Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

HOBBS OCD

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

OCT 01 2015

RECEIVED

5. Lease Serial No.
NMNM98247

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
GAUCHO UNIT 20Y

2. Name of Operator
DEVON ENERGY PRODUCITON CO LP

Contact: TRINA C COUCH
Mail: trina.couch@dvn.com

9. API Well No.
30-025-42778

3a. Address
DEVON ENERGY PRODUCITON CO LP 333 WEST SHERIDAN AVE
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)
Ph: 405-228-8203

10. Field and Pool, or Exploratory
WC025G06S223421L;BS

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 29 T22S R34E 200FSL 1475FWL

11. County or Parish, and State
LEA COUNTY COUNTY, NM

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

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

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Devon Energy Production Company, L.P. respectfully requests to change the 9 5/8" intermediate casing point from 5,225' to 4,488' due to well bore stability.

Please find revised drilling plan attached

Thank you

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

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

Electronic Submission #317722 verified by the BLM Well Information System
For DEVON ENERGY PRODUCITON CO LP, sent to the Hobbs
Committed to AFMSS for processing by KENNETH RENNICK on 09/25/2015 ()

Name *(Printed/Typed)* TRINA C COUCH — Title REGULATORY ANALYST

Signature (Electronic Submission) — Date 09/25/2015

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By — Title — Date

APPROVED
PETROLEUM ENGINEER
25
SEP 24 2015
Kenneth Rennick
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

OCT 13 2015

BISON CONNECT

Rennick, Kenneth <krennick@blm.gov>

Gaucho Unit 20Y Update

3 messages

Stuart, Spencer <Spencer.Stuart@dvn.com> Sun, Sep 20, 2015 at 9:30 AM
To: "Rennick, Kenneth" <krennick@blm.gov>

Ken,

As you requested below is our casing status and plan forward.

Surface casing is set at 2,217'

Intermediate casing is planned at 5,225'

We drilled to 3798 and lost returns. Continued to drill to 4389 start to run low on mud started to come out of the hole to wait for more volume were we got stuck at 4,316'. Free pointed, backed off and fished BHA on Thursday evening. We tripped out and laid down the fishing tools and picked up a drilling assembly and tripped back in the hole. At 2,800' we hit a bridge and washed through. After washing through the bridge we once again lost returns. We tripped back to bottom and drilled 13 feet down to 4,402', made a connection and got stuck. Worked stuck pipe and we were able to get free. Continued to drill to 4,465' and got stuck again and then unstuck. Thinking that it might be the stabilizers we came out and laid down the stabilizers and went in with a slick BHA to reduce the likelihood of the stabilizers getting hung up.

Yesterday we tripped in and tagged up at 2,824' washed and reamed the bridge. After washing through the bridge, we once again lost returns. We continued in the hole washing and reaming to bottom.

We drilled to 4,487' and attempted to make another connection and got stuck again. Worked pipe and once again got it free. On every connection we have been circulating sweeps and before making a connection back reaming the stand and pumping enough to theoretically move cutting above the loss zone at 3800' but we still continue to have issues getting stuck making connections.

What we think is happening is the loss zone (3,800') that was taking all the cuttings previously has stopped taking cuttings, but will still take fluid. As we try to circulate cutting up to the loss zone they are retained in the wellbore mix around and then when we try to make a connection they quickly fall down and stick us. We think that if we were to seal off the loss zone we could regain returns and then circulate cuttings from the well.

Our plan is to squeeze the loss zone to improve chances of regaining circulation a there by effectively removed cuttings from the well. We will keep you posted on our efforts.

Thanks,

Spencer Stuart

Devon Energy Corporation
333 West Sheridan Avenue
Oklahoma City, OK 73102

Office: 405.552.3686

Cell: 580.706.1651

Rennick, Kenneth <krennick@blm.gov> Mon, Sep 21, 2015 at 3:18 PM
To: "Stuart, Spencer" <Spencer.Stuart@dvn.com>

Thank you Mr. Spencer Stuart for the information,

I did review this with the Senior Engineer at the Carlsbad Office. Just please keep us posted on the efforts.

Best Regards,

Kenneth Rennick
[Quoted text hidden]
--
Kenneth Rennick

Petroleum Engineer
Bureau of Land Management
Carlsbad Field Office
(575) 234-5964
krennick@blm.gov

Stuart, Spencer <Spencer.Stuart@dvn.com> Thu, Sep 24, 2015 at 9:54 AM
To: "Rennick, Kenneth" <krennick@blm.gov>

Kennneth,

Last night we were able to pump the second cement plug in an effort to heal the loss zone at 3,798'. We tripped to surface to pick up a clean out assembly and clean out to bottom. At surface we found that we had left about 91' of drill pipe in the hole.

The plan forward is to trip in with a bit and tag up on the drill pipe come out with the bit and pick up fishing tools and then attempt to fish this joint of drill pipe out. I will keep you up to date on our fishing progress. Please call if you have any question.

Thanks,

Spencer Stuart

Devon Energy Corporation
333 West Sheridan Avenue
Oklahoma City, OK 73102

Office: 405.552.3686

Cell: 580.706.1651

From: Rennick, Kenneth [mailto:krennick@blm.gov]
Sent: Monday, September 21, 2015 4:18 PM
To: Stuart, Spencer <Spencer.Stuart@dvn.com>
Subject: Re: Gaucho Unit 20Y Update

[Quoted text hidden]

Rennick, Kenneth <krennick@blm.gov>

Gaucho Unit 20Y intermediate casing

Stuart, Spencer <Spencer.Stuart@dvn.com> Fri, Sep 25, 2015 at 8:53 AM
To: "krennick@blm.gov" <krennick@blm.gov>

Kenneth,

Yesterday we tripped in the hole to verify the cement plug. At 3262 we stared to wash and ream with 10K WOB. We did than until 3680 where we lost returns. We continued to wash and ream to bottom. From 4200 to TD it continued to be very "sticky" when we would stop to make a connection we would get stuck and have to work it free to continue to bottom.

We have implemented best drilling practices, backreaming after drilling the stand down, extra time circulating before connections, spotting viscus pills around the BHA to prevent cutting from settling around the BHA and still resulting in getting stuck on connections.

The Base of the Salt was at 3700'. On the recently drilled Gaucho 21 Fed 3H we ran a caliper log in the intermediate and found the hole to be gauge hole at this and 500' above. We believe this will give us a good shoe and would allow for an option of 7" casing string to be set if problems are encountered.

As we discussed on the phone It is our recommendation to set pipe at the current depth 4,488' and drill ahead as planned. I have included updated cement volumes for the intermediate and production strings.

Please call if you have any questions.

Thanks,

Spencer

Casing program:

Hole Size	Hole Interval	Casing OD	Casing interval	Casing Wt (ppf)	Connection	Casing Grade
17-1/2"	0 – 2,217'	13-3/8"	0 – 2,217'	54.5	STC	J-55
12-1/4"	0'-4,488'	9-5/8"	0 – 4,488'	40	BTC	HCK-55
8-3/4"	4,488' - 17,901'	5-1/2"	0 - 17,901'	17	BTC	P-110

Design factors:

Casing	Collapse	Burst	Tension
13-3/8" J-55 STC	1.49	3.71	5.55
9-5/8" HCK-55 BTC	1.43	2.03	5.76
5-1/2" HCP-110 BTC	1.74	2.38	1.87

Casing	# Sks	Wt. lb/ gal	H_2O gal/sk	Yld ft3/ sack	500# Comp. Strength (hours)	Slurry Description
9-5/8" Inter. Two Stage	370	12.9	9.81	1.85	14	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	220	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
	DV Tool = 2750ft					
	420	12.9	9.81	1.85	14	Lead: (65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake
	210	14.8	6.32	1.33	6	Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake
5-1/2" Prod Single Stage	760	11.9	12.89	2.31	n/a	Lead: (50:50) Class H Cement: Poz (Fly Ash) + 10% BWOC Bentonite + 1 lb/sk of Kol-Seal + 0.3% BWOC HR-601 + 0.5lb/sk D-Air 5000
	2020	14.5	5.31	1.2	25	Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite
5-1/2" Prod Two Stage	730	11.9	12.89	2.31	n/a	1st Stage Lead: (50:50) Class H Cement: Poz (Fly Ash) + 10% BWOC Bentonite + 1 lb/sk of Kol-Seal + 0.3% BWOC HR-601 + 0.5lb/sk D-Air 5000
	2020	14.5	5.31	1.2	25	1st Stage Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite
	DV Tool = 4538ft					
	20	11	14.81	2.55	22	2nd Stage Lead: Tuned Light® Cement + 0.125 lb/sk Pol-E-Flake
	30	14.8	6.32	1.33	6	2nd Stage Tail: Class C Cement + 0.125 lbs/sack Poly-E-Flake

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
9-5/8" Intermediate Casing Two Stage Option	1st Stage = 2750' / 2nd Stage = 0'	75%
5-1/2" Production Casing Single Stage Option	4288'	25%
5-1/2" Production Casing Two Stage Option	1st Stage = 4538' / 2nd Stage = 4288'	25%

Thanks,

Spencer Stuart

Devon Energy Corporation
333 West Sheridan Avenue
Oklahoma City, OK 73102

Office: 405.552.3686

Cell: 580.706.1651

Gaucho Unit 20Y
Intermediate Casing Point Sundry

Casing and Cementing Plan Summary

The surface fresh water sands will be protected by setting 13 3/8" casing and circulating cement back to surface. The fresh water sands will be protected by setting 9 5/8" casing and circulating cement to surface. The Delaware intervals will be isolated by setting 5 ½" casing to total depth and circulating cement above the base of the 9 5/8" casing. All casing is new and API approved.

Casing program:

Per Directional Program

~~17,100~~ 17,500

Hole Size	Hole Interval	Casing OD	Casing interval	Casing Wt (ppf)	Connection	Casing Grade
17-1/2"	0 – 2,217'	13-3/8"	0 – 2,217'	54.5	STC	J-55
12-1/4"	0'-4,488'	9-5/8"	0 – 4,488'	40	BTC	HCK-55
8-3/4"	4,488' - ~~17,901~~'	5-1/2"	0 - 17,901'	17	BTC	HCP-110

Design factors:

Casing	Collapse	Burst	Tension
13-3/8" J-55 STC	1.49	3.71	5.55
9-5/8" HCK-55 BTC	1.43	2.03	5.76
5-1/2" HCP-110 BTC	1.74	2.38	1.87

Mud program:

17,500

Depth	Mud Wt. (ppg)	Visc. (cp)	Fluid loss	Type System
0 – 2,217'	8.4 - 8.6	1 - 3	NC	Fresh water
2,217' – 4,488'	9.8 - 10.0	1 - 3	NC	Brine
4,488' - ~~17,901~~'	8.8 - 9.2	1 - 3	NC-12	Fresh water/cut brine

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

Pressure control equipment:

- The BOP system used to drill the intermediate hole will consist of a 13-5/8" 3M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 3M system prior to drilling out the surface casing shoe.
- The BOP system used to drill the production hole will consist of a 13-5/8" 3M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 3M system prior to drilling out the intermediate casing shoe.
- The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 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). The line will be kept as straight as possible with minimal turns.

Auxiliary Well Control and Monitoring Equipment:

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

Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon as a rig becomes available following BLM approval. Move in operations and drilling is expected to take 32 days.

Location and Types of Water Supply:

This location will be drilled using a combination of water mud systems (outlined in the Drilling Program). The water will be obtained from commercial water stations in the area and hauled to location by transport truck using the existing and proposed roads shown in the C-102. On occasion, water will be obtained from a pre-existing water well, running a pump directly to the drill rig. In these cases where a poly pipeline is used to transport water for drilling purposes, proper authorizations will be secured. If a poly pipeline is used, the size, distance, and map showing route will be provided to the BLM via sundry notice.

Methods of Handling Waste Material:

- Drill cuttings will be disposed of in a closed loop system.
- All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary landfill.
- The supplier will pick up salts remaining, including broken sacks, after completion of well.
- A Porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- Remaining drilling fluids will be sent to a closed loop system.
- Disposal of fluids to be transported by the following companies:
- American Production Service Inc, Odessa TX
- Gandy Corporation, Lovington NM
- I & W Inc, Loco Hill NM
- Jims Water Service of Co Inc, Denver CO

Casing	# Sks	Wt. lb/ gal	H_20 gal/sk	Yld ft3/ sack	500# Comp. Strength (hours)	Slurry Description
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	20	11	14.81	2.55	22	2nd Stage Lead: Tuned Light® Cement + 0.125 lb/sk Pol-E-Flake
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5-1/2" Production Casing Single Stage Option	4288'	25%
5-1/2" Production Casing Two Stage Option	1St Stage = 4538' / 2nd Stage = 4288'	25%

Notes:

- Cement volumes Surface 100%, Intermediate 75% and Production based on at least 25% excess
- Actual cement volumes will be adjusted based on fluid caliper and caliper log data

Devon Energy
Gaucho Unit 20Y
Plan #1
Lea County, NM

LEAM Drilling Systems, Inc.

DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
PBHL (GU 20Y)	10313.00	7389.49	-184.45	501634.61	799741.47

SECTION DETAILS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9835.54	0.00	0.00	9835.54	0.00	0.00	0.00	0.00	0.00
10585.54	90.00	358.57	10313.00	477.32	-11.91	12.00	358.57	477.46
17499.86	90.00	358.57	10313.00	7389.49	-184.45	0.00	0.00	7391.79

PROJECT DETAILS: Lea County, NM	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level

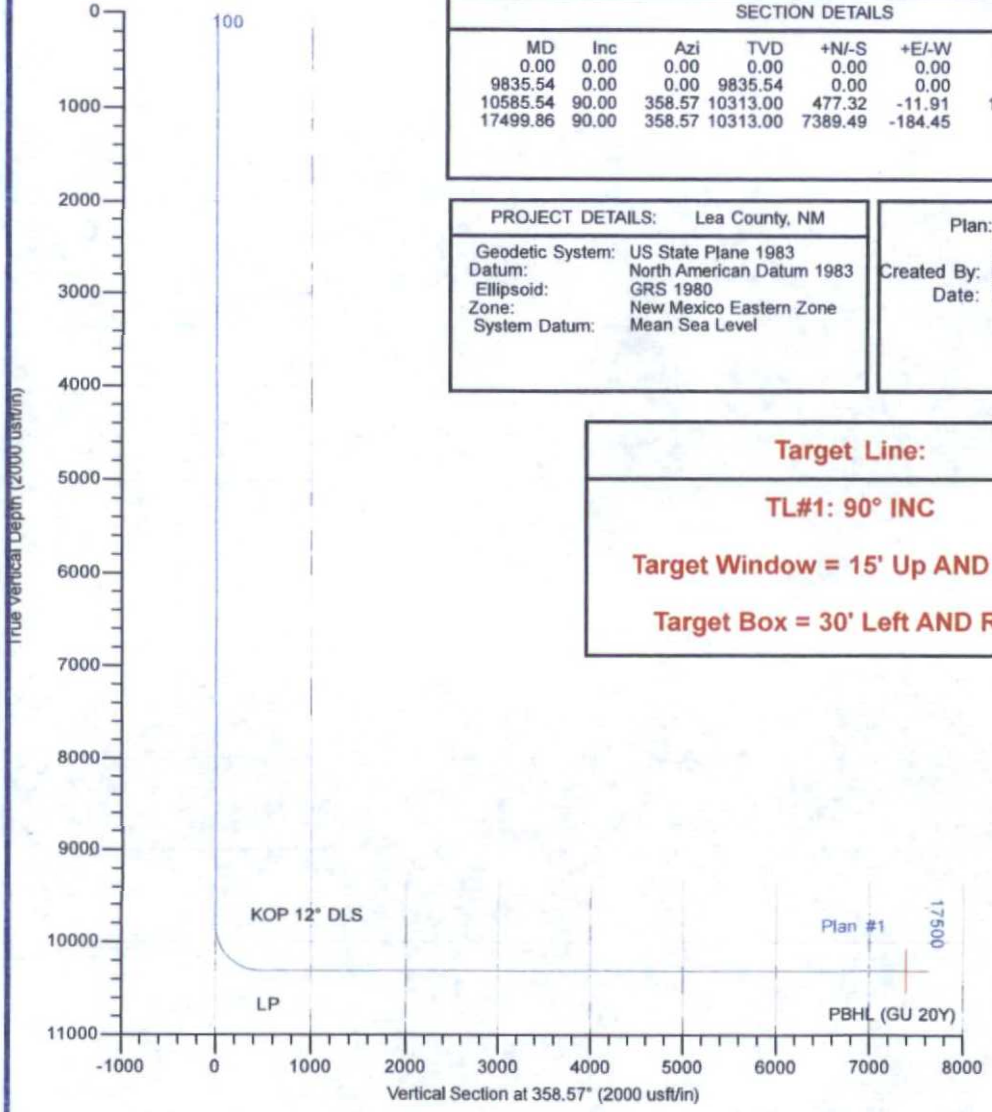
Plan: Plan #1 (20Y/OH)
Gaucho Unit
Created By: Brady Deaver
Date: 15:36, September 08 2015

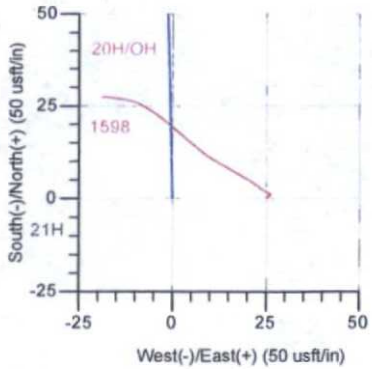
Target Line:

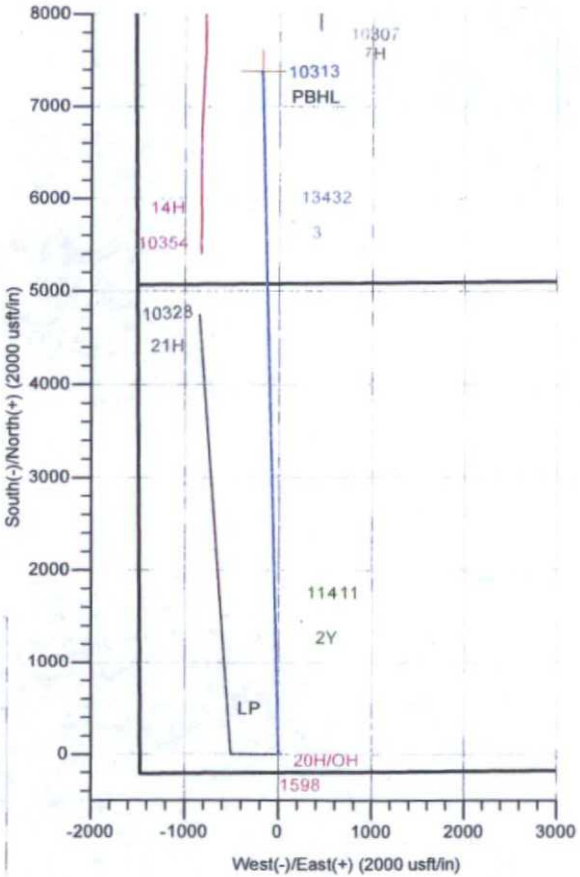
TL#1: 90° INC

Target Window = 15' Up AND Down

Target Box = 30' Left AND Right







Azimuths to Grid North
True North: -0.45°
Magnetic North: 6.75°

Magnetic Field
Strength: 48284.7snT
Dip Angle: 60.28°
Date: 9/6/2015
Model: BGGM2015

DEVON ENERGY

Lea County, NM (NAD-83)
Gaucho Unit
20Y

OH

Plan: Plan #1

Standard Planning Report

08 September, 2015

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 20Y
Company:	DEVON ENERGY	**TVD Reference:**	3427.7' GL + 25' RKB @ 3452.70usft
Project:	Lea County, NM (NAD-83)	**MD Reference:**	3427.7' GL + 25' RKB @ 3452.70usft
Site:	Gaucho Unit	**North Reference:**	Grid
Well:	20Y	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Lea County, NM (NAD-83)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Gaucho Unit				
Site Position:		**Northing:**	504,450.40 usft	**Latitude:**	32° 23' 2.539 N
From:	Map	**Easting:**	799,049.77 usft	**Longitude:**	103° 29' 54.548 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.45 °

Well	20Y					
Well Position	**+N/-S**	-10,205.28 usft	**Northing:**	494,245.12 usft	**Latitude:**	32° 21' 21.492 N
	+E/-W	876.15 usft	**Easting:**	799,925.92 usft	**Longitude:**	103° 29' 45.263 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	3,452.70 usft	**Ground Level:**	3,427.70 usft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	BGGM2015	9/6/2015	7.20	60.28	48,285

Design	Plan #1				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.00	0.00	0.00	358.57	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,835.54	0.00	0.00	9,835.54	0.00	0.00	0.00	0.00	0.00	0.00	
10,585.54	90.00	358.57	10,313.00	477.32	-11.91	12.00	12.00	-0.19	358.57	
17,499.86	90.00	358.57	10,313.00	7,389.49	-184.45	0.00	0.00	0.00	0.00	PBHL (GU 20Y)

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 20Y
Company:	DEVON ENERGY	**TVD Reference:**	3427.7' GL + 25' RKB @ 3452.70usft
Project:	Lea County, NM (NAD-83)	**MD Reference:**	3427.7' GL + 25' RKB @ 3452.70usft
Site:	Gaucho Unit	**North Reference:**	Grid
Well:	20Y	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 20Y
Company:	DEVON ENERGY	**TVD Reference:**	3427.7' GL + 25' RKB @ 3452.70usft
Project:	Lea County, NM (NAD-83)	**MD Reference:**	3427.7' GL + 25' RKB @ 3452.70usft
Site:	Gaucho Unit	**North Reference:**	Grid
Well:	20Y	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,835.54	0.00	0.00	9,835.54	0.00	0.00	0.00	0.00	0.00	0.00
KOP 12° DLS									
9,850.00	1.74	358.57	9,850.00	0.22	-0.01	0.22	12.00	12.00	0.00
9,875.00	4.74	358.57	9,874.96	1.63	-0.04	1.63	12.00	12.00	0.00
9,900.00	7.74	358.57	9,899.80	4.34	-0.11	4.35	12.00	12.00	0.00
9,925.00	10.74	358.57	9,924.48	8.35	-0.21	8.36	12.00	12.00	0.00
9,950.00	13.74	358.57	9,948.91	13.65	-0.34	13.65	12.00	12.00	0.00
9,975.00	16.74	358.57	9,973.03	20.22	-0.50	20.22	12.00	12.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 20Y
Company:	DEVON ENERGY	**TVD Reference:**	3427.7' GL + 25' RKB @ 3452.70usft
Project:	Lea County, NM (NAD-83)	**MD Reference:**	3427.7' GL + 25' RKB @ 3452.70usft
Site:	Gaucho Unit	**North Reference:**	Grid
Well:	20Y	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,000.00	19.74	358.57	9,996.77	28.04	-0.70	28.05	12.00	12.00	0.00
10,025.00	22.74	358.57	10,020.07	37.09	-0.93	37.10	12.00	12.00	0.00
10,050.00	25.74	358.57	10,042.86	47.35	-1.18	47.36	12.00	12.00	0.00
10,075.00	28.74	358.57	10,065.09	58.78	-1.47	58.80	12.00	12.00	0.00
10,100.00	31.74	358.57	10,086.68	71.37	-1.78	71.39	12.00	12.00	0.00
10,125.00	34.74	358.57	10,107.59	85.06	-2.12	85.09	12.00	12.00	0.00
10,150.00	37.74	358.57	10,127.75	99.83	-2.49	99.86	12.00	12.00	0.00
10,175.00	40.74	358.57	10,147.12	115.64	-2.89	115.68	12.00	12.00	0.00
10,200.00	43.74	358.57	10,165.62	132.44	-3.31	132.48	12.00	12.00	0.00
10,225.00	46.74	358.57	10,183.23	150.18	-3.75	150.23	12.00	12.00	0.00
10,250.00	49.74	358.57	10,199.88	168.82	-4.21	168.87	12.00	12.00	0.00
10,275.00	52.74	358.57	10,215.53	188.30	-4.70	188.36	12.00	12.00	0.00
10,300.00	55.74	358.57	10,230.14	208.58	-5.21	208.65	12.00	12.00	0.00
10,325.00	58.74	358.57	10,243.66	229.59	-5.73	229.67	12.00	12.00	0.00
10,350.00	61.74	358.57	10,256.07	251.29	-6.27	251.37	12.00	12.00	0.00
10,375.00	64.74	358.57	10,267.33	273.60	-6.83	273.68	12.00	12.00	0.00
10,400.00	67.74	358.57	10,277.40	296.47	-7.40	296.56	12.00	12.00	0.00
10,425.00	70.74	358.57	10,286.27	319.84	-7.98	319.94	12.00	12.00	0.00
10,450.00	73.74	358.57	10,293.89	343.63	-8.58	343.74	12.00	12.00	0.00
10,475.00	76.74	358.57	10,300.26	367.80	-9.18	367.91	12.00	12.00	0.00
10,500.00	79.74	358.57	10,305.36	392.26	-9.79	392.38	12.00	12.00	0.00
10,525.00	82.74	358.57	10,309.17	416.96	-10.41	417.09	12.00	12.00	0.00
10,550.00	85.74	358.57	10,311.68	441.82	-11.03	441.96	12.00	12.00	0.00
10,575.00	88.74	358.57	10,312.89	466.78	-11.65	466.93	12.00	12.00	0.00
10,585.54	90.00	358.57	10,313.00	477.32	-11.91	477.46	12.00	12.00	0.00
LP									
10,600.00	90.00	358.57	10,313.00	491.77	-12.28	491.93	0.00	0.00	0.00
10,700.00	90.00	358.57	10,313.00	591.74	-14.77	591.93	0.00	0.00	0.00
10,800.00	90.00	358.57	10,313.00	691.71	-17.27	691.93	0.00	0.00	0.00
10,900.00	90.00	358.57	10,313.00	791.68	-19.76	791.93	0.00	0.00	0.00
11,000.00	90.00	358.57	10,313.00	891.65	-22.26	891.93	0.00	0.00	0.00
11,100.00	90.00	358.57	10,313.00	991.62	-24.75	991.93	0.00	0.00	0.00
11,200.00	90.00	358.57	10,313.00	1,091.59	-27.25	1,091.93	0.00	0.00	0.00
11,300.00	90.00	358.57	10,313.00	1,191.56	-29.74	1,191.93	0.00	0.00	0.00
11,400.00	90.00	358.57	10,313.00	1,291.53	-32.24	1,291.93	0.00	0.00	0.00
11,500.00	90.00	358.57	10,313.00	1,391.49	-34.73	1,391.93	0.00	0.00	0.00
11,600.00	90.00	358.57	10,313.00	1,491.46	-37.23	1,491.93	0.00	0.00	0.00
11,700.00	90.00	358.57	10,313.00	1,591.43	-39.72	1,591.93	0.00	0.00	0.00
11,800.00	90.00	358.57	10,313.00	1,691.40	-42.22	1,691.93	0.00	0.00	0.00
11,900.00	90.00	358.57	10,313.00	1,791.37	-44.71	1,791.93	0.00	0.00	0.00
12,000.00	90.00	358.57	10,313.00	1,891.34	-47.21	1,891.93	0.00	0.00	0.00
12,100.00	90.00	358.57	10,313.00	1,991.31	-49.71	1,991.93	0.00	0.00	0.00
12,200.00	90.00	358.57	10,313.00	2,091.28	-52.20	2,091.93	0.00	0.00	0.00
12,300.00	90.00	358.57	10,313.00	2,191.25	-54.70	2,191.93	0.00	0.00	0.00
12,400.00	90.00	358.57	10,313.00	2,291.21	-57.19	2,291.93	0.00	0.00	0.00
12,500.00	90.00	358.57	10,313.00	2,391.18	-59.69	2,391.93	0.00	0.00	0.00
12,600.00	90.00	358.57	10,313.00	2,491.15	-62.18	2,491.93	0.00	0.00	0.00
12,700.00	90.00	358.57	10,313.00	2,591.12	-64.68	2,591.93	0.00	0.00	0.00
12,800.00	90.00	358.57	10,313.00	2,691.09	-67.17	2,691.93	0.00	0.00	0.00
12,900.00	90.00	358.57	10,313.00	2,791.06	-69.67	2,791.93	0.00	0.00	0.00
13,000.00	90.00	358.57	10,313.00	2,891.03	-72.16	2,891.93	0.00	0.00	0.00
13,100.00	90.00	358.57	10,313.00	2,991.00	-74.66	2,991.93	0.00	0.00	0.00
13,200.00	90.00	358.57	10,313.00	3,090.97	-77.15	3,091.93	0.00	0.00	0.00
13,300.00	90.00	358.57	10,313.00	3,190.93	-79.65	3,191.93	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 20Y
Company:	DEVON ENERGY	**TVD Reference:**	3427.7' GL + 25' RKB @ 3452.70usft
Project:	Lea County, NM (NAD-83)	**MD Reference:**	3427.7' GL + 25' RKB @ 3452.70usft
Site:	Gaucho Unit	**North Reference:**	Grid
Well:	20Y	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,400.00	90.00	358.57	10,313.00	3,290.90	-82.14	3,291.93	0.00	0.00	0.00
13,500.00	90.00	358.57	10,313.00	3,390.87	-84.64	3,391.93	0.00	0.00	0.00
13,600.00	90.00	358.57	10,313.00	3,490.84	-87.14	3,491.93	0.00	0.00	0.00
13,700.00	90.00	358.57	10,313.00	3,590.81	-89.63	3,591.93	0.00	0.00	0.00
13,800.00	90.00	358.57	10,313.00	3,690.78	-92.13	3,691.93	0.00	0.00	0.00
13,900.00	90.00	358.57	10,313.00	3,790.75	-94.62	3,791.93	0.00	0.00	0.00
14,000.00	90.00	358.57	10,313.00	3,890.72	-97.12	3,891.93	0.00	0.00	0.00
14,100.00	90.00	358.57	10,313.00	3,990.69	-99.61	3,991.93	0.00	0.00	0.00
14,200.00	90.00	358.57	10,313.00	4,090.65	-102.11	4,091.93	0.00	0.00	0.00
14,300.00	90.00	358.57	10,313.00	4,190.62	-104.60	4,191.93	0.00	0.00	0.00
14,400.00	90.00	358.57	10,313.00	4,290.59	-107.10	4,291.93	0.00	0.00	0.00
14,500.00	90.00	358.57	10,313.00	4,390.56	-109.59	4,391.93	0.00	0.00	0.00
14,600.00	90.00	358.57	10,313.00	4,490.53	-112.09	4,491.93	0.00	0.00	0.00
14,700.00	90.00	358.57	10,313.00	4,590.50	-114.58	4,591.93	0.00	0.00	0.00
14,800.00	90.00	358.57	10,313.00	4,690.47	-117.08	4,691.93	0.00	0.00	0.00
14,900.00	90.00	358.57	10,313.00	4,790.44	-119.57	4,791.93	0.00	0.00	0.00
15,000.00	90.00	358.57	10,313.00	4,890.40	-122.07	4,891.93	0.00	0.00	0.00
15,100.00	90.00	358.57	10,313.00	4,990.37	-124.57	4,991.93	0.00	0.00	0.00
15,200.00	90.00	358.57	10,313.00	5,090.34	-127.06	5,091.93	0.00	0.00	0.00
15,300.00	90.00	358.57	10,313.00	5,190.31	-129.56	5,191.93	0.00	0.00	0.00
15,400.00	90.00	358.57	10,313.00	5,290.28	-132.05	5,291.93	0.00	0.00	0.00
15,500.00	90.00	358.57	10,313.00	5,390.25	-134.55	5,391.93	0.00	0.00	0.00
15,600.00	90.00	358.57	10,313.00	5,490.22	-137.04	5,491.93	0.00	0.00	0.00
15,700.00	90.00	358.57	10,313.00	5,590.19	-139.54	5,591.93	0.00	0.00	0.00
15,800.00	90.00	358.57	10,313.00	5,690.16	-142.03	5,691.93	0.00	0.00	0.00
15,900.00	90.00	358.57	10,313.00	5,790.12	-144.53	5,791.93	0.00	0.00	0.00
16,000.00	90.00	358.57	10,313.00	5,890.09	-147.02	5,891.93	0.00	0.00	0.00
16,100.00	90.00	358.57	10,313.00	5,990.06	-149.52	5,991.93	0.00	0.00	0.00
16,200.00	90.00	358.57	10,313.00	6,090.03	-152.01	6,091.93	0.00	0.00	0.00
16,300.00	90.00	358.57	10,313.00	6,190.00	-154.51	6,191.93	0.00	0.00	0.00
16,400.00	90.00	358.57	10,313.00	6,289.97	-157.00	6,291.93	0.00	0.00	0.00
16,500.00	90.00	358.57	10,313.00	6,389.94	-159.50	6,391.93	0.00	0.00	0.00
16,600.00	90.00	358.57	10,313.00	6,489.91	-162.00	6,491.93	0.00	0.00	0.00
16,700.00	90.00	358.57	10,313.00	6,589.88	-164.49	6,591.93	0.00	0.00	0.00
16,800.00	90.00	358.57	10,313.00	6,689.84	-166.99	6,691.93	0.00	0.00	0.00
16,900.00	90.00	358.57	10,313.00	6,789.81	-169.48	6,791.93	0.00	0.00	0.00
17,000.00	90.00	358.57	10,313.00	6,889.78	-171.98	6,891.93	0.00	0.00	0.00
17,100.00	90.00	358.57	10,313.00	6,989.75	-174.47	6,991.93	0.00	0.00	0.00
17,200.00	90.00	358.57	10,313.00	7,089.72	-176.97	7,091.93	0.00	0.00	0.00
17,300.00	90.00	358.57	10,313.00	7,189.69	-179.46	7,191.93	0.00	0.00	0.00
17,400.00	90.00	358.57	10,313.00	7,289.66	-181.96	7,291.93	0.00	0.00	0.00
17,499.86	90.00	358.57	10,313.00	7,389.49	-184.45	7,391.79	0.00	0.00	0.00
TD - PBHL (GU 20Y)									

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 20Y
Company:	DEVON ENERGY	**TVD Reference:**	3427.7' GL + 25' RKB @ 3452.70usft
Project:	Lea County, NM (NAD-83)	**MD Reference:**	3427.7' GL + 25' RKB @ 3452.70usft
Site:	Gaucho Unit	**North Reference:**	Grid
Well:	20Y	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL (GU 20Y) - plan hits target center - Point	0.00	0.00	10,313.00	7,389.49	-184.45	501,634.61	799,741.47	32° 22' 34.624 N	103° 29' 46.739 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
9,835.54	9,835.54	0.00	0.00	KOP 12° DLS
10,585.54	10,313.00	477.32	-11.91	LP
17,499.86	10,313.00	7,389.49	-184.45	TD

PECOS DISTRICT
CONDITIONS OF APPROVAL

GAUCHO UNIT 20Y
API: 30-025-42778
Devon Energy Production
Section 29, T. 22 S., R 34 E.
Lea County

Original COA still applies, except for the replacement of the cement filled requirement for the 9-5/8th intermediate casing and for the 5-1/2th production casing. This has been replaced with the following:

1. The minimum required fill of cement behind the **9-5/8** inch intermediate casing, which shall be set at approximately **4488** feet, is:

    a. First stage to DV tool:

    ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

Operator has proposed DV tool at depth of 2750 feet, but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50 feet below previous shoe and a minimum of 200 feet above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range.

    a. Second stage above DV tool:

    ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office as outlined in the original COA. **Excess calculates to 9% - Additional cement may be required.**

2. The minimum required fill of cement behind the **5-1/2** inch production casing is:

Option 1:

☒ Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification. **Excess calculates to 25% - Additional cement may be required.**

Option 2:

b. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage. **Excess calculates to 25% - Additional cement may be required.**

Operator has proposed DV tool at depth of 2750 feet, but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50 feet below previous shoe and a minimum of 200 feet above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range.

b. Second stage above DV tool:

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office as outlined in the original COA.

KGR 09252015