PECOS DISTRICT DRILLING
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Production Company, L.P.
LEASE NO.:	NMNM-069596
WELL NAME & NO.:	Gaucho Unit 89H
SURFACE HOLE FOOTAGE:	0351' FSL & 2063' FWL
BOTTOM HOLE FOOTAGE	0330' FNL & 0940' FWL
LOCATION:	Section 29, T. 22 S., R 34 E., NMPM
COUNTY:	County, New Mexico

Commercial Well Determination
A commercial well determination shall be submitted after production has been established for at least six months.

Unit Wells
The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☐ **Lea County**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 3933612

1. **Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without

prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. **The operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other wells.**

4. Option – Setting surface casing with Spudder Rig

   a. Notify the BLM when removing the Spudder Rig.

   b. Notify the BLM when moving in the H&P Flex Rig. Rig to be moved in within 60 days of notification that Spudder Rig has left the location. Failure to notify or have rig on location within 60 days will result in an Incident of Non-Compliance.

   c. Once the H&P Flex Rig is on location, it shall not be removed from over the hole without prior approval unless the production casing has been run and cemented or the well has been properly plugged. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

   d. BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as H&P Flex Rig is rigged up on well. CIT for the surface casing shall be performed and results recorded on subsequent sundry – pressure to be 1200 psi.

5. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

6. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the

approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:
After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possible water flows in the Rustler.
Possible lost circulation in the Rustler, Capitan Reef, and Delaware.
Abnormal pressures may be encountered upon penetrating the 3rd Bone Spring Sandstone.

Surface casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

1. The **16** inch surface casing shall be set at approximately **2280** feet (in a competent bed below the Magenta Dolomite, which is a Member of the Rustler, and if salt is encountered, set casing at least 25 feet above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength,

whichever is greater.

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **11-7/8** inch 1st intermediate casing is:

☐ Cement as proposed. If cement does not circulate see B.1.a, c-d above.

8-5/8'' casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

3. The minimum required fill of cement behind the **8-5/8** inch 2nd intermediate casing is:

Option #1 (Single Stage):

☐ Cement as proposed. If cement does not circulate see B.1.a, c-d above.
Excess calculates to 11% - Additional cement may be required.

Option #2 (DV Tool):

DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

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.

b. Second stage above DV tool:

☐ Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Excess calculates to 3% - Additional cement may be required.**

Formation below the 8-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

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

   ☐ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **Excess calculates to negative 1% - Additional cement may be required.**

5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

ALTERNATE DESIGN OPTION:

6. The **20** inch surface casing shall be set at approximately **2280** feet (in a competent bed below the Magenta Dolomite, which is a Member of the Rustler, and if salt is encountered, set casing at least 25 feet above the salt) and cemented to the surface.

   a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

   b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

   c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

   d. If cement falls back, remedial cementing will be done prior to drilling out that string.

13-3/8'' casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

7. The minimum required fill of cement behind the **13-3/8** inch 1st intermediate casing is:

Option #1 (Single Stage):

☐ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Excess calculates to negative 41% - Additional cement will be required.**

Option #2 (DV Tool):

DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

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. **Excess calculates to 2% - Additional cement may be required.**

b. Second stage above DV tool:

☐ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

9-5/8'' casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

8. The minimum required fill of cement behind the **9-5/8** inch 2nd intermediate casing is:

Option #1 (Single Stage):

☐ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Excess calculates to negative 41% - Additional cement will be required.**

Option #2 (DV Tool):

DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

c. 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.

d. Second stage above DV tool:

☐ Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Excess calculates to 1% - Additional cement may be required.**

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

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

   ☐ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

10. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.

2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi.

    a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 1st intermediate casing shoe shall be psi.

5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

Multibowl option:

5. **Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi.**
    a. **Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.**
    b. **If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.**
    c. **Manufacturer representative shall install the test plug for the initial BOP test.**
    d. **Operator shall perform the intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.**
    e. **Operator shall perform the 1st and 2nd intermediate casing integrity tests to 70% of the casing burst. This will test the multi-bowl seals.**
    f. **If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.**

6. The appropriate BLM office shall be notified a minimum of hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    a. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

    b. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

    c. The results of the test shall be reported to the appropriate BLM office.

    d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

    e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

JAM 081418

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	DEVON ENERGY
LEASE NO.:	NMNM069596
WELL NAME & NO.:	GUACHO UNIT 59H
SURFACE HOLE FOOTAGE:	351'/S & 2063'/W
BOTTOM HOLE FOOTAGE	330'/N & 940'/W
LOCATION:	SECTION 29, T22S, R34E, NMPM
COUNTY:	LEA

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

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I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

Buried Pipeline Escape Ramps:

The operator will construct and maintain pipeline/utility trenches that are not otherwise fenced, screened, or netted to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

Avian Power Line Protection:

Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006. The holder shall assume the

burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all power line structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. The holder without liability or expense shall make such modifications and/or additions to the United States.

During construction, Devon shall minimize disturbance to existing fences, water lines, troughs, windmills, and other improvements on public lands. Devon is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the grazing permittee/allottee prior to disturbing any range improvement projects. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching
Ditching shall be required on both sides of the road.

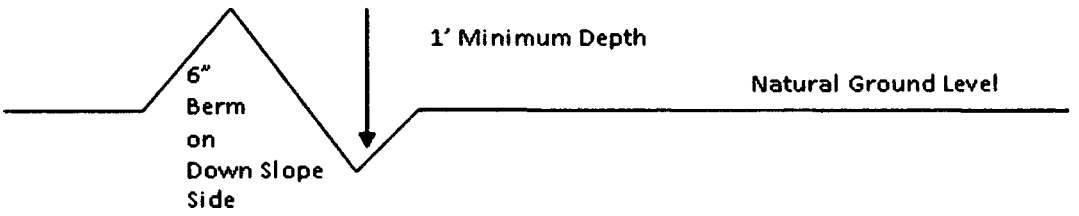
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ lead-off ditch interval

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps 1. Salvage topsoil 2. Construct road 3. Redistribute topsoil 4. Revegetate slopes

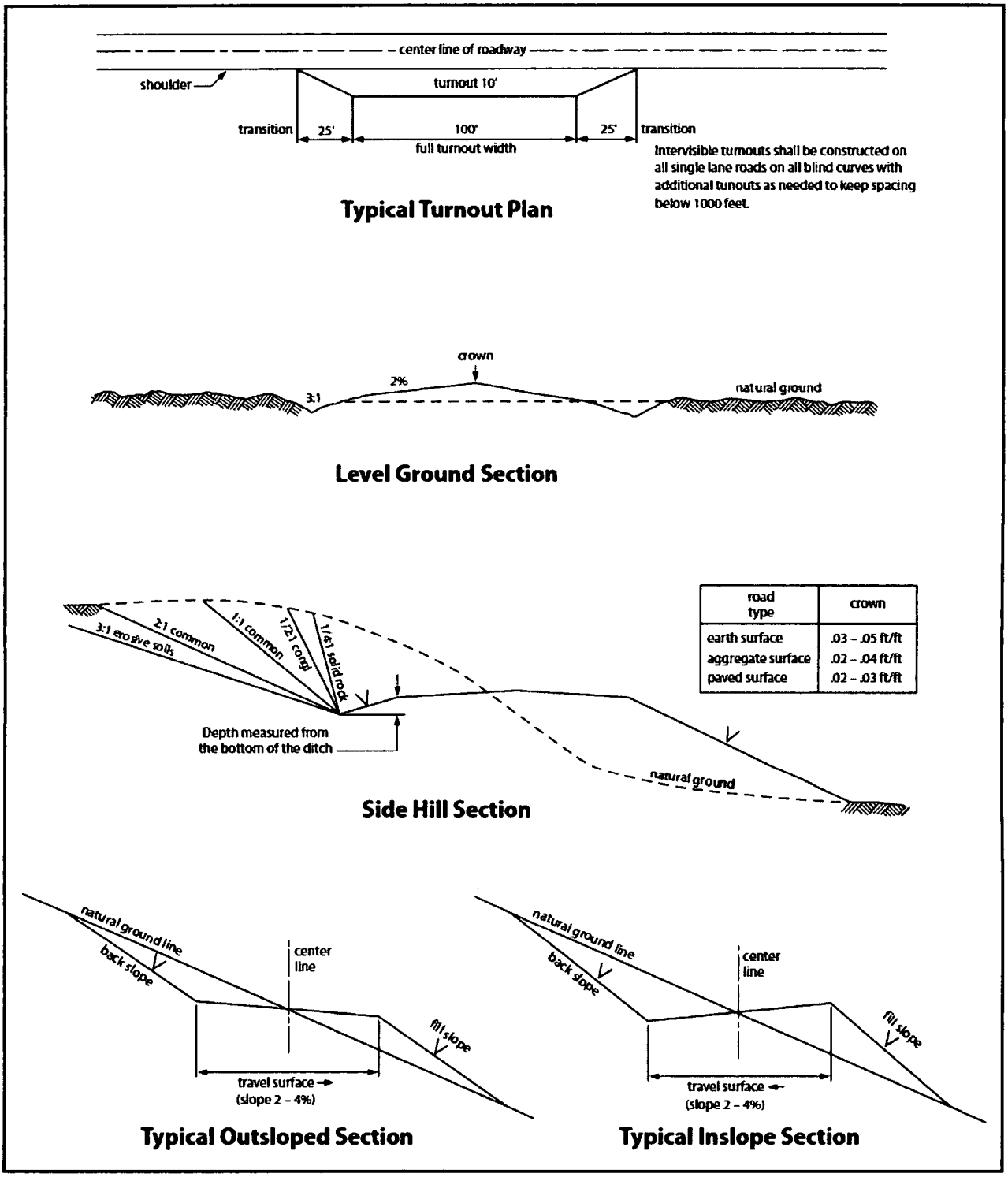


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures
Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus

freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

STANDARD STIPULATIONS FOR OIL AND GAS RELATED SITES

A copy of the application (Grant/Sundry Notice) and attachments, including stipulations and map, will be on location during construction. BLM personnel may request to view a copy of your permit during construction to ensure compliance with all stipulations.

The holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer, BLM.

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant and for all response costs, penalties, damages, claims, and other costs arising from the provisions of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Chap. 82, Section 6901 et. seq., from the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Chap. 109, Section 9601 et. seq., and from other applicable environmental statues.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et. seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et. seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et. seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the site or related pipeline(s), any oil or other pollutant should be discharged from site facilities, the pipeline(s) or from containers or vehicles impacting Federal lands, the control and total removal, disposal, and cleanup of such oil of other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting therefrom, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

5. Sites shall be maintained in an orderly, sanitary condition at all times. Waste materials, both liquid and solid, shall be disposed of promptly at an appropriate, authorized waste disposal facility in accordance with all applicable State and Federal laws. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, petroleum products, brines, chemicals, oil drums, ashes, and equipment.

6. The operator will notify the Bureau of Land Management (BLM) authorized officer and nearest Fish and Wildlife Service (FWS) Law Enforcement office within 24 hours, if the operator discovers a dead or injured federally protected species (i.e., migratory bird species, bald or golden eagle, or species listed by the FWS as threatened or endangered) in or adjacent to a pit, trench, tank, exhaust stack, or fence. (If the operator is unable to contact the FWS Law Enforcement office, the operator must contact the nearest FWS Ecological Services office.)

7. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for this project is **Shale Green**, Munsell Soil Color Chart Number 5Y 4/2.

8. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

9. A sales contract for removal of mineral material (caliche, sand, gravel, fill dirt) from an authorized pit, site, or on location must be obtained from the BLM prior to commencing construction. There are several options available for purchasing mineral material: contact the BLM office (575-234-5972).

10. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

11. Once the site is no longer in service or use, the site must undergo final abandonment. At final abandonment, the site and access roads must undergo "final" reclamation so that the character and productivity of the land are restored. Earthwork for final reclamation must be completed within six (6) months of the abandonment of the site. All pads and facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact. After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

12. The holder shall stockpile an adequate amount of topsoil where blading occurs. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles. The topsoil will be used for final reclamation.

13. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

( ) seed mixture 1 ( ) seed mixture 3

( ) seed mixture 2 ( ) seed mixture 4

(X) seed mixture 2/LPC ( ) Aplomado Falcon Mixture

14. In those areas where erosion control structures are required to stabilize soil conditions, the holder shall install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound management practices. Any earth work will require prior approval by the Authorized Officer.

15. Open-topped Tanks - The operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps

16. The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an

impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

17. Open-Vent Exhaust Stack Exclosures – The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

18. Containment Structures - Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

19. Special Stipulations:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from permanent engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

B. PIPELINES

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

( ) seed mixture 1	( ) seed mixture 3
( ) seed mixture 2	( ) seed mixture 4
(X) seed mixture 2/LPC	( ) Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches that are not otherwise fenced, screened, or netted to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or

other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

c. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
d. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

19. Special Stipulations:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b.

A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply

with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:
- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce

the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture for LPC Sand/Shinnery Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed shall be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

devon

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

Hydrogen Sulfide (H_2S) Contingency Plan

For

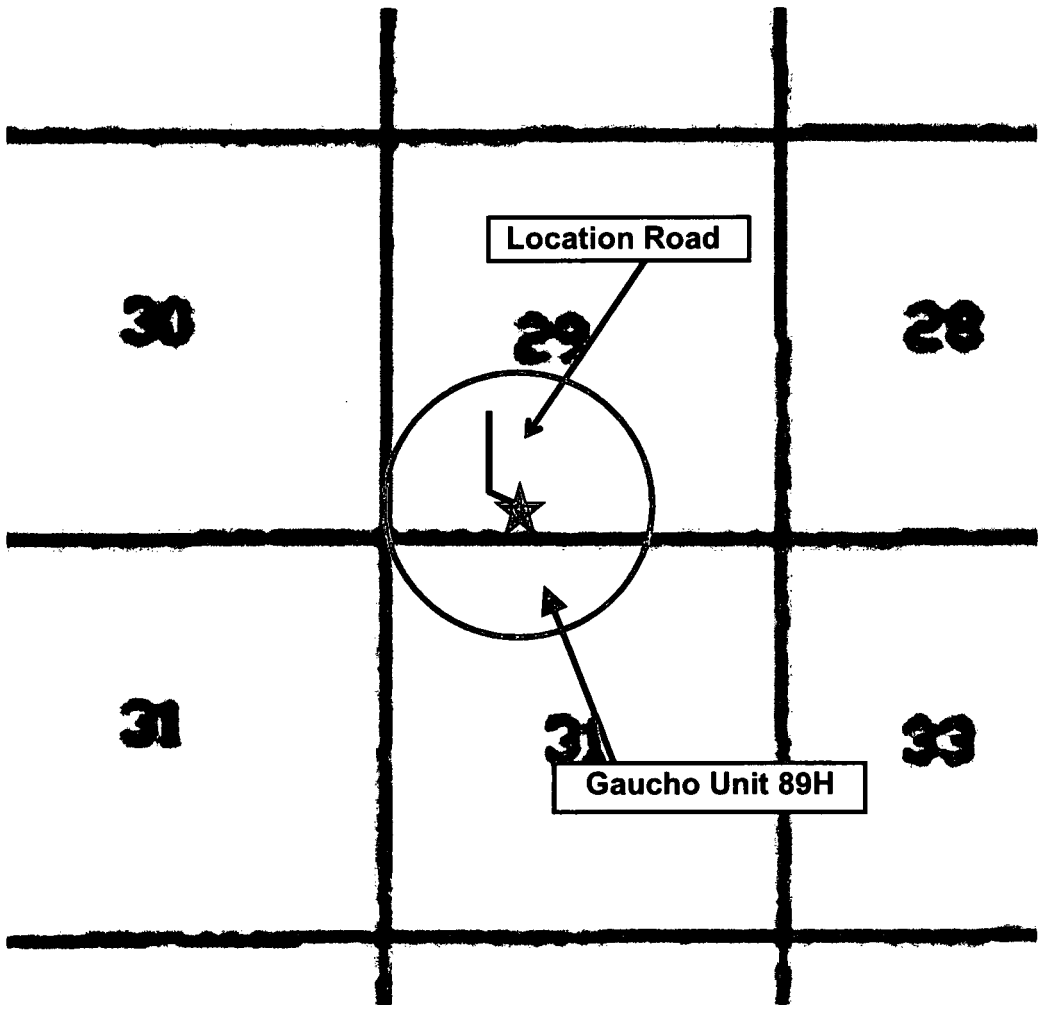
Gaucho Unit 89H

Sec-29 T-22S R-34E
351' FSL & 2063' FWL
LAT. = 32.3563839' N (NAD83)
LONG = 103.4940009' W

Lea County NM

Gaucho Unit 89H

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



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

Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crews should then block the entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'

100 ppm H_2S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must

- **Isolate the area and prevent entry by other persons into the 100 ppm ROE.**
- **Evacuate any public places encompassed by the 100 ppm ROE.**
- **Be equipped with H_2S monitors and air packs in order to control the release.**
- **Use the "buddy system" to ensure no injuries occur during the response**
- **Take precautions to avoid personal injury during this operation.**
- **Contact operator and/or local officials to aid in operation. See list of phone numbers attached.**
- **Have received training in the**
  - **Detection of H_2S, and**
  - **Measures for protection against the gas,**
  - **Equipment used for protection and emergency response.**

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H_2S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H_2S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H_2S metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H_2S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan.

II. HYDROGEN SULFIDE TRAINING

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H_2S.

1. **Well Control Equipment**

   A. Flare line

   B. Choke manifold – Remotely Operated

   C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit

   D. Auxiliary equipment may include if applicable: annular preventer and rotating head.

   E. Mud/Gas Separator

2. **Protective equipment for essential personnel:**

   30-minute SCBA units located at briefing areas, as indicated on well site diagram, with escape units available in the top doghouse. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

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

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

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

   Visual warning systems:

   A. Wind direction indicators as shown on well site diagram

   B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

4. **Mud program:**

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

5. **Metallurgy:**

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

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

6. **Communication:**

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

   B. Land line (telephone) communications at Office

7. **Well testing:**

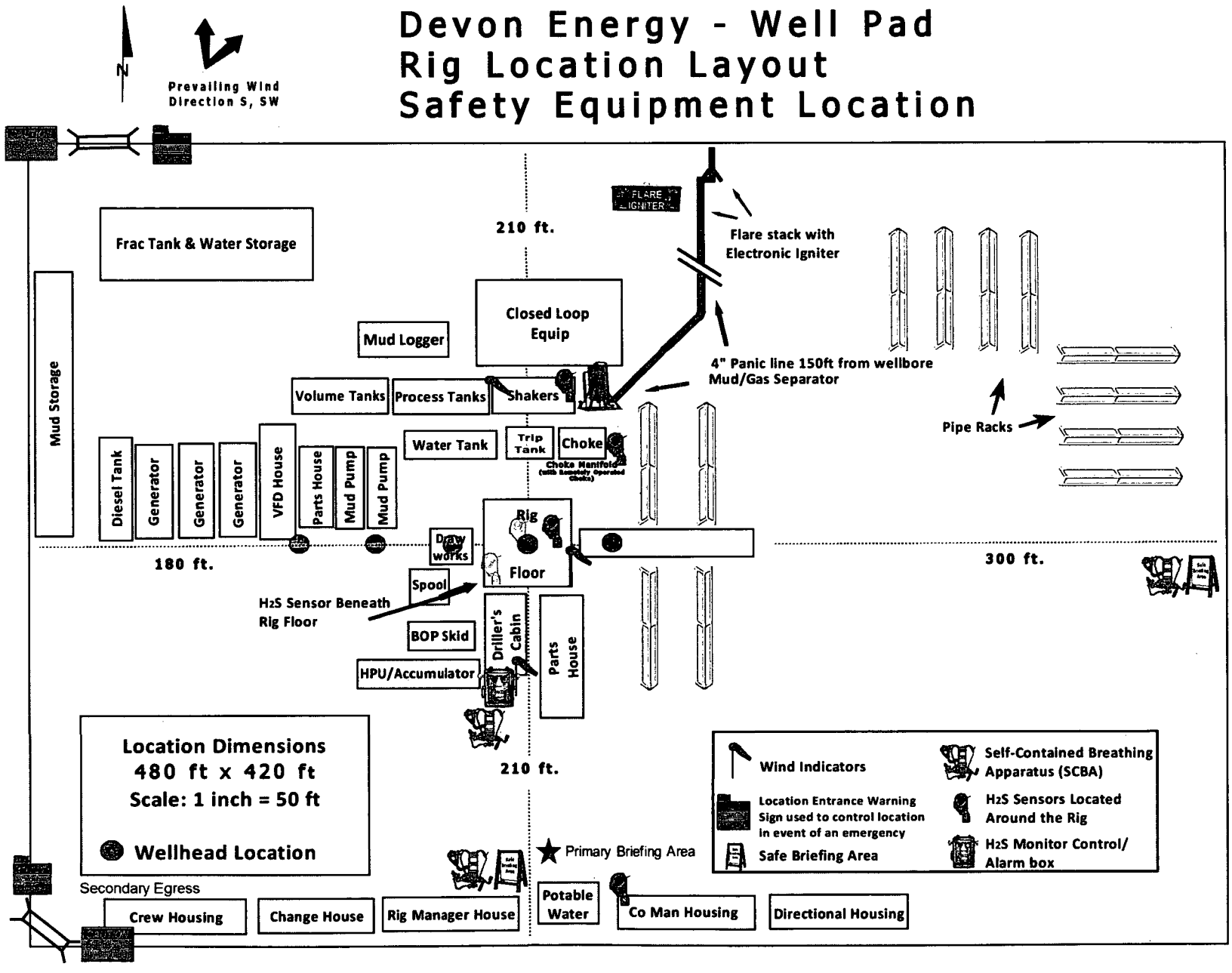
   A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H_2S environment will use the closed chamber method of testing.

   B. There will be no drill stem testing.

Devon Energy Corp. Company Call List		
Drilling Supervisor – Basin – Mark Kramer		405-823-4796
EHS Professional – Laura Wright		405-439-8129
Agency Call List		
Lea County (575)	**Hobbs**	
	Lea County Communication Authority	393-3981
	State Police	392-5588
	City Police	397-9265
	Sheriff's Office	393-2515
	Ambulance	**911**
	Fire Department	397-9308
	LEPC (Local Emergency Planning Committee)	393-2870
	NMOCD	393-6161
	US Bureau of Land Management	393-3612
Eddy County (575)	**Carlsbad**	
	State Police	885-3137
	City Police	885-2111
	Sheriff's Office	887-7551
	Ambulance	**911**
	Fire Department	885-3125
	LEPC (Local Emergency Planning Committee)	887-3798
	US Bureau of Land Management	887-6544
	NM Emergency Response Commission (Santa Fe)	(505) 476-9600
	24 HR	(505) 827-9126
	National Emergency Response Center	(800) 424-8802
	National Pollution Control Center: Direct	(703) 872-6000
	For Oil Spills	(800) 280-7118
	Emergency Services	
	Wild Well Control	(281) 784-4700
	Cudd Pressure Control (915) 699-0139	(915) 563-3356
	Halliburton	(575) 746-2757
	B. J. Services	(575) 746-3569
Give GPS position:	Native Air – Emergency Helicopter – Hobbs	(575) 392-6429
	Flight For Life - Lubbock, TX	(806) 743-9911
	Aerocare - Lubbock, TX	(806) 747-8923
	Med Flight Air Amb - Albuquerque, NM	(575) 842-4433
	Lifeguard Air Med Svc. Albuquerque, NM	(800) 222-1222
	Poison Control (24/7)	(575) 272-3115
	Oil & Gas Pipeline 24 Hour Service	(800) 364-4366
	NOAA – Website - www.nhc.noaa.gov	

Prepared in conjunction with
Dave Small SHARP COMMUNICATIONS & CONSULTING, LLC

Devon Energy - Well Pad
Rig Location Layout
Safety Equipment Location



Devon Energy
Project: Lea County, NM (NAD-83)
Site: Gaucho Unit
Well: 89H
Wellbore: OH
Design: Plan #1

3430.4' GE +24' KB @ 3454.40usft
Ground Level: 3430.40

Azimuths to Grid North
True North: -0.45°
Magnetic North: 6.33°

Magnetic Field
Strength: 48146.4snT
Dip Angle: 60.18°
Date: 3/7/2018
Model: HDGM

PROJECT DETAILS: Lea County, NM (NAD-83)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

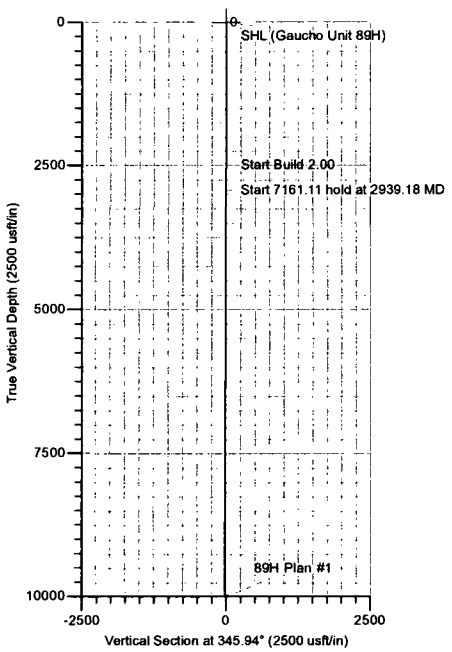
devon

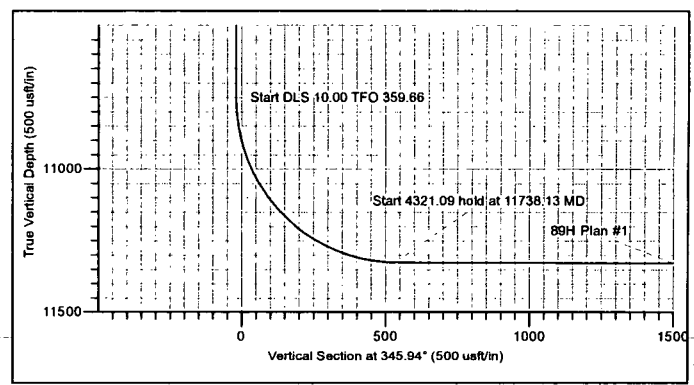
SECTION DETAILS

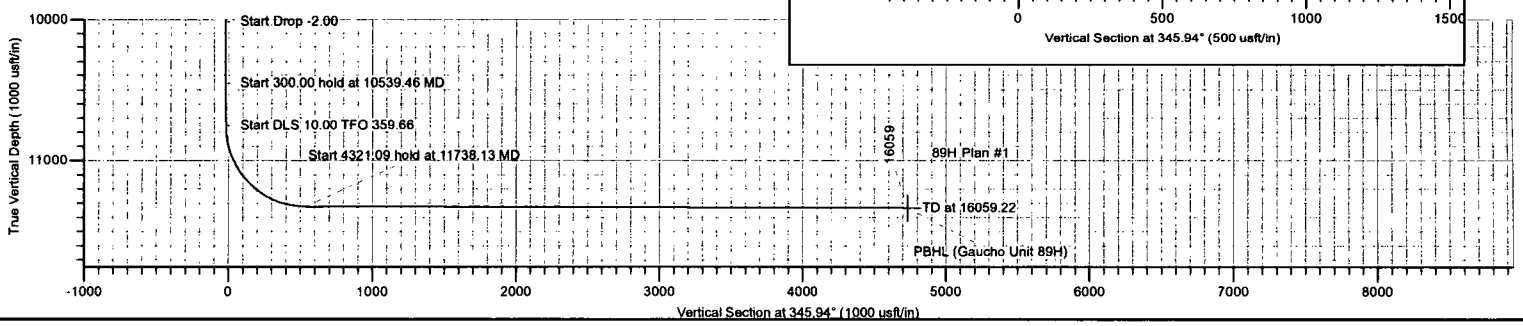
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00
2939.18	8.78	254.97	2937.46	-8.71	-32.45	2.00	254.97	-0.57
10100.28	8.78	254.97	10014.58	-292.29	-1088.55	0.00	0.00	-19.01
10539.46	0.00	0.00	10452.04	-301.00	-1121.00	2.00	180.00	-19.58
10839.46	0.00	0.00	10752.04	-301.00	-1121.00	0.00	0.00	-19.58
11738.13	89.87	359.66	11325.00	270.62	-1124.41	10.00	359.66	535.74
16059.22	89.87	359.66	11335.00	4591.62	-1150.22	0.00	0.00	4733.50

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
PBHL	11335.00	4591.62	-1150.22	32° 22' 8.5043 N	103° 29' 51.3938 W
SHL (Gaucho Unit 89H)	0.00	0.00	0.00	32° 21' 22.9822 N	103° 29' 38.4032 W







LEAM Drilling Services

LEAM DRILLING SYSTEMS LLC
2010 East Davis, Conroe, Texas 77301
Phone: 936/756-7577, Fax: 936/756-7595

Plan: Plan #1 (89H/OH)
Gaucho Unit
Created By: Dustin Ault Date: 12:34, March 08 2018
Date: _____
Approved: _____ Date: _____

Devon Energy

Project: Lea County, NM (NAD-83)
Site: Gaucho Unit
Well: 89H
Wellbore: OH
Design: Plan #1

Azimuths to Grid North
True North: -0.45°
Magnetic North: 6.33°

Magnetic Field
Strength: 48146.4snT
Dip Angle: 60.18°
Date: 3/7/2018
Model: HDGM

devon

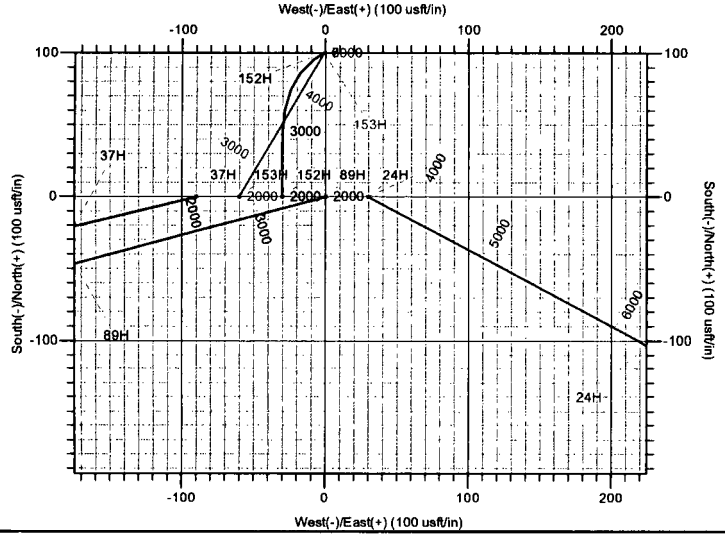
PROJECT DETAILS: Lea County, NM (NAD-83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

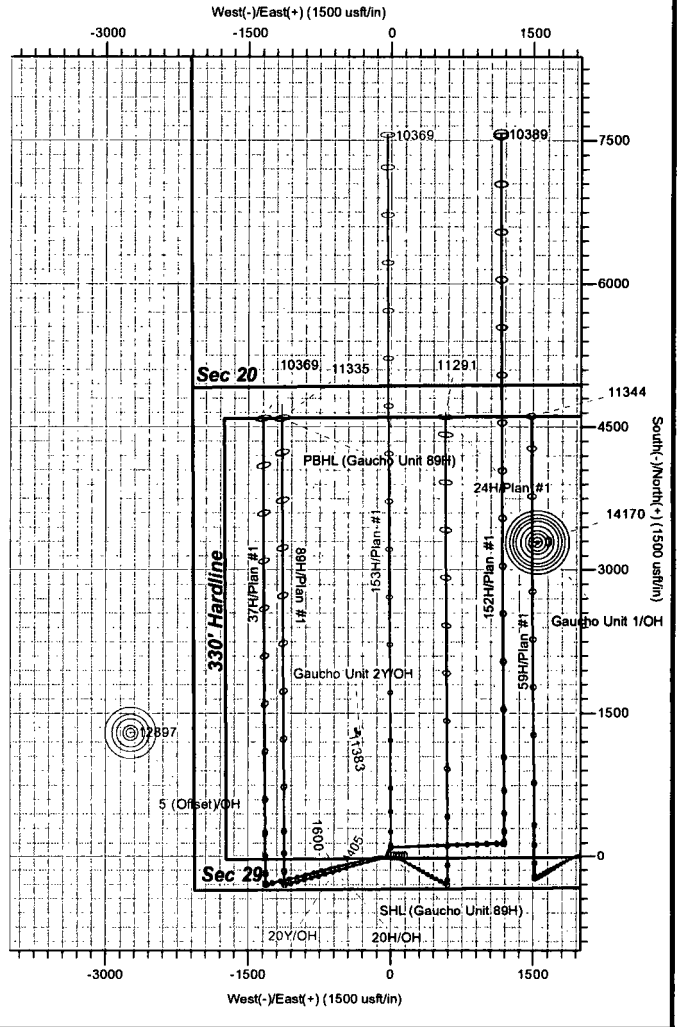
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL	11335.00	4591.62	-1150.22	498991.91	799362.90	32° 22' 8.5043 N	103° 29' 51.3938 W
SHL (Gaucho Unit 89H)	0.00	0.00	0.00	494400.29	800513.12	32° 21' 22.9822 N	103° 29' 38.4032 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00	
2939.18	8.78	254.97	2937.46	-8.71	-32.45	2.00	254.97	-0.57	
10100.28	8.78	254.97	10014.58	-292.29	-1088.55	0.00	0.00	-19.01	
10539.46	0.00	0.00	10452.04	-301.00	-1121.00	2.00	180.00	-19.58	
10839.46	0.00	0.00	10752.04	-301.00	-1121.00	0.00	0.00	-19.58	
11738.13	89.87	359.66	11325.00	270.62	-1124.41	10.00	359.66	535.74	
16059.22	89.87	359.66	11335.00	4591.62	-1150.22	0.00	0.00	4733.50	





LEAM Drilling Services

LEAM DRILLING SYSTEMS LLC
2010 East Davis, Conroe, Texas 77301
Phone: 936/756-7577, Fax: 936/756-7595

Plan: Plan #1 (89H/OH)
Gaucho Unit
Created By: Dustin Ault Date: 12:36, March 08 2018
Date: _____
Approved: _____ Date: _____

Devon Energy

Lea County, NM (NAD-83)
Gaucho Unit
89H

OH

Plan: Plan #1

Standard Planning Report

08 March, 2018

Database:	EDM 5000.1 Multi User Db	**Local Co-ordinate Reference:**	Well 89H
Company:	Devon Energy	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Project:	Lea County, NM (NAD-83)	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site:	Gaucho Unit	**North Reference:**	Grid
Well:	89H	**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' 2.5390 N
From:	Map	**Easting:**	799,049.77 usft	**Longitude:**	103° 29' 54.5480 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.45 °

Well	89H					
Well Position	**+N/-S**	-10,050.11 usft	**Northing:**	494,400.29 usft	**Latitude:**	32° 21' 22.9822 N
	+E/-W	1,463.35 usft	**Easting:**	800,513.12 usft	**Longitude:**	103° 29' 38.4032 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	3,430.40 usft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	HDGM	3/7/2018	6.78	60.18	48,146

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	345.94	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,939.18	8.78	254.97	2,937.46	-8.71	-32.45	2.00	2.00	0.00	254.97	
10,100.28	8.78	254.97	10,014.58	-292.29	-1,088.55	0.00	0.00	0.00	0.00	
10,539.46	0.00	0.00	10,452.04	-301.00	-1,121.00	2.00	-2.00	0.00	180.00	
10,839.46	0.00	0.00	10,752.04	-301.00	-1,121.00	0.00	0.00	0.00	0.00	
11,738.13	89.87	359.66	11,325.00	270.62	-1,124.41	10.00	10.00	-0.04	359.66	
16,059.22	89.87	359.66	11,335.00	4,591.62	-1,150.22	0.00	0.00	0.00	0.00	PBHL (Gaucho Unit 8

Database:	EDM 5000.1 Multi User Db	**Local Co-ordinate Reference:**	Well 89H
Company:	Devon Energy	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Project:	Lea County, NM (NAD-83)	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site:	Gaucho Unit	**North Reference:**	Grid
Well:	89H	**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
SHL (Gaucho Unit 89H)									
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	2.00	254.97	2,599.98	-0.45	-1.69	-0.03	2.00	2.00	0.00
2,700.00	4.00	254.97	2,699.84	-1.81	-6.74	-0.12	2.00	2.00	0.00
2,800.00	6.00	254.97	2,799.45	-4.07	-15.16	-0.26	2.00	2.00	0.00
2,900.00	8.00	254.97	2,898.70	-7.23	-26.93	-0.47	2.00	2.00	0.00
2,939.18	8.78	254.97	2,937.46	-8.71	-32.45	-0.57	2.00	2.00	0.00
3,000.00	8.78	254.97	2,997.57	-11.12	-41.42	-0.72	0.00	0.00	0.00
3,100.00	8.78	254.97	3,096.40	-15.08	-56.17	-0.98	0.00	0.00	0.00
3,200.00	8.78	254.97	3,195.22	-19.04	-70.91	-1.24	0.00	0.00	0.00
3,300.00	8.78	254.97	3,294.05	-23.00	-85.66	-1.50	0.00	0.00	0.00
3,400.00	8.78	254.97	3,392.88	-26.96	-100.41	-1.75	0.00	0.00	0.00
3,500.00	8.78	254.97	3,491.70	-30.92	-115.16	-2.01	0.00	0.00	0.00
3,600.00	8.78	254.97	3,590.53	-34.88	-129.90	-2.27	0.00	0.00	0.00
3,700.00	8.78	254.97	3,689.36	-38.84	-144.65	-2.53	0.00	0.00	0.00
3,800.00	8.78	254.97	3,788.19	-42.80	-159.40	-2.78	0.00	0.00	0.00
3,900.00	8.78	254.97	3,887.01	-46.76	-174.15	-3.04	0.00	0.00	0.00
4,000.00	8.78	254.97	3,985.84	-50.72	-188.90	-3.30	0.00	0.00	0.00
4,100.00	8.78	254.97	4,084.67	-54.68	-203.64	-3.56	0.00	0.00	0.00
4,200.00	8.78	254.97	4,183.50	-58.64	-218.39	-3.81	0.00	0.00	0.00
4,300.00	8.78	254.97	4,282.32	-62.60	-233.14	-4.07	0.00	0.00	0.00
4,400.00	8.78	254.97	4,381.15	-66.56	-247.89	-4.33	0.00	0.00	0.00
4,500.00	8.78	254.97	4,479.98	-70.52	-262.63	-4.59	0.00	0.00	0.00
4,600.00	8.78	254.97	4,578.80	-74.48	-277.38	-4.84	0.00	0.00	0.00
4,700.00	8.78	254.97	4,677.63	-78.44	-292.13	-5.10	0.00	0.00	0.00
4,800.00	8.78	254.97	4,776.46	-82.40	-306.88	-5.36	0.00	0.00	0.00
4,900.00	8.78	254.97	4,875.29	-86.36	-321.63	-5.62	0.00	0.00	0.00
5,000.00	8.78	254.97	4,974.11	-90.32	-336.37	-5.88	0.00	0.00	0.00
5,100.00	8.78	254.97	5,072.94	-94.28	-351.12	-6.13	0.00	0.00	0.00

Database:	EDM 5000.1 Multi User Db	**Local Co-ordinate Reference:**	Well 89H
Company:	Devon Energy	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Project:	Lea County, NM (NAD-83)	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site:	Gaucho Unit	**North Reference:**	Grid
Well:	89H	**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)
5,200.00	8.78	254.97	5,171.77	-98.24	-365.87	-6.39	0.00	0.00	0.00
5,300.00	8.78	254.97	5,270.59	-102.20	-380.62	-6.65	0.00	0.00	0.00
5,400.00	8.78	254.97	5,369.42	-106.16	-395.36	-6.91	0.00	0.00	0.00
5,500.00	8.78	254.97	5,468.25	-110.12	-410.11	-7.16	0.00	0.00	0.00
5,600.00	8.78	254.97	5,567.08	-114.08	-424.86	-7.42	0.00	0.00	0.00
5,700.00	8.78	254.97	5,665.90	-118.04	-439.61	-7.68	0.00	0.00	0.00
5,800.00	8.78	254.97	5,764.73	-122.00	-454.36	-7.94	0.00	0.00	0.00
5,900.00	8.78	254.97	5,863.56	-125.96	-469.10	-8.19	0.00	0.00	0.00
6,000.00	8.78	254.97	5,962.39	-129.92	-483.85	-8.45	0.00	0.00	0.00
6,100.00	8.78	254.97	6,061.21	-133.88	-498.60	-8.71	0.00	0.00	0.00
6,200.00	8.78	254.97	6,160.04	-137.84	-513.35	-8.97	0.00	0.00	0.00
6,300.00	8.78	254.97	6,258.87	-141.80	-528.09	-9.22	0.00	0.00	0.00
6,400.00	8.78	254.97	6,357.69	-145.76	-542.84	-9.48	0.00	0.00	0.00
6,500.00	8.78	254.97	6,456.52	-149.72	-557.59	-9.74	0.00	0.00	0.00
6,600.00	8.78	254.97	6,555.35	-153.68	-572.34	-10.00	0.00	0.00	0.00
6,700.00	8.78	254.97	6,654.18	-157.64	-587.09	-10.25	0.00	0.00	0.00
6,800.00	8.78	254.97	6,753.00	-161.60	-601.83	-10.51	0.00	0.00	0.00
6,900.00	8.78	254.97	6,851.83	-165.56	-616.58	-10.77	0.00	0.00	0.00
7,000.00	8.78	254.97	6,950.66	-169.52	-631.33	-11.03	0.00	0.00	0.00
7,100.00	8.78	254.97	7,049.49	-173.48	-646.08	-11.28	0.00	0.00	0.00
7,200.00	8.78	254.97	7,148.31	-177.44	-660.82	-11.54	0.00	0.00	0.00
7,300.00	8.78	254.97	7,247.14	-181.40	-675.57	-11.80	0.00	0.00	0.00
7,400.00	8.78	254.97	7,345.97	-185.36	-690.32	-12.06	0.00	0.00	0.00
7,500.00	8.78	254.97	7,444.79	-189.32	-705.07	-12.31	0.00	0.00	0.00
7,600.00	8.78	254.97	7,543.62	-193.28	-719.82	-12.57	0.00	0.00	0.00
7,700.00	8.78	254.97	7,642.45	-197.24	-734.56	-12.83	0.00	0.00	0.00
7,800.00	8.78	254.97	7,741.28	-201.20	-749.31	-13.09	0.00	0.00	0.00
7,900.00	8.78	254.97	7,840.10	-205.16	-764.06	-13.35	0.00	0.00	0.00
8,000.00	8.78	254.97	7,938.93	-209.12	-778.81	-13.60	0.00	0.00	0.00
8,100.00	8.78	254.97	8,037.76	-213.08	-793.55	-13.86	0.00	0.00	0.00
8,200.00	8.78	254.97	8,136.58	-217.04	-808.30	-14.12	0.00	0.00	0.00
8,300.00	8.78	254.97	8,235.41	-221.00	-823.05	-14.38	0.00	0.00	0.00
8,400.00	8.78	254.97	8,334.24	-224.96	-837.80	-14.63	0.00	0.00	0.00
8,500.00	8.78	254.97	8,433.07	-228.92	-852.55	-14.89	0.00	0.00	0.00
8,600.00	8.78	254.97	8,531.89	-232.88	-867.29	-15.15	0.00	0.00	0.00
8,700.00	8.78	254.97	8,630.72	-236.84	-882.04	-15.41	0.00	0.00	0.00
8,800.00	8.78	254.97	8,729.55	-240.80	-896.79	-15.66	0.00	0.00	0.00
8,900.00	8.78	254.97	8,828.38	-244.76	-911.54	-15.92	0.00	0.00	0.00
9,000.00	8.78	254.97	8,927.20	-248.72	-926.28	-16.18	0.00	0.00	0.00
9,100.00	8.78	254.97	9,026.03	-252.68	-941.03	-16.44	0.00	0.00	0.00
9,200.00	8.78	254.97	9,124.86	-256.64	-955.78	-16.69	0.00	0.00	0.00
9,300.00	8.78	254.97	9,223.68	-260.60	-970.53	-16.95	0.00	0.00	0.00
9,400.00	8.78	254.97	9,322.51	-264.56	-985.28	-17.21	0.00	0.00	0.00
9,500.00	8.78	254.97	9,421.34	-268.52	-1,000.02	-17.47	0.00	0.00	0.00
9,600.00	8.78	254.97	9,520.17	-272.48	-1,014.77	-17.72	0.00	0.00	0.00
9,700.00	8.78	254.97	9,618.99	-276.44	-1,029.52	-17.98	0.00	0.00	0.00
9,800.00	8.78	254.97	9,717.82	-280.40	-1,044.27	-18.24	0.00	0.00	0.00
9,900.00	8.78	254.97	9,816.65	-284.36	-1,059.01	-18.50	0.00	0.00	0.00
10,000.00	8.78	254.97	9,915.48	-288.32	-1,073.76	-18.75	0.00	0.00	0.00
10,100.28	8.78	254.97	10,014.58	-292.29	-1,088.55	-19.01	0.00	0.00	0.00
10,200.00	6.79	254.97	10,113.37	-295.79	-1,101.60	-19.24	2.00	-2.00	0.00
10,300.00	4.79	254.97	10,212.86	-298.41	-1,111.34	-19.41	2.00	-2.00	0.00
10,400.00	2.79	254.97	10,312.64	-300.12	-1,117.72	-19.52	2.00	-2.00	0.00
10,500.00	0.79	254.97	10,412.58	-300.93	-1,120.74	-19.58	2.00	-2.00	0.00

Database:	EDM 5000.1 Multi User Db	**Local Co-ordinate Reference:**	Well 89H
Company:	Devon Energy	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Project:	Lea County, NM (NAD-83)	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site:	Gaucho Unit	**North Reference:**	Grid
Well:	89H	**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)
10,539.46	0.00	0.00	10,452.04	-301.00	-1,121.00	-19.58	2.00	-2.00	0.00
10,600.00	0.00	0.00	10,512.58	-301.00	-1,121.00	-19.58	0.00	0.00	0.00
10,700.00	0.00	0.00	10,612.58	-301.00	-1,121.00	-19.58	0.00	0.00	0.00
10,800.00	0.00	0.00	10,712.58	-301.00	-1,121.00	-19.58	0.00	0.00	0.00
10,839.46	0.00	0.00	10,752.04	-301.00	-1,121.00	-19.58	0.00	0.00	0.00
10,850.00	1.05	359.66	10,762.58	-300.90	-1,121.00	-19.49	10.00	10.00	0.00
10,900.00	6.05	359.66	10,812.47	-297.80	-1,121.02	-16.48	10.00	10.00	0.00
10,950.00	11.05	359.66	10,861.90	-290.37	-1,121.06	-9.25	10.00	10.00	0.00
11,000.00	16.05	359.66	10,910.49	-278.66	-1,121.13	2.13	10.00	10.00	0.00
11,050.00	21.05	359.66	10,957.87	-262.75	-1,121.23	17.58	10.00	10.00	0.00
11,100.00	26.05	359.66	11,003.69	-242.78	-1,121.35	36.98	10.00	10.00	0.00
11,150.00	31.05	359.66	11,047.60	-218.89	-1,121.49	60.19	10.00	10.00	0.00
11,200.00	36.05	359.66	11,089.25	-191.26	-1,121.66	87.03	10.00	10.00	0.00
11,250.00	41.05	359.66	11,128.34	-160.11	-1,121.84	117.30	10.00	10.00	0.00
11,300.00	46.05	359.66	11,164.57	-125.67	-1,122.05	150.75	10.00	10.00	0.00
11,350.00	51.05	359.66	11,197.65	-88.20	-1,122.27	187.15	10.00	10.00	0.00
11,400.00	56.05	359.66	11,227.35	-47.99	-1,122.51	226.21	10.00	10.00	0.00
11,450.00	61.05	359.66	11,253.42	-5.35	-1,122.77	267.64	10.00	10.00	0.00
11,500.00	66.05	359.66	11,275.68	39.40	-1,123.03	311.11	10.00	10.00	0.00
11,550.00	71.05	359.66	11,293.96	85.93	-1,123.31	356.31	10.00	10.00	0.00
11,600.00	76.05	359.66	11,308.11	133.86	-1,123.60	402.88	10.00	10.00	0.00
11,650.00	81.05	359.66	11,318.03	182.85	-1,123.89	450.47	10.00	10.00	0.00
11,700.00	86.05	359.66	11,323.64	232.52	-1,124.19	498.72	10.00	10.00	0.00
11,738.13	89.87	359.66	11,325.00	270.62	-1,124.41	535.74	10.00	10.00	0.00
11,800.00	89.87	359.66	11,325.14	332.49	-1,124.78	595.84	0.00	0.00	0.00
11,900.00	89.87	359.66	11,325.37	432.48	-1,125.38	692.98	0.00	0.00	0.00
12,000.00	89.87	359.66	11,325.60	532.48	-1,125.98	790.13	0.00	0.00	0.00
12,100.00	89.87	359.66	11,325.83	632.48	-1,126.58	887.28	0.00	0.00	0.00
12,200.00	89.87	359.66	11,326.07	732.48	-1,127.17	984.42	0.00	0.00	0.00
12,300.00	89.87	359.66	11,326.30	832.48	-1,127.77	1,081.57	0.00	0.00	0.00
12,400.00	89.87	359.66	11,326.53	932.47	-1,128.37	1,178.71	0.00	0.00	0.00
12,500.00	89.87	359.66	11,326.76	1,032.47	-1,128.96	1,275.86	0.00	0.00	0.00
12,600.00	89.87	359.66	11,326.99	1,132.47	-1,129.56	1,373.01	0.00	0.00	0.00
12,700.00	89.87	359.66	11,327.22	1,232.47	-1,130.16	1,470.15	0.00	0.00	0.00
12,800.00	89.87	359.66	11,327.45	1,332.47	-1,130.76	1,567.30	0.00	0.00	0.00
12,900.00	89.87	359.66	11,327.69	1,432.46	-1,131.35	1,664.44	0.00	0.00	0.00
13,000.00	89.87	359.66	11,327.92	1,532.46	-1,131.95	1,761.59	0.00	0.00	0.00
13,100.00	89.87	359.66	11,328.15	1,632.46	-1,132.55	1,858.74	0.00	0.00	0.00
13,200.00	89.87	359.66	11,328.38	1,732.46	-1,133.14	1,955.88	0.00	0.00	0.00
13,300.00	89.87	359.66	11,328.61	1,832.46	-1,133.74	2,053.03	0.00	0.00	0.00
13,400.00	89.87	359.66	11,328.84	1,932.45	-1,134.34	2,150.17	0.00	0.00	0.00
13,500.00	89.87	359.66	11,329.08	2,032.45	-1,134.94	2,247.32	0.00	0.00	0.00
13,600.00	89.87	359.66	11,329.31	2,132.45	-1,135.53	2,344.46	0.00	0.00	0.00
13,700.00	89.87	359.66	11,329.54	2,232.45	-1,136.13	2,441.61	0.00	0.00	0.00
13,800.00	89.87	359.66	11,329.77	2,332.45	-1,136.73	2,538.76	0.00	0.00	0.00
13,900.00	89.87	359.66	11,330.00	2,432.44	-1,137.32	2,635.90	0.00	0.00	0.00
14,000.00	89.87	359.66	11,330.23	2,532.44	-1,137.92	2,733.05	0.00	0.00	0.00
14,100.00	89.87	359.66	11,330.46	2,632.44	-1,138.52	2,830.19	0.00	0.00	0.00
14,200.00	89.87	359.66	11,330.70	2,732.44	-1,139.12	2,927.34	0.00	0.00	0.00
14,300.00	89.87	359.66	11,330.93	2,832.44	-1,139.71	3,024.49	0.00	0.00	0.00
14,400.00	89.87	359.66	11,331.16	2,932.43	-1,140.31	3,121.63	0.00	0.00	0.00
14,500.00	89.87	359.66	11,331.39	3,032.43	-1,140.91	3,218.78	0.00	0.00	0.00
14,600.00	89.87	359.66	11,331.62	3,132.43	-1,141.51	3,315.92	0.00	0.00	0.00
14,700.00	89.87	359.66	11,331.85	3,232.43	-1,142.10	3,413.07	0.00	0.00	0.00

Database:	EDM 5000.1 Multi User Db	**Local Co-ordinate Reference:**	Well 89H
Company:	Devon Energy	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Project:	Lea County, NM (NAD-83)	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site:	Gaucho Unit	**North Reference:**	Grid
Well:	89H	**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)
14,800.00	89.87	359.66	11,332.09	3,332.43	-1,142.70	3,510.22	0.00	0.00	0.00
14,900.00	89.87	359.66	11,332.32	3,432.42	-1,143.30	3,607.36	0.00	0.00	0.00
15,000.00	89.87	359.66	11,332.55	3,532.42	-1,143.89	3,704.51	0.00	0.00	0.00
15,100.00	89.87	359.66	11,332.78	3,632.42	-1,144.49	3,801.65	0.00	0.00	0.00
15,200.00	89.87	359.66	11,333.01	3,732.42	-1,145.09	3,898.80	0.00	0.00	0.00
15,300.00	89.87	359.66	11,333.24	3,832.42	-1,145.69	3,995.94	0.00	0.00	0.00
15,400.00	89.87	359.66	11,333.47	3,932.41	-1,146.28	4,093.09	0.00	0.00	0.00
15,500.00	89.87	359.66	11,333.71	4,032.41	-1,146.88	4,190.24	0.00	0.00	0.00
15,600.00	89.87	359.66	11,333.94	4,132.41	-1,147.48	4,287.38	0.00	0.00	0.00
15,700.00	89.87	359.66	11,334.17	4,232.41	-1,148.07	4,384.53	0.00	0.00	0.00
15,800.00	89.87	359.66	11,334.40	4,332.40	-1,148.67	4,481.67	0.00	0.00	0.00
15,900.00	89.87	359.66	11,334.63	4,432.40	-1,149.27	4,578.82	0.00	0.00	0.00
16,000.00	89.87	359.66	11,334.86	4,532.40	-1,149.87	4,675.97	0.00	0.00	0.00
16,059.22	89.87	359.66	11,335.00	4,591.62	-1,150.22	4,733.50	0.00	0.00	0.00
PBHL (Gaucho Unit 89H)									

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
SHL (Gaucho Unit 89H) - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	494,400.29	800,513.12	32° 21' 22.9822 N	103° 29' 38.4032 W
PBHL (Gaucho Unit 89H - plan hits target center - Point	0.00	0.00	11,335.00	4,591.62	-1,150.22	498,991.91	799,362.90	32° 22' 8.5043 N	103° 29' 51.3938 W

Devon Energy

Lea County, NM (NAD-83)
Gaucho Unit
89H

OH
Plan #1

Anticollision Report

08 March, 2018

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 2,000.00 usft	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 3/8/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	16,059.22	Plan #1 (OH)	LEAM MWD+HDGM	MWD+HDGM

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Gaucho Unit						
152H - OH - Plan #1	2,757.39	2,756.68	23.81	11.78	1.979	CC, ES, SF
153H - OH - Plan #1	2,949.76	2,948.44	31.98	19.11	2.485	CC, ES, SF
20H - OH - OH	393.63	391.93	581.94	580.99	615.824	CC
20H - OH - OH	400.00	397.68	581.94	580.98	605.527	ES
20H - OH - OH	1,900.00	1,600.00	688.24	683.23	137.311	SF
20Y - OH - OH	4,477.32	4,404.00	343.97	325.42	18.540	CC, ES, SF
24H - OH - Plan #1	2,500.00	2,503.60	30.00	19.03	2.735	CC, ES, SF
36H - OH - Plan #1						Out of range
37H - OH - Plan #1	1,916.36	1,917.26	89.99	81.65	10.793	CC
37H - OH - Plan #1	2,000.00	2,000.00	89.99	81.28	10.330	ES
37H - OH - Plan #1	10,200.00	10,190.98	236.86	186.03	4.659	SF
5 (Offset) - OH - OH	12,772.81	11,329.80	1,609.58	1,343.21	6.043	CC
5 (Offset) - OH - OH	12,800.00	11,329.86	1,609.81	1,343.01	6.034	ES
5 (Offset) - OH - OH	12,900.00	11,330.09	1,614.59	1,346.17	6.015	SF
59H - OH - Plan #1	2,500.00	2,491.10	1,977.49	1,966.55	180.765	CC, ES
59H - OH - Plan #1	2,800.00	2,790.55	1,992.68	1,980.47	163.273	SF
Gaucho Unit Offsets						
Gaucho Unit 1 - OH - OH						Out of range
Gaucho Unit 2Y - OH - OH	12,769.83	11,343.01	803.51	768.05	22.663	CC, ES, SF

Offset Design Gaucho Unit - 152H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-LEAM MWD+HDGM, 9877-MWD+IFR1 — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.60	0.60	0.00	0.00	-90.00	0.00	-30.01	30.01				
100.00	100.00	100.60	100.60	0.09	0.09	-90.00	0.00	-30.01	30.01	29.84	0.17	174.303	
200.00	200.00	200.60	200.60	0.31	0.31	-90.00	0.00	-30.01	30.01	29.39	0.62	48.271	
300.00	300.00	300.60	300.60	0.53	0.54	-90.00	0.00	-30.01	30.01	28.94	1.07	28.014	
400.00	400.00	400.60	400.60	0.76	0.76	-90.00	0.00	-30.01	30.01	28.49	1.52	19.733	
500.00	500.00	500.60	500.60	0.98	0.99	-90.00	0.00	-30.01	30.01	28.04	1.97	15.231	
600.00	600.00	600.60	600.60	1.21	1.21	-90.00	0.00	-30.01	30.01	27.59	2.42	12.402	
700.00	700.00	700.60	700.60	1.43	1.44	-90.00	0.00	-30.01	30.01	27.14	2.87	10.459	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 152H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-LEAM MWD+HDGM, 9877-MWD+IFR1 — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
800.00	800.00	800.60	800.60	1.66	1.66	-90.00	0.00	-30.01	30.01	26.69	3.32	9.042	
900.00	900.00	900.60	900.60	1.88	1.88	-90.00	0.00	-30.01	30.01	26.24	3.77	7.964	
1,000.00	1,000.00	1,000.60	1,000.60	2.11	2.11	-90.00	0.00	-30.01	30.01	25.79	4.22	7.115	
1,100.00	1,100.00	1,100.60	1,100.60	2.33	2.33	-90.00	0.00	-30.01	30.01	25.34	4.67	6.430	
1,200.00	1,200.00	1,200.60	1,200.60	2.56	2.56	-90.00	0.00	-30.01	30.01	24.89	5.12	5.865	
1,300.00	1,300.00	1,300.60	1,300.60	2.78	2.78	-90.00	0.00	-30.01	30.01	24.44	5.57	5.391	
1,400.00	1,400.00	1,400.60	1,400.60	3.01	3.01	-90.00	0.00	-30.01	30.01	23.99	6.02	4.988	
1,500.00	1,500.00	1,500.60	1,500.60	3.23	3.23	-90.00	0.00	-30.01	30.01	23.54	6.47	4.641	
1,600.00	1,600.00	1,600.60	1,600.60	3.46	3.46	-90.00	0.00	-30.01	30.01	23.09	6.92	4.340	
1,700.00	1,700.00	1,700.60	1,700.60	3.68	3.68	-90.00	0.00	-30.01	30.01	22.65	7.36	4.075	
1,800.00	1,800.00	1,800.60	1,800.60	3.91	3.91	-90.00	0.00	-30.01	30.01	22.20	7.81	3.840	
1,900.00	1,900.00	1,900.60	1,900.60	4.13	4.13	-90.00	0.00	-30.01	30.01	21.75	8.26	3.632	
2,000.00	2,000.00	2,000.60	2,000.60	4.36	4.36	-90.00	0.00	-30.01	30.01	21.30	8.71	3.444	
2,100.00	2,100.00	2,100.60	2,100.60	4.58	4.58	-90.00	0.00	-30.01	30.01	20.85	9.16	3.275	
2,200.00	2,200.00	2,200.60	2,200.60	4.81	4.81	-90.00	0.00	-30.01	30.01	20.40	9.61	3.122	
2,300.00	2,300.00	2,300.60	2,300.60	5.03	5.03	-90.00	0.00	-30.01	30.01	19.95	10.06	2.983	
2,400.00	2,400.00	2,400.60	2,400.60	5.26	5.26	-90.00	0.00	-30.01	30.01	19.50	10.51	2.855	
2,500.00	2,500.00	2,500.60	2,500.60	5.48	5.48	-90.00	0.00	-30.01	30.01	19.05	10.96	2.738	
2,516.97	2,516.97	2,517.57	2,517.57	5.51	5.52	15.16	0.05	-30.01	29.96	18.93	11.03	2.715	
2,600.00	2,599.98	2,600.52	2,600.50	5.69	5.71	19.51	1.76	-30.01	28.41	17.02	11.39	2.494	
2,700.00	2,699.84	2,700.00	2,699.84	5.88	5.93	35.73	6.98	-30.01	24.88	13.08	11.80	2.108	
2,757.39	2,757.04	2,756.68	2,756.34	5.99	6.06	52.46	11.49	-30.01	23.81	11.78	12.03	1.979	CC, ES, SF
2,800.00	2,799.45	2,798.54	2,798.00	6.08	6.15	67.54	15.54	-30.01	24.69	12.50	12.19	2.025	
2,900.00	2,898.70	2,895.76	2,894.50	6.29	6.37	98.74	27.29	-30.01	34.99	22.43	12.56	2.786	
3,000.00	2,997.57	2,991.37	2,988.96	6.51	6.59	115.53	42.04	-30.01	55.14	42.20	12.94	4.262	
3,100.00	3,096.40	3,088.61	3,084.87	6.74	6.81	124.00	58.07	-28.93	79.00	65.62	13.38	5.905	
3,200.00	3,195.22	3,185.99	3,181.15	6.98	7.02	130.33	72.12	-25.27	103.00	89.21	13.79	7.467	
3,300.00	3,294.05	3,283.04	3,277.25	7.23	7.23	135.74	84.08	-19.03	127.31	113.11	14.20	8.967	
3,400.00	3,392.88	3,379.54	3,372.84	7.49	7.44	140.64	93.94	-10.29	152.20	137.61	14.59	10.429	
3,500.00	3,491.70	3,475.28	3,467.60	7.75	7.65	145.20	101.71	0.90	177.96	162.98	14.98	11.882	
3,600.00	3,590.53	3,570.05	3,561.23	8.02	7.86	149.48	107.42	14.40	204.86	189.51	15.35	13.348	
3,700.00	3,689.36	3,663.67	3,653.45	8.29	8.08	153.51	111.12	30.12	233.16	217.46	15.71	14.846	
3,800.00	3,788.19	3,755.97	3,743.99	8.57	8.30	157.30	112.86	47.90	263.08	247.03	16.05	16.393	
3,900.00	3,887.01	3,849.35	3,835.35	8.85	8.54	160.72	113.50	67.26	294.43	278.01	16.42	17.929	
4,000.00	3,985.84	3,942.95	3,926.90	9.14	8.79	163.50	114.13	86.66	326.58	309.76	16.81	19.426	
4,100.00	4,084.67	4,036.54	4,018.46	9.43	9.05	165.78	114.76	106.07	359.30	342.09	17.21	20.879	
4,200.00	4,183.50	4,130.13	4,110.02	9.72	9.32	167.69	115.39	125.47	392.45	374.83	17.61	22.281	
4,300.00	4,282.32	4,223.72	4,201.57	10.01	9.60	169.30	116.02	144.88	425.93	407.91	18.02	23.631	
4,400.00	4,381.15	4,317.32	4,293.13	10.31	9.88	170.68	116.65	164.28	459.68	441.23	18.44	24.927	
4,500.00	4,479.98	4,410.91	4,384.69	10.61	10.18	171.87	117.28	183.69	493.63	474.76	18.86	26.170	
4,600.00	4,578.80	4,504.50	4,476.24	10.92	10.48	172.91	117.90	203.09	527.74	508.45	19.29	27.361	
4,700.00	4,677.63	4,598.10	4,567.80	11.22	10.78	173.83	118.53	222.50	561.99	542.28	19.72	28.501	
4,800.00	4,776.46	4,691.69	4,659.36	11.53	11.09	174.63	119.16	241.91	596.36	576.21	20.15	29.593	
4,900.00	4,875.29	4,785.28	4,750.92	11.84	11.41	175.36	119.79	261.31	630.82	610.23	20.59	30.638	
5,000.00	4,974.11	4,878.88	4,842.47	12.15	11.72	176.00	120.42	280.72	665.36	644.33	21.03	31.640	
5,100.00	5,072.94	4,972.47	4,934.03	12.46	12.05	176.59	121.05	300.12	699.96	678.49	21.47	32.599	
5,200.00	5,171.77	5,066.06	5,025.59	12.77	12.37	177.12	121.68	319.53	734.63	712.71	21.92	33.518	
5,300.00	5,270.59	5,159.65	5,117.14	13.09	12.70	177.60	122.31	338.93	769.34	746.98	22.37	34.399	
5,400.00	5,369.42	5,253.25	5,208.70	13.40	13.04	178.04	122.94	358.34	804.10	781.29	22.82	35.244	
5,500.00	5,468.25	5,346.84	5,300.26	13.72	13.37	178.44	123.57	377.74	838.90	815.63	23.27	36.055	
5,600.00	5,567.08	5,440.43	5,391.81	14.04	13.71	178.81	124.20	397.15	873.73	850.01	23.72	36.833	
5,700.00	5,665.90	5,534.03	5,483.37	14.36	14.05	179.16	124.83	416.55	908.59	884.41	24.18	37.580	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 152H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-LEAM MWD+HDGM, 9877-MWD+IFR1 — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,800.00	5,764.73	5,627.62	5,574.93	14.68	14.39	179.47	125.45	435.96	943.48	918.84	24.64	38.297	
5,900.00	5,863.56	5,721.21	5,666.48	15.00	14.74	179.77	126.08	455.37	978.39	953.29	25.10	38.987	
6,000.00	5,962.39	5,814.80	5,758.04	15.32	15.09	-179.96	126.71	474.77	1,013.32	987.77	25.56	39.651	
6,100.00	6,061.21	5,908.40	5,849.60	15.64	15.44	-179.70	127.34	494.18	1,048.27	1,022.25	26.02	40.289	
6,200.00	6,160.04	6,001.99	5,941.16	15.97	15.79	-179.46	127.97	513.58	1,083.24	1,056.76	26.48	40.904	
6,300.00	6,258.87	6,095.58	6,032.71	16.29	16.14	-179.23	128.60	532.99	1,118.23	1,091.28	26.95	41.496	
6,400.00	6,357.69	6,189.18	6,124.27	16.61	16.49	-179.02	129.23	552.39	1,153.23	1,125.81	27.41	42.066	
6,500.00	6,456.52	6,282.77	6,215.83	16.94	16.85	-178.82	129.86	571.80	1,188.24	1,160.35	27.88	42.616	
6,600.00	6,555.35	6,376.36	6,307.38	17.26	17.20	-178.64	130.49	591.20	1,223.26	1,194.91	28.35	43.146	
6,700.00	6,654.18	6,469.95	6,398.94	17.59	17.56	-178.46	131.12	610.61	1,258.30	1,229.47	28.82	43.657	
6,800.00	6,753.00	6,563.55	6,490.50	17.92	17.92	-178.29	131.75	630.02	1,293.34	1,264.05	29.29	44.151	
6,900.00	6,851.83	6,657.14	6,582.05	18.24	18.28	-178.13	132.38	649.42	1,328.39	1,298.63	29.77	44.628	
7,000.00	6,950.66	6,750.73	6,673.61	18.57	18.64	-177.98	133.00	668.83	1,363.46	1,333.22	30.24	45.089	
7,100.00	7,049.49	6,844.33	6,765.17	18.90	19.00	-177.84	133.63	688.23	1,398.53	1,367.81	30.71	45.535	
7,200.00	7,148.31	6,937.92	6,856.72	19.23	19.37	-177.70	134.26	707.64	1,433.60	1,402.42	31.19	45.965	
7,300.00	7,247.14	7,031.51	6,948.28	19.56	19.73	-177.57	134.89	727.04	1,468.69	1,437.02	31.67	46.382	
7,400.00	7,345.97	7,125.11	7,039.84	19.89	20.09	-177.45	135.52	746.45	1,503.78	1,471.64	32.14	46.785	
7,500.00	7,444.79	7,218.70	7,131.39	20.21	20.46	-177.33	136.15	765.85	1,538.88	1,506.26	32.62	47.176	
7,600.00	7,543.62	7,312.29	7,222.95	20.54	20.82	-177.22	136.78	785.26	1,573.98	1,540.88	33.10	47.554	
7,700.00	7,642.45	7,405.88	7,314.51	20.87	21.19	-177.11	137.41	804.67	1,609.08	1,575.51	33.58	47.920	
7,800.00	7,741.28	7,499.48	7,406.07	21.20	21.56	-177.01	138.04	824.07	1,644.20	1,610.14	34.06	48.276	
7,900.00	7,840.10	7,593.07	7,497.62	21.54	21.93	-176.91	138.67	843.48	1,679.31	1,644.77	34.54	48.620	
8,000.00	7,938.93	7,686.66	7,589.18	21.87	22.29	-176.81	139.30	862.88	1,714.43	1,679.41	35.02	48.954	
8,100.00	8,037.76	7,780.26	7,680.74	22.20	22.66	-176.72	139.93	882.29	1,749.56	1,714.05	35.50	49.278	
8,200.00	8,136.58	7,873.85	7,772.29	22.53	23.03	-176.63	140.56	901.69	1,784.69	1,748.70	35.99	49.592	
8,300.00	8,235.41	7,967.44	7,863.85	22.86	23.40	-176.55	141.18	921.10	1,819.82	1,783.35	36.47	49.898	
8,400.00	8,334.24	8,061.03	7,955.41	23.19	23.77	-176.47	141.81	940.50	1,854.95	1,818.00	36.96	50.194	
8,500.00	8,433.07	8,154.63	8,046.96	23.52	24.15	-176.39	142.44	959.91	1,890.09	1,852.65	37.44	50.482	
8,600.00	8,531.89	8,248.22	8,138.52	23.86	24.52	-176.32	143.07	979.32	1,925.23	1,887.31	37.93	50.762	
8,700.00	8,630.72	8,341.81	8,230.08	24.19	24.89	-176.24	143.70	998.72	1,960.38	1,921.96	38.41	51.034	
8,800.00	8,729.55	8,435.41	8,321.63	24.52	25.26	-176.17	144.33	1,018.13	1,995.52	1,956.62	38.90	51.299	

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 153H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-LEAM MWD+HDGM, 9761-MWD+IFR1 — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.90	0.90	0.00	0.00	-90.00	0.00	-60.01	60.01				
100.00	100.00	100.90	100.90	0.09	0.09	-90.00	0.00	-60.01	60.01	59.84	0.17	347.189	
200.00	200.00	200.90	200.90	0.31	0.31	-90.00	0.00	-60.01	60.01	59.39	0.62	96.421	
300.00	300.00	300.90	300.90	0.53	0.54	-90.00	0.00	-60.01	60.01	58.94	1.07	55.984	
400.00	400.00	400.90	400.90	0.76	0.76	-90.00	0.00	-60.01	60.01	58.49	1.52	39.443	
500.00	500.00	500.90	500.90	0.98	0.99	-90.00	0.00	-60.01	60.01	58.04	1.97	30.447	
600.00	600.00	600.90	600.90	1.21	1.21	-90.00	0.00	-60.01	60.01	57.59	2.42	24.792	
700.00	700.00	700.90	700.90	1.43	1.44	-90.00	0.00	-60.01	60.01	57.14	2.87	20.909	
800.00	800.00	800.90	800.90	1.66	1.66	-90.00	0.00	-60.01	60.01	56.69	3.32	18.078	
900.00	900.00	900.90	900.90	1.88	1.89	-90.00	0.00	-60.01	60.01	56.24	3.77	15.922	
1,000.00	1,000.00	1,000.90	1,000.90	2.11	2.11	-90.00	0.00	-60.01	60.01	55.79	4.22	14.225	
1,100.00	1,100.00	1,100.90	1,100.90	2.33	2.34	-90.00	0.00	-60.01	60.01	55.34	4.67	12.855	
1,200.00	1,200.00	1,200.90	1,200.90	2.56	2.56	-90.00	0.00	-60.01	60.01	54.89	5.12	11.726	
1,300.00	1,300.00	1,300.90	1,300.90	2.78	2.78	-90.00	0.00	-60.01	60.01	54.44	5.57	10.779	
1,400.00	1,400.00	1,400.90	1,400.90	3.01	3.01	-90.00	0.00	-60.01	60.01	53.99	6.02	9.974	
1,500.00	1,500.00	1,500.90	1,500.90	3.23	3.23	-90.00	0.00	-60.01	60.01	53.54	6.47	9.280	
1,600.00	1,600.00	1,600.90	1,600.90	3.46	3.46	-90.00	0.00	-60.01	60.01	53.09	6.92	8.677	
1,700.00	1,700.00	1,700.90	1,700.90	3.68	3.68	-90.00	0.00	-60.01	60.01	52.64	7.37	8.148	
1,800.00	1,800.00	1,800.90	1,800.90	3.91	3.91	-90.00	0.00	-60.01	60.01	52.20	7.81	7.679	
1,900.00	1,900.00	1,900.90	1,900.90	4.13	4.13	-90.00	0.00	-60.01	60.01	51.75	8.26	7.261	
2,000.00	2,000.00	2,000.90	2,000.90	4.36	4.36	-90.00	0.00	-60.01	60.01	51.30	8.71	6.887	
2,100.00	2,100.00	2,100.90	2,100.90	4.58	4.58	-90.00	0.00	-60.01	60.01	50.85	9.16	6.549	
2,200.00	2,200.00	2,200.90	2,200.90	4.81	4.81	-90.00	0.00	-60.01	60.01	50.40	9.61	6.243	
2,300.00	2,300.00	2,300.90	2,300.90	5.03	5.03	-90.00	0.00	-60.01	60.01	49.95	10.06	5.964	
2,400.00	2,400.00	2,400.90	2,400.90	5.26	5.26	-90.00	0.00	-60.01	60.01	49.50	10.51	5.709	
2,500.00	2,500.00	2,500.91	2,500.91	5.48	5.48	-90.00	0.00	-60.01	60.01	49.05	10.96	5.475	
2,600.00	2,599.98	2,601.88	2,601.86	5.69	5.71	17.06	1.56	-59.09	57.45	46.06	11.39	5.043	
2,700.00	2,699.84	2,702.05	2,701.89	5.88	5.93	24.10	6.05	-56.44	50.33	38.53	11.80	4.265	
2,800.00	2,799.45	2,801.08	2,800.73	6.08	6.15	37.19	11.33	-53.32	41.16	28.94	12.22	3.369	
2,900.00	2,898.70	2,899.60	2,899.06	6.29	6.37	60.80	16.59	-50.22	33.32	20.68	12.65	2.635	
2,949.76	2,947.95	2,948.44	2,947.81	6.40	6.48	77.10	19.20	-48.68	31.98	19.11	12.87	2.485	CC, ES, SF
3,000.00	2,997.57	2,997.62	2,996.89	6.51	6.59	94.72	21.83	-47.13	33.48	20.39	13.09	2.558	
3,100.00	3,096.40	3,095.58	3,094.66	6.74	6.81	120.32	27.06	-44.05	43.93	30.41	13.51	3.251	
3,200.00	3,195.22	3,193.54	3,192.43	6.98	7.03	134.57	32.29	-40.96	59.54	45.61	13.93	4.274	
3,300.00	3,294.05	3,291.50	3,290.20	7.23	7.26	142.67	37.52	-37.87	77.26	62.91	14.35	5.383	
3,400.00	3,392.88	3,389.46	3,387.98	7.49	7.48	147.71	42.75	-34.79	95.91	81.14	14.78	6.491	
3,500.00	3,491.70	3,487.42	3,485.75	7.75	7.71	151.10	47.98	-31.70	115.05	99.85	15.21	7.566	
3,600.00	3,590.53	3,585.38	3,583.52	8.02	7.93	153.52	53.21	-28.62	134.47	118.83	15.64	8.599	
3,700.00	3,689.36	3,683.34	3,681.30	8.29	8.16	155.32	58.44	-25.53	154.06	137.99	16.07	9.585	
3,800.00	3,788.19	3,781.30	3,779.07	8.57	8.38	156.72	63.67	-22.44	173.76	157.25	16.51	10.524	
3,900.00	3,887.01	3,879.27	3,876.84	8.85	8.61	157.84	68.90	-19.36	193.55	176.59	16.95	11.418	
4,000.00	3,985.84	3,977.23	3,974.61	9.14	8.84	158.75	74.13	-16.27	213.39	195.99	17.39	12.268	
4,100.00	4,084.67	4,075.19	4,072.39	9.43	9.07	159.50	79.36	-13.19	233.27	215.43	17.84	13.077	
4,200.00	4,183.50	4,173.15	4,170.16	9.72	9.30	160.13	84.59	-10.10	253.19	234.90	18.28	13.848	
4,300.00	4,282.32	4,271.11	4,267.93	10.01	9.53	160.67	89.82	-7.01	273.13	254.40	18.73	14.581	
4,400.00	4,381.15	4,369.07	4,365.70	10.31	9.76	161.14	95.05	-3.93	293.09	273.91	19.18	15.281	
4,500.00	4,479.98	4,477.22	4,473.74	10.61	9.96	161.75	99.19	-1.49	311.53	291.89	19.64	15.865	
4,600.00	4,578.80	4,583.19	4,579.70	10.92	10.15	162.57	100.00	-1.01	326.84	306.78	20.07	16.289	
4,700.00	4,677.63	4,682.02	4,678.53	11.22	10.37	163.34	100.00	-1.01	341.46	320.95	20.51	16.650	
4,800.00	4,776.46	4,780.85	4,777.36	11.53	10.58	164.04	100.00	-1.01	356.13	335.17	20.96	16.994	
4,900.00	4,875.29	4,879.67	4,876.19	11.84	10.80	164.69	100.00	-1.01	370.84	349.44	21.40	17.325	
5,000.00	4,974.11	4,978.50	4,975.01	12.15	11.02	165.29	100.00	-1.01	385.60	363.75	21.85	17.644	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 153H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-LEAM MWD+HDGM, 9761-MWD+IFR1 — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,072.94	5,077.33	5,073.84	12.46	11.24	165.84	100.00	-1.01	400.40	378.10	22.30	17.951	
5,200.00	5,171.77	5,176.16	5,172.67	12.77	11.46	166.36	100.00	-1.01	415.24	392.48	22.76	18.247	
5,300.00	5,270.59	5,274.98	5,271.49	13.09	11.68	166.84	100.00	-1.01	430.10	406.89	23.21	18.533	
5,400.00	5,369.42	5,373.81	5,370.32	13.40	11.90	167.29	100.00	-1.01	444.99	421.33	23.66	18.808	
5,500.00	5,468.25	5,472.64	5,469.15	13.72	12.11	167.70	100.00	-1.01	459.91	435.79	24.11	19.073	
5,600.00	5,567.08	5,571.47	5,567.98	14.04	12.33	168.10	100.00	-1.01	474.85	450.28	24.57	19.329	
5,700.00	5,665.90	5,670.29	5,666.80	14.36	12.55	168.47	100.00	-1.01	489.81	464.78	25.02	19.576	
5,800.00	5,764.73	5,769.12	5,765.63	14.68	12.77	168.81	100.00	-1.01	504.78	479.31	25.48	19.814	
5,900.00	5,863.56	5,867.95	5,864.46	15.00	12.99	169.14	100.00	-1.01	519.78	493.85	25.93	20.045	
6,000.00	5,962.39	5,966.77	5,963.29	15.32	13.21	169.45	100.00	-1.01	534.79	508.40	26.39	20.267	
6,100.00	6,061.21	6,065.60	6,062.11	15.64	13.43	169.74	100.00	-1.01	549.81	522.97	26.84	20.482	
6,200.00	6,160.04	6,164.43	6,160.94	15.97	13.65	170.01	100.00	-1.01	564.85	537.55	27.30	20.690	
6,300.00	6,258.87	6,263.26	6,259.77	16.29	13.87	170.27	100.00	-1.01	579.90	552.14	27.76	20.892	
6,400.00	6,357.69	6,362.08	6,358.59	16.61	14.09	170.52	100.00	-1.01	594.96	566.75	28.21	21.087	
6,500.00	6,456.52	6,460.91	6,457.42	16.94	14.31	170.76	100.00	-1.01	610.03	581.36	28.67	21.276	
6,600.00	6,555.35	6,559.74	6,556.25	17.26	14.53	170.98	100.00	-1.01	625.11	595.98	29.13	21.458	
6,700.00	6,654.18	6,658.56	6,655.08	17.59	14.75	171.20	100.00	-1.01	640.21	610.61	29.59	21.636	
6,800.00	6,753.00	6,757.39	6,753.90	17.92	14.97	171.40	100.00	-1.01	655.30	625.25	30.05	21.807	
6,900.00	6,851.83	6,856.22	6,852.73	18.24	15.19	171.60	100.00	-1.01	670.41	639.90	30.51	21.974	
7,000.00	6,950.66	6,955.05	6,951.56	18.57	15.41	171.78	100.00	-1.01	685.52	654.55	30.97	22.136	
7,100.00	7,049.49	7,053.87	7,050.39	18.90	15.63	171.96	100.00	-1.01	700.64	669.21	31.43	22.293	
7,200.00	7,148.31	7,152.70	7,149.21	19.23	15.85	172.13	100.00	-1.01	715.77	683.88	31.89	22.445	
7,300.00	7,247.14	7,251.53	7,248.04	19.56	16.07	172.30	100.00	-1.01	730.90	698.55	32.35	22.593	
7,400.00	7,345.97	7,350.36	7,346.87	19.89	16.29	172.45	100.00	-1.01	746.04	713.23	32.81	22.737	
7,500.00	7,444.79	7,449.18	7,445.69	20.21	16.51	172.61	100.00	-1.01	761.19	727.91	33.27	22.877	
7,600.00	7,543.62	7,548.01	7,544.52	20.54	16.73	172.75	100.00	-1.01	776.33	742.60	33.73	23.013	
7,700.00	7,642.45	7,646.84	7,643.35	20.87	16.95	172.89	100.00	-1.01	791.49	757.29	34.20	23.145	
7,800.00	7,741.28	7,745.66	7,742.18	21.20	17.18	173.02	100.00	-1.01	806.64	771.99	34.66	23.274	
7,900.00	7,840.10	7,844.49	7,841.00	21.54	17.40	173.15	100.00	-1.01	821.81	786.68	35.12	23.399	
8,000.00	7,938.93	7,943.32	7,939.83	21.87	17.62	173.28	100.00	-1.01	836.97	801.39	35.58	23.521	
8,100.00	8,037.76	8,042.15	8,038.66	22.20	17.84	173.40	100.00	-1.01	852.14	816.09	36.05	23.639	
8,200.00	8,136.58	8,140.97	8,137.48	22.53	18.06	173.51	100.00	-1.01	867.31	830.80	36.51	23.755	
8,300.00	8,235.41	8,239.80	8,236.31	22.86	18.28	173.63	100.00	-1.01	882.49	845.52	36.97	23.868	
8,400.00	8,334.24	8,338.63	8,335.14	23.19	18.50	173.73	100.00	-1.01	897.67	860.23	37.44	23.978	
8,500.00	8,433.07	8,437.45	8,433.97	23.52	18.72	173.84	100.00	-1.01	912.85	874.95	37.90	24.085	
8,600.00	8,531.89	8,536.28	8,532.79	23.86	18.94	173.94	100.00	-1.01	928.04	889.67	38.37	24.189	
8,700.00	8,630.72	8,635.11	8,631.62	24.19	19.16	174.04	100.00	-1.01	943.23	904.40	38.83	24.291	
8,800.00	8,729.55	8,733.94	8,730.45	24.52	19.38	174.13	100.00	-1.01	958.42	919.12	39.29	24.390	
8,900.00	8,828.38	8,832.76	8,829.28	24.85	19.61	174.22	100.00	-1.01	973.61	933.85	39.76	24.488	
9,000.00	8,927.20	8,931.59	8,928.10	25.19	19.83	174.31	100.00	-1.01	988.81	948.58	40.22	24.582	
9,100.00	9,026.03	9,030.42	9,026.93	25.52	20.05	174.40	100.00	-1.01	1,004.00	963.31	40.69	24.675	
9,200.00	9,124.86	9,129.25	9,125.76	25.85	20.27	174.48	100.00	-1.01	1,019.20	978.05	41.15	24.765	
9,300.00	9,223.68	9,228.07	9,224.58	26.19	20.49	174.56	100.00	-1.01	1,034.41	992.79	41.62	24.854	
9,400.00	9,322.51	9,326.90	9,323.41	26.52	20.71	174.64	100.00	-1.01	1,049.61	1,007.52	42.09	24.940	
9,500.00	9,421.34	9,425.73	9,422.24	26.85	20.93	174.72	100.00	-1.01	1,064.82	1,022.26	42.55	25.024	
9,600.00	9,520.17	9,524.55	9,521.07	27.19	21.15	174.79	100.00	-1.01	1,080.02	1,037.01	43.02	25.107	
9,700.00	9,618.99	9,623.38	9,619.89	27.52	21.37	174.87	100.00	-1.01	1,095.23	1,051.75	43.48	25.187	
9,800.00	9,717.82	9,722.21	9,718.72	27.86	21.60	174.94	100.00	-1.01	1,110.44	1,066.49	43.95	25.266	
9,900.00	9,816.65	9,800.00	9,796.45	28.19	21.72	174.89	102.13	-1.02	1,126.57	1,082.29	44.28	25.441	
10,000.00	9,915.48	9,850.00	9,846.01	28.53	21.73	174.61	108.61	-1.06	1,145.94	1,101.53	44.41	25.801	
10,100.00	10,014.30	9,900.00	9,894.82	28.86	21.73	174.13	119.38	-1.13	1,168.91	1,124.41	44.50	26.267	
10,200.00	10,113.37	9,950.00	9,942.51	29.14	21.74	173.52	134.37	-1.22	1,193.89	1,149.37	44.52	26.816	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 153H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-LEAM MWD+HDGM, 9761-MWD+IFR1 — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,300.00	10,212.86	10,000.00	9,988.71	29.35	21.76	172.74	153.45	-1.33	1,219.40	1,174.93	44.48	27.417	
10,400.00	10,312.64	10,050.00	10,033.06	29.54	21.78	171.81	176.49	-1.47	1,245.73	1,201.35	44.38	28.067	
10,500.00	10,412.58	10,100.00	10,075.25	29.70	21.80	170.74	203.30	-1.63	1,273.21	1,228.96	44.25	28.776	
10,600.00	10,512.58	10,134.47	10,102.89	29.85	21.82	64.88	223.88	-1.75	1,302.62	1,258.66	43.96	29.635	
10,700.00	10,612.58	10,169.07	10,129.35	30.01	21.84	63.94	246.18	-1.88	1,336.49	1,292.86	43.64	30.628	
10,800.00	10,712.58	10,200.00	10,151.81	30.17	21.85	63.07	267.42	-2.01	1,375.03	1,331.77	43.26	31.786	
10,900.00	10,812.47	10,229.38	10,172.07	30.32	21.87	60.15	288.70	-2.14	1,416.74	1,373.90	42.84	33.067	
11,000.00	10,910.49	10,250.00	10,185.62	30.44	21.88	56.09	304.24	-2.23	1,455.49	1,413.20	42.29	34.415	
11,100.00	11,003.69	10,300.00	10,216.08	30.52	21.92	52.30	343.67	-2.47	1,489.23	1,447.24	41.99	35.469	
11,200.00	11,089.25	10,324.98	10,229.98	30.57	21.93	49.75	364.62	-2.59	1,516.97	1,475.53	41.44	36.608	
11,300.00	11,164.57	10,350.00	10,242.98	30.58	21.95	47.89	386.00	-2.72	1,538.08	1,497.16	40.92	37.592	
11,400.00	11,227.35	10,400.00	10,266.10	30.58	21.99	46.60	430.31	-2.98	1,551.72	1,511.04	40.68	38.145	
11,500.00	11,275.68	10,427.69	10,277.22	30.57	22.02	46.11	455.67	-3.14	1,557.62	1,517.28	40.34	38.613	
11,600.00	11,308.11	10,450.00	10,285.28	30.59	22.04	46.25	476.47	-3.26	1,555.82	1,515.73	40.09	38.809	
11,700.00	11,323.64	10,500.00	10,300.35	30.65	22.11	47.14	524.13	-3.54	1,545.91	1,505.69	40.22	38.436	
11,800.00	11,325.14	10,531.20	10,307.63	30.78	22.17	47.77	554.46	-3.73	1,530.75	1,490.39	40.36	37.924	
11,900.00	11,325.37	10,566.35	10,313.84	31.00	22.23	47.94	589.05	-3.93	1,518.94	1,478.34	40.60	37.410	
12,000.00	11,325.60	10,600.00	10,317.79	31.31	22.30	48.05	622.47	-4.13	1,511.34	1,470.45	40.89	36.961	
12,100.00	11,325.83	10,646.39	10,320.00	31.72	22.40	48.11	668.79	-4.41	1,508.01	1,466.71	41.29	36.520	
12,200.00	11,326.07	10,724.09	10,320.57	32.23	22.59	48.12	746.49	-4.87	1,507.51	1,465.62	41.90	35.982	
12,300.00	11,326.30	10,824.09	10,321.29	32.83	22.87	48.13	846.48	-5.47	1,507.18	1,464.48	42.70	35.299	
12,400.00	11,326.53	10,924.09	10,322.02	33.52	23.18	48.15	946.48	-6.07	1,506.85	1,463.25	43.60	34.564	
12,500.00	11,326.76	11,024.09	10,322.74	34.30	23.53	48.16	1,046.47	-6.67	1,506.52	1,461.93	44.59	33.788	
12,600.00	11,326.99	11,124.09	10,323.47	35.14	23.92	48.17	1,146.46	-7.26	1,506.19	1,460.53	45.66	32.984	
12,700.00	11,327.22	11,224.09	10,324.19	36.05	24.34	48.19	1,246.46	-7.86	1,505.86	1,459.04	46.82	32.162	
12,800.00	11,327.45	11,324.08	10,324.92	37.01	24.78	48.20	1,346.45	-8.46	1,505.53	1,457.48	48.05	31.332	
12,900.00	11,327.69	11,424.08	10,325.65	38.03	25.26	48.22	1,446.45	-9.06	1,505.20	1,455.85	49.35	30.501	
13,000.00	11,327.92	11,524.08	10,326.37	39.09	25.77	48.23	1,546.44	-9.65	1,504.87	1,454.16	50.71	29.675	
13,100.00	11,328.15	11,624.08	10,327.10	40.19	26.30	48.24	1,646.44	-10.25	1,504.54	1,452.41	52.13	28.861	
13,200.00	11,328.38	11,724.08	10,327.82	41.33	26.85	48.26	1,746.43	-10.85	1,504.22	1,450.61	53.61	28.061	
13,300.00	11,328.61	11,824.08	10,328.55	42.50	27.43	48.27	1,846.43	-11.45	1,503.89	1,448.76	55.13	27.280	
13,400.00	11,328.84	11,924.08	10,329.27	43.71	28.03	48.29	1,946.42	-12.04	1,503.56	1,446.86	56.70	26.519	
13,500.00	11,329.08	12,024.08	10,330.00	44.94	28.65	48.30	2,046.41	-12.64	1,503.23	1,444.92	58.31	25.781	
13,600.00	11,329.31	12,124.07	10,330.72	46.20	29.29	48.31	2,146.41	-13.24	1,502.90	1,442.94	59.96	25.066	
13,700.00	11,329.54	12,224.07	10,331.45	47.48	29.95	48.33	2,246.40	-13.84	1,502.57	1,440.93	61.64	24.376	
13,800.00	11,329.77	12,324.07	10,332.17	48.79	30.62	48.34	2,346.40	-14.43	1,502.24	1,438.88	63.36	23.710	
13,900.00	11,330.00	12,424.07	10,332.90	50.11	31.31	48.36	2,446.39	-15.03	1,501.91	1,436.81	65.11	23.068	
14,000.00	11,330.23	12,524.07	10,333.63	51.45	32.01	48.37	2,546.39	-15.63	1,501.58	1,434.70	66.88	22.451	
14,100.00	11,330.46	12,624.07	10,334.35	52.81	32.73	48.38	2,646.38	-16.23	1,501.26	1,432.57	68.68	21.857	
14,200.00	11,330.70	12,724.07	10,335.08	54.19	33.46	48.40	2,746.37	-16.82	1,500.93	1,430.42	70.51	21.287	
14,300.00	11,330.93	12,824.07	10,335.80	55.58	34.20	48.41	2,846.37	-17.42	1,500.60	1,428.24	72.36	20.739	
14,400.00	11,331.16	12,924.06	10,336.53	56.98	34.96	48.43	2,946.36	-18.02	1,500.27	1,426.05	74.23	20.212	
14,500.00	11,331.39	13,024.06	10,337.25	58.39	35.72	48.44	3,046.36	-18.62	1,499.94	1,423.83	76.11	19.707	
14,600.00	11,331.62	13,124.06	10,337.98	59.82	36.49	48.45	3,146.35	-19.21	1,499.62	1,421.60	78.02	19.221	
14,700.00	11,331.85	13,224.06	10,338.70	61.25	37.27	48.47	3,246.35	-19.81	1,499.29	1,419.35	79.94	18.755	
14,800.00	11,332.09	13,324.06	10,339.43	62.70	38.06	48.48	3,346.34	-20.41	1,498.96	1,417.08	81.88	18.307	
14,900.00	11,332.32	13,424.06	10,340.15	64.16	38.86	48.50	3,446.33	-21.01	1,498.63	1,414.80	83.83	17.877	
15,000.00	11,332.55	13,524.06	10,340.88	65.62	39.67	48.51	3,546.33	-21.60	1,498.31	1,412.51	85.79	17.464	
15,100.00	11,332.78	13,624.06	10,341.61	67.09	40.48	48.53	3,646.32	-22.20	1,497.98	1,410.20	87.77	17.067	
15,200.00	11,333.01	13,724.05	10,342.33	68.57	41.30	48.54	3,746.32	-22.80	1,497.65	1,407.89	89.76	16.685	
15,300.00	11,333.24	13,824.05	10,343.06	70.06	42.13	48.55	3,846.31	-23.40	1,497.32	1,405.56	91.76	16.317	
15,400.00	11,333.47	13,924.05	10,343.78	71.55	42.96	48.57	3,946.31	-24.00	1,497.00	1,403.22	93.77	15.964	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 153H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-LEAM MWD+HDGM, 9761-MWD+IFR1 — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,500.00	11,333.71	14,024.05	10,344.51	73.05	43.80	48.58	4,046.30	-24.59	1,496.67	1,400.87	95.80	15.624	
15,600.00	11,333.94	14,124.05	10,345.23	74.56	44.64	48.60	4,146.30	-25.19	1,496.34	1,398.52	97.83	15.296	
15,700.00	11,334.17	14,224.05	10,345.96	76.07	45.49	48.61	4,246.29	-25.79	1,496.01	1,396.15	99.87	14.980	
15,800.00	11,334.40	14,324.05	10,346.68	77.59	46.34	48.62	4,346.28	-26.39	1,495.69	1,393.78	101.91	14.676	
15,900.00	11,334.63	14,424.05	10,347.41	79.11	47.20	48.64	4,446.28	-26.98	1,495.36	1,391.39	103.97	14.383	
16,000.00	11,334.86	14,524.05	10,348.13	80.63	48.06	48.65	4,546.27	-27.58	1,495.03	1,389.00	106.03	14.100	
16,059.22	11,335.00	14,583.26	10,348.56	81.54	48.57	48.66	4,605.49	-27.93	1,494.84	1,387.59	107.25	13.937	

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 20H - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 25- VES GyroFlex V2 — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-105.41	-154.96	-562.25	583.22				
100.00	100.00	98.98	98.98	0.09	0.08	-105.41	-154.85	-561.97	582.91	582.74	0.17	3,532.713	
200.00	200.00	199.58	199.58	0.31	0.13	-105.39	-154.61	-561.84	582.73	582.29	0.44	1,338.617	
300.00	300.00	301.80	301.80	0.53	0.17	-105.38	-154.38	-561.40	582.25	581.55	0.70	829.159	
393.63	393.63	391.93	391.93	0.75	0.20	-105.36	-154.13	-561.15	581.94	580.99	0.94	615.824	CC
400.00	400.00	397.68	397.68	0.76	0.21	-105.36	-154.10	-561.17	581.94	580.98	0.96	605.527	ES
500.00	500.00	493.65	493.65	0.98	0.22	-105.29	-153.61	-561.80	582.44	581.24	1.20	485.895	
600.00	600.00	593.56	593.55	1.21	0.24	-105.22	-153.10	-562.70	583.17	581.74	1.43	407.136	
700.00	700.00	692.37	692.35	1.43	0.26	-105.13	-152.43	-563.91	584.18	582.51	1.67	349.986	
800.00	800.00	793.61	793.57	1.66	0.29	-105.01	-151.51	-565.12	585.09	583.19	1.91	306.978	
900.00	900.00	887.09	887.03	1.88	0.32	-104.87	-150.40	-566.64	586.37	584.22	2.15	272.604	
1,000.00	1,000.00	974.58	974.43	2.11	0.34	-104.59	-148.37	-570.12	589.59	587.18	2.41	244.599	
1,100.00	1,100.00	1,070.02	1,069.68	2.33	0.37	-104.19	-145.44	-575.25	594.04	591.38	2.66	223.401	
1,200.00	1,200.00	1,169.38	1,168.77	2.56	0.41	-103.64	-141.04	-581.33	598.92	596.02	2.90	206.405	
1,300.00	1,300.00	1,264.82	1,263.82	2.78	0.44	-102.98	-135.50	-587.79	604.19	601.04	3.15	191.656	
1,400.00	1,400.00	1,368.52	1,367.16	3.01	0.47	-102.37	-130.43	-594.72	609.65	606.26	3.39	179.758	
1,500.00	1,500.00	1,470.14	1,468.60	3.23	0.50	-102.07	-128.43	-600.43	614.73	611.09	3.64	169.095	
1,600.00	1,600.00	1,577.26	1,575.61	3.46	0.53	-101.93	-127.84	-605.25	619.02	615.14	3.88	159.649	
1,700.00	1,700.00	1,600.00	1,598.33	3.68	0.54	-101.91	-127.87	-606.09	627.44	623.21	4.23	148.325	
1,800.00	1,800.00	1,600.00	1,598.33	3.91	0.54	-101.91	-127.87	-606.09	650.91	646.25	4.65	139.872	
1,900.00	1,900.00	1,600.00	1,598.33	4.13	0.54	-101.91	-127.87	-606.09	688.24	683.23	5.01	137.311	SF
2,000.00	2,000.00	1,600.00	1,598.33	4.36	0.54	-101.91	-127.87	-606.09	737.34	732.06	5.28	139.697	
2,100.00	2,100.00	1,600.00	1,598.33	4.58	0.54	-101.91	-127.87	-606.09	796.03	790.57	5.46	145.839	
2,200.00	2,200.00	1,600.00	1,598.33	4.81	0.54	-101.91	-127.87	-606.09	862.36	856.79	5.57	154.813	
2,300.00	2,300.00	1,600.00	1,598.33	5.03	0.54	-101.91	-127.87	-606.09	934.69	929.06	5.63	165.954	
2,400.00	2,400.00	1,600.00	1,598.33	5.26	0.54	-101.91	-127.87	-606.09	1,011.75	1,006.09	5.66	178.786	
2,500.00	2,500.00	1,600.00	1,598.33	5.48	0.54	-101.91	-127.87	-606.09	1,092.54	1,086.88	5.66	192.959	
2,600.00	2,599.98	1,600.00	1,598.33	5.69	0.54	2.96	-127.87	-606.09	1,175.35	1,169.72	5.63	208.759	
2,700.00	2,699.84	1,600.00	1,598.33	5.88	0.54	2.81	-127.87	-606.09	1,258.84	1,253.27	5.57	225.939	
2,800.00	2,799.45	1,600.00	1,598.33	6.08	0.54	2.66	-127.87	-606.09	1,342.81	1,337.30	5.51	243.756	
2,900.00	2,898.70	1,600.00	1,598.33	6.29	0.54	2.52	-127.87	-606.09	1,427.07	1,421.63	5.44	262.139	
3,000.00	2,997.57	1,600.00	1,598.33	6.51	0.54	2.47	-127.87	-606.09	1,511.82	1,506.44	5.38	280.918	
3,100.00	3,096.40	1,600.00	1,598.33	6.74	0.54	2.47	-127.87	-606.09	1,598.20	1,592.86	5.34	299.082	
3,200.00	3,195.22	1,600.00	1,598.33	6.98	0.54	2.47	-127.87	-606.09	1,686.09	1,680.78	5.31	317.579	
3,300.00	3,294.05	1,600.00	1,598.33	7.23	0.54	2.47	-127.87	-606.09	1,775.26	1,769.98	5.28	336.283	
3,400.00	3,392.88	1,600.00	1,598.33	7.49	0.54	2.47	-127.87	-606.09	1,865.53	1,860.28	5.25	355.069	
3,500.00	3,491.70	1,600.00	1,598.33	7.75	0.54	2.47	-127.87	-606.09	1,956.74	1,951.51	5.23	373.820	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 20Y - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 168-LEAM MWD+HDGM — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-104.80	-155.17	-587.20	607.36				
100.00	100.00	98.51	98.51	0.09	0.10	-104.78	-154.97	-587.23	607.34	607.16	0.18	3,380.880	
193.88	193.88	192.18	192.18	0.30	0.21	-104.73	-154.43	-587.34	607.30	606.79	0.51	1,194.486	
200.00	200.00	198.21	198.21	0.31	0.23	-104.73	-154.39	-587.35	607.30	606.76	0.53	1,135.158	
300.00	300.00	297.63	297.63	0.53	0.44	-104.66	-153.70	-587.61	607.38	606.41	0.97	623.857	
400.00	400.00	397.49	397.48	0.76	0.66	-104.57	-152.79	-587.98	607.51	606.09	1.42	428.193	
500.00	500.00	498.62	498.59	0.98	0.88	-104.43	-151.36	-588.42	607.58	605.71	1.87	325.469	
600.00	600.00	598.42	598.39	1.21	1.09	-104.29	-149.96	-588.72	607.52	605.22	2.30	264.674	
700.00	700.00	698.87	698.83	1.43	1.28	-104.21	-149.16	-588.88	607.48	604.77	2.71	223.847	
730.88	730.88	729.22	729.18	1.50	1.34	-104.19	-148.95	-588.92	607.46	604.62	2.84	213.536	
800.00	800.00	796.57	796.53	1.66	1.48	-104.14	-148.40	-589.16	607.56	604.42	3.14	193.522	
900.00	900.00	895.00	894.95	1.88	1.69	-104.04	-147.50	-589.93	608.10	604.52	3.58	170.030	
1,000.00	1,000.00	992.75	992.69	2.11	1.91	-103.91	-146.34	-591.07	608.94	604.93	4.01	151.682	
1,100.00	1,100.00	1,088.68	1,088.58	2.33	2.12	-103.70	-144.55	-592.77	610.21	605.76	4.45	137.070	
1,200.00	1,200.00	1,189.34	1,189.20	2.56	2.34	-103.45	-142.26	-594.94	611.78	606.89	4.89	125.031	
1,300.00	1,300.00	1,293.95	1,293.76	2.78	2.55	-103.19	-139.86	-596.75	612.94	607.60	5.33	114.925	
1,400.00	1,400.00	1,401.34	1,401.13	3.01	2.77	-103.01	-138.04	-597.34	613.09	607.31	5.78	106.162	
1,500.00	1,500.00	1,507.53	1,507.32	3.23	2.98	-102.97	-137.34	-596.37	612.05	605.83	6.21	98.501	
1,600.00	1,600.00	1,611.84	1,611.61	3.46	3.19	-103.03	-137.54	-594.38	610.23	603.58	6.65	91.756	
1,700.00	1,700.00	1,712.62	1,712.36	3.68	3.40	-103.12	-137.97	-591.84	607.87	600.79	7.08	85.832	
1,800.00	1,800.00	1,814.08	1,813.77	3.91	3.61	-103.26	-138.89	-589.16	605.51	598.00	7.51	80.578	
1,900.00	1,900.00	1,914.34	1,913.98	4.13	3.82	-103.45	-140.13	-586.16	602.88	594.93	7.95	75.866	
2,000.00	2,000.00	2,006.96	2,006.57	4.36	4.01	-103.59	-141.18	-583.90	600.78	592.42	8.36	71.825	
2,100.00	2,100.00	2,104.01	2,103.61	4.58	4.21	-103.72	-142.20	-582.64	599.77	590.98	8.79	68.219	
2,200.00	2,200.00	2,205.33	2,204.91	4.81	4.42	-103.82	-143.06	-581.37	598.75	589.52	9.23	64.880	
2,300.00	2,300.00	2,304.99	2,304.56	5.03	4.63	-103.93	-143.87	-580.04	597.65	587.99	9.66	61.858	
2,400.00	2,400.00	2,403.03	2,402.59	5.26	4.84	-104.02	-144.62	-578.97	596.77	586.68	10.09	59.141	
2,500.00	2,500.00	2,502.51	2,502.07	5.48	5.05	-104.08	-145.03	-578.22	596.15	585.62	10.52	56.643	
2,600.00	2,599.98	2,604.02	2,603.58	5.69	5.26	0.93	-145.08	-577.39	593.62	582.67	10.95	54.233	
2,700.00	2,699.84	2,703.17	2,702.73	5.88	5.47	0.90	-145.28	-576.41	587.48	576.13	11.34	51.786	
2,800.00	2,799.45	2,799.75	2,799.28	6.08	5.67	0.75	-146.72	-575.53	578.24	566.51	11.74	49.262	
2,900.00	2,898.70	2,893.27	2,892.77	6.29	5.86	0.51	-149.25	-574.96	566.15	554.02	12.13	46.680	
3,000.00	2,997.57	2,984.65	2,984.12	6.51	6.05	0.37	-151.00	-575.98	552.69	540.17	12.52	44.159	
3,100.00	3,096.40	3,082.84	3,082.29	6.74	6.26	0.31	-152.25	-578.06	539.76	526.84	12.92	41.773	
3,200.00	3,195.22	3,184.16	3,183.58	6.98	6.47	0.27	-153.17	-579.92	526.47	513.13	13.34	39.469	
3,300.00	3,294.05	3,285.25	3,284.65	7.23	6.68	0.24	-153.94	-581.60	512.99	499.23	13.76	37.285	
3,400.00	3,392.88	3,386.46	3,385.86	7.49	6.90	0.20	-154.64	-582.66	498.90	484.71	14.18	35.180	
3,500.00	3,491.70	3,486.70	3,486.09	7.75	7.11	0.18	-155.11	-583.54	484.58	469.98	14.60	33.180	
3,600.00	3,590.53	3,586.18	3,585.57	8.02	7.32	0.18	-155.38	-584.20	470.01	454.98	15.03	31.273	
3,700.00	3,689.36	3,685.79	3,685.18	8.29	7.53	0.17	-155.64	-584.79	455.38	439.92	15.45	29.465	
3,800.00	3,788.19	3,784.31	3,783.70	8.57	7.74	0.16	-155.88	-585.29	440.65	424.77	15.88	27.750	
3,900.00	3,887.01	3,882.47	3,881.85	8.85	7.95	0.18	-155.97	-586.00	426.10	409.79	16.30	26.134	
4,000.00	3,985.84	3,980.39	3,979.77	9.14	8.15	0.18	-156.26	-586.87	411.75	395.02	16.73	24.614	
4,100.00	4,084.67	4,078.32	4,077.68	9.43	8.35	0.06	-157.39	-587.78	397.66	380.51	17.15	23.182	
4,200.00	4,183.50	4,181.22	4,180.58	9.72	8.57	-0.15	-158.98	-588.28	383.26	365.67	17.59	21.790	
4,300.00	4,282.32	4,283.92	4,283.27	10.01	8.78	-0.38	-160.28	-587.67	367.75	349.73	18.02	20.405	
4,400.00	4,381.15	4,381.98	4,381.32	10.31	8.99	-0.56	-161.06	-586.82	351.86	333.41	18.46	19.065	
4,477.32	4,457.56	4,404.00	4,403.34	10.55	9.04	-0.58	-161.15	-586.68	343.97	325.42	18.55	18.540	CC, ES, SF
4,500.00	4,479.98	4,404.00	4,403.34	10.61	9.04	-0.58	-161.15	-586.68	344.72	326.29	18.43	18.707	
4,600.00	4,578.80	4,404.00	4,403.34	10.92	9.04	-0.58	-161.15	-586.68	365.20	348.08	17.12	21.334	
4,700.00	4,677.63	4,404.00	4,403.34	11.22	9.04	-0.58	-161.15	-586.68	409.76	394.63	15.14	27.067	
4,800.00	4,776.46	4,404.00	4,403.34	11.53	9.04	-0.58	-161.15	-586.68	471.64	458.46	13.18	35.797	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 20Y - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 168-LEAM MWD+HDGM — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,875.29	4,404.00	4,403.34	11.84	9.04	-0.58	-161.15	-586.68	544.96	533.42	11.54	47.223	
5,000.00	4,974.11	4,404.00	4,403.34	12.15	9.04	-0.58	-161.15	-586.68	625.71	615.43	10.28	60.871	
5,100.00	5,072.94	4,404.00	4,403.34	12.46	9.04	-0.58	-161.15	-586.68	711.37	702.03	9.34	76.150	
5,200.00	5,171.77	4,404.00	4,403.34	12.77	9.04	-0.58	-161.15	-586.68	800.37	791.71	8.66	92.433	
5,300.00	5,270.59	4,404.00	4,403.34	13.09	9.04	-0.58	-161.15	-586.68	891.70	883.53	8.17	109.138	
5,400.00	5,369.42	4,404.00	4,403.34	13.40	9.04	-0.58	-161.15	-586.68	984.72	976.89	7.83	125.780	
5,500.00	5,468.25	4,404.00	4,403.34	13.72	9.04	-0.58	-161.15	-586.68	1,078.98	1,071.38	7.60	141.997	
5,600.00	5,567.08	4,404.00	4,403.34	14.04	9.04	-0.58	-161.15	-586.68	1,174.20	1,166.74	7.45	157.548	
5,700.00	5,665.90	4,404.00	4,403.34	14.36	9.04	-0.58	-161.15	-586.68	1,270.15	1,262.78	7.37	172.292	
5,800.00	5,764.73	4,404.00	4,403.34	14.68	9.04	-0.58	-161.15	-586.68	1,366.68	1,359.34	7.34	186.163	
5,900.00	5,863.56	4,404.00	4,403.34	15.00	9.04	-0.58	-161.15	-586.68	1,463.68	1,456.33	7.35	199.148	
6,000.00	5,962.39	4,404.00	4,403.34	15.32	9.04	-0.58	-161.15	-586.68	1,561.05	1,553.66	7.39	211.266	
6,100.00	6,061.21	4,404.00	4,403.34	15.64	9.04	-0.58	-161.15	-586.68	1,658.74	1,651.29	7.45	222.557	
6,200.00	6,160.04	4,404.00	4,403.34	15.97	9.04	-0.58	-161.15	-586.68	1,756.69	1,749.15	7.54	233.069	
6,300.00	6,258.87	4,404.00	4,403.34	16.29	9.04	-0.58	-161.15	-586.68	1,854.86	1,847.22	7.64	242.855	
6,400.00	6,357.69	4,404.00	4,403.34	16.61	9.04	-0.58	-161.15	-586.68	1,953.21	1,945.46	7.75	251.966	

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 24H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-LEAM MWD+HDGM — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	3.60	3.60	0.00	0.00	90.00	0.00	30.00	30.00				
100.00	100.00	103.60	103.60	0.09	0.09	90.00	0.00	30.00	30.00	29.82	0.18	167.678	
200.00	200.00	203.60	203.60	0.31	0.32	90.00	0.00	30.00	30.00	29.37	0.63	47.737	
300.00	300.00	303.60	303.60	0.53	0.54	90.00	0.00	30.00	30.00	28.92	1.08	27.830	
400.00	400.00	403.60	403.60	0.76	0.77	90.00	0.00	30.00	30.00	28.47	1.53	19.640	
500.00	500.00	503.60	503.60	0.98	0.99	90.00	0.00	30.00	30.00	28.02	1.98	15.174	
600.00	600.00	603.60	603.60	1.21	1.22	90.00	0.00	30.00	30.00	27.57	2.43	12.363	
700.00	700.00	703.60	703.60	1.43	1.44	90.00	0.00	30.00	30.00	27.12	2.88	10.431	
800.00	800.00	803.60	803.60	1.66	1.67	90.00	0.00	30.00	30.00	26.67	3.33	9.021	
900.00	900.00	903.60	903.60	1.88	1.89	90.00	0.00	30.00	30.00	26.22	3.78	7.947	
1,000.00	1,000.00	1,003.60	1,003.60	2.11	2.12	90.00	0.00	30.00	30.00	25.78	4.22	7.101	
1,100.00	1,100.00	1,103.60	1,103.60	2.33	2.34	90.00	0.00	30.00	30.00	25.33	4.67	6.418	
1,200.00	1,200.00	1,203.60	1,203.60	2.56	2.57	90.00	0.00	30.00	30.00	24.88	5.12	5.855	
1,300.00	1,300.00	1,303.60	1,303.60	2.78	2.79	90.00	0.00	30.00	30.00	24.43	5.57	5.383	
1,400.00	1,400.00	1,403.60	1,403.60	3.01	3.02	90.00	0.00	30.00	30.00	23.98	6.02	4.981	
1,500.00	1,500.00	1,503.60	1,503.60	3.23	3.24	90.00	0.00	30.00	30.00	23.53	6.47	4.635	
1,600.00	1,600.00	1,603.60	1,603.60	3.46	3.46	90.00	0.00	30.00	30.00	23.08	6.92	4.334	
1,700.00	1,700.00	1,703.60	1,703.60	3.68	3.69	90.00	0.00	30.00	30.00	22.63	7.37	4.070	
1,800.00	1,800.00	1,803.60	1,803.60	3.91	3.91	90.00	0.00	30.00	30.00	22.18	7.82	3.836	
1,900.00	1,900.00	1,903.60	1,903.60	4.13	4.14	90.00	0.00	30.00	30.00	21.73	8.27	3.627	
2,000.00	2,000.00	2,003.60	2,003.60	4.36	4.36	90.00	0.00	30.00	30.00	21.28	8.72	3.440	
2,100.00	2,100.00	2,103.60	2,103.60	4.58	4.59	90.00	0.00	30.00	30.00	20.83	9.17	3.272	
2,200.00	2,200.00	2,203.60	2,203.60	4.81	4.81	90.00	0.00	30.00	30.00	20.38	9.62	3.119	
2,300.00	2,300.00	2,303.60	2,303.60	5.03	5.04	90.00	0.00	30.00	30.00	19.93	10.07	2.980	
2,400.00	2,400.00	2,403.60	2,403.60	5.26	5.26	90.00	0.00	30.00	30.00	19.48	10.52	2.852	
2,500.00	2,500.00	2,503.60	2,503.60	5.48	5.49	90.00	0.00	30.00	30.00	19.03	10.97	2.735	CC, ES, SF
2,600.00	2,599.98	2,603.58	2,603.58	5.69	5.71	-165.78	0.00	30.00	31.69	20.29	11.40	2.780	
2,700.00	2,699.84	2,703.44	2,703.44	5.88	5.94	-167.76	0.00	30.00	36.78	24.97	11.81	3.113	
2,800.00	2,799.45	2,803.05	2,803.05	6.08	6.16	-170.07	0.00	30.00	45.34	33.11	12.23	3.706	
2,900.00	2,898.70	2,902.30	2,902.30	6.29	6.38	-172.13	0.00	30.00	57.38	44.73	12.65	4.535	
3,000.00	2,997.57	3,001.17	3,001.17	6.51	6.61	-173.75	0.00	30.00	72.28	59.20	13.08	5.528	
3,100.00	3,096.40	3,100.00	3,100.00	6.74	6.83	-174.84	0.00	30.00	87.48	73.98	13.50	6.481	
3,200.00	3,195.22	3,198.82	3,198.82	6.98	7.05	-175.60	0.00	30.00	102.69	88.77	13.92	7.376	
3,300.00	3,294.05	3,297.65	3,297.65	7.23	7.27	-176.17	0.00	30.00	117.93	103.58	14.35	8.218	
3,400.00	3,392.88	3,396.48	3,396.48	7.49	7.49	-176.61	0.00	30.00	133.17	118.39	14.78	9.010	
3,500.00	3,491.70	3,495.30	3,495.30	7.75	7.72	-176.96	0.00	30.00	148.41	133.20	15.21	9.756	
3,600.00	3,590.53	3,594.13	3,594.13	8.02	7.94	-177.24	0.00	30.00	163.66	148.02	15.65	10.459	
3,700.00	3,689.36	3,692.96	3,692.96	8.29	8.16	-177.48	0.00	30.00	178.92	162.83	16.08	11.123	
3,800.00	3,788.19	3,791.79	3,791.79	8.57	8.38	-177.68	0.00	30.00	194.18	177.65	16.52	11.751	
3,900.00	3,887.01	3,890.61	3,890.61	8.85	8.61	-177.85	0.00	30.00	209.43	192.47	16.96	12.346	
4,000.00	3,985.84	3,989.44	3,989.44	9.14	8.83	-177.99	0.00	30.00	224.70	207.29	17.41	12.909	
4,100.00	4,084.67	4,083.00	4,082.99	9.43	9.02	-177.92	-0.56	31.06	240.92	223.11	17.81	13.528	
4,200.00	4,183.50	4,175.12	4,175.01	9.72	9.19	-177.43	-2.50	34.73	259.55	241.37	18.18	14.277	
4,300.00	4,282.32	4,266.21	4,265.82	10.01	9.37	-176.61	-5.78	40.92	280.61	262.08	18.53	15.140	
4,400.00	4,381.15	4,360.73	4,359.85	10.31	9.55	-175.57	-10.31	49.49	303.67	284.76	18.92	16.052	
4,500.00	4,479.98	4,457.85	4,456.43	10.61	9.74	-174.64	-15.06	58.48	326.99	307.67	19.33	16.919	
4,600.00	4,578.80	4,554.96	4,553.01	10.92	9.94	-173.83	-19.82	67.46	350.38	330.64	19.74	17.750	
4,700.00	4,677.63	4,652.08	4,649.59	11.22	10.14	-173.12	-24.57	76.45	373.83	353.67	20.16	18.545	
4,800.00	4,776.46	4,749.19	4,746.17	11.53	10.34	-172.49	-29.32	85.43	397.33	376.75	20.58	19.307	
4,900.00	4,875.29	4,846.30	4,842.76	11.84	10.55	-171.93	-34.08	94.42	420.87	399.86	21.00	20.037	
5,000.00	4,974.11	4,943.42	4,939.34	12.15	10.76	-171.44	-38.83	103.40	444.44	423.00	21.43	20.736	
5,100.00	5,072.94	5,040.53	5,035.92	12.46	10.97	-170.99	-43.58	112.38	468.04	446.17	21.86	21.406	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 24H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-LEAM MWD+HDGM — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.00	5,171.77	5,137.65	5,132.50	12.77	11.18	-170.58	-48.33	121.37	491.66	469.36	22.30	22.049	
5,300.00	5,270.59	5,234.76	5,229.08	13.09	11.40	-170.22	-53.09	130.35	515.31	492.57	22.74	22.665	
5,400.00	5,369.42	5,331.87	5,325.66	13.40	11.62	-169.88	-57.84	139.34	538.97	515.79	23.18	23.256	
5,500.00	5,468.25	5,428.99	5,422.24	13.72	11.84	-169.57	-62.59	148.32	562.65	539.03	23.62	23.824	
5,600.00	5,567.08	5,526.10	5,518.82	14.04	12.07	-169.29	-67.35	157.31	586.34	562.28	24.06	24.369	
5,700.00	5,665.90	5,623.21	5,615.40	14.36	12.30	-169.03	-72.10	166.29	610.04	585.54	24.51	24.892	
5,800.00	5,764.73	5,720.33	5,711.98	14.68	12.52	-168.79	-76.85	175.28	633.76	608.81	24.96	25.396	
5,900.00	5,863.56	5,817.44	5,808.56	15.00	12.75	-168.57	-81.60	184.26	657.49	632.08	25.41	25.880	
6,000.00	5,962.39	5,914.56	5,905.14	15.32	12.99	-168.36	-86.36	193.25	681.22	655.36	25.86	26.345	
6,100.00	6,061.21	6,011.67	6,001.72	15.64	13.22	-168.17	-91.11	202.23	704.96	678.65	26.31	26.793	
6,200.00	6,160.04	6,108.78	6,098.30	15.97	13.46	-167.98	-95.86	211.22	728.71	701.95	26.77	27.225	
6,300.00	6,258.87	6,205.90	6,194.88	16.29	13.69	-167.81	-100.62	220.20	752.47	725.25	27.22	27.641	
6,400.00	6,357.69	6,303.01	6,291.46	16.61	13.93	-167.66	-105.37	229.19	776.23	748.55	27.68	28.042	
6,500.00	6,456.52	6,400.12	6,388.04	16.94	14.17	-167.51	-110.12	238.17	800.00	771.86	28.14	28.428	
6,600.00	6,555.35	6,497.24	6,484.62	17.26	14.41	-167.36	-114.88	247.16	823.77	795.17	28.60	28.801	
6,700.00	6,654.18	6,594.35	6,581.20	17.59	14.66	-167.23	-119.63	256.14	847.55	818.49	29.06	29.161	
6,800.00	6,753.00	6,691.47	6,677.78	17.92	14.90	-167.10	-124.38	265.13	871.33	841.80	29.53	29.509	
6,900.00	6,851.83	6,788.58	6,774.36	18.24	15.14	-166.98	-129.13	274.11	895.12	865.12	29.99	29.845	
7,000.00	6,950.66	6,885.69	6,870.94	18.57	15.39	-166.87	-133.89	283.10	918.90	888.45	30.46	30.169	
7,100.00	7,049.49	6,982.81	6,967.52	18.90	15.64	-166.76	-138.64	292.08	942.69	911.77	30.93	30.483	
7,200.00	7,148.31	7,079.92	7,064.10	19.23	15.88	-166.66	-143.39	301.07	966.49	935.10	31.39	30.787	
7,300.00	7,247.14	7,177.03	7,160.68	19.56	16.13	-166.56	-148.15	310.05	990.29	958.42	31.86	31.081	
7,400.00	7,345.97	7,274.15	7,257.26	19.89	16.38	-166.47	-152.90	319.03	1,014.09	981.75	32.33	31.365	
7,500.00	7,444.79	7,371.26	7,353.85	20.21	16.63	-166.38	-157.65	328.02	1,037.89	1,005.09	32.80	31.640	
7,600.00	7,543.62	7,468.38	7,450.43	20.54	16.88	-166.30	-162.40	337.00	1,061.69	1,028.42	33.27	31.907	
7,700.00	7,642.45	7,565.49	7,547.01	20.87	17.13	-166.22	-167.16	345.99	1,085.50	1,051.75	33.75	32.166	
7,800.00	7,741.28	7,662.60	7,643.59	21.20	17.39	-166.14	-171.91	354.97	1,109.31	1,075.09	34.22	32.417	
7,900.00	7,840.10	7,759.72	7,740.17	21.54	17.64	-166.07	-176.66	363.96	1,133.12	1,098.42	34.69	32.660	
8,000.00	7,938.93	7,856.83	7,836.75	21.87	17.89	-166.00	-181.42	372.94	1,156.93	1,121.76	35.17	32.896	
8,100.00	8,037.76	7,953.95	7,933.33	22.20	18.15	-165.93	-186.17	381.93	1,180.74	1,145.10	35.64	33.126	
8,200.00	8,136.58	8,051.06	8,029.91	22.53	18.40	-165.86	-190.92	390.91	1,204.56	1,168.44	36.12	33.348	
8,300.00	8,235.41	8,148.17	8,126.49	22.86	18.66	-165.80	-195.68	399.90	1,228.37	1,191.78	36.60	33.564	
8,400.00	8,334.24	8,245.29	8,223.07	23.19	18.92	-165.74	-200.43	408.88	1,252.19	1,215.12	37.08	33.774	
8,500.00	8,433.07	8,342.40	8,319.65	23.52	19.17	-165.68	-205.18	417.87	1,276.01	1,238.46	37.55	33.978	
8,600.00	8,531.89	8,439.51	8,416.23	23.86	19.43	-165.62	-209.93	426.85	1,299.83	1,261.80	38.03	34.177	
8,700.00	8,630.72	8,536.63	8,512.81	24.19	19.69	-165.57	-214.69	435.84	1,323.65	1,285.14	38.51	34.370	
8,800.00	8,729.55	8,633.74	8,609.39	24.52	19.95	-165.52	-219.44	444.82	1,347.48	1,308.48	38.99	34.557	
8,900.00	8,828.38	8,730.86	8,705.97	24.85	20.20	-165.47	-224.19	453.81	1,371.30	1,331.83	39.47	34.740	
9,000.00	8,927.20	8,827.97	8,802.55	25.19	20.46	-165.42	-228.95	462.79	1,395.12	1,355.17	39.95	34.918	
9,100.00	9,026.03	8,925.08	8,899.13	25.52	20.72	-165.37	-233.70	471.78	1,418.95	1,378.51	40.44	35.091	
9,200.00	9,124.86	9,022.20	8,995.71	25.85	20.98	-165.33	-238.45	480.76	1,442.78	1,401.86	40.92	35.260	
9,300.00	9,223.68	9,119.31	9,092.29	26.19	21.24	-165.28	-243.20	489.75	1,466.60	1,425.20	41.40	35.424	
9,400.00	9,322.51	9,216.42	9,188.87	26.52	21.50	-165.24	-247.96	498.73	1,490.43	1,448.55	41.88	35.584	
9,500.00	9,421.34	9,313.54	9,285.45	26.85	21.77	-165.20	-252.71	507.72	1,514.26	1,471.89	42.37	35.740	
9,600.00	9,520.17	9,410.65	9,382.03	27.19	22.03	-165.16	-257.46	516.70	1,538.09	1,495.24	42.85	35.892	
9,700.00	9,618.99	9,507.77	9,478.61	27.52	22.29	-165.12	-262.22	525.68	1,561.92	1,518.58	43.34	36.040	
9,800.00	9,717.82	9,604.88	9,575.19	27.86	22.55	-165.08	-266.97	534.67	1,585.75	1,541.93	43.82	36.185	
9,900.00	9,816.65	9,701.99	9,671.77	28.19	22.81	-165.04	-271.72	543.65	1,609.58	1,565.27	44.31	36.326	
10,000.00	9,915.48	9,799.11	9,768.36	28.53	23.08	-165.01	-276.48	552.64	1,633.41	1,588.62	44.80	36.464	
10,100.00	10,014.30	9,896.22	9,864.94	28.86	23.34	-164.97	-281.23	561.62	1,657.25	1,611.96	45.28	36.598	
10,200.00	10,113.37	9,993.71	9,961.89	29.14	23.60	-165.04	-286.00	570.64	1,679.45	1,633.70	45.74	36.715	
10,300.00	10,212.86	10,091.88	10,059.52	29.35	23.87	-165.06	-290.80	579.73	1,698.35	1,652.17	46.17	36.781	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 24H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-LEAM MWD+HDGM — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,400.00	10,312.64	10,236.26	10,203.23	29.54	24.22	-165.00	-297.26	591.94	1,713.39	1,666.61	46.78	36.628	
10,500.00	10,412.58	10,448.44	10,415.21	29.70	24.63	-164.97	-301.00	599.00	1,719.74	1,672.24	47.50	36.209	
10,600.00	10,512.58	10,549.41	10,516.18	29.85	24.82	90.00	-301.00	599.00	1,720.00	1,672.12	47.88	35.925	
10,700.00	10,612.58	10,649.41	10,616.18	30.01	25.01	90.00	-301.00	599.00	1,720.00	1,671.74	48.26	35.638	
10,800.00	10,712.58	10,749.41	10,716.18	30.17	25.20	90.00	-301.00	599.00	1,720.00	1,671.35	48.65	35.354	
10,900.00	10,812.47	10,850.64	10,816.90	30.32	25.37	90.16	-292.23	598.95	1,719.98	1,670.97	49.00	35.099	
10,966.90	10,878.43	10,917.66	10,882.06	30.40	25.46	90.00	-276.72	598.86	1,719.97	1,670.79	49.18	34.972	
11,000.00	10,910.49	10,950.62	10,913.33	30.44	25.50	89.93	-266.33	598.79	1,719.97	1,670.71	49.26	34.914	
11,100.00	11,003.69	11,049.41	11,002.77	30.52	25.58	89.70	-224.67	598.55	1,719.99	1,670.55	49.45	34.784	
11,200.00	11,089.25	11,147.08	11,082.88	30.57	25.63	89.48	-169.00	598.21	1,720.04	1,670.45	49.59	34.684	
11,300.00	11,164.57	11,243.75	11,151.73	30.58	25.65	89.28	-101.31	597.81	1,720.11	1,670.37	49.74	34.584	
11,400.00	11,227.35	11,339.52	11,207.77	30.58	25.64	89.10	-23.78	597.35	1,720.19	1,670.26	49.93	34.452	
11,500.00	11,275.68	11,434.54	11,249.86	30.57	25.63	88.95	61.28	596.84	1,720.27	1,670.05	50.21	34.259	
11,600.00	11,308.11	11,528.94	11,277.20	30.59	25.63	88.83	151.53	596.30	1,720.34	1,669.72	50.62	33.988	
11,700.00	11,323.64	11,622.89	11,289.34	30.65	25.69	88.74	244.58	595.75	1,720.40	1,669.24	51.15	33.633	
11,800.00	11,325.14	11,721.10	11,290.08	30.78	25.93	88.71	342.78	595.17	1,720.41	1,668.55	51.86	33.175	
11,900.00	11,325.37	11,821.10	11,290.20	31.00	26.36	88.71	442.77	594.57	1,720.42	1,667.66	52.76	32.609	
12,000.00	11,325.60	11,921.10	11,290.31	31.31	26.92	88.70	542.77	593.97	1,720.42	1,666.58	53.84	31.953	
12,100.00	11,325.83	12,021.10	11,290.43	31.72	27.58	88.70	642.77	593.38	1,720.43	1,665.33	55.10	31.224	
12,200.00	11,326.07	12,121.10	11,290.54	32.23	28.32	88.70	742.77	592.78	1,720.43	1,663.91	56.52	30.439	
12,300.00	11,326.30	12,221.10	11,290.66	32.83	29.13	88.69	842.77	592.19	1,720.43	1,662.34	58.09	29.617	
12,400.00	11,326.53	12,321.10	11,290.77	33.52	30.00	88.69	942.76	591.59	1,720.44	1,660.64	59.80	28.770	
12,500.00	11,326.76	12,421.10	11,290.89	34.30	30.94	88.69	1,042.76	591.00	1,720.44	1,658.81	61.64	27.913	
12,600.00	11,326.99	12,521.10	11,291.00	35.14	31.93	88.68	1,142.76	590.40	1,720.45	1,656.86	63.59	27.057	
12,700.00	11,327.22	12,621.10	11,291.12	36.05	32.97	88.68	1,242.76	589.80	1,720.45	1,654.81	65.64	26.209	
12,800.00	11,327.45	12,721.10	11,291.23	37.01	34.06	88.67	1,342.76	589.21	1,720.46	1,652.66	67.80	25.376	
12,900.00	11,327.69	12,821.10	11,291.35	38.03	35.19	88.67	1,442.76	588.61	1,720.46	1,650.42	70.04	24.564	
13,000.00	11,327.92	12,921.10	11,291.47	39.09	36.36	88.67	1,542.75	588.02	1,720.46	1,648.11	72.36	23.777	
13,100.00	11,328.15	13,021.10	11,291.58	40.19	37.57	88.66	1,642.75	587.42	1,720.47	1,645.72	74.75	23.016	
13,200.00	11,328.38	13,121.10	11,291.70	41.33	38.80	88.66	1,742.75	586.83	1,720.47	1,643.27	77.21	22.284	
13,300.00	11,328.61	13,221.10	11,291.81	42.50	40.06	88.65	1,842.75	586.23	1,720.48	1,640.75	79.72	21.581	
13,400.00	11,328.84	13,321.10	11,291.93	43.71	41.35	88.65	1,942.75	585.64	1,720.48	1,638.19	82.29	20.907	
13,500.00	11,329.08	13,421.10	11,292.04	44.94	42.66	88.65	2,042.74	585.04	1,720.49	1,635.58	84.91	20.262	
13,600.00	11,329.31	13,521.10	11,292.16	46.20	44.00	88.64	2,142.74	584.44	1,720.49	1,632.92	87.57	19.646	
13,700.00	11,329.54	13,621.10	11,292.27	47.48	45.35	88.64	2,242.74	583.85	1,720.49	1,630.22	90.28	19.058	
13,800.00	11,329.77	13,721.10	11,292.39	48.79	46.73	88.64	2,342.74	583.25	1,720.50	1,627.48	93.02	18.497	
13,900.00	11,330.00	13,821.10	11,292.50	50.11	48.11	88.63	2,442.74	582.66	1,720.50	1,624.71	95.79	17.961	
14,000.00	11,330.23	13,921.10	11,292.62	51.45	49.52	88.63	2,542.73	582.06	1,720.51	1,621.91	98.59	17.451	
14,100.00	11,330.46	14,021.10	11,292.74	52.81	50.94	88.62	2,642.73	581.47	1,720.51	1,619.09	101.43	16.963	
14,200.00	11,330.70	14,121.10	11,292.85	54.19	52.37	88.62	2,742.73	580.87	1,720.52	1,616.23	104.29	16.498	
14,300.00	11,330.93	14,221.10	11,292.97	55.58	53.81	88.62	2,842.73	580.27	1,720.52	1,613.35	107.17	16.054	
14,400.00	11,331.16	14,321.10	11,293.08	56.98	55.26	88.61	2,942.73	579.68	1,720.53	1,610.45	110.07	15.631	
14,500.00	11,331.39	14,421.10	11,293.20	58.39	56.72	88.61	3,042.72	579.08	1,720.53	1,607.53	113.00	15.226	
14,600.00	11,331.62	14,521.10	11,293.31	59.82	58.20	88.60	3,142.72	578.49	1,720.53	1,604.59	115.94	14.840	
14,700.00	11,331.85	14,621.10	11,293.43	61.25	59.68	88.60	3,242.72	577.89	1,720.54	1,601.63	118.90	14.470	
14,800.00	11,332.09	14,721.10	11,293.54	62.70	61.17	88.60	3,342.72	577.30	1,720.54	1,598.66	121.88	14.117	
14,900.00	11,332.32	14,821.10	11,293.66	64.16	62.66	88.59	3,442.72	576.70	1,720.55	1,595.67	124.87	13.778	
15,000.00	11,332.55	14,921.10	11,293.77	65.62	64.17	88.59	3,542.72	576.10	1,720.55	1,592.67	127.88	13.454	
15,100.00	11,332.78	15,021.10	11,293.89	67.09	65.68	88.58	3,642.71	575.51	1,720.56	1,589.66	130.90	13.144	
15,200.00	11,333.01	15,121.10	11,294.01	68.57	67.19	88.58	3,742.71	574.91	1,720.56	1,586.63	133.93	12.846	
15,300.00	11,333.24	15,221.10	11,294.12	70.06	68.72	88.58	3,842.71	574.32	1,720.57	1,583.59	136.98	12.561	
15,400.00	11,333.47	15,321.10	11,294.24	71.55	70.24	88.57	3,942.71	573.72	1,720.57	1,580.54	140.03	12.287	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 24H - OH - Plan #1

Survey Program: 0-LEAM MWD+HDGM

Offset Site Error: 0.00 usft

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,500.00	11,333.71	15,421.10	11,294.35	73.05	71.77	88.57	4,042.71	573.13	1,720.57	1,577.48	143.09	12.024	
15,600.00	11,333.94	15,521.10	11,294.47	74.56	73.31	88.57	4,142.70	572.53	1,720.58	1,574.41	146.17	11.771	
15,700.00	11,334.17	15,621.10	11,294.58	76.07	74.85	88.56	4,242.70	571.94	1,720.58	1,571.34	149.25	11.528	
15,800.00	11,334.40	15,721.10	11,294.70	77.59	76.40	88.56	4,342.70	571.34	1,720.59	1,568.25	152.34	11.295	
15,900.00	11,334.63	15,821.10	11,294.81	79.11	77.94	88.55	4,442.70	570.74	1,720.59	1,565.16	155.43	11.070	
16,000.00	11,334.86	15,921.10	11,294.93	80.63	79.50	88.55	4,542.70	570.15	1,720.60	1,562.06	158.54	10.853	
16,059.22	11,335.00	15,980.32	11,295.00	81.54	80.42	88.55	4,601.92	569.80	1,720.60	1,560.22	160.38	10.728	

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 37H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-LEAM MWD+HDGM — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.90	0.90	0.00	0.00	-90.00	0.00	-89.99	89.99				
100.00	100.00	100.90	100.90	0.09	0.09	-90.00	0.00	-89.99	89.99	89.82	0.17	520.639	
200.00	200.00	200.90	200.90	0.31	0.31	-90.00	0.00	-89.99	89.99	89.37	0.62	144.591	
300.00	300.00	300.90	300.90	0.53	0.54	-90.00	0.00	-89.99	89.99	88.92	1.07	83.953	
400.00	400.00	400.90	400.90	0.76	0.76	-90.00	0.00	-89.99	89.99	88.47	1.52	59.148	
500.00	500.00	500.90	500.90	0.98	0.99	-90.00	0.00	-89.99	89.99	88.02	1.97	45.658	
600.00	600.00	600.90	600.90	1.21	1.21	-90.00	0.00	-89.99	89.99	87.57	2.42	37.178	
700.00	700.00	700.90	700.90	1.43	1.44	-90.00	0.00	-89.99	89.99	87.12	2.87	31.355	
800.00	800.00	800.90	800.90	1.66	1.66	-90.00	0.00	-89.99	89.99	86.67	3.32	27.109	
900.00	900.00	900.90	900.90	1.88	1.89	-90.00	0.00	-89.99	89.99	86.22	3.77	23.876	
1,000.00	1,000.00	1,000.90	1,000.90	2.11	2.11	-90.00	0.00	-89.99	89.99	85.77	4.22	21.332	
1,100.00	1,100.00	1,100.90	1,100.90	2.33	2.34	-90.00	0.00	-89.99	89.99	85.32	4.67	19.277	
1,200.00	1,200.00	1,200.90	1,200.90	2.56	2.56	-90.00	0.00	-89.99	89.99	84.87	5.12	17.584	
1,300.00	1,300.00	1,300.90	1,300.90	2.78	2.78	-90.00	0.00	-89.99	89.99	84.42	5.57	16.164	
1,400.00	1,400.00	1,400.90	1,400.90	3.01	3.01	-90.00	0.00	-89.99	89.99	83.97	6.02	14.957	
1,500.00	1,500.00	1,500.90	1,500.90	3.23	3.23	-90.00	0.00	-89.99	89.99	83.52	6.47	13.917	
1,600.00	1,600.00	1,600.90	1,600.90	3.46	3.46	-90.00	0.00	-89.99	89.99	83.07	6.92	13.012	
1,700.00	1,700.00	1,700.90	1,700.90	3.68	3.68	-90.00	0.00	-89.99	89.99	82.62	7.37	12.218	
1,800.00	1,800.00	1,800.90	1,800.90	3.91	3.91	-90.00	0.00	-89.99	89.99	82.18	7.81	11.515	
1,900.00	1,900.00	1,900.90	1,900.90	4.13	4.13	-90.00	0.00	-89.99	89.99	81.73	8.26	10.889	
1,916.36	1,916.36	1,917.26	1,917.26	4.17	4.17	-90.00	0.00	-89.99	89.99	81.65	8.34	10.793 CC	
2,000.00	2,000.00	2,000.00	2,000.00	4.36	4.36	-90.00	0.00	-89.99	89.99	81.28	8.71	10.330 ES	
2,100.00	2,100.00	2,097.87	2,097.86	4.58	4.56	-90.25	-0.40	-91.61	91.67	82.53	9.14	10.034	
2,200.00	2,200.00	2,194.65	2,194.50	4.81	4.75	-90.94	-1.57	-96.41	96.64	87.10	9.53	10.136	
2,300.00	2,300.00	2,290.99	2,290.49	5.03	4.94	-91.93	-3.52	-104.33	104.91	94.98	9.92	10.571	
2,400.00	2,400.00	2,386.67	2,385.49	5.26	5.15	-93.08	-6.20	-115.30	116.49	106.18	10.31	11.303	
2,500.00	2,500.00	2,481.48	2,479.22	5.48	5.36	-94.25	-9.61	-129.20	131.35	120.68	10.68	12.303	
2,600.00	2,599.98	2,578.60	2,574.81	5.69	5.60	9.73	-13.70	-145.89	147.14	136.09	11.06	13.306	
2,700.00	2,699.84	2,677.78	2,672.38	5.88	5.86	9.05	-17.93	-163.15	159.77	148.32	11.45	13.955	
2,800.00	2,799.45	2,777.35	2,770.34	6.08	6.12	8.66	-22.18	-180.47	168.99	157.14	11.85	14.259	
2,900.00	2,898.70	2,877.17	2,868.55	6.29	6.41	8.49	-26.43	-197.83	174.76	162.50	12.26	14.252	
3,000.00	2,997.57	2,977.13	2,966.89	6.51	6.70	8.47	-30.70	-215.22	177.73	165.05	12.68	14.015	
3,100.00	3,096.40	3,077.09	3,065.23	6.74	6.99	8.47	-34.96	-232.61	180.43	167.33	13.11	13.764	
3,200.00	3,195.22	3,177.06	3,163.58	6.98	7.30	8.47	-39.22	-250.00	183.14	169.60	13.54	13.524	
3,300.00	3,294.05	3,277.02	3,261.93	7.23	7.61	8.46	-43.48	-267.39	185.84	171.86	13.98	13.293	
3,400.00	3,392.88	3,376.98	3,360.27	7.49	7.93	8.46	-47.75	-284.78	188.54	174.12	14.42	13.071	
3,500.00	3,491.70	3,476.95	3,458.62	7.75	8.25	8.46	-52.01	-302.17	191.25	176.37	14.87	12.859	
3,600.00	3,590.53	3,576.91	3,556.97	8.02	8.57	8.46	-56.27	-319.56	193.95	178.62	15.32	12.656	
3,700.00	3,689.36	3,676.87	3,655.32	8.29	8.90	8.46	-60.53	-336.95	196.65	180.87	15.78	12.461	
3,800.00	3,788.19	3,776.84	3,753.66	8.57	9.24	8.46	-64.80	-354.34	199.35	183.11	16.24	12.275	
3,900.00	3,887.01	3,876.80	3,852.01	8.85	9.57	8.46	-69.06	-371.73	202.06	185.35	16.70	12.097	
4,000.00	3,985.84	3,976.76	3,950.36	9.14	9.91	8.46	-73.32	-389.12	204.76	187.59	17.17	11.926	
4,100.00	4,084.67	4,076.73	4,048.70	9.43	10.25	8.45	-77.58	-406.51	207.46	189.82	17.64	11.763	
4,200.00	4,183.50	4,176.69	4,147.05	9.72	10.60	8.45	-81.85	-423.90	210.16	192.06	18.11	11.606	
4,300.00	4,282.32	4,276.66	4,245.40	10.01	10.94	8.45	-86.11	-441.29	212.87	194.28	18.58	11.456	
4,400.00	4,381.15	4,376.62	4,343.74	10.31	11.29	8.45	-90.37	-458.68	215.57	196.51	19.06	11.312	
4,500.00	4,479.98	4,476.58	4,442.09	10.61	11.64	8.45	-94.63	-476.07	218.27	198.74	19.53	11.174	
4,600.00	4,578.80	4,576.55	4,540.44	10.92	11.99	8.45	-98.90	-493.46	220.97	200.96	20.01	11.041	
4,700.00	4,677.63	4,676.51	4,638.78	11.22	12.34	8.45	-103.16	-510.85	223.68	203.18	20.49	10.914	
4,800.00	4,776.46	4,776.47	4,737.13	11.53	12.70	8.45	-107.42	-528.24	226.38	205.40	20.98	10.792	
4,900.00	4,875.29	4,876.44	4,835.48	11.84	13.05	8.45	-111.68	-545.63	229.08	207.62	21.46	10.675	
5,000.00	4,974.11	4,976.40	4,933.83	12.15	13.41	8.44	-115.95	-563.02	231.78	209.84	21.95	10.562	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

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Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 37H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-LEAM MWD+HDGM — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,072.94	5,076.36	5,032.17	12.46	13.76	8.44	-120.21	-580.42	234.49	212.05	22.43	10.453	
5,200.00	5,171.77	5,176.33	5,130.52	12.77	14.12	8.44	-124.47	-597.81	237.19	214.27	22.92	10.349	
5,300.00	5,270.59	5,276.29	5,228.87	13.09	14.48	8.44	-128.74	-615.20	239.89	216.48	23.41	10.248	
5,400.00	5,369.42	5,376.25	5,327.21	13.40	14.84	8.44	-133.00	-632.59	242.59	218.70	23.90	10.151	
5,500.00	5,468.25	5,476.22	5,425.56	13.72	15.20	8.44	-137.26	-649.98	245.30	220.91	24.39	10.057	
5,600.00	5,567.08	5,576.18	5,523.91	14.04	15.56	8.44	-141.52	-667.37	248.00	223.12	24.88	9.967	
5,700.00	5,665.90	5,676.14	5,622.25	14.36	15.92	8.44	-145.79	-684.76	250.70	225.33	25.37	9.880	
5,800.00	5,764.73	5,776.11	5,720.60	14.68	16.28	8.44	-150.05	-702.15	253.41	227.54	25.87	9.796	
5,900.00	5,863.56	5,876.07	5,818.95	15.00	16.65	8.44	-154.31	-719.54	256.11	229.75	26.36	9.715	
6,000.00	5,962.39	5,976.03	5,917.29	15.32	17.01	8.44	-158.57	-736.93	258.81	231.95	26.86	9.636	
6,100.00	6,061.21	6,076.00	6,015.64	15.64	17.37	8.44	-162.84	-754.32	261.51	234.16	27.35	9.560	
6,200.00	6,160.04	6,175.96	6,113.99	15.97	17.74	8.43	-167.10	-771.71	264.22	236.37	27.85	9.487	
6,300.00	6,258.87	6,275.92	6,212.33	16.29	18.10	8.43	-171.36	-789.10	266.92	238.57	28.35	9.416	
6,400.00	6,357.69	6,375.89	6,310.68	16.61	18.47	8.43	-175.62	-806.49	269.62	240.78	28.85	9.347	
6,500.00	6,456.52	6,475.85	6,409.03	16.94	18.83	8.43	-179.89	-823.88	272.32	242.98	29.34	9.280	
6,600.00	6,555.35	6,575.82	6,507.38	17.26	19.20	8.43	-184.15	-841.27	275.03	245.18	29.84	9.216	
6,700.00	6,654.18	6,675.78	6,605.72	17.59	19.56	8.43	-188.41	-858.66	277.73	247.39	30.34	9.153	
6,800.00	6,753.00	6,775.74	6,704.07	17.92	19.93	8.43	-192.67	-876.05	280.43	249.59	30.84	9.092	
6,900.00	6,851.83	6,875.71	6,802.42	18.24	20.30	8.43	-196.94	-893.44	283.13	251.79	31.34	9.033	
7,000.00	6,950.66	6,975.67	6,900.76	18.57	20.66	8.43	-201.20	-910.83	285.84	253.99	31.84	8.976	
7,100.00	7,049.49	7,075.63	6,999.11	18.90	21.03	8.43	-205.46	-928.22	288.54	256.19	32.35	8.921	
7,200.00	7,148.31	7,175.60	7,097.46	19.23	21.40	8.43	-209.72	-945.61	291.24	258.40	32.85	8.867	
7,300.00	7,247.14	7,275.56	7,195.80	19.56	21.77	8.43	-213.99	-963.00	293.94	260.60	33.35	8.814	
7,400.00	7,345.97	7,375.52	7,294.15	19.89	22.13	8.43	-218.25	-980.39	296.65	262.80	33.85	8.763	
7,500.00	7,444.79	7,475.49	7,392.50	20.21	22.50	8.43	-222.51	-997.78	299.35	265.00	34.35	8.714	
7,600.00	7,543.62	7,575.45	7,490.84	20.54	22.87	8.43	-226.77	-1,015.17	302.05	267.20	34.86	8.665	
7,700.00	7,642.45	7,675.41	7,589.19	20.87	23.24	8.42	-231.04	-1,032.56	304.76	269.39	35.36	8.618	
7,800.00	7,741.28	7,775.38	7,687.54	21.20	23.61	8.42	-235.30	-1,049.95	307.46	271.59	35.86	8.573	
7,900.00	7,840.10	7,875.34	7,785.88	21.54	23.98	8.42	-239.56	-1,067.34	310.16	273.79	36.37	8.528	
8,000.00	7,938.93	7,975.30	7,884.23	21.87	24.34	8.42	-243.82	-1,084.73	312.86	275.99	36.87	8.485	
8,100.00	8,037.76	8,075.27	7,982.58	22.20	24.71	8.42	-248.09	-1,102.12	315.57	278.19	37.38	8.443	
8,200.00	8,136.58	8,175.23	8,080.93	22.53	25.08	8.42	-252.35	-1,119.51	318.27	280.39	37.88	8.401	
8,300.00	8,235.41	8,275.19	8,179.27	22.86	25.45	8.42	-256.61	-1,136.90	320.97	282.58	38.39	8.361	
8,400.00	8,334.24	8,375.16	8,277.62	23.19	25.82	8.42	-260.87	-1,154.29	323.67	284.78	38.89	8.322	
8,500.00	8,433.07	8,475.12	8,375.97	23.52	26.19	8.42	-265.14	-1,171.68	326.38	286.98	39.40	8.284	
8,600.00	8,531.89	8,575.08	8,474.31	23.86	26.56	8.42	-269.40	-1,189.07	329.08	289.17	39.90	8.247	
8,700.00	8,630.72	8,675.05	8,572.66	24.19	26.93	8.42	-273.66	-1,206.46	331.78	291.37	40.41	8.210	
8,800.00	8,729.55	8,775.01	8,671.01	24.52	27.30	8.42	-277.92	-1,223.85	334.48	293.57	40.92	8.175	
8,900.00	8,828.38	8,874.98	8,769.35	24.85	27.67	8.42	-282.19	-1,241.24	337.19	295.76	41.42	8.140	
9,000.00	8,927.20	8,974.94	8,867.70	25.19	28.04	8.42	-286.45	-1,258.63	339.89	297.96	41.93	8.106	
9,100.00	9,026.03	9,077.24	8,968.36	25.52	28.41	8.42	-290.80	-1,276.36	342.53	300.08	42.45	8.069	
9,200.00	9,124.86	9,190.71	9,080.49	25.85	28.71	8.48	-294.92	-1,293.20	342.59	299.60	42.99	7.969	
9,300.00	9,223.68	9,304.00	9,193.04	26.19	28.96	8.64	-297.99	-1,305.69	338.72	295.25	43.47	7.792	
9,400.00	9,322.51	9,416.76	9,305.48	26.52	29.17	8.91	-299.98	-1,313.83	330.95	287.05	43.89	7.539	
9,500.00	9,421.34	9,528.65	9,417.30	26.85	29.34	9.29	-300.92	-1,317.65	319.31	275.05	44.27	7.213	
9,600.00	9,520.17	9,632.42	9,521.07	27.19	29.49	9.77	-301.00	-1,317.99	304.56	259.87	44.69	6.815	
9,700.00	9,618.99	9,731.25	9,619.89	27.52	29.63	10.28	-301.00	-1,317.99	289.51	244.35	45.16	6.411	
9,800.00	9,717.82	9,830.08	9,718.72	27.86	29.78	10.85	-301.00	-1,317.99	274.50	228.85	45.64	6.014	
9,900.00	9,816.65	9,930.22	9,818.77	28.19	29.92	12.12	-298.19	-1,318.01	259.36	213.19	46.18	5.617	
10,000.00	9,915.48	10,027.03	9,913.84	28.53	30.03	17.02	-280.53	-1,318.11	244.49	197.29	47.20	5.180	
10,100.00	10,014.30	10,114.53	9,996.12	28.86	30.09	25.17	-251.01	-1,318.29	234.23	185.26	48.98	4.783	
10,136.04	10,049.96	10,143.36	10,022.12	28.96	30.11	28.56	-238.58	-1,318.36	233.18	183.47	49.71	4.691	

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10,200.00	10,113.37	10,190.98	10,063.61	29.14	30.12	34.75	-215.23	-1,318.50	236.86	186.03	50.84	4.659 SF	
10,300.00	10,212.86	10,256.59	10,117.30	29.35	30.14	44.02	-177.58	-1,318.73	258.67	207.26	51.42	5.031	
10,400.00	10,312.64	10,312.31	10,159.28	29.54	30.14	52.08	-140.96	-1,318.95	299.36	249.00	50.37	5.944	
10,500.00	10,412.58	10,359.54	10,191.92	29.70	30.14	58.86	-106.86	-1,319.15	355.13	306.72	48.41	7.336	
10,600.00	10,512.58	10,400.00	10,217.58	29.85	30.14	-41.34	-75.58	-1,319.34	421.55	375.24	46.31	9.103	
10,700.00	10,612.58	10,433.49	10,237.10	30.01	30.13	-38.16	-48.38	-1,319.50	494.85	450.55	44.30	11.170	
10,800.00	10,712.58	10,462.33	10,252.62	30.17	30.13	-35.65	-24.07	-1,319.64	573.18	530.61	42.58	13.462	
10,900.00	10,812.47	10,500.00	10,271.01	30.32	30.13	-28.47	8.79	-1,319.84	653.98	612.41	41.57	15.732	
11,000.00	10,910.49	10,516.96	10,278.58	30.44	30.13	-22.87	23.97	-1,319.93	729.08	689.51	39.57	18.423	
11,100.00	11,003.69	10,550.00	10,292.01	30.52	30.13	-18.74	54.15	-1,320.11	797.15	758.97	38.18	20.878	
11,200.00	11,089.25	10,580.69	10,302.91	30.57	30.13	-16.02	82.83	-1,320.28	856.93	820.19	36.75	23.320	
11,300.00	11,164.57	10,600.00	10,308.97	30.58	30.14	-14.26	101.17	-1,320.39	907.95	872.73	35.22	25.782	
11,400.00	11,227.35	10,650.00	10,321.78	30.58	30.15	-12.86	149.48	-1,320.68	948.66	914.06	34.60	27.419	
11,500.00	11,275.68	10,700.00	10,330.32	30.57	30.18	-11.96	198.73	-1,320.98	979.79	945.64	34.15	28.694	
11,600.00	11,308.11	10,721.98	10,332.71	30.59	30.20	-11.49	220.58	-1,321.11	999.84	966.18	33.67	29.696	
11,700.00	11,323.64	10,758.53	10,334.82	30.65	30.24	-11.26	257.06	-1,321.32	1,009.46	975.66	33.80	29.870	
11,800.00	11,325.14	10,840.80	10,335.58	30.78	30.36	-11.25	339.33	-1,321.82	1,009.89	975.55	34.34	29.413	
11,900.00	11,325.37	10,940.80	10,336.39	31.00	30.58	-11.25	439.32	-1,322.41	1,009.32	974.34	34.98	28.855	
12,000.00	11,325.60	11,040.80	10,337.20	31.31	30.90	-11.26	539.32	-1,323.01	1,008.75	973.07	35.68	28.271	
12,100.00	11,325.83	11,140.80	10,338.01	31.72	31.32	-11.27	639.31	-1,323.61	1,008.19	971.75	36.44	27.669	
12,200.00	11,326.07	11,240.80	10,338.82	32.23	31.83	-11.27	739.30	-1,324.20	1,007.62	970.37	37.25	27.053	
12,300.00	11,326.30	11,340.79	10,339.63	32.83	32.43	-11.28	839.30	-1,324.80	1,007.05	968.95	38.10	26.431	
12,400.00	11,326.53	11,440.79	10,340.44	33.52	33.12	-11.29	939.29	-1,325.40	1,006.49	967.48	39.00	25.806	
12,500.00	11,326.76	11,540.79	10,341.25	34.30	33.89	-11.29	1,039.28	-1,326.00	1,005.92	965.97	39.95	25.182	
12,600.00	11,326.99	11,640.79	10,342.06	35.14	34.73	-11.30	1,139.28	-1,326.59	1,005.35	964.43	40.93	24.564	
12,700.00	11,327.22	11,740.79	10,342.87	36.05	35.64	-11.31	1,239.27	-1,327.19	1,004.79	962.84	41.95	23.954	
12,800.00	11,327.45	11,840.79	10,343.68	37.01	36.61	-11.31	1,339.26	-1,327.79	1,004.22	961.22	43.00	23.355	
12,900.00	11,327.69	11,940.78	10,344.49	38.03	37.63	-11.32	1,439.26	-1,328.39	1,003.65	959.57	44.08	22.768	
13,000.00	11,327.92	12,040.78	10,345.30	39.09	38.70	-11.33	1,539.25	-1,328.98	1,003.09	957.89	45.19	22.195	
13,100.00	11,328.15	12,140.78	10,346.11	40.19	39.81	-11.33	1,639.24	-1,329.58	1,002.52	956.19	46.33	21.637	
13,200.00	11,328.38	12,240.78	10,346.92	41.33	40.96	-11.34	1,739.24	-1,330.18	1,001.95	954.45	47.50	21.095	
13,300.00	11,328.61	12,340.78	10,347.73	42.50	42.14	-11.35	1,839.23	-1,330.78	1,001.38	952.70	48.69	20.568	
13,400.00	11,328.84	12,440.78	10,348.54	43.71	43.36	-11.35	1,939.22	-1,331.37	1,000.82	950.92	49.90	20.058	
13,500.00	11,329.08	12,540.77	10,349.35	44.94	44.60	-11.36	2,039.21	-1,331.97	1,000.25	949.13	51.13	19.564	
13,600.00	11,329.31	12,640.77	10,350.16	46.20	45.87	-11.36	2,139.21	-1,332.57	999.68	947.31	52.38	19.087	
13,700.00	11,329.54	12,740.77	10,350.97	47.48	47.17	-11.37	2,239.20	-1,333.17	999.12	945.48	53.64	18.626	
13,800.00	11,329.77	12,840.77	10,351.77	48.79	48.48	-11.38	2,339.19	-1,333.76	998.55	943.63	54.92	18.180	
13,900.00	11,330.00	12,940.77	10,352.58	50.11	49.81	-11.38	2,439.19	-1,334.36	997.98	941.76	56.22	17.751	
14,000.00	11,330.23	13,040.77	10,353.39	51.45	51.17	-11.39	2,539.18	-1,334.96	997.42	939.88	57.53	17.336	
14,100.00	11,330.46	13,140.76	10,354.20	52.81	52.53	-11.40	2,639.17	-1,335.55	996.85	937.99	58.86	16.936	
14,200.00	11,330.70	13,240.76	10,355.01	54.19	53.92	-11.40	2,739.17	-1,336.15	996.28	936.09	60.20	16.550	
14,300.00	11,330.93	13,340.76	10,355.82	55.58	55.32	-11.41	2,839.16	-1,336.75	995.72	934.17	61.55	16.178	
14,400.00	11,331.16	13,440.76	10,356.63	56.98	56.73	-11.42	2,939.15	-1,337.35	995.15	932.24	62.91	15.819	
14,500.00	11,331.39	13,540.76	10,357.44	58.39	58.15	-11.42	3,039.15	-1,337.94	994.58	930.30	64.28	15.473	
14,600.00	11,331.62	13,640.76	10,358.25	59.82	59.58	-11.43	3,139.14	-1,338.54	994.02	928.36	65.66	15.139	
14,700.00	11,331.85	13,740.75	10,359.06	61.25	61.03	-11.44	3,239.13	-1,339.14	993.45	926.40	67.05	14.816	
14,800.00	11,332.09	13,840.75	10,359.87	62.70	62.48	-11.44	3,339.13	-1,339.74	992.88	924.43	68.45	14.505	
14,900.00	11,332.32	13,940.75	10,360.68	64.16	63.95	-11.45	3,439.12	-1,340.33	992.32	922.46	69.86	14.205	
15,000.00	11,332.55	14,040.75	10,361.49	65.62	65.42	-11.46	3,539.11	-1,340.93	991.75	920.48	71.27	13.915	
15,100.00	11,332.78	14,140.75	10,362.30	67.09	66.90	-11.46	3,639.11	-1,341.53	991.18	918.49	72.69	13.636	
15,200.00	11,333.01	14,240.75	10,363.11	68.57	68.38	-11.47	3,739.10	-1,342.13	990.62	916.50	74.12	13.365	
15,300.00	11,333.24	14,340.74	10,363.92	70.06	69.88	-11.48	3,839.09	-1,342.72	990.05	914.50	75.55	13.104	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 37H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-LEAM MWD+HDGM — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
15,400.00	11,333.47	14,440.74	10,364.73	71.55	71.38	-11.48	3,939.09	-1,343.32	989.48	912.49	76.99	12.852	
15,500.00	11,333.71	14,540.74	10,365.54	73.05	72.88	-11.49	4,039.08	-1,343.92	988.92	910.48	78.44	12.607	
15,600.00	11,333.94	14,640.74	10,366.35	74.56	74.39	-11.50	4,139.07	-1,344.52	988.35	908.46	79.89	12.371	
15,700.00	11,334.17	14,740.74	10,367.16	76.07	75.91	-11.50	4,239.07	-1,345.11	987.79	906.44	81.35	12.143	
15,800.00	11,334.40	14,840.74	10,367.97	77.59	77.43	-11.51	4,339.06	-1,345.71	987.22	904.41	82.81	11.922	
15,900.00	11,334.63	14,940.73	10,368.78	79.11	78.96	-11.52	4,439.05	-1,346.31	986.65	902.38	84.28	11.707	
16,000.00	11,334.86	15,040.73	10,369.59	80.63	80.49	-11.52	4,539.05	-1,346.90	986.09	900.34	85.75	11.500	
16,056.67	11,334.99	15,091.83	10,370.00	81.50	81.27	-11.53	4,590.14	-1,347.21	985.78	899.15	86.63	11.379	
16,059.22	11,335.00	15,091.83	10,370.00	81.54	81.27	-11.53	4,590.14	-1,347.21	985.78	899.09	86.69	11.371	

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 5 (Offset) - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 842-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,600.00	11,308.11	11,310.51	11,308.01	30.59	231.90	-80.05	1,295.67	-2,740.14	1,990.73	1,731.28	259.45	7.673	
11,700.00	11,323.64	11,326.04	11,323.54	30.65	232.27	-87.37	1,295.67	-2,740.14	1,934.32	1,674.89	259.43	7.456	
11,800.00	11,325.14	11,327.54	11,325.04	30.78	232.31	-89.92	1,295.67	-2,740.14	1,880.72	1,621.56	259.16	7.257	
11,900.00	11,325.37	11,327.78	11,325.27	31.00	232.31	-89.93	1,295.67	-2,740.14	1,830.99	1,571.99	259.00	7.069	
12,000.00	11,325.60	11,328.01	11,325.50	31.31	232.32	-89.94	1,295.67	-2,740.14	1,785.49	1,526.47	259.02	6.893	
12,100.00	11,325.83	11,328.24	11,325.73	31.72	232.32	-89.94	1,295.67	-2,740.14	1,744.54	1,485.29	259.24	6.729	
12,200.00	11,326.07	11,328.47	11,325.97	32.23	232.33	-89.95	1,295.67	-2,740.14	1,708.46	1,448.77	259.69	6.579	
12,300.00	11,326.30	11,328.70	11,326.20	32.83	232.33	-89.96	1,295.67	-2,740.14	1,677.58	1,417.20	260.38	6.443	
12,400.00	11,326.53	11,328.93	11,326.43	33.52	232.34	-89.97	1,295.67	-2,740.14	1,652.19	1,390.88	261.31	6.323	
12,500.00	11,326.76	11,329.17	11,326.66	34.30	232.34	-89.98	1,295.67	-2,740.14	1,632.53	1,370.09	262.44	6.221	
12,600.00	11,326.99	11,329.40	11,326.89	35.14	232.35	-89.99	1,295.67	-2,740.14	1,618.83	1,355.06	263.76	6.137	
12,700.00	11,327.22	11,329.63	11,327.12	36.05	232.36	-89.99	1,295.67	-2,740.14	1,611.22	1,345.99	265.23	6.075	
12,772.81	11,327.39	11,329.80	11,327.29	36.74	232.36	-90.00	1,295.67	-2,740.14	1,609.58	1,343.21	266.37	6.043	CC
12,800.00	11,327.45	11,329.86	11,327.35	37.01	232.36	-90.00	1,295.67	-2,740.14	1,609.81	1,343.01	266.80	6.034	ES
12,900.00	11,327.69	11,330.09	11,327.59	38.03	232.37	-90.01	1,295.67	-2,740.14	1,614.59	1,346.17	268.42	6.015	SF
13,000.00	11,327.92	11,330.32	11,327.82	39.09	232.37	-90.02	1,295.67	-2,740.14	1,625.53	1,355.47	270.06	6.019	
13,100.00	11,328.15	11,330.55	11,328.05	40.19	232.38	-90.03	1,295.67	-2,740.14	1,642.49	1,370.82	271.67	6.046	
13,200.00	11,328.38	11,330.79	11,328.28	41.33	232.38	-90.04	1,295.67	-2,740.14	1,665.30	1,392.08	273.22	6.095	
13,300.00	11,328.61	11,331.02	11,328.51	42.50	232.39	-90.04	1,295.67	-2,740.14	1,693.71	1,419.02	274.70	6.166	
13,400.00	11,328.84	11,331.25	11,328.74	43.71	232.39	-90.05	1,295.67	-2,740.14	1,727.46	1,451.39	276.07	6.257	
13,500.00	11,329.08	11,331.48	11,328.98	44.94	232.40	-90.06	1,295.67	-2,740.14	1,766.22	1,488.89	277.33	6.369	
13,600.00	11,329.31	11,331.71	11,329.21	46.20	232.41	-90.07	1,295.67	-2,740.14	1,809.69	1,531.21	278.48	6.498	
13,700.00	11,329.54	11,331.94	11,329.44	47.48	232.41	-90.08	1,295.67	-2,740.14	1,857.53	1,578.01	279.52	6.645	
13,800.00	11,329.77	11,332.17	11,329.67	48.79	232.42	-90.08	1,295.67	-2,740.14	1,909.41	1,628.96	280.45	6.808	
13,900.00	11,330.00	11,332.41	11,329.90	50.11	232.42	-90.09	1,295.67	-2,740.14	1,965.02	1,683.75	281.27	6.986	

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit - 59H - OH - Plan #1 — **Offset Site Error:** 0.00 usft

Survey Program: 0-LEAM MWD+HDGM, 10858-MWD+IFR1 — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.59	14.01	1,977.44	1,977.51				
100.00	100.00	91.10	91.10	0.09	0.08	89.59	14.01	1,977.44	1,977.49	1,977.33	0.16	N/A	
200.00	200.00	191.10	191.10	0.31	0.29	89.59	14.01	1,977.44	1,977.49	1,976.89	0.60	3,293.893	
300.00	300.00	291.10	291.10	0.53	0.51	89.59	14.01	1,977.44	1,977.49	1,976.44	1.05	1,883.534	
400.00	400.00	391.10	391.10	0.76	0.74	89.59	14.01	1,977.44	1,977.49	1,975.99	1.50	1,318.841	
500.00	500.00	491.10	491.10	0.98	0.96	89.59	14.01	1,977.44	1,977.49	1,975.54	1.95	1,014.645	
600.00	600.00	591.10	591.10	1.21	1.19	89.59	14.01	1,977.44	1,977.49	1,975.09	2.40	824.477	
700.00	700.00	691.10	691.10	1.43	1.41	89.59	14.01	1,977.44	1,977.49	1,974.64	2.85	694.341	
800.00	800.00	791.10	791.10	1.66	1.64	89.59	14.01	1,977.44	1,977.49	1,974.19	3.30	599.686	
900.00	900.00	891.10	891.10	1.88	1.86	89.59	14.01	1,977.44	1,977.49	1,973.74	3.75	527.742	
1,000.00	1,000.00	991.10	991.10	2.11	2.09	89.59	14.01	1,977.44	1,977.49	1,973.29	4.20	471.212	
1,100.00	1,100.00	1,091.10	1,091.10	2.33	2.31	89.59	14.01	1,977.44	1,977.49	1,972.84	4.65	425.620	
1,200.00	1,200.00	1,191.10	1,191.10	2.56	2.54	89.59	14.01	1,977.44	1,977.49	1,972.39	5.10	388.072	
1,300.00	1,300.00	1,291.10	1,291.10	2.78	2.76	89.59	14.01	1,977.44	1,977.49	1,971.94	5.55	356.613	
1,400.00	1,400.00	1,391.10	1,391.10	3.01	2.99	89.59	14.01	1,977.44	1,977.49	1,971.49	5.99	329.871	
1,500.00	1,500.00	1,491.10	1,491.10	3.23	3.21	89.59	14.01	1,977.44	1,977.49	1,971.05	6.44	306.860	
1,600.00	1,600.00	1,591.10	1,591.10	3.46	3.44	89.59	14.01	1,977.44	1,977.49	1,970.60	6.89	286.850	
1,700.00	1,700.00	1,691.10	1,691.10	3.68	3.66	89.59	14.01	1,977.44	1,977.49	1,970.15	7.34	269.291	
1,800.00	1,800.00	1,791.10	1,791.10	3.91	3.89	89.59	14.01	1,977.44	1,977.49	1,969.70	7.79	253.756	
1,900.00	1,900.00	1,891.10	1,891.10	4.13	4.11	89.59	14.01	1,977.44	1,977.49	1,969.25	8.24	239.917	
2,000.00	2,000.00	1,991.10	1,991.10	4.36	4.34	89.59	14.01	1,977.44	1,977.49	1,968.80	8.69	227.509	
2,100.00	2,100.00	2,091.10	2,091.10	4.58	4.56	89.59	14.01	1,977.44	1,977.49	1,968.35	9.14	216.321	
2,200.00	2,200.00	2,191.10	2,191.10	4.81	4.79	89.59	14.01	1,977.44	1,977.49	1,967.90	9.59	206.182	
2,300.00	2,300.00	2,291.10	2,291.10	5.03	5.01	89.59	14.01	1,977.44	1,977.49	1,967.45	10.04	196.951	
2,400.00	2,400.00	2,391.10	2,391.10	5.26	5.24	89.59	14.01	1,977.44	1,977.49	1,967.00	10.49	188.511	
2,500.00	2,500.00	2,491.10	2,491.10	5.48	5.46	89.59	14.01	1,977.44	1,977.49	1,966.55	10.94	180.765	CC, ES
2,600.00	2,599.98	2,591.08	2,591.08	5.69	5.68	-165.38	14.01	1,977.44	1,979.18	1,967.81	11.37	174.057	
2,700.00	2,699.84	2,690.94	2,690.94	5.88	5.91	-165.39	14.01	1,977.44	1,984.24	1,972.46	11.79	168.350	
2,800.00	2,799.45	2,790.55	2,790.55	6.08	6.13	-165.41	14.01	1,977.44	1,992.68	1,980.47	12.20	163.273	SF

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit Offsets - Gaucho Unit 2Y - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 30- VES GyroFlex V2 — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	1.78	1.78	0.00	0.00	-15.15	1,293.17	-350.24	1,339.76				
100.00	100.00	109.23	109.23	0.09	0.09	-15.15	1,292.79	-350.03	1,339.36	1,339.18	0.18	7,503.957	
200.00	200.00	208.25	208.25	0.31	0.14	-15.15	1,292.26	-349.93	1,338.82	1,338.36	0.45	2,959.111	
300.00	300.00	306.40	306.39	0.53	0.18	-15.16	1,291.82	-349.95	1,338.39	1,337.67	0.72	1,860.629	
400.00	400.00	404.94	404.94	0.76	0.22	-15.16	1,291.51	-349.95	1,338.09	1,337.11	0.98	1,360.250	
500.00	500.00	506.41	506.41	0.98	0.26	-15.16	1,291.26	-349.77	1,337.80	1,336.55	1.25	1,072.719	
600.00	600.00	606.36	606.36	1.21	0.30	-15.15	1,290.91	-349.54	1,337.40	1,335.89	1.51	886.367	
700.00	700.00	704.55	704.55	1.43	0.33	-15.16	1,290.60	-349.57	1,337.11	1,335.34	1.77	756.525	
759.23	759.23	760.83	760.83	1.57	0.35	-15.16	1,290.48	-349.77	1,337.04	1,335.13	1.91	699.259	
800.00	800.00	799.62	799.61	1.66	0.35	-15.17	1,290.45	-349.97	1,337.07	1,335.06	2.01	665.914	
900.00	900.00	895.01	895.00	1.88	0.36	-15.20	1,290.62	-350.67	1,337.42	1,335.19	2.24	598.015	
1,000.00	1,000.00	992.95	992.93	2.11	0.37	-15.23	1,290.94	-351.55	1,337.98	1,335.52	2.46	543.346	
1,100.00	1,100.00	1,085.27	1,085.25	2.33	0.37	-15.27	1,291.42	-352.62	1,338.79	1,336.10	2.69	497.657	
1,200.00	1,200.00	1,173.09	1,173.05	2.56	0.38	-15.32	1,292.49	-354.19	1,340.44	1,337.53	2.92	459.202	
1,300.00	1,300.00	1,260.00	1,259.91	2.78	0.39	-15.39	1,294.19	-356.33	1,343.00	1,339.85	3.15	426.304	
1,400.00	1,400.00	1,351.59	1,351.42	3.01	0.40	-15.48	1,296.68	-359.20	1,346.44	1,343.06	3.38	398.119	
1,500.00	1,500.00	1,446.28	1,446.01	3.23	0.42	-15.58	1,299.67	-362.27	1,350.36	1,346.74	3.61	373.609	
1,600.00	1,600.00	1,530.00	1,529.63	3.46	0.43	-15.65	1,303.06	-364.95	1,355.11	1,351.26	3.85	351.736	
1,700.00	1,700.00	1,615.73	1,615.19	3.68	0.44	-15.71	1,307.62	-367.77	1,361.10	1,357.01	4.09	332.611	
1,800.00	1,800.00	1,713.91	1,713.15	3.91	0.46	-15.77	1,313.24	-370.95	1,367.49	1,363.16	4.33	315.884	
1,900.00	1,900.00	1,812.19	1,811.22	4.13	0.47	-15.80	1,319.28	-373.37	1,374.08	1,369.51	4.57	300.770	
2,000.00	2,000.00	1,930.85	1,929.66	4.36	0.49	-15.81	1,326.10	-375.60	1,380.14	1,375.33	4.81	287.076	
2,100.00	2,100.00	2,071.47	2,070.17	4.58	0.52	-15.82	1,331.48	-377.16	1,384.23	1,379.17	5.05	273.977	
2,200.00	2,200.00	2,197.05	2,195.73	4.81	0.54	-15.81	1,333.28	-377.56	1,385.72	1,380.42	5.30	261.477	
2,300.00	2,300.00	2,307.63	2,306.30	5.03	0.54	-15.76	1,333.74	-376.39	1,385.84	1,380.31	5.54	250.372	
2,400.00	2,400.00	2,408.72	2,407.38	5.26	0.53	-15.70	1,333.77	-374.90	1,385.47	1,379.70	5.77	240.310	
2,500.00	2,500.00	2,509.75	2,508.40	5.48	0.53	-15.65	1,333.62	-373.55	1,384.97	1,378.97	5.99	231.048	
2,600.00	2,599.98	2,606.91	2,605.55	5.69	0.53	89.50	1,333.47	-372.63	1,384.54	1,378.34	6.21	223.111	
2,657.79	2,657.71	2,660.15	2,658.79	5.80	0.53	89.61	1,333.49	-372.28	1,384.44	1,378.12	6.32	219.020	
2,700.00	2,699.84	2,692.59	2,691.24	5.88	0.53	89.70	1,333.64	-372.11	1,384.57	1,378.16	6.41	216.101	
2,800.00	2,799.45	2,776.23	2,774.86	6.08	0.54	90.01	1,334.98	-371.69	1,385.95	1,379.33	6.62	209.308	
2,900.00	2,898.70	2,873.42	2,872.02	6.29	0.56	90.50	1,337.17	-371.10	1,388.04	1,381.19	6.85	202.654	
3,000.00	2,997.57	2,998.48	2,997.05	6.51	0.58	91.35	1,338.93	-369.24	1,389.28	1,382.19	7.09	195.993	
3,100.00	3,096.40	3,122.26	3,120.81	6.74	0.58	92.22	1,338.73	-367.02	1,389.23	1,381.91	7.32	189.705	
3,200.00	3,195.22	3,229.72	3,228.24	6.98	0.58	92.90	1,336.56	-366.34	1,387.77	1,380.21	7.56	183.602	
3,300.00	3,294.05	3,327.70	3,326.20	7.23	0.58	93.50	1,334.31	-366.39	1,386.38	1,378.57	7.81	177.622	
3,400.00	3,392.88	3,433.10	3,431.57	7.49	0.58	94.14	1,331.84	-366.37	1,385.08	1,377.02	8.06	171.853	
3,500.00	3,491.70	3,536.98	3,535.41	7.75	0.58	94.78	1,328.80	-366.21	1,383.35	1,375.02	8.32	166.220	
3,600.00	3,590.53	3,639.89	3,638.26	8.02	0.59	95.41	1,325.45	-366.20	1,381.48	1,372.88	8.59	160.770	
3,700.00	3,689.36	3,750.40	3,748.70	8.29	0.59	96.11	1,321.41	-365.45	1,379.27	1,370.40	8.87	155.517	
3,800.00	3,788.19	3,849.71	3,847.91	8.57	0.60	96.76	1,317.34	-364.08	1,376.68	1,367.53	9.15	150.407	
3,900.00	3,887.01	3,938.82	3,936.95	8.85	0.61	97.37	1,314.06	-362.47	1,374.64	1,365.19	9.44	145.559	
4,000.00	3,985.84	4,026.76	4,024.83	9.14	0.62	98.00	1,311.59	-360.51	1,373.58	1,363.84	9.74	141.045	
4,100.00	4,084.67	4,123.21	4,121.22	9.43	0.63	98.70	1,309.37	-358.00	1,373.20	1,363.17	10.04	136.829	
4,200.00	4,183.50	4,226.29	4,224.22	9.72	0.65	99.46	1,306.81	-354.90	1,372.82	1,362.48	10.34	132.821	
4,276.38	4,258.98	4,299.10	4,296.97	9.94	0.66	100.00	1,304.98	-352.75	1,372.66	1,362.09	10.57	129.896	
4,300.00	4,282.32	4,320.00	4,317.86	10.01	0.66	100.15	1,304.48	-352.23	1,372.68	1,362.04	10.64	129.024	
4,400.00	4,381.15	4,419.33	4,417.15	10.31	0.68	100.85	1,302.24	-350.09	1,373.04	1,362.09	10.94	125.451	
4,500.00	4,479.98	4,520.93	4,518.69	10.61	0.70	101.57	1,299.73	-347.84	1,373.39	1,362.14	11.25	122.047	
4,600.00	4,578.80	4,615.35	4,613.05	10.92	0.72	102.26	1,297.47	-345.41	1,374.03	1,362.46	11.56	118.840	
4,700.00	4,677.63	4,716.04	4,713.68	11.22	0.74	102.97	1,295.03	-343.12	1,374.85	1,362.98	11.87	115.798	
4,800.00	4,776.46	4,804.51	4,802.11	11.53	0.76	103.60	1,293.17	-341.16	1,376.20	1,364.02	12.18	112.955	

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit Offsets - Gaucho Unit 2Y - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 30- VES GyroFlex V2 — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,875.29	4,899.49	4,897.07	11.84	0.78	104.25	1,291.77	-339.51	1,378.39	1,365.89	12.50	110.315	
5,000.00	4,974.11	4,993.03	4,990.59	12.15	0.81	104.88	1,290.54	-338.12	1,380.95	1,368.14	12.81	107.830	
5,100.00	5,072.94	5,088.98	5,086.53	12.46	0.83	105.52	1,289.59	-336.95	1,383.99	1,370.87	13.12	105.499	
5,200.00	5,171.77	5,189.59	5,187.13	12.77	0.86	106.16	1,288.59	-336.04	1,387.22	1,373.79	13.43	103.273	
5,300.00	5,270.59	5,284.92	5,282.46	13.09	0.88	106.78	1,287.82	-335.11	1,390.80	1,377.06	13.74	101.191	
5,400.00	5,369.42	5,386.15	5,383.67	13.40	0.91	107.42	1,286.95	-334.24	1,394.51	1,380.45	14.06	99.199	
5,500.00	5,468.25	5,483.09	5,480.61	13.72	0.94	108.04	1,286.21	-333.36	1,398.48	1,384.11	14.37	97.325	
5,600.00	5,567.08	5,579.10	5,576.61	14.04	0.96	108.64	1,285.54	-332.62	1,402.68	1,388.00	14.68	95.548	
5,700.00	5,665.90	5,677.81	5,675.32	14.36	0.99	109.25	1,284.81	-331.97	1,407.00	1,392.00	14.99	93.844	
5,800.00	5,764.73	5,777.54	5,775.04	14.68	1.02	109.86	1,284.28	-331.43	1,411.67	1,396.36	15.30	92.241	
5,900.00	5,863.56	5,875.28	5,872.78	15.00	1.05	110.46	1,283.62	-330.79	1,416.37	1,400.75	15.61	90.708	
6,000.00	5,962.39	5,971.45	5,968.95	15.32	1.08	111.04	1,283.15	-330.12	1,421.41	1,405.49	15.92	89.279	
6,100.00	6,061.21	6,071.75	6,069.24	15.64	1.11	111.63	1,282.71	-329.69	1,426.64	1,410.41	16.23	87.902	
6,200.00	6,160.04	6,167.82	6,165.31	15.97	1.13	112.21	1,282.28	-329.07	1,432.03	1,415.49	16.53	86.609	
6,300.00	6,258.87	6,265.42	6,262.91	16.29	1.16	112.78	1,281.75	-328.52	1,437.48	1,420.64	16.84	85.365	
6,400.00	6,357.69	6,362.70	6,360.18	16.61	1.19	113.35	1,281.48	-328.03	1,443.31	1,426.17	17.14	84.205	
6,500.00	6,456.52	6,463.95	6,461.44	16.94	1.22	113.93	1,281.27	-327.63	1,449.35	1,431.91	17.44	83.103	
6,600.00	6,555.35	6,562.09	6,559.58	17.26	1.25	114.48	1,281.08	-327.29	1,455.53	1,437.79	17.74	82.051	
6,700.00	6,654.18	6,657.26	6,654.74	17.59	1.28	115.01	1,280.90	-326.98	1,461.87	1,443.83	18.04	81.050	
6,800.00	6,753.00	6,758.87	6,756.35	17.92	1.31	115.58	1,280.83	-326.64	1,468.44	1,450.12	18.33	80.119	
6,900.00	6,851.83	6,854.08	6,851.56	18.24	1.33	116.11	1,280.68	-326.17	1,475.11	1,456.49	18.62	79.225	
7,000.00	6,950.66	6,951.12	6,948.60	18.57	1.35	116.64	1,280.84	-325.70	1,482.22	1,463.32	18.90	78.435	
7,100.00	7,049.49	7,047.52	7,045.00	18.90	1.36	117.16	1,281.11	-325.25	1,489.56	1,470.39	19.17	77.693	
7,200.00	7,148.31	7,152.99	7,150.47	19.23	1.39	117.72	1,281.11	-325.00	1,496.71	1,477.25	19.46	76.923	
7,300.00	7,247.14	7,250.55	7,248.03	19.56	1.42	118.23	1,281.03	-324.73	1,503.93	1,484.18	19.74	76.176	
7,400.00	7,345.97	7,347.18	7,344.66	19.89	1.44	118.74	1,281.06	-324.48	1,511.37	1,491.35	20.02	75.490	
7,500.00	7,444.79	7,436.62	7,434.10	20.21	1.44	119.19	1,281.46	-324.38	1,519.30	1,499.00	20.29	74.866	
7,600.00	7,543.62	7,541.11	7,538.58	20.54	1.43	119.71	1,281.92	-324.30	1,527.31	1,506.75	20.56	74.285	
7,700.00	7,642.45	7,639.05	7,636.53	20.87	1.42	120.20	1,282.39	-324.25	1,535.48	1,514.65	20.83	73.711	
7,800.00	7,741.28	7,738.26	7,735.74	21.20	1.41	120.68	1,282.86	-324.20	1,543.76	1,522.66	21.10	73.154	
7,900.00	7,840.10	7,837.53	7,835.00	21.54	1.40	121.16	1,283.34	-324.18	1,552.14	1,530.77	21.38	72.612	
8,000.00	7,938.93	7,937.73	7,935.20	21.87	1.39	121.64	1,283.74	-324.20	1,560.55	1,538.90	21.65	72.082	
8,100.00	8,037.76	8,037.70	8,035.17	22.20	1.38	122.11	1,284.10	-324.32	1,568.99	1,547.06	21.93	71.559	
8,200.00	8,136.58	8,136.78	8,134.26	22.53	1.36	122.56	1,284.44	-324.53	1,577.49	1,555.29	22.20	71.047	
8,300.00	8,235.41	8,235.17	8,232.64	22.86	1.34	123.01	1,284.79	-324.81	1,586.08	1,563.60	22.48	70.549	
8,400.00	8,334.24	8,333.46	8,330.93	23.19	1.32	123.45	1,285.19	-325.12	1,594.80	1,572.04	22.76	70.069	
8,500.00	8,433.07	8,430.18	8,427.65	23.52	1.30	123.87	1,285.68	-325.46	1,603.71	1,580.67	23.04	69.606	
8,600.00	8,531.89	8,524.19	8,521.66	23.86	1.29	124.28	1,286.30	-325.70	1,612.87	1,589.55	23.32	69.161	
8,700.00	8,630.72	8,622.04	8,619.50	24.19	1.29	124.71	1,287.09	-325.66	1,622.37	1,598.77	23.60	68.746	
8,800.00	8,729.55	8,721.30	8,718.76	24.52	1.29	125.15	1,287.86	-325.50	1,631.97	1,608.09	23.88	68.346	
8,900.00	8,828.38	8,818.57	8,816.03	24.85	1.29	125.57	1,288.68	-325.30	1,641.73	1,617.58	24.16	67.956	
9,000.00	8,927.20	8,917.02	8,914.47	25.19	1.30	125.99	1,289.55	-325.08	1,651.64	1,627.20	24.44	67.580	
9,100.00	9,026.03	9,015.61	9,013.05	25.52	1.30	126.41	1,290.41	-325.00	1,661.58	1,636.85	24.72	67.212	
9,200.00	9,124.86	9,109.75	9,107.19	25.85	1.30	126.79	1,291.45	-325.08	1,671.75	1,646.74	25.01	66.849	
9,300.00	9,223.68	9,201.90	9,199.33	26.19	1.29	127.15	1,292.89	-325.24	1,682.37	1,657.07	25.30	66.496	
9,400.00	9,322.51	9,297.86	9,295.27	26.52	1.30	127.53	1,294.63	-325.32	1,693.35	1,667.76	25.59	66.176	
9,500.00	9,421.34	9,394.80	9,392.20	26.85	1.30	127.90	1,296.48	-325.32	1,704.51	1,678.64	25.88	65.873	
9,600.00	9,520.17	9,493.98	9,491.36	27.19	1.30	128.28	1,298.35	-325.14	1,715.81	1,689.65	26.16	65.595	
9,700.00	9,618.99	9,594.09	9,591.45	27.52	1.31	128.67	1,300.10	-324.82	1,727.12	1,700.68	26.44	65.325	
9,800.00	9,717.82	9,692.30	9,689.64	27.86	1.32	129.05	1,301.79	-324.44	1,738.49	1,711.76	26.72	65.055	
9,900.00	9,816.65	9,792.03	9,789.36	28.19	1.34	129.42	1,303.42	-324.07	1,749.86	1,722.85	27.01	64.796	
10,000.00	9,915.48	9,896.51	9,893.83	28.53	1.35	129.82	1,305.00	-323.73	1,761.17	1,733.89	27.28	64.556	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Offset Design Gaucho Unit Offsets - Gaucho Unit 2Y - OH - OH — **Offset Site Error:** 0.00 usft

Survey Program: 30- VES GyroFlex V2 — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,100.00	10,014.30	9,999.97	9,997.28	28.86	1.36	130.20	1,306.21	-323.45	1,772.24	1,744.68	27.56	64.300	
10,200.00	10,113.37	10,106.50	10,103.81	29.14	1.38	130.70	1,307.08	-323.14	1,781.94	1,754.13	27.81	64.076	
10,300.00	10,212.86	10,214.52	10,211.82	29.35	1.41	131.08	1,307.37	-322.89	1,788.91	1,760.89	28.02	63.840	
10,400.00	10,312.64	10,316.11	10,313.42	29.54	1.43	131.31	1,307.32	-322.61	1,793.34	1,765.14	28.21	63.578	
10,500.00	10,412.58	10,416.81	10,414.11	29.70	1.46	131.43	1,307.15	-322.22	1,795.43	1,767.05	28.37	63.277	
10,600.00	10,512.58	10,525.82	10,523.12	29.85	1.47	26.42	1,306.73	-322.10	1,795.30	1,766.76	28.55	62.894	
10,700.00	10,612.58	10,620.00	10,617.30	30.01	1.46	26.43	1,306.39	-322.21	1,794.93	1,766.24	28.69	62.555	
10,716.21	10,628.79	10,633.09	10,630.39	30.03	1.46	26.42	1,306.40	-322.25	1,794.91	1,766.20	28.72	62.502	
10,800.00	10,712.58	10,711.49	10,708.80	30.17	1.45	26.42	1,306.65	-322.38	1,795.10	1,766.23	28.87	62.180	
10,900.00	10,812.47	10,811.10	10,808.40	30.32	1.46	26.92	1,307.02	-322.43	1,792.55	1,763.48	29.06	61.675	
11,000.00	10,910.49	10,909.69	10,906.99	30.44	1.46	27.98	1,307.45	-322.56	1,775.80	1,746.54	29.26	60.687	
11,100.00	11,003.69	11,013.36	11,010.66	30.52	1.45	30.22	1,307.75	-323.19	1,743.91	1,714.44	29.46	59.191	
11,200.00	11,089.25	11,105.82	11,103.11	30.57	1.43	33.89	1,307.77	-324.08	1,698.04	1,668.38	29.66	57.244	
11,300.00	11,164.57	11,183.21	11,180.50	30.58	1.41	39.39	1,307.54	-325.00	1,639.99	1,610.14	29.86	54.930	
11,400.00	11,227.35	11,247.31	11,244.59	30.58	1.40	47.36	1,307.33	-325.83	1,572.21	1,542.14	30.06	52.297	
11,500.00	11,275.68	11,294.56	11,291.84	30.57	1.39	58.16	1,307.16	-326.48	1,497.30	1,467.02	30.28	49.443	
11,600.00	11,308.11	11,325.62	11,322.90	30.59	1.38	71.51	1,307.10	-326.92	1,418.22	1,387.69	30.54	46.442	
11,700.00	11,323.64	11,341.06	11,338.33	30.65	1.38	85.69	1,307.07	-327.14	1,337.96	1,307.11	30.84	43.381	
11,800.00	11,325.14	11,342.37	11,339.64	30.78	1.38	90.76	1,307.07	-327.15	1,259.44	1,228.25	31.19	40.374	
11,900.00	11,325.37	11,342.43	11,339.71	31.00	1.38	90.76	1,307.07	-327.16	1,184.16	1,152.56	31.59	37.479	
12,000.00	11,325.60	11,342.50	11,339.77	31.31	1.38	90.77	1,307.07	-327.16	1,112.77	1,080.72	32.05	34.723	
12,100.00	11,325.83	11,342.57	11,339.84	31.72	1.38	90.77	1,307.07	-327.16	1,046.09	1,013.54	32.55	32.139	
12,200.00	11,326.07	11,342.63	11,339.91	32.23	1.38	90.78	1,307.07	-327.16	985.05	951.96	33.09	29.767	
12,300.00	11,326.30	11,342.70	11,339.97	32.83	1.38	90.78	1,307.07	-327.16	930.79	897.13	33.66	27.653	
12,400.00	11,326.53	11,342.76	11,340.04	33.52	1.38	90.79	1,307.07	-327.16	884.53	850.31	34.22	25.849	
12,500.00	11,326.76	11,342.83	11,340.10	34.30	1.38	90.79	1,307.07	-327.16	847.60	812.87	34.73	24.406	
12,600.00	11,326.99	11,342.90	11,340.17	35.14	1.38	90.80	1,307.07	-327.16	821.26	786.12	35.14	23.374	
12,700.00	11,327.22	11,342.96	11,340.23	36.05	1.38	90.80	1,307.07	-327.16	806.53	771.15	35.39	22.792	
12,769.83	11,327.38	11,343.01	11,340.28	36.72	1.38	90.81	1,307.07	-327.16	803.51	768.05	35.45	22.663	CC, ES, SF
12,800.00	11,327.45	11,343.03	11,340.30	37.01	1.38	90.81	1,307.07	-327.16	804.07	768.62	35.45	22.684	
12,900.00	11,327.69	11,343.09	11,340.36	38.03	1.38	90.81	1,307.07	-327.16	813.98	778.67	35.31	23.052	
13,000.00	11,327.92	11,343.15	11,340.43	39.09	1.38	90.82	1,307.07	-327.17	835.82	800.82	35.00	23.879	
13,100.00	11,328.15	11,343.22	11,340.49	40.19	1.38	90.82	1,307.07	-327.17	868.70	834.13	34.57	25.129	
13,200.00	11,328.38	11,343.28	11,340.56	41.33	1.38	90.83	1,307.07	-327.17	911.41	877.34	34.06	26.755	
13,300.00	11,328.61	11,343.35	11,340.62	42.50	1.38	90.83	1,307.07	-327.17	962.65	929.11	33.54	28.703	
13,400.00	11,328.84	11,343.41	11,340.68	43.71	1.38	90.83	1,307.07	-327.17	1,021.14	988.12	33.03	30.919	
13,500.00	11,329.08	11,343.47	11,340.74	44.94	1.38	90.84	1,307.07	-327.17	1,085.71	1,053.16	32.55	33.354	
13,600.00	11,329.31	11,343.53	11,340.81	46.20	1.38	90.84	1,307.07	-327.17	1,155.34	1,123.21	32.12	35.966	
13,700.00	11,329.54	11,343.60	11,340.87	47.48	1.38	90.85	1,307.07	-327.17	1,229.16	1,197.41	31.75	38.718	
13,800.00	11,329.77	11,343.66	11,340.93	48.79	1.38	90.85	1,307.07	-327.17	1,306.47	1,275.05	31.42	41.580	
13,900.00	11,330.00	11,343.72	11,340.99	50.11	1.38	90.86	1,307.07	-327.17	1,386.69	1,355.55	31.14	44.527	
14,000.00	11,330.23	11,343.78	11,341.06	51.45	1.38	90.86	1,307.07	-327.17	1,469.33	1,438.43	30.91	47.542	
14,100.00	11,330.46	11,343.84	11,341.12	52.81	1.38	90.87	1,307.07	-327.17	1,554.02	1,523.31	30.71	50.608	
14,200.00	11,330.70	11,343.90	11,341.18	54.19	1.38	90.87	1,307.07	-327.18	1,640.43	1,609.89	30.54	53.712	
14,300.00	11,330.93	11,343.97	11,341.24	55.58	1.38	90.87	1,307.07	-327.18	1,728.30	1,697.90	30.40	56.846	
14,400.00	11,331.16	11,344.03	11,341.30	56.98	1.38	90.88	1,307.07	-327.18	1,817.44	1,787.15	30.29	60.002	
14,500.00	11,331.39	11,344.09	11,341.36	58.39	1.38	90.88	1,307.07	-327.18	1,907.64	1,877.45	30.20	63.172	
14,600.00	11,331.62	11,344.15	11,341.42	59.82	1.38	90.89	1,307.07	-327.18	1,998.78	1,968.66	30.12	66.352	

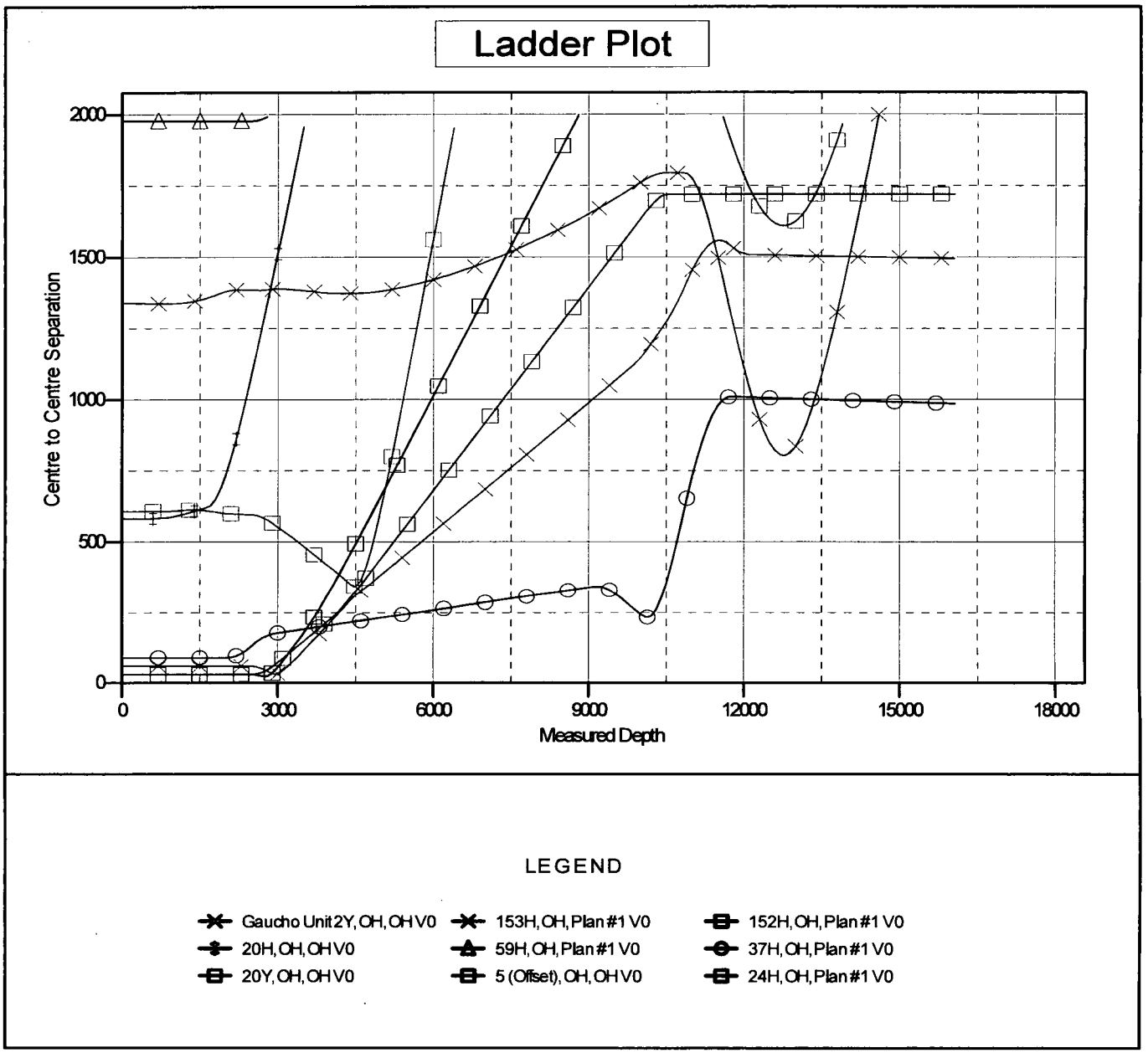
CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

LEAM Drilling Services

Anticollision Report

Company:	Devon Energy	**Local Co-ordinate Reference:**	Well 89H
Project:	Lea County, NM (NAD-83)	**TVD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Reference Site:	Gaucho Unit	**MD Reference:**	3430.4' GE +24' KB @ 3454.40usft
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	89H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to 3430.4' GE +24' KB @ 3454.40usft	Coordinates are relative to: 89H
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Central Meridian is 104° 19' 60.0000 W	Grid Convergence at Surface is: 0.45°



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Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
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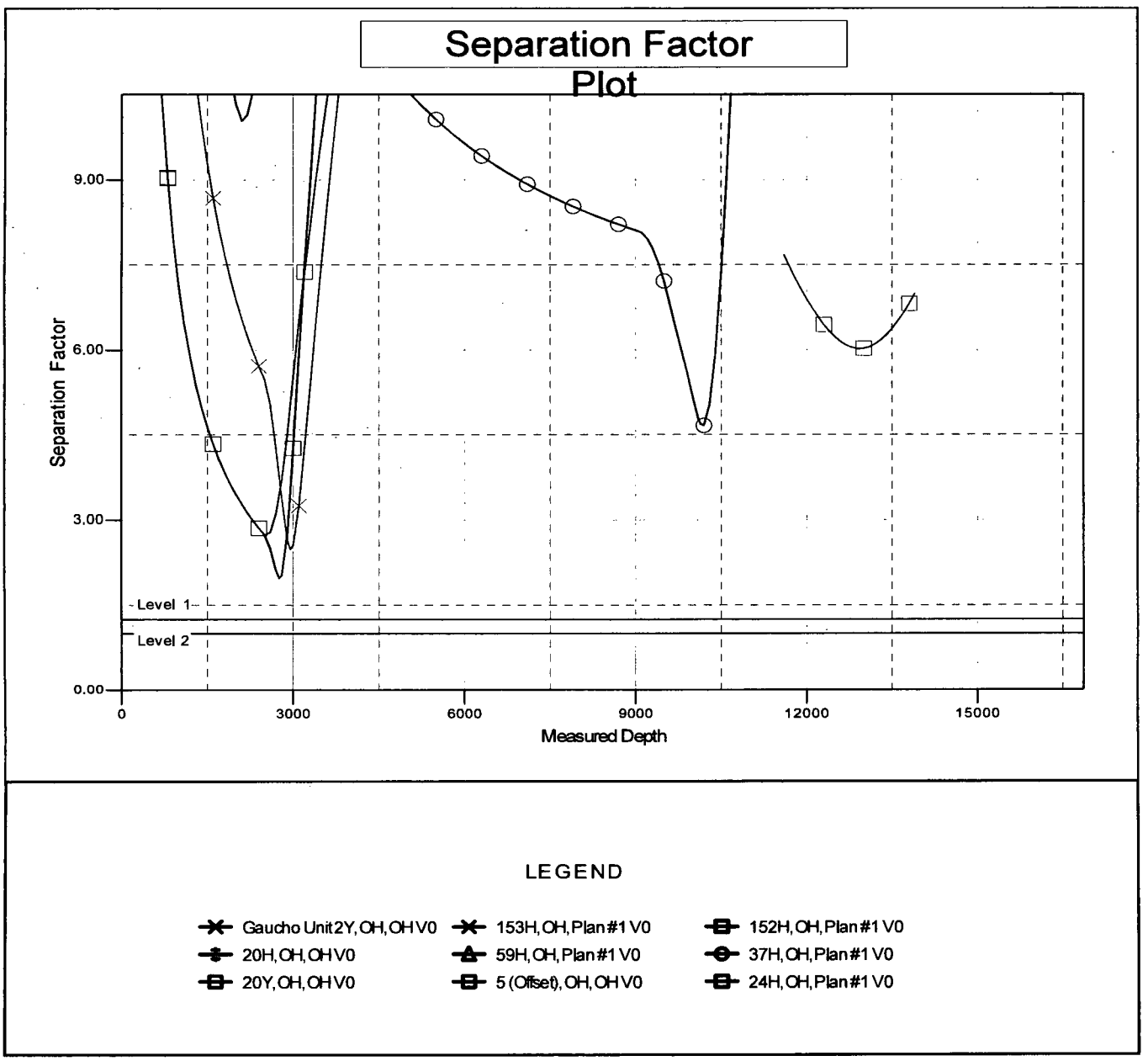
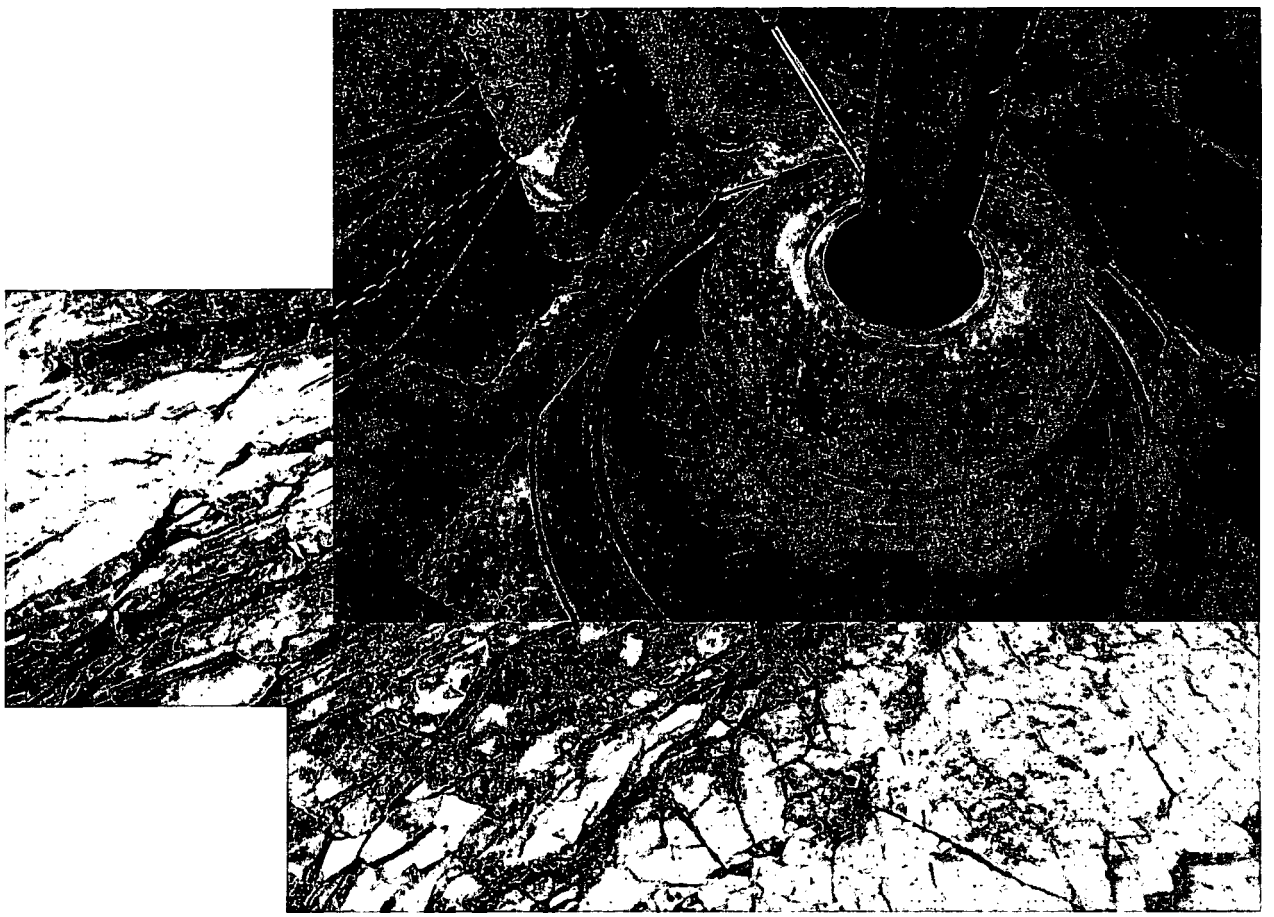
Central Meridian is 104° 19' 60.0000 W	Grid Convergence at Surface is: 0.45°



devon

Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems
June 2010

I. Design Plan

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

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

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

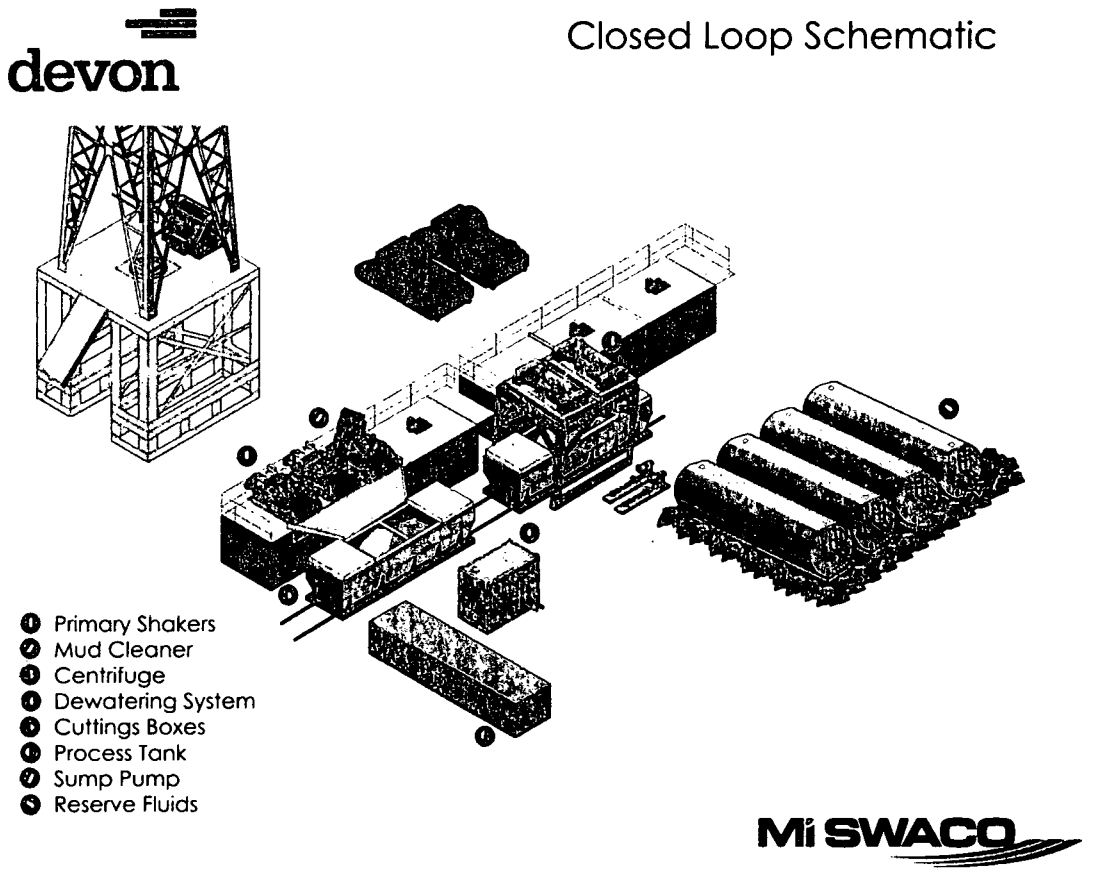
Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

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

II. Operations and Maintenance Plan

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

III. Closure Plan

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

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

Devon proposes using a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.

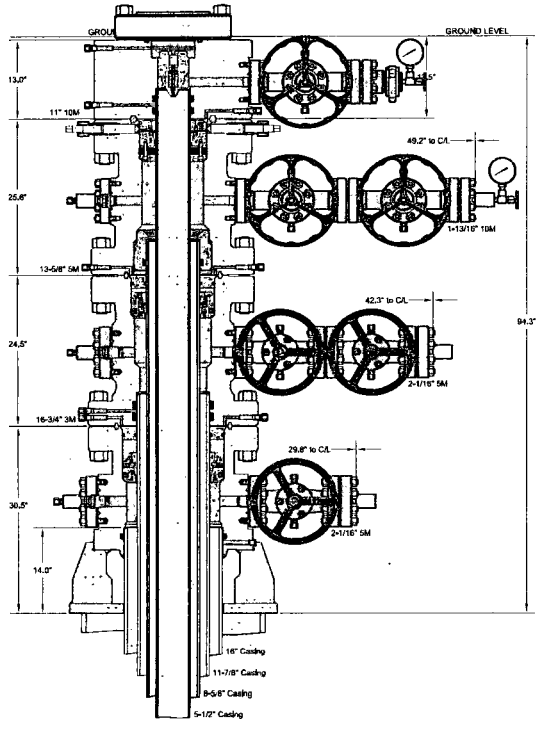
- Wellhead will be installed by wellhead representatives.
- If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- Wellhead representative will install the test plug for the initial BOP test.
- Wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 3M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.
- If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.
- Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.
- Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.

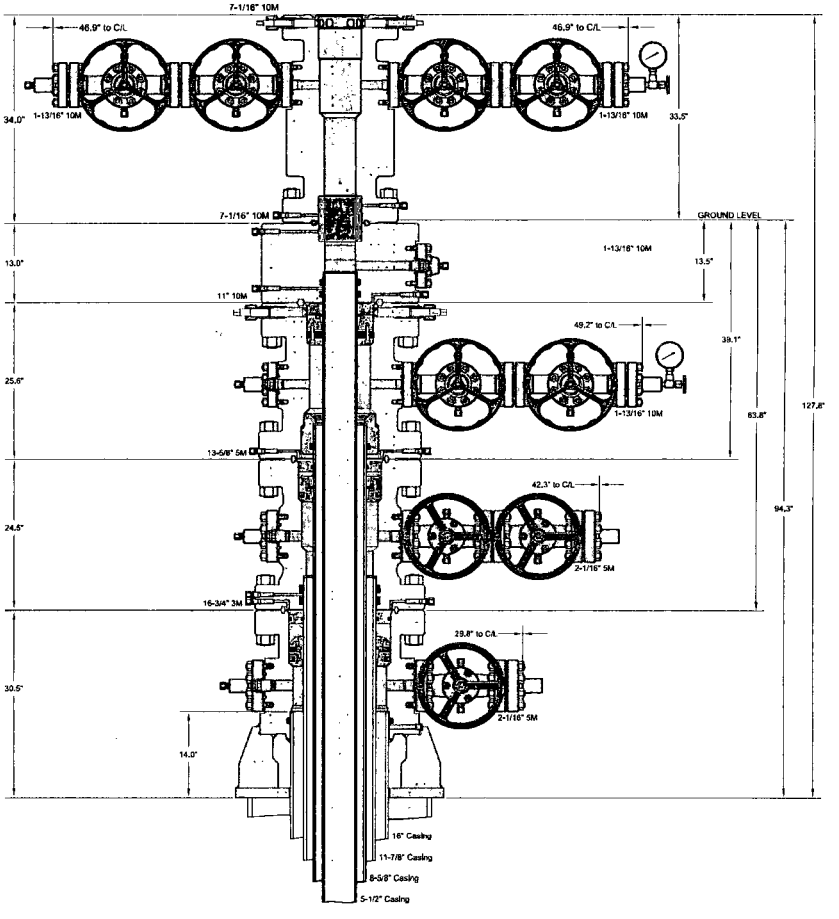
After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.
After running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the wellhead.

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

RIO BLANCO 4-33 FED COM 1H
CACTUS 168





CACTUS WELLHEAD LLC	DEVON ENERGY CORPORATION		
(30") x 16" x 11-7/8" x 8-5/8" x 5-1/2" Conventional Wellhead With 7-1/16" 10M x 7-1/16" 10M CTH-EN Tubing Head, And Conventional Slip Style Casing Hangers	DRAWN	DLE	01DEC17
	APPRV		
	DRAWING NO.	ODE0001941	