2097.04	102.92	20.37	PASS
12225.00†	10434.57	2042.36	-47.71	10440.00	10434.57	195.98	-1206.25	212.11	2179.75	103.27	21.11	PASS
12325.00†	10435.02	2142.33	-50.04	10440.45	10435.02	195.98	-1206.25	210.71	2263.87	103.58	21.86	PASS
12425.00†	10435.46	2242.30	-52.38	10440.89	10435.46	195.98	-1206.25	209.42	2349.22	103.87	22.62	PASS
12525.00†	10435.91	2342.27	-54.71	10441.34	10435.91	195.98	-1206.25	208.22	2435.69	104.12	23.39	PASS
12625.00†	10436.35	2442.25	-57.05	10441.78	10436.35	195.98	-1206.25	207.10	2523.17	104.36	24.18	PASS
12725.00†	10436.80	2542.22	-59.38	10442.23	10436.80	195.98	-1206.25	206.05	2611.54	104.57	24.97	PASS
12825.00†	10437.25	2642.19	-61.72	10442.68	10437.25	195.98	-1206.25	205.07	2700.72	104.77	25.78	PASS
12925.00†	10437.69	2742.16	-64.05	10443.12	10437.69	195.98	-1206.25	204.16	2790.63	104.95	26.59	PASS



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REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No.13H SHL
Area	Lea County, NM	Well	No.13H
Field	(Gaucho) Sec 17, T22S, R34E	Wellbore	No.13H PWB
Facility	Gaucho Unit No.12H & No.13H		

CLEARANCE DATA - Offset Wellbore: No.10H PWB Offset Wellpath: Rev-B.0

Facility: Gaucho Unit No.10H & No.11H Slot: No.10H SHL Well: No.10H Threshold Value=1.00 † = interpolated/extrapolated station

Ref MD [ft]	Ref TVD [ft]	Ref North [ft]	Ref East [ft]	Offset MD [ft]	Offset TVD [ft]	Offset North [ft]	Offset East [ft]	Horiz Bearing [°]	C-C Clear Dist [ft]	ACR MASD [ft]	Sep Ratio	ACR Status
13025.00†	10438.14	2842.13	-66.39	10443.57	10438.14	195.98	-1206.25	203.31	2881.21	105.12	27.41	PASS
13125.00†	10438.58	2942.10	-68.72	10444.02	10438.58	195.98	-1206.25	202.50	2972.40	105.28	28.23	PASS
13225.00†	10439.03	3042.08	-71.06	10444.46	10439.03	195.98	-1206.25	201.75	3064.13	105.43	29.06	PASS
13325.00†	10439.48	3142.05	-73.39	10444.91	10439.48	195.98	-1206.25	201.03	3156.37	105.57	29.90	PASS
13425.00†	10439.92	3242.02	-75.73	10445.35	10439.92	195.98	-1206.25	200.36	3249.06	105.70	30.74	PASS
13525.00†	10440.37	3341.99	-78.06	10445.80	10440.37	195.98	-1206.25	199.73	3342.18	105.83	31.58	PASS
13625.00†	10440.82	3441.96	-80.40	10446.25	10440.82	195.98	-1206.25	199.13	3435.68	105.95	32.43	PASS
13725.00†	10441.26	3541.93	-82.73	10446.69	10441.26	195.98	-1206.25	198.56	3529.54	106.07	33.28	PASS
13825.00†	10441.71	3641.91	-85.07	10447.14	10441.71	195.98	-1206.25	198.02	3623.73	106.18	34.13	PASS
13925.00†	10442.15	3741.88	-87.40	10447.58	10442.15	195.98	-1206.25	197.51	3718.22	106.29	34.98	PASS
14025.00†	10442.60	3841.85	-89.74	10448.03	10442.60	195.98	-1206.25	197.03	3813.00	106.39	35.84	PASS
14125.00†	10443.05	3941.82	-92.07	10448.48	10443.05	195.98	-1206.25	196.57	3908.03	106.49	36.70	PASS
14225.00†	10443.49	4041.79	-94.41	10448.92	10443.49	195.98	-1206.25	196.13	4003.31	106.59	37.56	PASS
14325.00†	10443.94	4141.77	-96.74	10449.37	10443.94	195.98	-1206.25	195.71	4098.81	106.69	38.42	PASS
14425.00†	10444.38	4241.74	-99.08	10449.82	10444.38	195.98	-1206.25	195.31	4194.51	106.78	39.28	PASS
14525.00†	10444.83	4341.71	-101.41	10450.26	10444.83	195.98	-1206.25	194.92	4290.42	106.88	40.14	PASS
14625.00†	10445.28	4441.68	-103.75	10450.71	10445.28	195.98	-1206.25	194.56	4386.51	106.97	41.01	PASS
14725.00†	10445.72	4541.65	-106.08	10451.15	10445.72	195.98	-1206.25	194.21	4482.77	107.06	41.87	PASS
14825.00†	10446.17	4641.62	-108.42	10451.60	10446.17	195.98	-1206.25	193.87	4579.19	107.15	42.73	PASS
14925.00†	10446.62	4741.60	-110.75	10452.05	10446.62	195.98	-1206.25	193.55	4675.76	107.24	43.60	PASS
15025.00†	10447.06	4841.57	-113.09	10452.49	10447.06	195.98	-1206.25	193.24	4772.47	107.34	44.46	PASS
15125.00†	10447.51	4941.54	-115.42	10452.94	10447.51	195.98	-1206.25	192.95	4869.31	107.43	45.33	PASS
15225.00†	10447.95	5041.51	-117.76	10453.38	10447.95	195.98	-1206.25	192.66	4966.28	107.52	46.19	PASS
15235.35	10448.00	5051.85	-118.00	10453.43	10448.00	195.98	-1206.25	192.63	4976.32	107.52	46.28	PASS

POSITIONAL UNCERTAINTY - Offset Wellbore: No.10H PWB Offset Wellpath: Rev-B.0

Slot Surface Uncertainty @1SD	Horizontal	0.100ft	Vertical	0.100ft
Facility Surface Uncertainty @1SD	Horizontal	8.200ft	Vertical	1.000ft

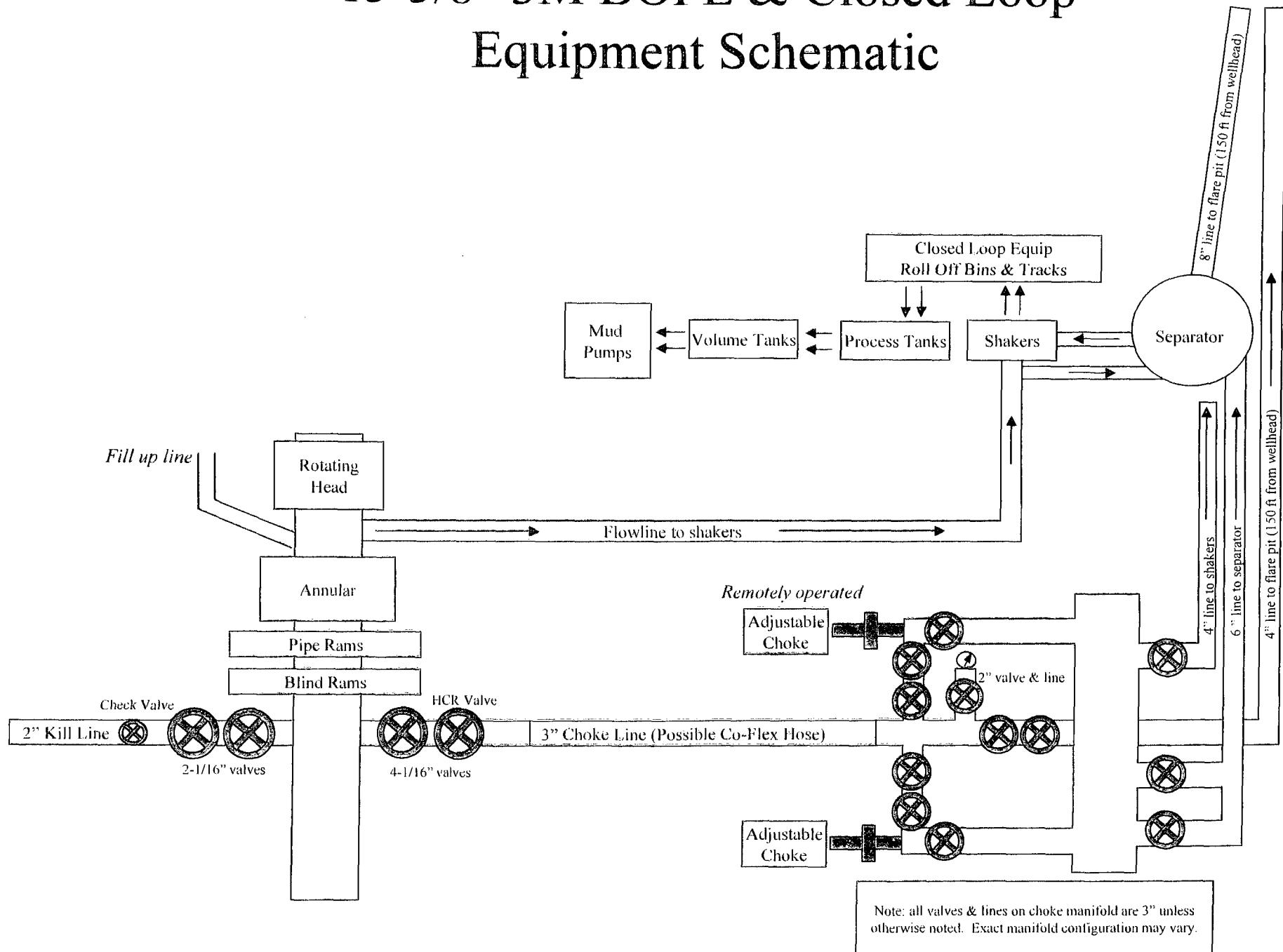
SURVEY PROGRAM - Offset Wellbore: No.10H PWB Offset Wellpath: Rev-B.0

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	16177.33	NaviTrak (Standard)		No.10H PWB

OFFSET WELLPATH MD REFERENCE - Offset Wellbore: No.10H PWB Offset Wellpath: Rev-B.0

MD Reference: Rig on No.10H SHL (KB)	Offset TVD & local coordinates use Reference Wellpath settings (See WELLPATH DATUM on page 1 of this report)
Ellipse Start MD	25.00ft

13-5/8" 3M BOPE & Closed Loop Equipment Schematic



NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, LP
Gaucho Unit 13H

Surface Location: 100 FNL & 575 FEL, Unit A, Sec 20 T22S R34E, Lea, NM
Bottom Hole Location: 330 FNL & 660 FEL, Unit A, Sec 17 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.

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	Heat N°	
3" coupling with 4 1/16" Flange end	5503 2029		AISI 4130 AISI 4130	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 &

2	1	0	24	23	22	21
100	100	100	100	100	100	100
90	90	90	90	90	90	90
80	80	80	80	80	80	80
70	70	70	70	70	70	70
60	60	60	60	60	60	60
50	50	50	50	50	50	50
40	40	40	40	40	40	40
30	30	30	30	30	30	30
20	20	20	20	20	20	20
10	10	10	10	10	10	10
0	0	0	0	0	0	0

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



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.

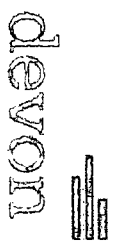
ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

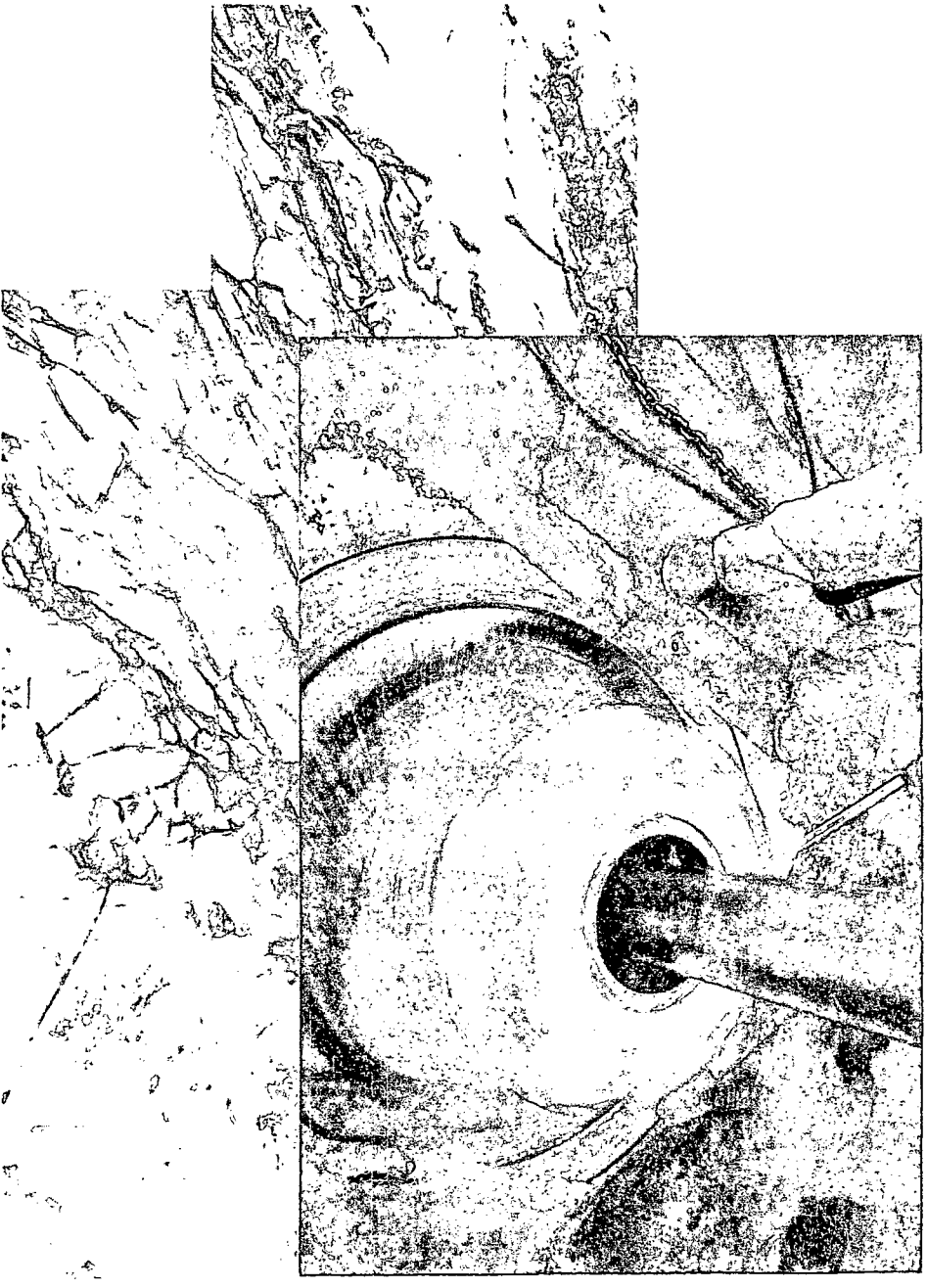
Robin Hodgson
Sales Manager
ContiTech Beattie Corp

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





Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

100

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.

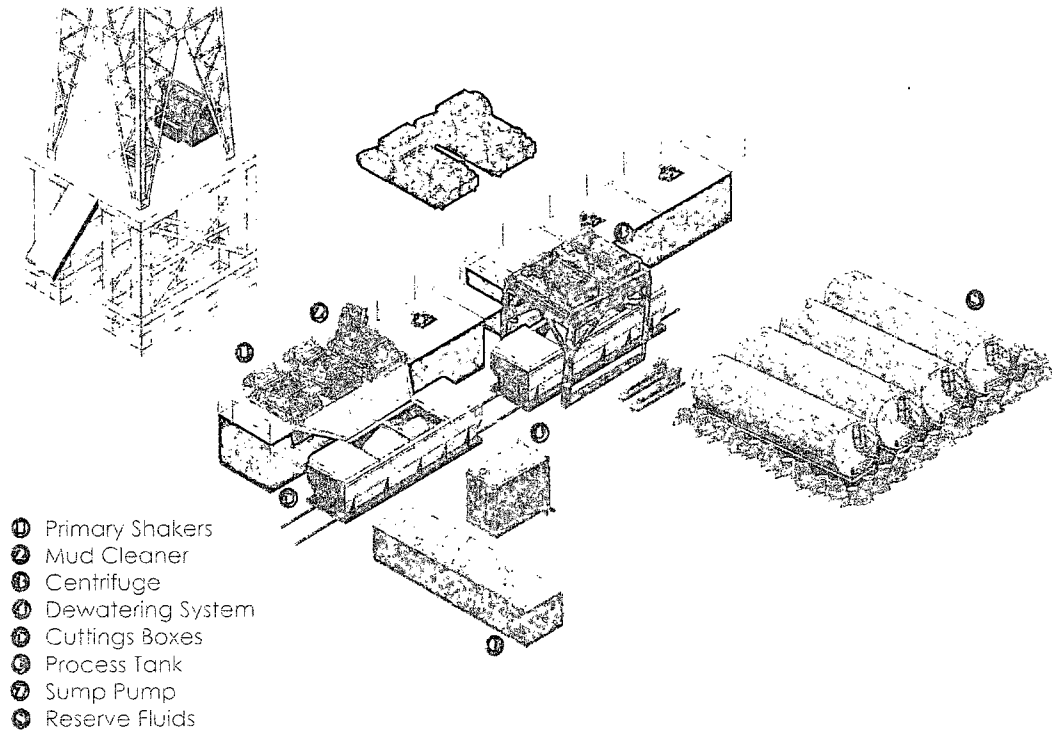
II. Operations and Maintenance Plan

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.

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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

2 Well Pad

