

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG OPERATING LLC.
LEASE NO.:	NMNM014164
WELL NAME & NO.:	704H-FASCINATOR FEDERAL COM
SURFACE HOLE FOOTAGE:	210'/N & 980'/W
BOTTOM HOLE FOOTAGE:	200'/S & 1130'/W
LOCATION:	Section. 30., T24S., R.35E., NMP
COUNTY:	LEA County, New Mexico

Potash	☒ None	☐ Secretary	☐ R-111-P
Cave/Karst Potential	☒ Low	☐ Medium	☐ High
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	☒ Conventional	☐ Multibowl	
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP

A. Hydrogen Sulfide

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.

B. CASING

1. The 13 3/8 inch surface casing shall be set at approximately 1190 feet (a minimum of 25 feet into the Rustler Anhydrite and 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 will be a minimum of 8 hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - 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 **9 5/8** inch intermediate casing is:
- Operator has proposed a DV tool at a depth of **5475'**, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.
- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
3. 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.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9 5/8** inch intermediate casing shoe shall be **10,000 (10M)** psi. **Variance approved to use a 5M annular. The annular must be tested to full working pressure (5000 psi.)**

D. SPECIAL REQUIREMENT(S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the

anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.

- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

Waste Minimization Plan (WMP)

In the interest of resource development, submission of additional well gas capture development plan information is deferred but may be required by the BLM Authorized Officer at a later date.

MHH 07222018

GENERAL 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)

☒ Chaves and Roosevelt Counties

Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.

During office hours call (575) 627-0272.

After office hours call (575)

☒ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
393-3612

1. 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.
 - a. In the event 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 well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. 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 are located, this does not include the dog house or stairway area.

3. 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.

A. CASING

1. 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.
2. Wait on cement (WOC) for Potash Areas: 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 for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.
3. 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.
4. 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.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. 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.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. 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 RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: 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.
3. 5M or higher 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.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - 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. 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.
5. The appropriate BLM office shall be notified a minimum of 4 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).

- b. In potash areas, 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. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. 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.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. 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.
- g. 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.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. 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.

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4. Pressure Control Equipment -SEE CoA

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
12-1/4"	13-5/8"	5M	Annular	x	2500 psi
			Blind Ram		5M
			Pipe Ram	x	
			Double Ram	x	
			Other*		
8-3/4"	13-5/8"	10M	5M Annular	x	2500 psi 5000 psi
			Blind Ram		10M
			Pipe Ram	x	
			Double Ram	x	
			Other*		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
N	A multibowl wellhead is being 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.

PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

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LEASE NO.:	NMNM014164
WELL NAME & NO.:	704H-FASCINATOR FEDERAL COM
SURFACE HOLE FOOTAGE:	210'/N & 980'/W
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LOCATION:	Section. 30., T24S., R.35E., NMP
COUNTY:	LEA County, New Mexico

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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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- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
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 - Notification
 - Topsoil
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- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
- ☐ **Interim Reclamation**
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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)

Hydrology

The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling. A leak detection plan will be submitted to the BLM Carlsbad Field Office for approval prior to pipeline installation. The method could incorporate gauges to detect pressure drops, siting valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

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

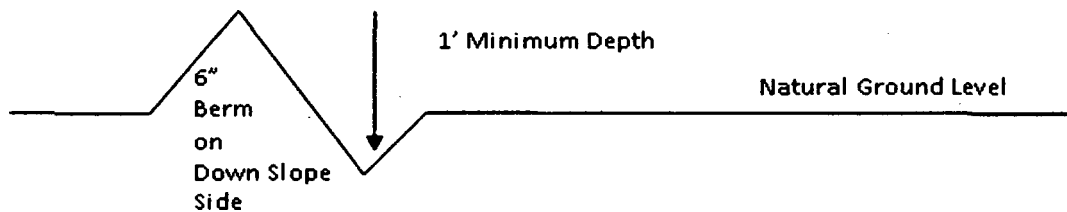
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill out sloping 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:

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

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

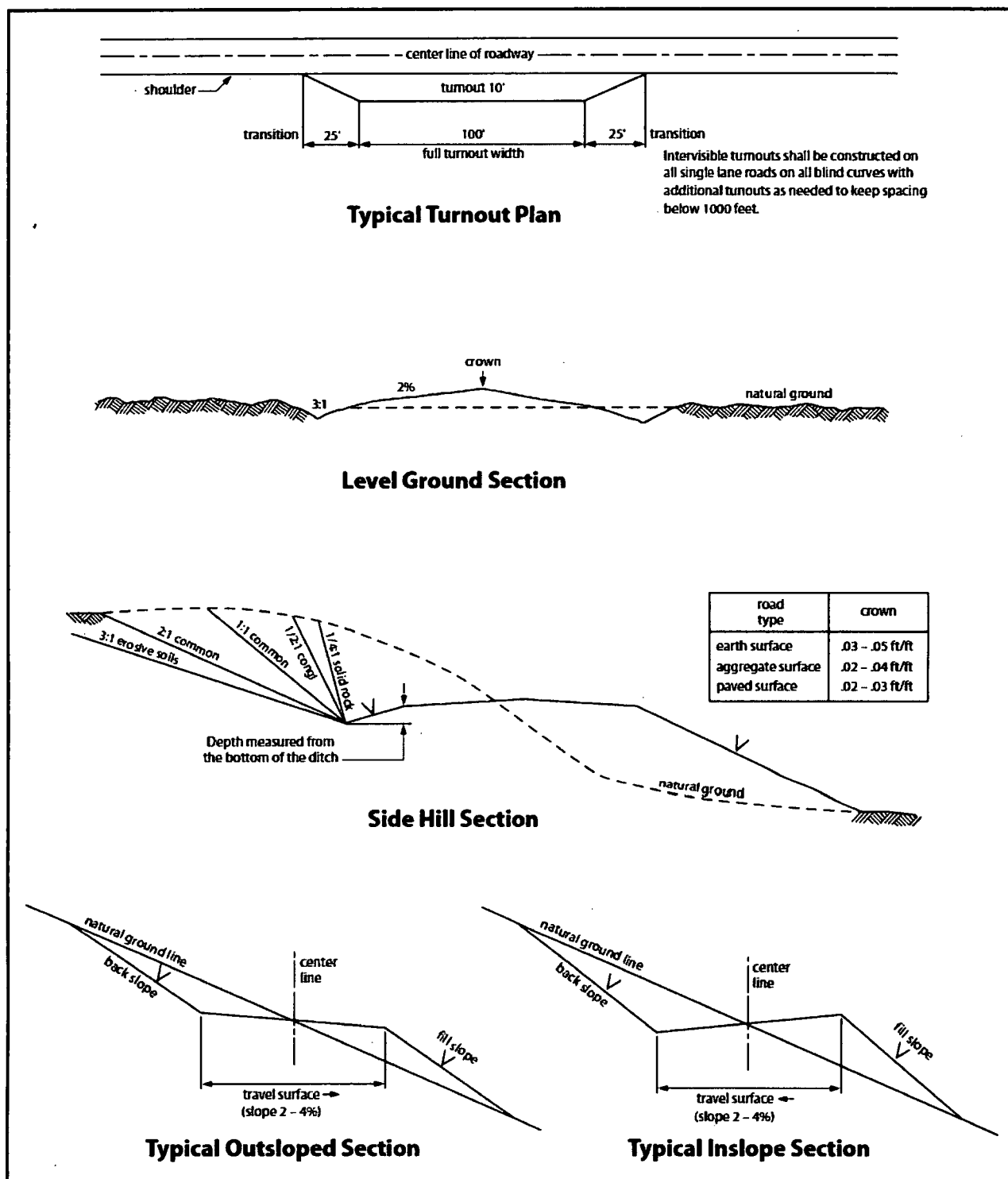


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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).

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).

Seed Mixture 3, for Shallow Sites

The 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 will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will 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). The 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. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will 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:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass (<i>Setaria macrostachya</i>)	1.0
Green Sprangletop (<i>Leptochloa dubia</i>)	2.0
Sideoats Grama (<i>Bouteloua curtipendula</i>)	5.0

*Pounds of pure live seed:

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

COG OPERATING LLC
HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. HYDROGEN SULFIDE 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:

- a. The hazards and characteristics of hydrogen sulfide (H₂S).
- b. The proper use and maintenance of personal protective equipment and life support systems.
- c. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- d. The proper techniques for first aid and rescue procedures.

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

- a. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- b. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- c. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

2. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H₂S 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 H₂S. If H₂S greater than 100 ppm is encountered in the gas stream we will shut in and install H₂S equipment.

- a. Well Control Equipment:
 - Flare line.
 - Choke manifold with remotely operated choke.
 - Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
 - Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

- b. Protective equipment for essential personnel:
Mark II Surviveair 30-minute units located in the dog house and at briefing areas.
- c. H2S detection and monitoring equipment:
2 - portable H2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
- d. Visual warning systems:
Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.
- e. Mud Program:
The mud program has been designed to minimize the volume of H2S circulated to the surface.
- f. Metallurgy:
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- g. Communication:
Company vehicles equipped with cellular telephone.

COG OPERATING LLC has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore, we do not believe that an H2S contingency plan is necessary.

W A R N I N G

**YOU ARE ENTERING AN H₂S AREA
AUTHORIZED PERSONNEL ONLY**

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED***
- 2. HARD HATS REQUIRED***
- 3. SMOKING IN DESIGNATED AREAS ONLY***
- 4. BE WIND CONSCIOUS AT ALL TIMES***
- 5. CK WITH COG OPERATING LLC FOREMAN AT MAIN OFFICE***

COG OPERATING LLC

1-575-748-6940

EMERGENCY CALL LIST

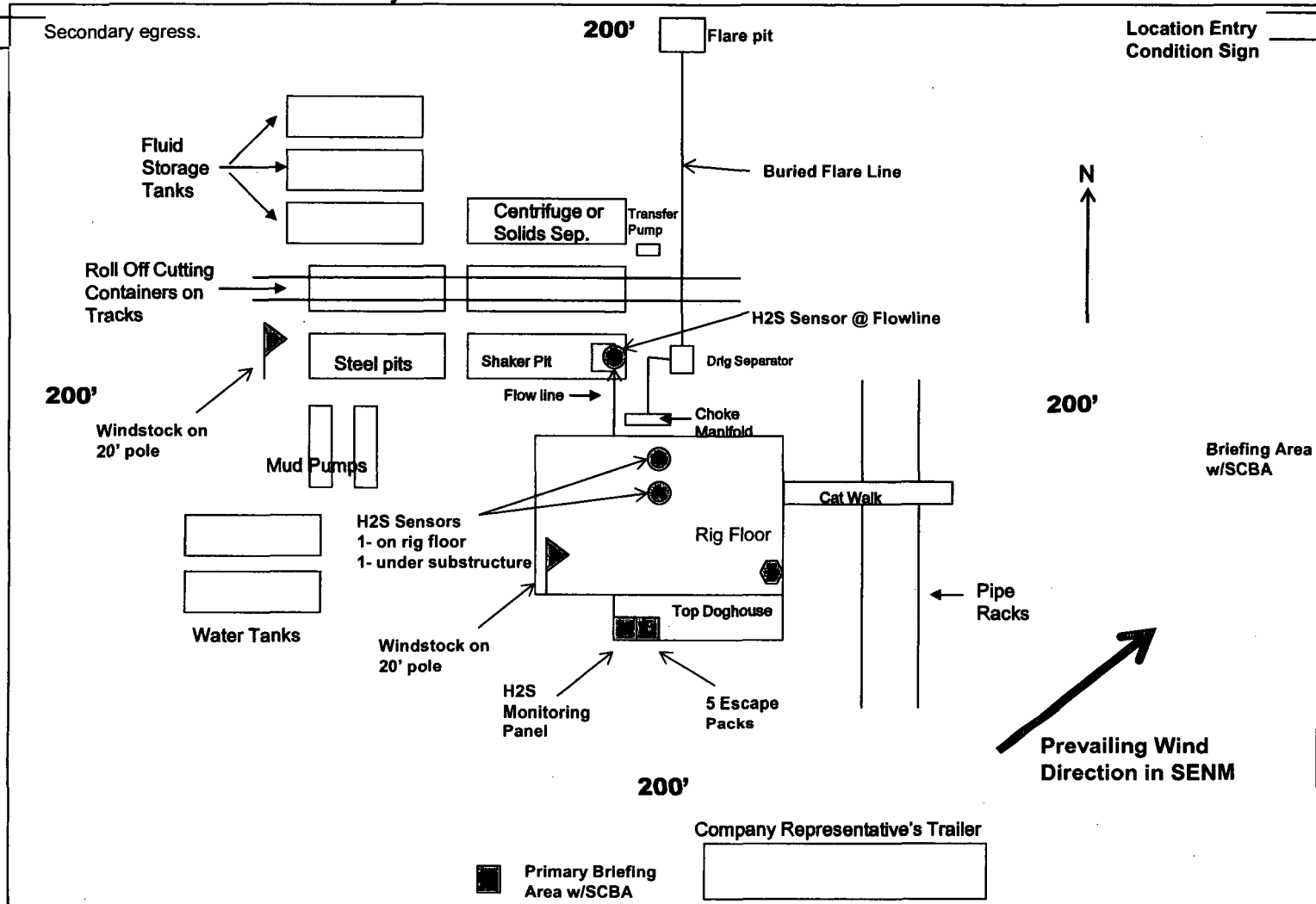
	<u>OFFICE</u>	<u>MOBILE</u>
COG OPERATING LLC OFFICE	575-748-6940	
SETH WILD	432-683-7443	432-528-3633
WALTER ROYE	575-748-6940	432-934-1886

EMERGENCY RESPONSE NUMBERS

	<u>OFFICE</u>
STATE POLICE	575-748-9718
EDDY COUNTY SHERIFF	575-746-2701
EMERGENCY MEDICAL SERVICES (AMBULANCE)	911 or 575-746-2701
EDDY COUNTY EMERGENCY MANAGEMENT (HARRY BURGESS)	575-887-9511
STATE EMERGENCY RESPONSE CENTER (SERC)	575-476-9620
CARLSBAD POLICE DEPARTMENT	575-885-2111
CARLSBAD FIRE DEPARTMENT	575-885-3125
NEW MEXICO OIL CONSERVATION DIVISION	575-748-1283
INDIAN FIRE & SAFETY	800-530-8693
HALLIBURTON SERVICES	800-844-8451

COG Operating LLC
H₂S Equipment Schematic
Terrain: Shinnery sand hills.

Well pad will be 400' x 400'
with cellar in center of pad



Concho Operating

DrilTech, LLC

Start Build 1.50 @ 500'MD
Start 3008.26 hold at 749.25 MD

Lea County, NM (Nad 27)
Fascinator Fed Com Wells
704H, 603H & 705H
Fascinator FC 704H
Plan #1
Noram 23



Start Drop -1.50 @ 3757.51'MD
Start 8200.44 hold at 4006.76 MD

SURFACE LOCATION

US State Plane 1927 (Exact solution)
New Mexico East 3001

Elevation: GL 3370' + 29' RKB @ 3399.00ft (Noram 23)

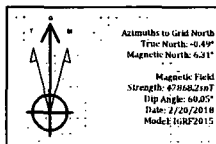
Northing	Easting	Latitude	Longitude
435899.90	785155.90	32.195°N	103.412°W

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
Fascinator FC 704 FTP	12769.00	-118.70	150.40	435781.20	785306.30
Fascinator FC 704 LTP	12889.00	-10017.72	254.40	425882.20	785410.30
Fascinator FC 704H PBHL	12890.58	-10147.82	256.20	425752.10	785412.10

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VFace
0.00	0.00	0.00	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
749.25	3.74	45.08	749.07	5.74	5.76	1.50	45.08	5.79
3757.51	3.74	45.08	3750.93	144.26	144.64	0.00	0.00	-145.62
4006.76	0.00	0.00	4000.00	150.00	150.40	1.50	180.00	-151.41
12207.20	0.00	0.00	12200.44	150.00	150.40	0.00	0.00	-151.41
13100.30	89.31	179.41	12773.36	-416.03	156.19	-10.00	179.41	414.54
22703.19	89.31	179.41	12889.00	-10017.72	254.40	0.00	0.00	10014.88
22833.30	89.31	179.41	12890.57	-10147.82	255.73	0.00	0.00	10144.96



Start Build 10.00 @ 12207.20'MD

Start 9602.89 hold at 13100.30 MD

Fascinator FC 704 FTP

Fascinator FC 704 LTP

Fascinator FC 704H PBHL

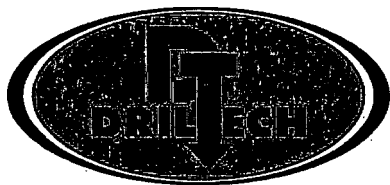
Start 130.11 hold at 22703.19 MD

TD at 22833.30'MD

Fascinator FC 704 LTP

Fascinator FC 704H PBHL

Vertical Section at 180.54° (1750 ft/in)



Concho Operating

**Lea County, NM (Nad 27)
Fascinator Fed Com Wells
Fascinator Fed Com 704H**

Facinator FC 704H

Plan: Plan #1

Standard Planning Report

21 February, 2018



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Company:	Concho Operating	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Project:	Lea County, NM (Nad 27)	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site:	Fascinator Fed Com Wells	North Reference:	Grid
Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Facinator FC 704H		
Design:	Plan #1		

Project	Lea County, NM (Nad 27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Fascinator Fed Com Wells			
Site Position:		Northing:	435,899.90 usft	Latitude:	32.195°N
From:	Map	Easting:	785,155.90 usft	Longitude:	103.412°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.49

Well	Fascinator Fed Com 704H					
Well Position	+N/-S	0.00 ft	Northing:	435,899.90 usft	Latitude:	32.195°N
	+E/-W	0.00 ft	Easting:	785,155.90 usft	Longitude:	103.412°W
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	3,370.00 ft

Wellbore	Facinator FC 704H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/20/2018	6.80	60.05	47,868.18275667

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	180.54

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	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	
749.25	3.74	45.08	749.07	5.74	5.76	1.50	1.50	0.00	45.08	
3,757.51	3.74	45.08	3,750.93	144.26	144.64	0.00	0.00	0.00	0.00	
4,006.76	0.00	0.00	4,000.00	150.00	150.40	1.50	-1.50	0.00	180.00	
12,207.20	0.00	0.00	12,200.44	150.00	150.40	0.00	0.00	0.00	0.00	
13,100.30	89.31	179.41	12,773.36	-416.03	156.19	10.00	10.00	0.00	179.41	
22,703.19	89.31	179.41	12,889.00	-10,017.72	254.40	0.00	0.00	0.00	0.00	Fascinator FC 704H
22,833.30	89.31	179.41	12,890.57	-10,147.82	255.73	0.00	0.00	0.00	0.00	Fascinator FC 704H



Planning Report

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Company:	Concho Operating	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Project:	Lea County, NM (Nad 27)	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site:	Fascinator Fed Com Wells	North Reference:	Grid
Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Facinator FC 704H		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50 @ 500'MD									
600.00	1.50	45.08	599.99	0.92	0.93	-0.93	1.50	1.50	0.00
700.00	3.00	45.08	699.91	3.70	3.71	-3.73	1.50	1.50	0.00
749.25	3.74	45.08	749.07	5.74	5.76	-5.79	1.50	1.50	0.00
Start 3008.26 hold at 749.25 MD									
800.00	3.74	45.08	799.72	8.08	8.10	-8.15	0.00	0.00	0.00
900.00	3.74	45.08	899.50	12.68	12.72	-12.80	0.00	0.00	0.00
1,000.00	3.74	45.08	999.29	17.29	17.33	-17.45	0.00	0.00	0.00
1,100.00	3.74	45.08	1,099.08	21.89	21.95	-22.10	0.00	0.00	0.00
1,200.00	3.74	45.08	1,198.86	26.50	26.57	-26.75	0.00	0.00	0.00
1,300.00	3.74	45.08	1,298.65	31.10	31.18	-31.39	0.00	0.00	0.00
1,400.00	3.74	45.08	1,398.44	35.71	35.80	-36.04	0.00	0.00	0.00
1,500.00	3.74	45.08	1,498.23	40.31	40.42	-40.69	0.00	0.00	0.00
1,600.00	3.74	45.08	1,598.01	44.91	45.03	-45.34	0.00	0.00	0.00
1,700.00	3.74	45.08	1,697.80	49.52	49.65	-49.98	0.00	0.00	0.00
1,800.00	3.74	45.08	1,797.59	54.12	54.27	-54.63	0.00	0.00	0.00
1,900.00	3.74	45.08	1,897.37	58.73	58.89	-59.28	0.00	0.00	0.00
2,000.00	3.74	45.08	1,997.16	63.33	63.50	-63.93	0.00	0.00	0.00
2,100.00	3.74	45.08	2,096.95	67.94	68.12	-68.58	0.00	0.00	0.00
2,200.00	3.74	45.08	2,196.74	72.54	72.74	-73.22	0.00	0.00	0.00
2,300.00	3.74	45.08	2,296.52	77.15	77.35	-77.87	0.00	0.00	0.00
2,400.00	3.74	45.08	2,396.31	81.75	81.97	-82.52	0.00	0.00	0.00
2,500.00	3.74	45.08	2,496.10	86.36	86.59	-87.17	0.00	0.00	0.00
2,600.00	3.74	45.08	2,595.88	90.96	91.20	-91.82	0.00	0.00	0.00
2,700.00	3.74	45.08	2,695.67	95.57	95.82	-96.46	0.00	0.00	0.00
2,800.00	3.74	45.08	2,795.46	100.17	100.44	-101.11	0.00	0.00	0.00
2,900.00	3.74	45.08	2,895.25	104.77	105.05	-105.76	0.00	0.00	0.00
3,000.00	3.74	45.08	2,995.03	109.38	109.67	-110.41	0.00	0.00	0.00
3,100.00	3.74	45.08	3,094.82	113.98	114.29	-115.06	0.00	0.00	0.00
3,200.00	3.74	45.08	3,194.61	118.59	118.90	-119.70	0.00	0.00	0.00
3,300.00	3.74	45.08	3,294.39	123.19	123.52	-124.35	0.00	0.00	0.00
3,400.00	3.74	45.08	3,394.18	127.80	128.14	-129.00	0.00	0.00	0.00
3,500.00	3.74	45.08	3,493.97	132.40	132.76	-133.65	0.00	0.00	0.00
3,600.00	3.74	45.08	3,593.76	137.01	137.37	-138.30	0.00	0.00	0.00
3,700.00	3.74	45.08	3,693.54	141.61	141.99	-142.94	0.00	0.00	0.00
3,757.51	3.74	45.08	3,750.93	144.26	144.64	-145.62	0.00	0.00	0.00
Start Drop -1.50 @ 3757.51'MD									
3,800.00	3.10	45.08	3,793.35	146.05	146.44	-147.42	1.50	-1.50	0.00
3,900.00	1.60	45.08	3,893.26	148.95	149.34	-150.35	1.50	-1.50	0.00
4,000.00	0.10	45.08	3,993.24	150.00	150.40	-151.41	1.50	-1.50	0.00
4,006.76	0.00	0.00	4,000.00	150.00	150.40	-151.41	1.50	-1.50	-667.22
Start 8200.44 hold at 4006.76 MD									
4,100.00	0.00	0.00	4,093.24	150.00	150.40	-151.41	0.00	0.00	0.00
4,200.00	0.00	0.00	4,193.24	150.00	150.40	-151.41	0.00	0.00	0.00
4,300.00	0.00	0.00	4,293.24	150.00	150.40	-151.41	0.00	0.00	0.00
4,400.00	0.00	0.00	4,393.24	150.00	150.40	-151.41	0.00	0.00	0.00
4,500.00	0.00	0.00	4,493.24	150.00	150.40	-151.41	0.00	0.00	0.00
4,600.00	0.00	0.00	4,593.24	150.00	150.40	-151.41	0.00	0.00	0.00



Planning Report

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Project:	Lea County, NM (Nad 27)	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site:	Fascinator Fed Com Wells	North Reference:	Grid
Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Facinator FC 704H		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,700.00	0.00	0.00	4,693.24	150.00	150.40	-151.41	0.00	0.00	0.00
4,800.00	0.00	0.00	4,793.24	150.00	150.40	-151.41	0.00	0.00	0.00
4,900.00	0.00	0.00	4,893.24	150.00	150.40	-151.41	0.00	0.00	0.00
5,000.00	0.00	0.00	4,993.24	150.00	150.40	-151.41	0.00	0.00	0.00
5,100.00	0.00	0.00	5,093.24	150.00	150.40	-151.41	0.00	0.00	0.00
5,200.00	0.00	0.00	5,193.24	150.00	150.40	-151.41	0.00	0.00	0.00
5,300.00	0.00	0.00	5,293.24	150.00	150.40	-151.41	0.00	0.00	0.00
5,400.00	0.00	0.00	5,393.24	150.00	150.40	-151.41	0.00	0.00	0.00
5,500.00	0.00	0.00	5,493.24	150.00	150.40	-151.41	0.00	0.00	0.00
5,600.00	0.00	0.00	5,593.24	150.00	150.40	-151.41	0.00	0.00	0.00
5,700.00	0.00	0.00	5,693.24	150.00	150.40	-151.41	0.00	0.00	0.00
5,800.00	0.00	0.00	5,793.24	150.00	150.40	-151.41	0.00	0.00	0.00
5,900.00	0.00	0.00	5,893.24	150.00	150.40	-151.41	0.00	0.00	0.00
6,000.00	0.00	0.00	5,993.24	150.00	150.40	-151.41	0.00	0.00	0.00
6,100.00	0.00	0.00	6,093.24	150.00	150.40	-151.41	0.00	0.00	0.00
6,200.00	0.00	0.00	6,193.24	150.00	150.40	-151.41	0.00	0.00	0.00
6,300.00	0.00	0.00	6,293.24	150.00	150.40	-151.41	0.00	0.00	0.00
6,400.00	0.00	0.00	6,393.24	150.00	150.40	-151.41	0.00	0.00	0.00
6,500.00	0.00	0.00	6,493.24	150.00	150.40	-151.41	0.00	0.00	0.00
6,600.00	0.00	0.00	6,593.24	150.00	150.40	-151.41	0.00	0.00	0.00
6,700.00	0.00	0.00	6,693.24	150.00	150.40	-151.41	0.00	0.00	0.00
6,800.00	0.00	0.00	6,793.24	150.00	150.40	-151.41	0.00	0.00	0.00
6,900.00	0.00	0.00	6,893.24	150.00	150.40	-151.41	0.00	0.00	0.00
7,000.00	0.00	0.00	6,993.24	150.00	150.40	-151.41	0.00	0.00	0.00
7,100.00	0.00	0.00	7,093.24	150.00	150.40	-151.41	0.00	0.00	0.00
7,200.00	0.00	0.00	7,193.24	150.00	150.40	-151.41	0.00	0.00	0.00
7,300.00	0.00	0.00	7,293.24	150.00	150.40	-151.41	0.00	0.00	0.00
7,400.00	0.00	0.00	7,393.24	150.00	150.40	-151.41	0.00	0.00	0.00
7,500.00	0.00	0.00	7,493.24	150.00	150.40	-151.41	0.00	0.00	0.00
7,600.00	0.00	0.00	7,593.24	150.00	150.40	-151.41	0.00	0.00	0.00
7,700.00	0.00	0.00	7,693.24	150.00	150.40	-151.41	0.00	0.00	0.00
7,800.00	0.00	0.00	7,793.24	150.00	150.40	-151.41	0.00	0.00	0.00
7,900.00	0.00	0.00	7,893.24	150.00	150.40	-151.41	0.00	0.00	0.00
8,000.00	0.00	0.00	7,993.24	150.00	150.40	-151.41	0.00	0.00	0.00
8,100.00	0.00	0.00	8,093.24	150.00	150.40	-151.41	0.00	0.00	0.00
8,200.00	0.00	0.00	8,193.24	150.00	150.40	-151.41	0.00	0.00	0.00
8,300.00	0.00	0.00	8,293.24	150.00	150.40	-151.41	0.00	0.00	0.00
8,400.00	0.00	0.00	8,393.24	150.00	150.40	-151.41	0.00	0.00	0.00
8,500.00	0.00	0.00	8,493.24	150.00	150.40	-151.41	0.00	0.00	0.00
8,600.00	0.00	0.00	8,593.24	150.00	150.40	-151.41	0.00	0.00	0.00
8,700.00	0.00	0.00	8,693.24	150.00	150.40	-151.41	0.00	0.00	0.00
8,800.00	0.00	0.00	8,793.24	150.00	150.40	-151.41	0.00	0.00	0.00
8,900.00	0.00	0.00	8,893.24	150.00	150.40	-151.41	0.00	0.00	0.00
9,000.00	0.00	0.00	8,993.24	150.00	150.40	-151.41	0.00	0.00	0.00
9,100.00	0.00	0.00	9,093.24	150.00	150.40	-151.41	0.00	0.00	0.00
9,200.00	0.00	0.00	9,193.24	150.00	150.40	-151.41	0.00	0.00	0.00
9,300.00	0.00	0.00	9,293.24	150.00	150.40	-151.41	0.00	0.00	0.00
9,400.00	0.00	0.00	9,393.24	150.00	150.40	-151.41	0.00	0.00	0.00
9,500.00	0.00	0.00	9,493.24	150.00	150.40	-151.41	0.00	0.00	0.00
9,600.00	0.00	0.00	9,593.24	150.00	150.40	-151.41	0.00	0.00	0.00
9,700.00	0.00	0.00	9,693.24	150.00	150.40	-151.41	0.00	0.00	0.00
9,800.00	0.00	0.00	9,793.24	150.00	150.40	-151.41	0.00	0.00	0.00
9,900.00	0.00	0.00	9,893.24	150.00	150.40	-151.41	0.00	0.00	0.00
10,000.00	0.00	0.00	9,993.24	150.00	150.40	-151.41	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Company:	Concho Operating	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Project:	Lea County, NM (Nad 27)	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site:	Fascinator Fed Com Wells	North Reference:	Grid
Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Facinator FC 704H		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,100.00	0.00	0.00	10,093.24	150.00	150.40	-151.41	0.00	0.00	0.00
10,200.00	0.00	0.00	10,193.24	150.00	150.40	-151.41	0.00	0.00	0.00
10,300.00	0.00	0.00	10,293.24	150.00	150.40	-151.41	0.00	0.00	0.00
10,400.00	0.00	0.00	10,393.24	150.00	150.40	-151.41	0.00	0.00	0.00
10,500.00	0.00	0.00	10,493.24	150.00	150.40	-151.41	0.00	0.00	0.00
10,600.00	0.00	0.00	10,593.24	150.00	150.40	-151.41	0.00	0.00	0.00
10,700.00	0.00	0.00	10,693.24	150.00	150.40	-151.41	0.00	0.00	0.00
10,800.00	0.00	0.00	10,793.24	150.00	150.40	-151.41	0.00	0.00	0.00
10,900.00	0.00	0.00	10,893.24	150.00	150.40	-151.41	0.00	0.00	0.00
11,000.00	0.00	0.00	10,993.24	150.00	150.40	-151.41	0.00	0.00	0.00
11,100.00	0.00	0.00	11,093.24	150.00	150.40	-151.41	0.00	0.00	0.00
11,200.00	0.00	0.00	11,193.24	150.00	150.40	-151.41	0.00	0.00	0.00
11,300.00	0.00	0.00	11,293.24	150.00	150.40	-151.41	0.00	0.00	0.00
11,400.00	0.00	0.00	11,393.24	150.00	150.40	-151.41	0.00	0.00	0.00
11,500.00	0.00	0.00	11,493.24	150.00	150.40	-151.41	0.00	0.00	0.00
11,600.00	0.00	0.00	11,593.24	150.00	150.40	-151.41	0.00	0.00	0.00
11,700.00	0.00	0.00	11,693.24	150.00	150.40	-151.41	0.00	0.00	0.00
11,800.00	0.00	0.00	11,793.24	150.00	150.40	-151.41	0.00	0.00	0.00
11,900.00	0.00	0.00	11,893.24	150.00	150.40	-151.41	0.00	0.00	0.00
12,000.00	0.00	0.00	11,993.24	150.00	150.40	-151.41	0.00	0.00	0.00
12,100.00	0.00	0.00	12,093.24	150.00	150.40	-151.41	0.00	0.00	0.00
12,200.00	0.00	0.00	12,193.24	150.00	150.40	-151.41	0.00	0.00	0.00
12,207.20	0.00	0.00	12,200.44	150.00	150.40	-151.41	0.00	0.00	0.00
Start Build 10.00 @ 12207.20'MD									
12,300.00	9.28	179.41	12,292.84	142.50	150.48	-143.91	10.00	10.00	0.00
12,400.00	19.28	179.41	12,389.63	117.87	150.73	-119.28	10.00	10.00	0.00
12,500.00	29.28	179.41	12,480.67	76.80	151.15	-78.22	10.00	10.00	0.00
12,600.00	39.28	179.41	12,563.19	20.55	151.72	-21.98	10.00	10.00	0.00
12,700.00	49.28	179.41	12,634.69	-49.17	152.44	47.73	10.00	10.00	0.00
12,800.00	59.28	179.41	12,693.00	-130.25	153.27	128.80	10.00	10.00	0.00
12,822.58	61.54	179.41	12,704.15	-149.88	153.47	148.43	10.00	10.00	0.00
Fascinator FC 704 FTP									
12,900.00	69.28	179.41	12,736.34	-220.23	154.19	218.77	10.00	10.00	0.00
13,000.00	79.28	179.41	12,763.40	-316.36	155.17	314.88	10.00	10.00	0.00
13,100.00	89.28	179.41	12,773.35	-415.73	156.19	414.24	10.00	10.00	0.00
13,100.30	89.31	179.41	12,773.36	-416.03	156.19	414.54	10.00	10.00	0.00
Start 9602.89 hold at 13100.30 MD									
13,200.00	89.31	179.41	12,774.56	-515.72	157.21	514.21	0.00	0.00	0.00
13,300.00	89.31	179.41	12,775.76	-615.71	158.23	614.19	0.00	0.00	0.00
13,400.00	89.31	179.41	12,776.97	-715.69	159.26	714.16	0.00	0.00	0.00
13,500.00	89.31	179.41	12,778.17	-815.68	160.28	814.13	0.00	0.00	0.00
13,600.00	89.31	179.41	12,779.38	-915.67	161.30	914.11	0.00	0.00	0.00
13,700.00	89.31	179.41	12,780.58	-1,015.66	162.32	1,014.08	0.00	0.00	0.00
13,800.00	89.31	179.41	12,781.78	-1,115.64	163.35	1,114.06	0.00	0.00	0.00
13,900.00	89.31	179.41	12,782.99	-1,215.63	164.37	1,214.03	0.00	0.00	0.00
14,000.00	89.31	179.41	12,784.19	-1,315.62	165.39	1,314.00	0.00	0.00	0.00
14,100.00	89.31	179.41	12,785.40	-1,415.61	166.41	1,413.98	0.00	0.00	0.00
14,200.00	89.31	179.41	12,786.60	-1,515.59	167.44	1,513.95	0.00	0.00	0.00
14,300.00	89.31	179.41	12,787.81	-1,615.58	168.46	1,613.92	0.00	0.00	0.00
14,400.00	89.31	179.41	12,789.01	-1,715.57	169.48	1,713.90	0.00	0.00	0.00
14,500.00	89.31	179.41	12,790.21	-1,815.56	170.50	1,813.87	0.00	0.00	0.00
14,600.00	89.31	179.41	12,791.42	-1,915.54	171.53	1,913.84	0.00	0.00	0.00
14,700.00	89.31	179.41	12,792.62	-2,015.53	172.55	2,013.82	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Company:	Concho Operating	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Project:	Lea County, NM (Nad 27)	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site:	Fascinator Fed Com Wells	North Reference:	Grid
Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Facinator FC 704H		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
14,800.00	89.31	179.41	12,793.83	-2,115.52	173.57	2,113.79	0.00	0.00	0.00
14,900.00	89.31	179.41	12,795.03	-2,215.51	174.60	2,213.76	0.00	0.00	0.00
15,000.00	89.31	179.41	12,796.23	-2,315.49	175.62	2,313.74	0.00	0.00	0.00
15,100.00	89.31	179.41	12,797.44	-2,415.48	176.64	2,413.71	0.00	0.00	0.00
15,200.00	89.31	179.41	12,798.64	-2,515.47	177.66	2,513.68	0.00	0.00	0.00
15,300.00	89.31	179.41	12,799.85	-2,615.46	178.69	2,613.66	0.00	0.00	0.00
15,400.00	89.31	179.41	12,801.05	-2,715.44	179.71	2,713.63	0.00	0.00	0.00
15,500.00	89.31	179.41	12,802.26	-2,815.43	180.73	2,813.60	0.00	0.00	0.00
15,600.00	89.31	179.41	12,803.46	-2,915.42	181.75	2,913.58	0.00	0.00	0.00
15,700.00	89.31	179.41	12,804.66	-3,015.41	182.78	3,013.55	0.00	0.00	0.00
15,800.00	89.31	179.41	12,805.87	-3,115.39	183.80	3,113.52	0.00	0.00	0.00
15,900.00	89.31	179.41	12,807.07	-3,215.38	184.82	3,213.50	0.00	0.00	0.00
16,000.00	89.31	179.41	12,808.28	-3,315.37	185.85	3,313.47	0.00	0.00	0.00
16,100.00	89.31	179.41	12,809.48	-3,415.36	186.87	3,413.44	0.00	0.00	0.00
16,200.00	89.31	179.41	12,810.69	-3,515.34	187.89	3,513.42	0.00	0.00	0.00
16,300.00	89.31	179.41	12,811.89	-3,615.33	188.91	3,613.39	0.00	0.00	0.00
16,400.00	89.31	179.41	12,813.09	-3,715.32	189.94	3,713.36	0.00	0.00	0.00
16,500.00	89.31	179.41	12,814.30	-3,815.31	190.96	3,813.34	0.00	0.00	0.00
16,600.00	89.31	179.41	12,815.50	-3,915.29	191.98	3,913.31	0.00	0.00	0.00
16,700.00	89.31	179.41	12,816.71	-4,015.28	193.00	4,013.28	0.00	0.00	0.00
16,800.00	89.31	179.41	12,817.91	-4,115.27	194.03	4,113.26	0.00	0.00	0.00
16,900.00	89.31	179.41	12,819.12	-4,215.26	195.05	4,213.23	0.00	0.00	0.00
17,000.00	89.31	179.41	12,820.32	-4,315.24	196.07	4,313.21	0.00	0.00	0.00
17,100.00	89.31	179.41	12,821.52	-4,415.23	197.10	4,413.18	0.00	0.00	0.00
17,200.00	89.31	179.41	12,822.73	-4,515.22	198.12	4,513.15	0.00	0.00	0.00
17,300.00	89.31	179.41	12,823.93	-4,615.21	199.14	4,613.13	0.00	0.00	0.00
17,400.00	89.31	179.41	12,825.14	-4,715.19	200.16	4,713.10	0.00	0.00	0.00
17,500.00	89.31	179.41	12,826.34	-4,815.18	201.19	4,813.07	0.00	0.00	0.00
17,600.00	89.31	179.41	12,827.55	-4,915.17	202.21	4,913.05	0.00	0.00	0.00
17,700.00	89.31	179.41	12,828.75	-5,015.16	203.23	5,013.02	0.00	0.00	0.00
17,800.00	89.31	179.41	12,829.95	-5,115.14	204.25	5,112.99	0.00	0.00	0.00
17,900.00	89.31	179.41	12,831.16	-5,215.13	205.28	5,212.97	0.00	0.00	0.00
18,000.00	89.31	179.41	12,832.36	-5,315.12	206.30	5,312.94	0.00	0.00	0.00
18,100.00	89.31	179.41	12,833.57	-5,415.11	207.32	5,412.91	0.00	0.00	0.00
18,200.00	89.31	179.41	12,834.77	-5,515.10	208.35	5,512.89	0.00	0.00	0.00
18,300.00	89.31	179.41	12,835.97	-5,615.08	209.37	5,612.86	0.00	0.00	0.00
18,400.00	89.31	179.41	12,837.18	-5,715.07	210.39	5,712.83	0.00	0.00	0.00
18,500.00	89.31	179.41	12,838.38	-5,815.06	211.41	5,812.81	0.00	0.00	0.00
18,600.00	89.31	179.41	12,839.59	-5,915.05	212.44	5,912.78	0.00	0.00	0.00
18,700.00	89.31	179.41	12,840.79	-6,015.03	213.46	6,012.75	0.00	0.00	0.00
18,800.00	89.31	179.41	12,842.00	-6,115.02	214.48	6,112.73	0.00	0.00	0.00
18,900.00	89.31	179.41	12,843.20	-6,215.01	215.50	6,212.70	0.00	0.00	0.00
19,000.00	89.31	179.41	12,844.40	-6,315.00	216.53	6,312.67	0.00	0.00	0.00
19,100.00	89.31	179.41	12,845.61	-6,414.98	217.55	6,412.65	0.00	0.00	0.00
19,200.00	89.31	179.41	12,846.81	-6,514.97	218.57	6,512.62	0.00	0.00	0.00
19,300.00	89.31	179.41	12,848.02	-6,614.96	219.60	6,612.59	0.00	0.00	0.00
19,400.00	89.31	179.41	12,849.22	-6,714.95	220.62	6,712.57	0.00	0.00	0.00
19,500.00	89.31	179.41	12,850.43	-6,814.93	221.64	6,812.54	0.00	0.00	0.00
19,600.00	89.31	179.41	12,851.63	-6,914.92	222.66	6,912.51	0.00	0.00	0.00
19,700.00	89.31	179.41	12,852.83	-7,014.91	223.69	7,012.49	0.00	0.00	0.00
19,800.00	89.31	179.41	12,854.04	-7,114.90	224.71	7,112.46	0.00	0.00	0.00
19,900.00	89.31	179.41	12,855.24	-7,214.88	225.73	7,212.43	0.00	0.00	0.00
20,000.00	89.31	179.41	12,856.45	-7,314.87	226.75	7,312.41	0.00	0.00	0.00
20,100.00	89.31	179.41	12,857.65	-7,414.86	227.78	7,412.38	0.00	0.00	0.00



Planning Report

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Company:	Concho Operating	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Project:	Lea County, NM (Nad 27)	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site:	Fascinator Fed Com Wells	North Reference:	Grid
Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Facinator FC 704H		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
20,200.00	89.31	179.41	12,858.86	-7,514.85	228.80	7,512.36	0.00	0.00	0.00
20,300.00	89.31	179.41	12,860.06	-7,614.83	229.82	7,612.33	0.00	0.00	0.00
20,400.00	89.31	179.41	12,861.26	-7,714.82	230.85	7,712.30	0.00	0.00	0.00
20,500.00	89.31	179.41	12,862.47	-7,814.81	231.87	7,812.28	0.00	0.00	0.00
20,600.00	89.31	179.41	12,863.67	-7,914.80	232.89	7,912.25	0.00	0.00	0.00
20,700.00	89.31	179.41	12,864.88	-8,014.78	233.91	8,012.22	0.00	0.00	0.00
20,800.00	89.31	179.41	12,866.08	-8,114.77	234.94	8,112.20	0.00	0.00	0.00
20,900.00	89.31	179.41	12,867.29	-8,214.76	235.96	8,212.17	0.00	0.00	0.00
21,000.00	89.31	179.41	12,868.49	-8,314.75	236.98	8,312.14	0.00	0.00	0.00
21,100.00	89.31	179.41	12,869.69	-8,414.73	238.00	8,412.12	0.00	0.00	0.00
21,200.00	89.31	179.41	12,870.90	-8,514.72	239.03	8,512.09	0.00	0.00	0.00
21,300.00	89.31	179.41	12,872.10	-8,614.71	240.05	8,612.06	0.00	0.00	0.00
21,400.00	89.31	179.41	12,873.31	-8,714.70	241.07	8,712.04	0.00	0.00	0.00
21,500.00	89.31	179.41	12,874.51	-8,814.68	242.10	8,812.01	0.00	0.00	0.00
21,600.00	89.31	179.41	12,875.72	-8,914.67	243.12	8,911.98	0.00	0.00	0.00
21,700.00	89.31	179.41	12,876.92	-9,014.66	244.14	9,011.96	0.00	0.00	0.00
21,800.00	89.31	179.41	12,878.12	-9,114.65	245.16	9,111.93	0.00	0.00	0.00
21,900.00	89.31	179.41	12,879.33	-9,214.63	246.19	9,211.90	0.00	0.00	0.00
22,000.00	89.31	179.41	12,880.53	-9,314.62	247.21	9,311.88	0.00	0.00	0.00
22,100.00	89.31	179.41	12,881.74	-9,414.61	248.23	9,411.85	0.00	0.00	0.00
22,200.00	89.31	179.41	12,882.94	-9,514.60	249.25	9,511.82	0.00	0.00	0.00
22,300.00	89.31	179.41	12,884.14	-9,614.58	250.28	9,611.80	0.00	0.00	0.00
22,400.00	89.31	179.41	12,885.35	-9,714.57	251.30	9,711.77	0.00	0.00	0.00
22,500.00	89.31	179.41	12,886.55	-9,814.56	252.32	9,811.74	0.00	0.00	0.00
22,600.00	89.31	179.41	12,887.76	-9,914.55	253.35	9,911.72	0.00	0.00	0.00
22,700.00	89.31	179.41	12,888.96	-10,014.53	254.37	10,011.69	0.00	0.00	0.00
22,703.19	89.31	179.41	12,889.00	-10,017.72	254.40	10,014.88	0.00	0.00	0.00
Start 130.11 hold at 22703.19 MD - Fascinator FC 704 LTP									
22,800.00	89.31	179.41	12,890.17	-10,114.52	255.39	10,111.66	0.00	0.00	0.00
22,833.30	89.31	179.41	12,890.57	-10,147.82	255.73	10,144.96	0.00	0.00	0.00
TD at 22833.30' MD - Fascinator FC 704H PBHL									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Fascinator FC 704 FT	0.00	0.00	12,769.00	-118.70	150.40	435,781.20	785,306.30	32.195°N	103.411°W
- hit/miss target									
- plan misses target center by 72.03ft at 12822.58ft MD (12704.15 TVD, -149.88 N, 153.47 E)									
- Point									
Fascinator FC 704 LT	0.00	0.00	12,889.00	-10,017.72	254.40	425,882.20	785,410.30	32.168°N	103.411°W
- plan hits target center									
- Point									
Fascinator FC 704H F	0.00	0.00	12,890.58	-10,147.82	256.20	425,752.10	785,412.10	32.167°N	103.411°W
- plan misses target center by 0.47ft at 22833.30ft MD (12890.57 TVD, -10147.82 N, 255.73 E)									
- Point									

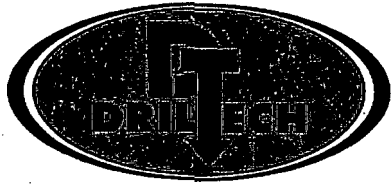


Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Company:	Concho Operating	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Project:	Lea County, NM (Nad 27)	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site:	Fascinator Fed Com Wells	North Reference:	Grid
Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Facinator FC 704H		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
500.00	500.00	0.00	0.00	Start Build 1.50 @ 500'MD
749.25	749.07	5.74	5.76	Start 3008.26 hold at 749.25 MD
3,757.51	3,750.93	144.26	144.64	Start Drop -1.50 @ 3757.51'MD
4,006.76	4,000.00	150.00	150.40	Start 8200.44 hold at 4006.76 MD
12,207.20	12,200.44	150.00	150.40	Start Build 10.00 @ 12207.20'MD
13,100.30	12,773.36	-416.03	156.19	Start 9602.89 hold at 13100.30 MD
22,703.19	12,889.00	-10,017.72	254.40	Start 130.11 hold at 22703.19 MD
22,833.30	12,890.57	-10,147.82	255.73	TD at 22833.30'MD



Concho Operating

**Lea County, NM (Nad 27)
Fascinator Fed Com Wells
Fascinator Fed Com 704H**

Facinator FC 704H

Plan: Plan #1

Standard Planning Report - Geographic

21 February, 2018



Planning Report - Geographic

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Company:	Concho Operating	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Project:	Lea County, NM (Nad 27)	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site:	Fascinator Fed Com Wells	North Reference:	Grid
Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Facinator FC 704H		
Design:	Plan #1		

Project	Lea County, NM (Nad 27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Fascinator Fed Com Wells			
Site Position:		Northing:	435,899.90 usft	Latitude: 32.195°N
From:	Map	Easting:	785,155.90 usft	Longitude: 103.412°W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence: 0.49 °

Well	Fascinator Fed Com 704H			
Well Position	+N/-S	0.00 ft	Northing:	435,899.90 usft
	+E/-W	0.00 ft	Easting:	785,155.90 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	Ground Level: 3,370.00 ft

Wellbore	Facinator FC 704H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/20/2018	6.80	60.05	47,868.18275667

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	180.54	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	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	
749.25	3.74	45.08	749.07	5.74	5.76	1.50	1.50	0.00	45.08	
3,757.51	3.74	45.08	3,750.93	144.26	144.64	0.00	0.00	0.00	0.00	
4,006.76	0.00	0.00	4,000.00	150.00	150.40	1.50	-1.50	0.00	180.00	
12,207.20	0.00	0.00	12,200.44	150.00	150.40	0.00	0.00	0.00	0.00	
13,100.30	89.31	179.41	12,773.36	-416.03	156.19	10.00	10.00	0.00	179.41	
22,703.19	89.31	179.41	12,889.00	-10,017.72	254.40	0.00	0.00	0.00	0.00	Fascinator FC 704H
22,833.30	89.31	179.41	12,890.57	-10,147.82	255.73	0.00	0.00	0.00	0.00	Fascinator FC 704H

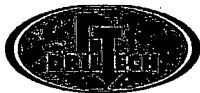


Planning Report - Geographic

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Company:	Concho Operating	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Project:	Lea County, NM (Nad 27)	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site:	Fascinator Fed Com Wells	North Reference:	Grid
Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Facinator FC 704H		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	435,899.90	785,155.90	32.195°N	103.412°W
100.00	0.00	0.00	100.00	0.00	0.00	435,899.90	785,155.90	32.195°N	103.412°W
200.00	0.00	0.00	200.00	0.00	0.00	435,899.90	785,155.90	32.195°N	103.412°W
300.00	0.00	0.00	300.00	0.00	0.00	435,899.90	785,155.90	32.195°N	103.412°W
400.00	0.00	0.00	400.00	0.00	0.00	435,899.90	785,155.90	32.195°N	103.412°W
500.00	0.00	0.00	500.00	0.00	0.00	435,899.90	785,155.90	32.195°N	103.412°W
Start Build 1.50 @ 500'MD									
600.00	1.50	45.08	599.99	0.92	0.93	435,900.82	785,156.82	32.195°N	103.412°W
700.00	3.00	45.08	699.91	3.70	3.71	435,903.60	785,159.60	32.195°N	103.412°W
749.25	3.74	45.08	749.07	5.74	5.76	435,905.64	785,161.65	32.195°N	103.411°W
Start 3008.26 hold at 749.25 MD									
800.00	3.74	45.08	799.72	8.08	8.10	435,907.98	785,164.00	32.195°N	103.411°W
900.00	3.74	45.08	899.50	12.68	12.72	435,912.58	785,168.61	32.195°N	103.411°W
1,000.00	3.74	45.08	999.29	17.29	17.33	435,917.19	785,173.23	32.195°N	103.411°W
1,100.00	3.74	45.08	1,099.08	21.89	21.95	435,921.79	785,177.85	32.195°N	103.411°W
1,200.00	3.74	45.08	1,198.86	26.50	26.57	435,926.40	785,182.46	32.195°N	103.411°W
1,300.00	3.74	45.08	1,298.65	31.10	31.18	435,931.00	785,187.08	32.195°N	103.411°W
1,400.00	3.74	45.08	1,398.44	35.71	35.80	435,935.60	785,191.70	32.195°N	103.411°W
1,500.00	3.74	45.08	1,498.23	40.31	40.42	435,940.21	785,196.31	32.195°N	103.411°W
1,600.00	3.74	45.08	1,598.01	44.91	45.03	435,944.81	785,200.93	32.195°N	103.411°W
1,700.00	3.74	45.08	1,697.80	49.52	49.65	435,949.42	785,205.55	32.195°N	103.411°W
1,800.00	3.74	45.08	1,797.59	54.12	54.27	435,954.02	785,210.17	32.195°N	103.411°W
1,900.00	3.74	45.08	1,897.37	58.73	58.89	435,958.63	785,214.78	32.195°N	103.411°W
2,000.00	3.74	45.08	1,997.16	63.33	63.50	435,963.23	785,219.40	32.195°N	103.411°W
2,100.00	3.74	45.08	2,096.95	67.94	68.12	435,967.84	785,224.02	32.195°N	103.411°W
2,200.00	3.74	45.08	2,196.74	72.54	72.74	435,972.44	785,228.63	32.195°N	103.411°W
2,300.00	3.74	45.08	2,296.52	77.15	77.35	435,977.05	785,233.25	32.195°N	103.411°W
2,400.00	3.74	45.08	2,396.31	81.75	81.97	435,981.65	785,237.87	32.195°N	103.411°W
2,500.00	3.74	45.08	2,496.10	86.36	86.59	435,986.26	785,242.48	32.195°N	103.411°W
2,600.00	3.74	45.08	2,595.88	90.96	91.20	435,990.86	785,247.10	32.195°N	103.411°W
2,700.00	3.74	45.08	2,695.67	95.57	95.82	435,995.46	785,251.72	32.195°N	103.411°W
2,800.00	3.74	45.08	2,795.46	100.17	100.44	436,000.07	785,256.33	32.195°N	103.411°W
2,900.00	3.74	45.08	2,895.25	104.77	105.05	436,004.67	785,260.95	32.195°N	103.411°W
3,000.00	3.74	45.08	2,995.03	109.38	109.67	436,009.28	785,265.57	32.195°N	103.411°W
3,100.00	3.74	45.08	3,094.82	113.98	114.29	436,013.88	785,270.19	32.195°N	103.411°W
3,200.00	3.74	45.08	3,194.61	118.59	118.90	436,018.49	785,274.80	32.195°N	103.411°W
3,300.00	3.74	45.08	3,294.39	123.19	123.52	436,023.09	785,279.42	32.195°N	103.411°W
3,400.00	3.74	45.08	3,394.18	127.80	128.14	436,027.70	785,284.04	32.195°N	103.411°W
3,500.00	3.74	45.08	3,493.97	132.40	132.76	436,032.30	785,288.65	32.195°N	103.411°W
3,600.00	3.74	45.08	3,593.76	137.01	137.37	436,036.91	785,293.27	32.195°N	103.411°W
3,700.00	3.74	45.08	3,693.54	141.61	141.99	436,041.51	785,297.89	32.195°N	103.411°W
3,757.51	3.74	45.08	3,750.93	144.26	144.64	436,044.16	785,300.54	32.195°N	103.411°W
Start Drop -1.50 @ 3757.51'MD									
3,800.00	3.10	45.08	3,793.35	146.05	146.44	436,045.95	785,302.34	32.195°N	103.411°W
3,900.00	1.60	45.08	3,893.26	148.95	149.34	436,048.85	785,305.24	32.195°N	103.411°W
4,000.00	0.10	45.08	3,993.24	150.00	150.40	436,049.90	785,306.29	32.195°N	103.411°W
4,006.76	0.00	0.00	4,000.00	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
Start 8200.44 hold at 4006.76 MD									
4,100.00	0.00	0.00	4,093.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
4,200.00	0.00	0.00	4,193.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
4,300.00	0.00	0.00	4,293.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
4,400.00	0.00	0.00	4,393.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
4,500.00	0.00	0.00	4,493.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
4,600.00	0.00	0.00	4,593.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W



Planning Report - Geographic

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Project:	Lea County, NM (Nad 27)	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site:	Fascinator Fed Com Wells	North Reference:	Grid
Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Facinator FC 704H		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,700.00	0.00	0.00	4,693.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
4,800.00	0.00	0.00	4,793.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
4,900.00	0.00	0.00	4,893.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
5,000.00	0.00	0.00	4,993.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
5,100.00	0.00	0.00	5,093.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
5,200.00	0.00	0.00	5,193.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
5,300.00	0.00	0.00	5,293.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
5,400.00	0.00	0.00	5,393.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
5,500.00	0.00	0.00	5,493.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
5,600.00	0.00	0.00	5,593.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
5,700.00	0.00	0.00	5,693.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
5,800.00	0.00	0.00	5,793.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
5,900.00	0.00	0.00	5,893.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
6,000.00	0.00	0.00	5,993.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
6,100.00	0.00	0.00	6,093.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
6,200.00	0.00	0.00	6,193.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
6,300.00	0.00	0.00	6,293.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
6,400.00	0.00	0.00	6,393.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
6,500.00	0.00	0.00	6,493.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
6,600.00	0.00	0.00	6,593.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
6,700.00	0.00	0.00	6,693.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
6,800.00	0.00	0.00	6,793.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
6,900.00	0.00	0.00	6,893.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
7,000.00	0.00	0.00	6,993.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
7,100.00	0.00	0.00	7,093.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
7,200.00	0.00	0.00	7,193.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
7,300.00	0.00	0.00	7,293.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
7,400.00	0.00	0.00	7,393.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
7,500.00	0.00	0.00	7,493.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
7,600.00	0.00	0.00	7,593.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
7,700.00	0.00	0.00	7,693.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
7,800.00	0.00	0.00	7,793.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
7,900.00	0.00	0.00	7,893.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
8,000.00	0.00	0.00	7,993.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
8,100.00	0.00	0.00	8,093.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
8,200.00	0.00	0.00	8,193.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
8,300.00	0.00	0.00	8,293.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
8,400.00	0.00	0.00	8,393.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
8,500.00	0.00	0.00	8,493.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
8,600.00	0.00	0.00	8,593.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
8,700.00	0.00	0.00	8,693.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
8,800.00	0.00	0.00	8,793.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
8,900.00	0.00	0.00	8,893.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
9,000.00	0.00	0.00	8,993.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
9,100.00	0.00	0.00	9,093.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
9,200.00	0.00	0.00	9,193.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
9,300.00	0.00	0.00	9,293.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
9,400.00	0.00	0.00	9,393.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
9,500.00	0.00	0.00	9,493.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
9,600.00	0.00	0.00	9,593.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
9,700.00	0.00	0.00	9,693.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
9,800.00	0.00	0.00	9,793.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
9,900.00	0.00	0.00	9,893.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
10,000.00	0.00	0.00	9,993.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
10,100.00	0.00	0.00	10,093.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W



Planning Report - Geographic

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Company:	Concho Operating	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Project:	Lea County, NM (Nad 27)	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site:	Fascinator Fed Com Wells	North Reference:	Grid
Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Facinator FC 704H		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,200.00	0.00	0.00	10,193.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
10,300.00	0.00	0.00	10,293.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
10,400.00	0.00	0.00	10,393.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
10,500.00	0.00	0.00	10,493.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
10,600.00	0.00	0.00	10,593.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
10,700.00	0.00	0.00	10,693.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
10,800.00	0.00	0.00	10,793.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
10,900.00	0.00	0.00	10,893.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
11,000.00	0.00	0.00	10,993.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
11,100.00	0.00	0.00	11,093.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
11,200.00	0.00	0.00	11,193.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
11,300.00	0.00	0.00	11,293.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
11,400.00	0.00	0.00	11,393.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
11,500.00	0.00	0.00	11,493.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
11,600.00	0.00	0.00	11,593.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
11,700.00	0.00	0.00	11,693.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
11,800.00	0.00	0.00	11,793.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
11,900.00	0.00	0.00	11,893.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
12,000.00	0.00	0.00	11,993.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
12,100.00	0.00	0.00	12,093.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
12,200.00	0.00	0.00	12,193.24	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
12,207.20	0.00	0.00	12,200.44	150.00	150.40	436,049.90	785,306.30	32.195°N	103.411°W
Start Build 10.00 @ 12207.20 MD									
12,300.00	9.28	179.41	12,292.84	142.50	150.48	436,042.40	785,306.37	32.195°N	103.411°W
12,400.00	19.28	179.41	12,389.63	117.87	150.73	436,017.77	785,306.63	32.195°N	103.411°W
12,500.00	29.28	179.41	12,480.67	76.80	151.15	435,976.70	785,307.05	32.195°N	103.411°W
12,600.00	39.28	179.41	12,563.19	20.55	151.72	435,920.45	785,307.62	32.195°N	103.411°W
12,700.00	49.28	179.41	12,634.69	-49.17	152.44	435,850.73	785,308.33	32.195°N	103.411°W
12,800.00	59.28	179.41	12,693.00	-130.25	153.27	435,769.65	785,309.16	32.195°N	103.411°W
12,822.58	61.54	179.41	12,704.15	-149.88	153.47	435,750.02	785,309.36	32.195°N	103.411°W
Fascinator FC 704 FTP									
12,900.00	69.28	179.41	12,736.34	-220.23	154.19	435,679.67	785,310.08	32.194°N	103.411°W
13,000.00	79.28	179.41	12,763.40	-316.36	155.17	435,583.54	785,311.07	32.194°N	103.411°W
13,100.00	89.28	179.41	12,773.35	-415.73	156.19	435,484.17	785,312.08	32.194°N	103.411°W
13,100.30	89.31	179.41	12,773.36	-416.03	156.19	435,483.87	785,312.09	32.194°N	103.411°W
Start 9602.89 hold at 13100.30 MD									
13,200.00	89.31	179.41	12,774.56	-515.72	157.21	435,384.18	785,313.11	32.194°N	103.411°W
13,300.00	89.31	179.41	12,775.76	-615.71	158.23	435,284.19	785,314.13	32.193°N	103.411°W
13,400.00	89.31	179.41	12,776.97	-715.69	159.26	435,184.21	785,315.15	32.193°N	103.411°W
13,500.00	89.31	179.41	12,778.17	-815.68	160.28	435,084.22	785,316.17	32.193°N	103.411°W
13,600.00	89.31	179.41	12,779.38	-915.67	161.30	434,984.23	785,317.20	32.193°N	103.411°W
13,700.00	89.31	179.41	12,780.58	-1,015.66	162.32	434,884.25	785,318.22	32.192°N	103.411°W
13,800.00	89.31	179.41	12,781.78	-1,115.64	163.35	434,784.26	785,319.24	32.192°N	103.411°W
13,900.00	89.31	179.41	12,782.99	-1,215.63	164.37	434,684.27	785,320.27	32.192°N	103.411°W
14,000.00	89.31	179.41	12,784.19	-1,315.62	165.39	434,584.28	785,321.29	32.191°N	103.411°W
14,100.00	89.31	179.41	12,785.40	-1,415.61	166.41	434,484.30	785,322.31	32.191°N	103.411°W
14,200.00	89.31	179.41	12,786.60	-1,515.59	167.44	434,384.31	785,323.33	32.191°N	103.411°W
14,300.00	89.31	179.41	12,787.81	-1,615.58	168.46	434,284.32	785,324.36	32.191°N	103.411°W
14,400.00	89.31	179.41	12,789.01	-1,715.57	169.48	434,184.33	785,325.38	32.190°N	103.411°W
14,500.00	89.31	179.41	12,790.21	-1,815.56	170.50	434,084.35	785,326.40	32.190°N	103.411°W
14,600.00	89.31	179.41	12,791.42	-1,915.54	171.53	433,984.36	785,327.42	32.190°N	103.411°W
14,700.00	89.31	179.41	12,792.62	-2,015.53	172.55	433,884.37	785,328.45	32.190°N	103.411°W
14,800.00	89.31	179.41	12,793.83	-2,115.52	173.57	433,784.38	785,329.47	32.189°N	103.411°W
14,900.00	89.31	179.41	12,795.03	-2,215.51	174.60	433,684.40	785,330.49	32.189°N	103.411°W



Planning Report - Geographic

Database: EDM 5000.14 Single User Db
Company: Concho Operating
Project: Lea County, NM (Nad 27)
Site: Fascinator Fed Com Wells
Well: Fascinator Fed Com 704H
Wellbore: Facinator FC 704H
Design: Plan #1

Local Co-ordinate Reference: Well Fascinator Fed Com 704H
TVD Reference: GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
MD Reference: GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,000.00	89.31	179.41	12,796.23	-2,315.49	175.62	433,584.41	785,331.52	32.189°N	103.411°W
15,100.00	89.31	179.41	12,797.44	-2,415.48	176.64	433,484.42	785,332.54	32.188°N	103.411°W
15,200.00	89.31	179.41	12,798.64	-2,515.47	177.66	433,384.44	785,333.56	32.188°N	103.411°W
15,300.00	89.31	179.41	12,799.85	-2,615.46	178.69	433,284.45	785,334.58	32.188°N	103.411°W
15,400.00	89.31	179.41	12,801.05	-2,715.44	179.71	433,184.46	785,335.61	32.188°N	103.411°W
15,500.00	89.31	179.41	12,802.26	-2,815.43	180.73	433,084.47	785,336.63	32.187°N	103.411°W
15,600.00	89.31	179.41	12,803.46	-2,915.42	181.75	432,984.49	785,337.65	32.187°N	103.411°W
15,700.00	89.31	179.41	12,804.66	-3,015.41	182.78	432,884.50	785,338.67	32.187°N	103.411°W
15,800.00	89.31	179.41	12,805.87	-3,115.39	183.80	432,784.51	785,339.70	32.186°N	103.411°W
15,900.00	89.31	179.41	12,807.07	-3,215.38	184.82	432,684.52	785,340.72	32.186°N	103.411°W
16,000.00	89.31	179.41	12,808.28	-3,315.37	185.85	432,584.54	785,341.74	32.186°N	103.411°W
16,100.00	89.31	179.41	12,809.48	-3,415.36	186.87	432,484.55	785,342.77	32.186°N	103.411°W
16,200.00	89.31	179.41	12,810.69	-3,515.34	187.89	432,384.56	785,343.79	32.185°N	103.411°W
16,300.00	89.31	179.41	12,811.89	-3,615.33	188.91	432,284.57	785,344.81	32.185°N	103.411°W
16,400.00	89.31	179.41	12,813.09	-3,715.32	189.94	432,184.59	785,345.83	32.185°N	103.411°W
16,500.00	89.31	179.41	12,814.30	-3,815.31	190.96	432,084.60	785,346.86	32.185°N	103.411°W
16,600.00	89.31	179.41	12,815.50	-3,915.29	191.98	431,984.61	785,347.88	32.184°N	103.411°W
16,700.00	89.31	179.41	12,816.71	-4,015.28	193.00	431,884.63	785,348.90	32.184°N	103.411°W
16,800.00	89.31	179.41	12,817.91	-4,115.27	194.03	431,784.64	785,349.92	32.184°N	103.411°W
16,900.00	89.31	179.41	12,819.12	-4,215.26	195.05	431,684.65	785,350.95	32.183°N	103.411°W
17,000.00	89.31	179.41	12,820.32	-4,315.24	196.07	431,584.66	785,351.97	32.183°N	103.411°W
17,100.00	89.31	179.41	12,821.52	-4,415.23	197.10	431,484.68	785,352.99	32.183°N	103.411°W
17,200.00	89.31	179.41	12,822.73	-4,515.22	198.12	431,384.69	785,354.02	32.183°N	103.411°W
17,300.00	89.31	179.41	12,823.93	-4,615.21	199.14	431,284.70	785,355.04	32.182°N	103.411°W
17,400.00	89.31	179.41	12,825.14	-4,715.19	200.16	431,184.71	785,356.06	32.182°N	103.411°W
17,500.00	89.31	179.41	12,826.34	-4,815.18	201.19	431,084.73	785,357.08	32.182°N	103.411°W
17,600.00	89.31	179.41	12,827.55	-4,915.17	202.21	430,984.74	785,358.11	32.182°N	103.411°W
17,700.00	89.31	179.41	12,828.75	-5,015.16	203.23	430,884.75	785,359.13	32.181°N	103.411°W
17,800.00	89.31	179.41	12,829.95	-5,115.14	204.25	430,784.77	785,360.15	32.181°N	103.411°W
17,900.00	89.31	179.41	12,831.16	-5,215.13	205.28	430,684.78	785,361.17	32.181°N	103.411°W
18,000.00	89.31	179.41	12,832.36	-5,315.12	206.30	430,584.79	785,362.20	32.180°N	103.411°W
18,100.00	89.31	179.41	12,833.57	-5,415.11	207.32	430,484.80	785,363.22	32.180°N	103.411°W
18,200.00	89.31	179.41	12,834.77	-5,515.10	208.35	430,384.82	785,364.24	32.180°N	103.411°W
18,300.00	89.31	179.41	12,835.97	-5,615.08	209.37	430,284.83	785,365.27	32.180°N	103.411°W
18,400.00	89.31	179.41	12,837.18	-5,715.07	210.39	430,184.84	785,366.29	32.179°N	103.411°W
18,500.00	89.31	179.41	12,838.38	-5,815.06	211.41	430,084.85	785,367.31	32.179°N	103.411°W
18,600.00	89.31	179.41	12,839.59	-5,915.05	212.44	429,984.87	785,368.33	32.179°N	103.411°W
18,700.00	89.31	179.41	12,840.79	-6,015.03	213.46	429,884.88	785,369.36	32.179°N	103.411°W
18,800.00	89.31	179.41	12,842.00	-6,115.02	214.48	429,784.89	785,370.38	32.178°N	103.411°W
18,900.00	89.31	179.41	12,843.20	-6,215.01	215.50	429,684.90	785,371.40	32.178°N	103.411°W
19,000.00	89.31	179.41	12,844.40	-6,315.00	216.53	429,584.92	785,372.42	32.178°N	103.411°W
19,100.00	89.31	179.41	12,845.61	-6,414.98	217.55	429,484.93	785,373.45	32.177°N	103.411°W
19,200.00	89.31	179.41	12,846.81	-6,514.97	218.57	429,384.94	785,374.47	32.177°N	103.411°W
19,300.00	89.31	179.41	12,848.02	-6,614.96	219.60	429,284.96	785,375.49	32.177°N	103.411°W
19,400.00	89.31	179.41	12,849.22	-6,714.95	220.62	429,184.97	785,376.52	32.177°N	103.411°W
19,500.00	89.31	179.41	12,850.43	-6,814.93	221.64	429,084.98	785,377.54	32.176°N	103.411°W
19,600.00	89.31	179.41	12,851.63	-6,914.92	222.66	428,984.99	785,378.56	32.176°N	103.411°W
19,700.00	89.31	179.41	12,852.83	-7,014.91	223.69	428,885.01	785,379.58	32.176°N	103.411°W
19,800.00	89.31	179.41	12,854.04	-7,114.90	224.71	428,785.02	785,380.61	32.175°N	103.411°W
19,900.00	89.31	179.41	12,855.24	-7,214.88	225.73	428,685.03	785,381.63	32.175°N	103.411°W
20,000.00	89.31	179.41	12,856.45	-7,314.87	226.75	428,585.04	785,382.65	32.175°N	103.411°W
20,100.00	89.31	179.41	12,857.65	-7,414.86	227.78	428,485.06	785,383.67	32.175°N	103.411°W
20,200.00	89.31	179.41	12,858.86	-7,514.85	228.80	428,385.07	785,384.70	32.174°N	103.411°W
20,300.00	89.31	179.41	12,860.06	-7,614.83	229.82	428,285.08	785,385.72	32.174°N	103.411°W
20,400.00	89.31	179.41	12,861.26	-7,714.82	230.85	428,185.09	785,386.74	32.174°N	103.411°W



Planning Report - Geographic

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Company:	Concho Operating	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Project:	Lea County, NM (Nad 27)	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site:	Fascinator Fed Com Wells	North Reference:	Grid
Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Fascinator FC 704H		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
20,500.00	89.31	179.41	12,862.47	-7,814.81	231.87	428,085.11	785,387.77	32.174°N	103.411°W
20,600.00	89.31	179.41	12,863.67	-7,914.80	232.89	427,985.12	785,388.79	32.173°N	103.411°W
20,700.00	89.31	179.41	12,864.88	-8,014.78	233.91	427,885.13	785,389.81	32.173°N	103.411°W
20,800.00	89.31	179.41	12,866.08	-8,114.77	234.94	427,785.15	785,390.83	32.173°N	103.411°W
20,900.00	89.31	179.41	12,867.29	-8,214.76	235.96	427,685.16	785,391.86	32.172°N	103.411°W
21,000.00	89.31	179.41	12,868.49	-8,314.75	236.98	427,585.17	785,392.88	32.172°N	103.411°W
21,100.00	89.31	179.41	12,869.69	-8,414.73	238.00	427,485.18	785,393.90	32.172°N	103.411°W
21,200.00	89.31	179.41	12,870.90	-8,514.72	239.03	427,385.20	785,394.92	32.172°N	103.411°W
21,300.00	89.31	179.41	12,872.10	-8,614.71	240.05	427,285.21	785,395.95	32.171°N	103.411°W
21,400.00	89.31	179.41	12,873.31	-8,714.70	241.07	427,185.22	785,396.97	32.171°N	103.411°W
21,500.00	89.31	179.41	12,874.51	-8,814.68	242.10	427,085.23	785,397.99	32.171°N	103.411°W
21,600.00	89.31	179.41	12,875.72	-8,914.67	243.12	426,985.25	785,399.02	32.171°N	103.411°W
21,700.00	89.31	179.41	12,876.92	-9,014.66	244.14	426,885.26	785,400.04	32.170°N	103.411°W
21,800.00	89.31	179.41	12,878.12	-9,114.65	245.16	426,785.27	785,401.06	32.170°N	103.411°W
21,900.00	89.31	179.41	12,879.33	-9,214.63	246.19	426,685.28	785,402.08	32.170°N	103.411°W
22,000.00	89.31	179.41	12,880.53	-9,314.62	247.21	426,585.30	785,403.11	32.169°N	103.411°W
22,100.00	89.31	179.41	12,881.74	-9,414.61	248.23	426,485.31	785,404.13	32.169°N	103.411°W
22,200.00	89.31	179.41	12,882.94	-9,514.60	249.25	426,385.32	785,405.15	32.169°N	103.411°W
22,300.00	89.31	179.41	12,884.14	-9,614.58	250.28	426,285.34	785,406.17	32.169°N	103.411°W
22,400.00	89.31	179.41	12,885.35	-9,714.57	251.30	426,185.35	785,407.20	32.168°N	103.411°W
22,500.00	89.31	179.41	12,886.55	-9,814.56	252.32	426,085.36	785,408.22	32.168°N	103.411°W
22,600.00	89.31	179.41	12,887.76	-9,914.55	253.35	425,985.37	785,409.24	32.168°N	103.411°W
22,700.00	89.31	179.41	12,888.96	-10,014.53	254.37	425,885.39	785,410.26	32.168°N	103.411°W
22,703.19	89.31	179.41	12,889.00	-10,017.72	254.40	425,882.20	785,410.30	32.168°N	103.411°W
Start 130.11 hold at 22703.19 MD - Fascinator FC 704 LTP									
22,800.00	89.31	179.41	12,890.17	-10,114.52	255.39	425,785.40	785,411.29	32.167°N	103.411°W
22,833.30	89.31	179.41	12,890.57	-10,147.82	255.73	425,752.10	785,411.63	32.167°N	103.411°W
TD at 22833.30 MD - Fascinator FC 704H PBHL									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Fascinator FC 704 FT	0.00	0.00	12,769.00	-118.70	150.40	435,781.20	785,306.30	32.195°N	103.411°W
- plan misses target center by 72.03ft at 12822.58ft MD (12704.15 TVD, -149.88 N, 153.47 E)									
- Point									
Fascinator FC 704 LT	0.00	0.00	12,889.00	-10,017.72	254.40	425,882.20	785,410.30	32.168°N	103.411°W
- plan hits target center									
- Point									
Fascinator FC 704H F	0.00	0.00	12,890.58	-10,147.82	256.20	425,752.10	785,412.10	32.167°N	103.411°W
- plan misses target center by 0.47ft at 22833.30ft MD (12890.57 TVD, -10147.82 N, 255.73 E)									
- Point									



Planning Report - Geographic

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Company:	Concho Operating	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Project:	Lea County, NM (Nad 27)	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site:	Fascinator Fed Com Wells	North Reference:	Grid
Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Facinator FC 704H		
Design:	Plan #1		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
500.00	500.00	0.00	0.00	Start Build 1.50 @ 500'MD
749.25	749.07	5.74	5.76	Start 3008.26 hold at 749.25 MD
3,757.51	3,750.93	144.26	144.64	Start Drop -1.50 @ 3757.51'MD
4,006.76	4,000.00	150.00	150.40	Start 8200.44 hold at 4006.76 MD
12,207.20	12,200.44	150.00	150.40	Start Build 10.00 @ 12207.20'MD
13,100.30	12,773.36	-416.03	156.19	Start 9602.89 hold at 13100.30 MD
22,703.19	12,889.00	-10,017.72	254.40	Start 130.11 hold at 22703.19 MD
22,833.30	12,890.57	-10,147.82	255.73	TD at 22833.30'MD

Concho Operating

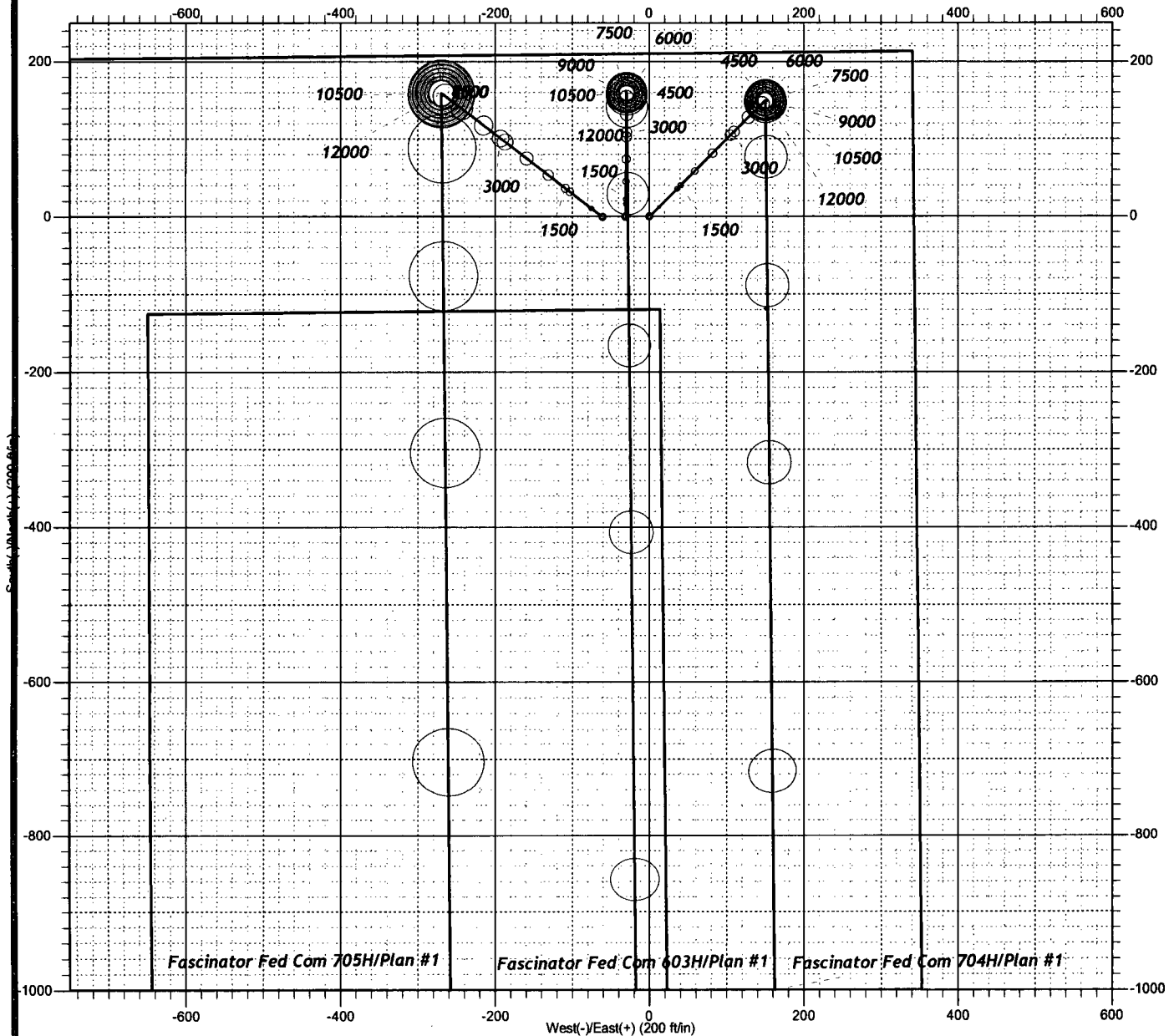
DrilTech L.L.C.

Project: Lea County, NM (Nad 27)
 Site: Fascinator Fed Com Wells
 Well: Fascinator Fed Com 704H,
 704H, 603H & 705H
 Wellbore: Facinator FC 704H
 Plan: Plan #1
 Noram 23.



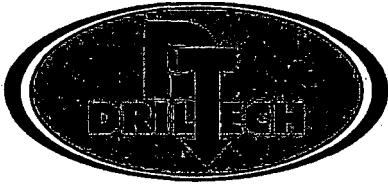
SURFACE LOCATION

US State Plane 1927 (Exact solution)
 New Mexico East 3001
 Elevation: GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
 Fascinator Fed Com Wells
 Latitude 32.195°N
 Longitude 103.412°W
 Northing 435899.90
 Easting 785155.90



LEGEND

- Fascinator Fed Com 603H, Wellbore #1, Plan #1 V0
- Fascinator Fed Com 705H, Wellbore #1, Plan #1 V0
- Plan #1



Concho Operating

Lea County, NM (Nad 27)

Fascinator Fed Com Wells

Fascinator Fed Com 704H

Facinator FC 704H

Plan #1

Anticollision Report

21 February, 2018



Anticollision Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Reference Site:	Fascinator Fed Com Wells	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Fascinator FC 704H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Reference	Plan #1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD + Stations Interval 100.00ft
Depth Range:	0.00 to 999,999.00ft
Results Limited by:	Maximum center-center distance of 2,500.00 ft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISWISA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program		Date	2/21/2018		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	11,000.00	Plan #1 (Facinator FC 704H)	Keeper	Keeper Standard Rate Gyro	
11,000.00	22,833.30	Plan #1 (Facinator FC 704H)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Fascinator Fed Com Wells						
Fascinator Fed Com 603H - Wellbore #1 - Plan #1	500.00	501.00	30.60	30.60	10,000.000	CC, ES
Fascinator Fed Com 603H - Wellbore #1 - Plan #1	22,833.30	22,596.54	308.04	138.51	1.817	SF
Fascinator Fed Com 705H - Wellbore #1 - Plan #1	500.00	501.00	60.50			
Fascinator Fed Com 705H - Wellbore #1 - Plan #1	22,833.30	22,751.33	431.75	272.20	2.706	SF

Offset Design Fascinator Fed Com Wells - Fascinator Fed Com 603H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Keeper, 11000-MWD+IFR1+MS													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.00	0.00	1.00	0.00	0.00	0.00	-90.37	-0.20	-30.60	30.60					
100.00	100.00	101.00	100.00	0.00	0.00	-90.37	-0.20	-30.60	30.60	30.60	0.00	N/A		
200.00	200.00	201.00	200.00	0.00	0.00	-90.37	-0.20	-30.60	30.60	30.60	0.00	N/A		
300.00	300.00	301.00	300.00	0.00	0.00	-90.37	-0.20	-30.60	30.60	30.60	0.00	N/A		
400.00	400.00	401.00	400.00	0.00	0.00	-90.37	-0.20	-30.60	30.60	30.60	0.00	N/A		
500.00	500.00	501.00	500.00	0.00	0.00	-90.37	-0.20	-30.60	30.60	30.60	0.00	N/A	CC, ES	
600.00	599.99	600.99	599.99	0.00	0.00	-137.11	-0.20	-30.60	31.55	31.54	0.00	7,412.600		
700.00	699.91	700.91	699.91	0.01	0.00	-141.52	-0.20	-30.60	34.53	34.51	0.02	2,249.197		
749.25	749.07	750.07	749.07	0.02	0.00	-144.30	-0.20	-30.60	36.84	36.82	0.02	1,643.179		
800.00	799.72	800.72	799.72	0.03	0.00	-147.09	-0.20	-30.60	39.57	39.54	0.03	1,322.325		
900.00	899.50	900.50	899.50	0.05	0.00	-151.59	-0.20	-30.60	45.19	45.15	0.04	1,038.178		
1,000.00	999.29	1,000.29	999.29	0.08	0.00	-155.07	-0.20	-30.60	51.02	50.97	0.06	926.779		
1,100.00	1,099.08	1,100.65	1,099.63	0.10	0.00	-156.61	1.13	-30.59	56.50	56.43	0.07	808.437		
1,200.00	1,198.86	1,201.11	1,200.01	0.12	0.01	-155.60	5.09	-30.56	61.02	60.92	0.09	650.257		
1,300.00	1,298.65	1,301.10	1,299.84	0.14	0.03	-153.27	10.79	-30.52	64.97	64.85	0.12	527.250		
1,400.00	1,398.44	1,400.99	1,399.57	0.16	0.04	-151.19	16.53	-30.49	69.01	68.85	0.16	437.460		
1,500.00	1,498.23	1,500.88	1,499.29	0.18	0.08	-149.33	22.27	-30.45	73.13	72.93	0.20	372.620		
1,600.00	1,598.01	1,600.77	1,599.02	0.20	0.10	-147.68	28.01	-30.41	77.32	77.08	0.24	326.303		
1,700.00	1,697.80	1,700.65	1,698.74	0.23	0.12	-146.19	33.75	-30.37	81.56	81.28	0.28	292.449		
1,800.00	1,797.59	1,800.54	1,798.46	0.25	0.14	-144.86	39.49	-30.33	85.86	85.54	0.32	266.961		
1,900.00	1,897.37	1,900.43	1,898.19	0.27	0.16	-143.65	45.23	-30.29	90.19	89.83	0.36	247.228		
2,000.00	1,997.16	2,000.32	1,997.91	0.29	0.19	-142.55	50.96	-30.25	94.57	94.16	0.41	231.569		

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



Anticollision Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Reference Site:	Fascinator Fed Com Wells	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Facinator FC 704H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Fascinator Fed Com Wells - Fascinator Fed Com 603H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Keeper, 11000-MWD+IFR1+MS													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
2,100.00	2,096.95	2,100.21	2,097.63	0.31	0.21	-141.55	56.70	-30.21	98.97	98.52	0.45	218.878		
2,200.00	2,196.74	2,200.10	2,197.36	0.33	0.23	-140.64	62.44	-30.17	103.40	102.91	0.50	208.405		
2,300.00	2,296.52	2,300.01	2,297.08	0.35	0.25	-139.80	68.18	-30.13	107.86	107.32	0.54	199.624		
2,400.00	2,396.31	2,400.12	2,396.81	0.38	0.27	-139.02	73.92	-30.09	112.33	111.75	0.58	192.148		
2,500.00	2,496.10	2,500.24	2,496.53	0.40	0.29	-138.31	79.66	-30.05	116.83	116.20	0.63	185.721		
2,600.00	2,595.88	2,600.35	2,596.25	0.42	0.31	-137.65	85.40	-30.01	121.34	120.67	0.67	180.136		
2,700.00	2,695.67	2,700.46	2,695.98	0.44	0.33	-137.04	91.14	-29.97	125.87	125.15	0.72	175.238		
2,800.00	2,795.46	2,800.57	2,795.70	0.46	0.36	-136.47	96.87	-29.93	130.41	129.65	0.76	170.906		
2,900.00	2,895.25	2,900.68	2,895.42	0.48	0.38	-135.94	102.61	-29.89	134.96	134.16	0.81	167.045		
3,000.00	2,995.03	3,000.79	2,995.15	0.51	0.40	-135.44	108.35	-29.85	139.53	138.68	0.85	163.581		
3,100.00	3,094.82	3,100.90	3,094.87	0.53	0.42	-134.97	114.09	-29.81	144.10	143.20	0.90	160.452		
3,200.00	3,194.61	3,201.01	3,194.60	0.55	0.44	-134.54	119.83	-29.77	148.68	147.74	0.94	157.611		
3,300.00	3,294.39	3,301.13	3,294.32	0.57	0.47	-134.13	125.57	-29.74	153.28	152.29	0.99	155.017		
3,400.00	3,394.18	3,401.24	3,394.04	0.60	0.49	-133.74	131.31	-29.70	157.87	156.84	1.03	152.636		
3,500.00	3,493.97	3,501.35	3,493.77	0.62	0.51	-133.37	137.05	-29.66	162.48	161.40	1.08	150.442		
3,600.00	3,593.76	3,601.46	3,593.49	0.64	0.53	-133.03	142.78	-29.62	167.09	165.96	1.13	148.411		
3,700.00	3,693.54	3,701.57	3,693.21	0.66	0.56	-132.70	148.52	-29.58	171.71	170.53	1.17	146.523		
3,757.51	3,750.93	3,755.88	3,750.56	0.68	0.57	-132.52	151.82	-29.55	174.36	173.17	1.20	145.586		
3,800.00	3,793.35	3,798.35	3,792.97	0.69	0.58	-132.37	154.24	-29.54	176.17	174.95	1.22	144.839		
3,900.00	3,893.26	3,898.50	3,893.03	0.70	0.59	-132.06	158.33	-29.51	179.10	177.86	1.24	143.944		
4,000.00	3,993.24	3,998.71	3,993.23	0.71	0.60	-131.96	159.80	-29.50	180.16	178.91	1.25	144.025		
4,006.76	4,000.00	4,005.48	4,000.00	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.983		
4,013.31	4,006.55	4,012.05	4,006.57	0.71	0.60	-86.88	159.79	-29.50	180.17	178.92	1.25	143.973		
4,100.00	4,093.24	4,101.28	4,093.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
4,200.00	4,193.24	4,201.28	4,193.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
4,300.00	4,293.24	4,301.28	4,293.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
4,400.00	4,393.24	4,401.28	4,393.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
4,500.00	4,493.24	4,501.28	4,493.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
4,600.00	4,593.24	4,601.28	4,593.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
4,700.00	4,693.24	4,701.28	4,693.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
4,800.00	4,793.24	4,801.28	4,793.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
4,900.00	4,893.24	4,901.28	4,893.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
5,000.00	4,993.24	5,001.28	4,993.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
5,100.00	5,093.24	5,101.28	5,093.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
5,200.00	5,193.24	5,201.28	5,193.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
5,300.00	5,293.24	5,301.28	5,293.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
5,400.00	5,393.24	5,401.28	5,393.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
5,500.00	5,493.24	5,501.28	5,493.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
5,600.00	5,593.24	5,601.28	5,593.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
5,700.00	5,693.24	5,701.28	5,693.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
5,800.00	5,793.24	5,801.28	5,793.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
5,900.00	5,893.24	5,901.28	5,893.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
6,000.00	5,993.24	6,001.28	5,993.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
6,100.00	6,093.24	6,101.28	6,093.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
6,200.00	6,193.24	6,201.28	6,193.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
6,300.00	6,293.24	6,301.28	6,293.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
6,400.00	6,393.24	6,401.28	6,393.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
6,500.00	6,493.24	6,501.28	6,493.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
6,600.00	6,593.24	6,601.28	6,593.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
6,700.00	6,693.24	6,701.28	6,693.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
6,800.00	6,793.24	6,801.28	6,793.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
6,900.00	6,893.24	6,901.28	6,893.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		

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



Anticollision Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Reference Site:	Fascinator Fed Com Wells	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Fascinator FC 704H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Fascinator Fed Com Wells - Fascinator Fed Com 603H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Keeper, 11000-MWD+IFR1+MS													Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
Reference	Offset	Reference	Offset	Reference	Offset		+N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
7,000.00	6,993.24	7,001.28	6,993.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
7,100.00	7,093.24	7,101.28	7,093.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
7,200.00	7,193.24	7,201.28	7,193.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
7,300.00	7,293.24	7,301.28	7,293.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
7,400.00	7,393.24	7,401.28	7,393.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
7,500.00	7,493.24	7,501.28	7,493.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
7,600.00	7,593.24	7,601.28	7,593.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
7,700.00	7,693.24	7,701.28	7,693.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
7,800.00	7,793.24	7,801.28	7,793.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
7,900.00	7,893.24	7,901.28	7,893.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
8,000.00	7,993.24	8,001.28	7,993.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
8,100.00	8,093.24	8,101.28	8,093.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
8,200.00	8,193.24	8,201.28	8,193.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
8,300.00	8,293.24	8,301.28	8,293.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
8,400.00	8,393.24	8,401.28	8,393.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
8,500.00	8,493.24	8,501.28	8,493.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
8,600.00	8,593.24	8,601.28	8,593.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
8,700.00	8,693.24	8,701.28	8,693.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
8,800.00	8,793.24	8,801.28	8,793.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
8,900.00	8,893.24	8,901.28	8,893.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
9,000.00	8,993.24	9,001.28	8,993.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
9,100.00	9,093.24	9,101.28	9,093.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
9,200.00	9,193.24	9,201.28	9,193.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
9,300.00	9,293.24	9,301.28	9,293.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
9,400.00	9,393.24	9,401.28	9,393.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
9,500.00	9,493.24	9,501.28	9,493.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
9,600.00	9,593.24	9,601.28	9,593.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
9,700.00	9,693.24	9,701.28	9,693.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
9,800.00	9,793.24	9,801.28	9,793.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
9,900.00	9,893.24	9,901.28	9,893.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
10,000.00	9,993.24	10,001.28	9,993.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
10,100.00	10,093.24	10,101.28	10,093.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
10,200.00	10,193.24	10,201.28	10,193.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
10,300.00	10,293.24	10,301.28	10,293.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
10,400.00	10,393.24	10,401.28	10,393.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
10,500.00	10,493.24	10,501.28	10,493.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
10,600.00	10,593.24	10,601.28	10,593.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
10,700.00	10,693.24	10,701.28	10,693.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
10,800.00	10,793.24	10,801.28	10,793.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
10,900.00	10,893.24	10,901.28	10,893.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.984		
11,000.00	10,993.24	11,001.28	10,993.24	0.71	0.60	-86.88	159.80	-29.50	180.17	178.92	1.25	143.946		
11,100.00	11,093.24	11,101.28	11,093.24	0.72	0.63	-86.88	159.80	-29.50	180.17	178.86	1.30	138.180		
11,200.00	11,193.24	11,201.28	11,193.24	0.87	0.81	-86.88	159.80	-29.50	180.17	178.51	1.65	109.012		
11,300.00	11,293.24	11,301.28	11,293.24	1.12	1.08	-86.88	159.80	-29.50	180.17	177.98	2.19	82.337		
11,400.00	11,393.24	11,401.28	11,393.24	1.41	1.40	-86.88	159.80	-29.50	180.17	177.36	2.81	64.225		
11,500.00	11,493.24	11,501.28	11,493.24	1.74	1.73	-86.88	159.80	-29.50	180.17	176.71	3.46	52.062		
11,600.00	11,593.24	11,601.28	11,593.24	2.07	2.07	-86.88	159.80	-29.50	180.17	176.03	4.14	43.547		
11,700.00	11,693.24	11,701.28	11,693.24	2.42	2.41	-86.88	159.80	-29.50	180.17	175.34	4.83	37.331		
11,800.00	11,793.24	11,801.28	11,793.24	2.76	2.76	-86.88	159.80	-29.50	180.17	174.64	5.52	32.626		
11,900.00	11,893.24	11,901.28	11,893.24	3.11	3.11	-86.88	159.80	-29.50	180.17	173.94	6.22	28.952		
12,000.00	11,993.24	11,999.53	11,994.01	3.47	3.45	-87.41	158.13	-29.48	180.07	173.16	6.91	26.055		
12,071.93	12,065.18	12,071.44	12,065.18	3.72	3.67	-90.58	148.17	-29.38	179.79	172.40	7.39	24.322		

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



Anticollision Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Reference Site:	Fascinator Fed Com Wells	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Fascinator FC 704H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Fascinator Fed Com Wells - Fascinator Fed Com 603H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Keeper, 11000-MWD+IFR1+MS													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Tooface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N-S (ft)	+E-W (ft)						
12,100.00	12,093.24	12,098.65	12,091.70	3.82	3.76	-92.52	142.08	-29.32	179.90	172.29	7.61	23.632		
12,200.00	12,193.24	12,189.81	12,177.88	4.17	4.05	-101.75	112.67	-29.02	183.90	173.79	10.12	18.175		
12,207.20	12,200.44	12,195.97	12,183.52	4.20	4.07	-102.51	110.19	-28.99	184.54	174.04	10.49	17.588		
12,250.00	12,243.20	12,232.01	12,215.96	4.34	4.19	73.30	94.50	-28.83	189.15	175.96	13.20	14.333		
12,300.00	12,292.84	12,273.15	12,251.69	4.50	4.33	68.09	74.13	-28.63	196.07	179.00	17.07	11.485		
12,350.00	12,341.77	12,313.37	12,285.12	4.66	4.47	63.36	51.80	-28.40	204.26	182.93	21.33	9.576		
12,400.00	12,389.63	12,352.77	12,316.28	4.81	4.61	59.10	27.69	-28.15	213.33	187.65	25.68	8.307		
12,450.00	12,436.04	12,391.47	12,345.20	4.97	4.75	55.32	1.99	-27.89	222.93	192.99	29.94	7.446		
12,500.00	12,480.67	12,429.53	12,371.89	5.13	4.89	51.99	-25.14	-27.61	232.77	198.76	34.00	6.845		
12,550.00	12,523.16	12,467.05	12,396.37	5.30	5.04	49.08	-53.56	-27.32	242.58	204.78	37.80	6.417		
12,600.00	12,563.19	12,504.08	12,418.67	5.46	5.19	46.55	-83.12	-27.02	252.16	210.85	41.30	6.105		
12,650.00	12,600.46	12,540.69	12,438.78	5.63	5.34	44.36	-113.69	-26.71	261.32	216.83	44.49	5.874		
12,700.00	12,634.69	12,576.93	12,456.74	5.81	5.50	42.49	-145.17	-26.39	269.93	222.57	47.36	5.700		
12,750.00	12,665.62	12,612.86	12,472.53	6.00	5.66	40.89	-177.42	-26.06	277.86	227.96	49.90	5.568		
12,800.00	12,693.00	12,650.00	12,486.70	6.19	5.82	39.51	-211.75	-25.71	285.01	233.02	51.99	5.482		
12,850.00	12,716.64	12,683.93	12,497.68	6.39	5.98	38.43	-243.84	-25.38	291.30	237.27	54.03	5.392		
12,900.00	12,736.34	12,719.16	12,507.05	6.59	6.15	37.52	-277.80	-25.03	296.66	241.04	55.62	5.334		
12,950.00	12,751.97	12,754.23	12,514.29	6.80	6.32	36.80	-312.11	-24.68	301.05	244.16	56.90	5.291		
13,000.00	12,763.40	12,789.19	12,519.40	7.02	6.49	36.27	-346.68	-24.33	304.43	246.56	57.87	5.261		
13,050.00	12,770.55	12,824.06	12,522.39	7.24	6.66	35.91	-381.42	-23.98	306.76	248.22	58.54	5.240		
13,100.00	12,773.35	12,863.24	12,523.40	7.47	6.86	35.73	-420.58	-23.58	307.92	249.05	58.87	5.230		
13,100.30	12,773.36	12,863.53	12,523.40	7.47	6.86	35.73	-420.87	-23.57	307.92	249.05	58.87	5.230		
13,200.00	12,774.56	12,963.24	12,524.60	7.95	7.40	35.73	-520.56	-22.56	307.93	248.83	59.10	5.210		
13,300.00	12,775.76	13,063.24	12,525.80	8.47	7.97	35.73	-620.55	-21.53	307.93	248.56	59.36	5.187		
13,400.00	12,776.97	13,163.24	12,527.01	9.03	8.58	35.73	-720.54	-20.51	307.93	248.26	59.67	5.161		
13,500.00	12,778.17	13,263.24	12,528.21	9.62	9.20	35.73	-820.53	-19.49	307.93	247.92	60.01	5.131		
13,600.00	12,779.38	13,363.24	12,529.42	10.23	9.85	35.73	-920.51	-18.47	307.93	247.54	60.39	5.099		
13,700.00	12,780.58	13,463.24	12,530.62	10.86	10.52	35.73	-1,020.50	-17.45	307.93	247.12	60.81	5.064		
13,800.00	12,781.78	13,563.24	12,531.83	11.51	11.19	35.73	-1,120.49	-16.43	307.93	246.66	61.27	5.026		
13,900.00	12,782.99	13,663.24	12,533.03	12.17	11.88	35.73	-1,220.48	-15.41	307.93	246.17	61.76	4.986		
14,000.00	12,784.19	13,763.24	12,534.23	12.84	12.58	35.73	-1,320.46	-14.39	307.94	245.65	62.29	4.944		
14,100.00	12,785.40	13,863.24	12,535.44	13.53	13.28	35.73	-1,420.45	-13.37	307.94	245.09	62.85	4.900		
14,200.00	12,786.60	13,963.24	12,536.64	14.22	14.00	35.73	-1,520.44	-12.35	307.94	244.50	63.44	4.854		
14,300.00	12,787.81	14,063.24	12,537.85	14.92	14.71	35.73	-1,620.43	-11.33	307.94	243.87	64.07	4.807		
14,400.00	12,789.01	14,163.24	12,539.05	15.62	15.43	35.73	-1,720.41	-10.31	307.94	243.22	64.72	4.758		
14,500.00	12,790.21	14,263.24	12,540.26	16.33	16.16	35.73	-1,820.40	-9.29	307.94	242.53	65.41	4.708		
14,600.00	12,791.42	14,363.24	12,541.46	17.05	16.89	35.73	-1,920.39	-8.27	307.94	241.81	66.13	4.657		
14,700.00	12,792.62	14,463.24	12,542.66	17.77	17.62	35.73	-2,020.38	-7.25	307.94	241.07	66.87	4.605		
14,800.00	12,793.83	14,563.24	12,543.87	18.49	18.36	35.73	-2,120.37	-6.23	307.95	240.30	67.65	4.552		
14,900.00	12,795.03	14,663.24	12,545.07	19.22	19.10	35.73	-2,220.35	-5.20	307.95	239.50	68.45	4.499		
15,000.00	12,796.23	14,763.24	12,546.28	19.95	19.84	35.73	-2,320.34	-4.18	307.95	238.67	69.27	4.445		
15,100.00	12,797.44	14,863.24	12,547.48	20.68	20.58	35.73	-2,420.33	-3.16	307.95	237.83	70.12	4.391		
15,200.00	12,798.64	14,963.24	12,548.68	21.42	21.32	35.73	-2,520.32	-2.14	307.95	236.95	71.00	4.337		
15,300.00	12,799.85	15,063.24	12,549.89	22.15	22.07	35.73	-2,620.30	-1.12	307.95	236.06	71.90	4.283		
15,400.00	12,801.05	15,163.24	12,551.09	22.89	22.81	35.73	-2,720.29	-0.10	307.95	235.14	72.81	4.229		
15,500.00	12,802.26	15,263.24	12,552.30	23.63	23.56	35.73	-2,820.28	0.92	307.95	234.20	73.76	4.175		
15,600.00	12,803.46	15,363.24	12,553.50	24.38	24.31	35.73	-2,920.27	1.94	307.96	233.24	74.72	4.122		
15,700.00	12,804.66	15,463.24	12,554.71	25.12	25.06	35.73	-3,020.25	2.96	307.96	232.26	75.70	4.068		
15,800.00	12,805.87	15,563.24	12,555.91	25.87	25.81	35.74	-3,120.24	3.98	307.96	231.26	76.70	4.015		
15,900.00	12,807.07	15,663.24	12,557.11	26.61	26.56	35.74	-3,220.23	5.00	307.96	230.24	77.72	3.963		
16,000.00	12,808.28	15,763.24	12,558.32	27.36	27.32	35.74	-3,320.22	6.02	307.96	229.21	78.75	3.910		
16,100.00	12,809.48	15,863.24	12,559.52	28.11	28.07	35.74	-3,420.20	7.04	307.96	228.16	79.81	3.859		

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



Anticollision Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Reference Site:	Fascinator Fed Com Wells	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Facinator FC 704H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Fascinator Fed Com Wells - Fascinator Fed Com 603H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Keeper, 11000-MWD+IFR1+MS													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
16,200.00	12,810.69	15,963.24	12,560.73	28.86	28.83	35.74	-3,520.19	8.06	307.96	227.09	80.87	3.808		
16,300.00	12,811.89	16,063.24	12,561.93	29.61	29.58	35.74	-3,620.18	9.08	307.96	226.00	81.96	3.758		
16,400.00	12,813.09	16,163.24	12,563.14	30.36	30.34	35.74	-3,720.17	10.10	307.96	224.91	83.06	3.708		
16,500.00	12,814.30	16,263.24	12,564.34	31.11	31.09	35.74	-3,820.15	11.12	307.97	223.79	84.17	3.659		
16,600.00	12,815.50	16,363.24	12,565.54	31.86	31.85	35.74	-3,920.14	12.15	307.97	222.67	85.30	3.610		
16,700.00	12,816.71	16,463.24	12,566.75	32.62	32.60	35.74	-4,020.13	13.17	307.97	221.53	86.44	3.563		
16,800.00	12,817.91	16,563.24	12,567.95	33.37	33.36	35.74	-4,120.12	14.19	307.97	220.37	87.60	3.516		
16,900.00	12,819.12	16,663.24	12,569.16	34.12	34.12	35.74	-4,220.10	15.21	307.97	219.21	88.76	3.470		
17,000.00	12,820.32	16,763.24	12,570.36	34.88	34.88	35.74	-4,320.09	16.23	307.97	218.03	89.94	3.424		
17,100.00	12,821.52	16,863.24	12,571.57	35.64	35.64	35.74	-4,420.08	17.25	307.97	216.85	91.13	3.380		
17,200.00	12,822.73	16,963.24	12,572.77	36.39	36.40	35.74	-4,520.07	18.27	307.97	215.65	92.33	3.336		
17,300.00	12,823.93	17,063.24	12,573.97	37.15	37.16	35.74	-4,620.05	19.29	307.98	214.44	93.54	3.293		
17,400.00	12,825.14	17,163.24	12,575.18	37.90	37.91	35.74	-4,720.04	20.31	307.98	213.22	94.76	3.250		
17,500.00	12,826.34	17,263.24	12,576.38	38.66	38.67	35.74	-4,820.03	21.33	307.98	211.99	95.99	3.208		
17,600.00	12,827.55	17,363.24	12,577.59	39.42	39.43	35.74	-4,920.02	22.35	307.98	210.75	97.23	3.168		
17,700.00	12,828.75	17,463.24	12,578.79	40.18	40.19	35.74	-5,020.00	23.37	307.98	209.50	98.48	3.127		
17,800.00	12,829.95	17,563.24	12,580.00	40.93	40.96	35.74	-5,119.99	24.39	307.98	208.25	99.73	3.088		
17,900.00	12,831.16	17,663.24	12,581.20	41.69	41.72	35.74	-5,219.98	25.41	307.98	206.98	101.00	3.049		
18,000.00	12,832.36	17,763.24	12,582.40	42.45	42.48	35.74	-5,319.97	26.43	307.98	205.71	102.27	3.011		
18,100.00	12,833.57	17,863.24	12,583.61	43.21	43.24	35.74	-5,419.95	27.45	307.99	204.43	103.55	2.974		
18,200.00	12,834.77	17,963.24	12,584.81	43.97	44.00	35.74	-5,519.94	28.48	307.99	203.14	104.84	2.938		
18,300.00	12,835.97	18,063.24	12,586.02	44.73	44.76	35.74	-5,619.93	29.50	307.99	201.85	106.14	2.902		
18,400.00	12,837.18	18,163.24	12,587.22	45.49	45.52	35.74	-5,719.92	30.52	307.99	200.55	107.44	2.867		
18,500.00	12,838.38	18,263.24	12,588.43	46.25	46.28	35.74	-5,819.90	31.54	307.99	199.24	108.75	2.832		
18,600.00	12,839.59	18,363.24	12,589.63	47.01	47.05	35.74	-5,919.89	32.56	307.99	197.93	110.07	2.798		
18,700.00	12,840.79	18,463.24	12,590.83	47.77	47.81	35.74	-6,019.88	33.58	307.99	196.60	111.39	2.765		
18,800.00	12,842.00	18,563.24	12,592.04	48.53	48.57	35.74	-6,119.87	34.60	307.99	195.28	112.72	2.732		
18,900.00	12,843.20	18,663.24	12,593.24	49.29	49.33	35.75	-6,219.85	35.62	308.00	193.95	114.05	2.701		
19,000.00	12,844.40	18,763.24	12,594.45	50.05	50.10	35.75	-6,319.84	36.64	308.00	192.61	115.39	2.669		
19,100.00	12,845.61	18,863.24	12,595.65	50.81	50.86	35.75	-6,419.83	37.66	308.00	191.26	116.73	2.638		
19,200.00	12,846.81	18,963.24	12,596.85	51.57	51.62	35.75	-6,519.82	38.68	308.00	189.92	118.08	2.608		
19,300.00	12,848.02	19,063.24	12,598.06	52.34	52.38	35.75	-6,619.80	39.70	308.00	188.56	119.44	2.579		
19,400.00	12,849.22	19,163.24	12,599.26	53.10	53.15	35.75	-6,719.79	40.72	308.00	187.20	120.80	2.550		
19,500.00	12,850.43	19,263.24	12,600.47	53.86	53.91	35.75	-6,819.78	41.74	308.00	185.84	122.16	2.521		
19,600.00	12,851.63	19,363.24	12,601.67	54.62	54.67	35.75	-6,919.77	42.76	308.00	184.47	123.53	2.493		
19,700.00	12,852.83	19,463.24	12,602.88	55.38	55.44	35.75	-7,019.75	43.78	308.01	183.10	124.90	2.466		
19,800.00	12,854.04	19,563.24	12,604.08	56.15	56.20	35.75	-7,119.74	44.81	308.01	181.73	126.28	2.439		
19,900.00	12,855.24	19,663.24	12,605.28	56.91	56.96	35.75	-7,219.73	45.83	308.01	180.35	127.66	2.413		
20,000.00	12,856.45	19,763.24	12,606.49	57.67	57.73	35.75	-7,319.72	46.85	308.01	178.96	129.05	2.387		
20,100.00	12,857.65	19,863.24	12,607.69	58.43	58.49	35.75	-7,419.70	47.87	308.01	177.57	130.44	2.361		
20,200.00	12,858.86	19,963.24	12,608.90	59.20	59.25	35.75	-7,519.69	48.89	308.01	176.18	131.83	2.336		
20,300.00	12,860.06	20,063.24	12,610.10	59.96	60.02	35.75	-7,619.68	49.91	308.01	174.79	133.23	2.312		
20,400.00	12,861.26	20,163.24	12,611.31	60.72	60.78	35.75	-7,719.67	50.93	308.01	173.39	134.63	2.288		
20,500.00	12,862.47	20,263.24	12,612.51	61.48	61.55	35.75	-7,819.65	51.95	308.02	171.99	136.03	2.264		
20,600.00	12,863.67	20,363.24	12,613.71	62.25	62.31	35.75	-7,919.64	52.97	308.02	170.58	137.44	2.241		
20,700.00	12,864.88	20,463.24	12,614.92	63.01	63.07	35.75	-8,019.63	53.99	308.02	169.17	138.85	2.218		
20,800.00	12,866.08	20,563.24	12,616.12	63.77	63.84	35.75	-8,119.62	55.01	308.02	167.76	140.26	2.196		
20,900.00	12,867.29	20,663.24	12,617.33	64.54	64.60	35.75	-8,219.61	56.03	308.02	166.34	141.68	2.174		
21,000.00	12,868.49	20,763.24	12,618.53	65.30	65.37	35.75	-8,319.59	57.05	308.02	164.93	143.09	2.153		
21,100.00	12,869.69	20,863.24	12,619.74	66.06	66.13	35.75	-8,419.58	58.07	308.02	163.51	144.52	2.131		
21,200.00	12,870.90	20,963.24	12,620.94	66.83	66.90	35.75	-8,519.57	59.09	308.02	162.08	145.94	2.111		
21,300.00	12,872.10	21,063.24	12,622.14	67.59	67.66	35.75	-8,619.56	60.11	308.03	160.66	147.37	2.090		

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



Anticollision Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Reference Site:	Fascinator Fed Com Wells	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Fascinator FC 704H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Fascinator Fed Com Wells - Fascinator Fed Com 603H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Keeper, 11000-MWD+IFR1+MS													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
21,400.00	12,873.31	21,163.24	12,623.35	68.35	68.42	35.75	-8,719.54	61.13	308.03	159.23	148.80	2.070		
21,500.00	12,874.51	21,263.24	12,624.55	69.12	69.19	35.75	-8,819.53	62.16	308.03	157.80	150.23	2.050		
21,600.00	12,875.72	21,363.24	12,625.76	69.88	69.95	35.75	-8,919.52	63.18	308.03	156.37	151.66	2.031		
21,700.00	12,876.92	21,463.24	12,626.96	70.64	70.72	35.75	-9,019.51	64.20	308.03	154.93	153.10	2.012		
21,800.00	12,878.12	21,563.24	12,628.17	71.41	71.48	35.75	-9,119.49	65.22	308.03	153.49	154.54	1.993		
21,900.00	12,879.33	21,663.24	12,629.37	72.17	72.25	35.75	-9,219.48	66.24	308.03	152.05	155.98	1.975		
22,000.00	12,880.53	21,763.24	12,630.57	72.94	73.01	35.76	-9,319.47	67.26	308.03	150.61	157.42	1.957		
22,100.00	12,881.74	21,863.24	12,631.78	73.70	73.78	35.76	-9,419.46	68.28	308.04	149.17	158.87	1.939		
22,200.00	12,882.94	21,963.24	12,632.98	74.46	74.54	35.76	-9,519.44	69.30	308.04	147.72	160.32	1.921		
22,300.00	12,884.14	22,063.24	12,634.19	75.23	75.31	35.76	-9,619.43	70.32	308.04	146.27	161.77	1.904		
22,400.00	12,885.35	22,163.24	12,635.39	75.99	76.07	35.76	-9,719.42	71.34	308.04	144.82	163.22	1.887		
22,500.00	12,886.55	22,263.24	12,636.59	76.76	76.84	35.76	-9,819.41	72.36	308.04	143.37	164.67	1.871		
22,600.00	12,887.76	22,363.24	12,637.80	77.52	77.60	35.76	-9,919.39	73.38	308.04	141.91	166.13	1.854		
22,700.00	12,888.96	22,463.24	12,639.00	78.28	78.36	35.76	-10,019.38	74.40	308.04	140.46	167.58	1.838		
22,703.19	12,889.00	22,466.42	12,639.04	78.31	78.39	35.76	-10,022.57	74.44	308.04	140.41	167.63	1.838		
22,800.00	12,890.17	22,563.24	12,640.21	79.05	79.13	35.76	-10,119.37	75.42	308.04	139.00	169.04	1.822		
22,833.30	12,890.57	22,596.54	12,640.61	79.30	79.38	35.76	-10,152.66	75.76	308.04	138.51	169.53	1.817 SF		

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



Anticollision Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Reference Site:	Fascinator Fed Com Wells	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Fascinator FC 704H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Fascinator Fed Com Wells - Fascinator Fed Com 705H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Keeper, 11000-MWD+IFR1+MS													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Ellipses (ft)				
0.00	0.00	1.00	0.00	0.00	0.00	-90.57	-0.60	-60.50	60.50					
100.00	100.00	101.00	100.00	0.00	0.00	-90.57	-0.60	-60.50	60.50					
200.00	200.00	201.00	200.00	0.00	0.00	-90.57	-0.60	-60.50	60.50					
300.00	300.00	301.00	300.00	0.00	0.00	-90.57	-0.60	-60.50	60.50					
400.00	400.00	401.00	400.00	0.00	0.00	-90.57	-0.60	-60.50	60.50					
500.00	500.00	501.00	500.00	0.00	0.00	-90.57	-0.60	-60.50	60.50					
600.00	599.99	599.72	598.71	0.00	0.00	-135.72	0.19	-61.53	62.48	62.43	0.05	1,317.925		
700.00	699.91	698.22	697.13	0.01	0.01	-135.93	2.53	-64.58	68.36	68.24	0.11	610.866		
749.25	749.07	746.57	745.40	0.02	0.02	-136.07	4.24	-66.82	72.68	72.53	0.15	484.966		
800.00	799.72	803.27	795.44	0.03	0.03	-136.15	6.34	-69.57	77.80	77.63	0.18	439.036		
900.00	899.50	903.79	894.67	0.05	0.05	-136.23	10.60	-75.13	88.00	87.79	0.21	420.951		
1,000.00	999.29	1,004.31	993.90	0.08	0.08	-136.30	14.85	-80.69	98.20	97.95	0.24	403.106		
1,100.00	1,099.08	1,104.83	1,093.14	0.10	0.10	-136.35	19.11	-86.24	108.39	108.11	0.28	387.033		
1,200.00	1,198.86	1,205.36	1,192.37	0.12	0.12	-136.39	23.36	-91.80	118.59	118.27	0.32	373.074		
1,300.00	1,298.65	1,305.88	1,291.60	0.14	0.14	-136.43	27.62	-97.36	128.79	128.43	0.36	361.102		
1,400.00	1,398.44	1,406.40	1,390.83	0.16	0.17	-136.46	31.88	-102.92	138.98	138.59	0.40	350.849		
1,500.00	1,498.23	1,506.92	1,490.06	0.18	0.19	-136.48	36.13	-108.48	149.18	148.74	0.44	342.033		
1,600.00	1,598.01	1,592.56	1,589.30	0.20	0.21	-136.50	40.39	-114.04	159.38	158.90	0.47	335.943		
1,700.00	1,697.80	1,707.96	1,688.53	0.23	0.23	-136.52	44.64	-119.60	169.57	169.06	0.52	327.751		
1,800.00	1,797.59	1,808.48	1,787.76	0.25	0.25	-136.54	48.90	-125.16	179.77	179.21	0.56	321.908		
1,900.00	1,897.37	1,909.00	1,886.99	0.27	0.27	-136.56	53.15	-130.72	189.97	189.37	0.60	316.738		
2,000.00	1,997.16	1,990.47	1,986.22	0.29	0.29	-136.57	57.41	-136.27	200.16	199.53	0.64	313.575		
2,100.00	2,096.95	2,089.95	2,085.46	0.31	0.31	-136.59	61.66	-141.83	210.36	209.68	0.68	309.422		
2,200.00	2,196.74	2,189.43	2,184.69	0.33	0.34	-136.60	65.92	-147.39	220.56	219.84	0.72	305.672		
2,300.00	2,296.52	2,288.91	2,283.92	0.35	0.36	-136.61	70.18	-152.95	230.75	229.99	0.76	302.267		
2,400.00	2,396.31	2,388.39	2,383.15	0.38	0.38	-136.62	74.43	-158.51	240.95	240.15	0.81	299.158		
2,500.00	2,496.10	2,487.87	2,482.38	0.40	0.40	-136.63	78.69	-164.07	251.15	250.30	0.85	296.305		
2,600.00	2,595.88	2,587.35	2,581.62	0.42	0.42	-136.64	82.94	-169.63	261.34	260.45	0.89	293.674		
2,700.00	2,695.67	2,686.83	2,680.85	0.44	0.45	-136.64	87.20	-175.19	271.54	270.61	0.93	291.238		
2,800.00	2,795.46	2,786.30	2,780.08	0.46	0.47	-136.65	91.45	-180.75	281.74	280.76	0.97	288.972		
2,900.00	2,895.25	2,885.78	2,879.31	0.48	0.49	-136.66	95.71	-186.31	291.94	290.92	1.02	286.857		
3,000.00	2,995.03	2,985.26	2,978.55	0.51	0.51	-136.66	99.97	-191.86	302.13	301.07	1.06	284.874		
3,100.00	3,094.82	3,084.74	3,077.78	0.53	0.53	-136.67	104.22	-197.42	312.33	311.23	1.10	283.010		
3,200.00	3,194.61	3,184.22	3,177.01	0.55	0.56	-136.67	108.48	-202.98	322.53	321.38	1.15	281.251		
3,300.00	3,294.39	3,283.70	3,276.24	0.57	0.58	-136.68	112.73	-208.54	332.72	331.53	1.19	279.586		
3,400.00	3,394.18	3,383.18	3,375.47	0.60	0.60	-136.68	116.99	-214.10	342.92	341.69	1.23	278.006		
3,500.00	3,493.97	3,482.66	3,474.71	0.62	0.63	-136.69	121.24	-219.66	353.12	351.84	1.28	276.501		
3,600.00	3,593.76	3,582.13	3,573.94	0.64	0.65	-136.69	125.50	-225.22	363.31	361.99	1.32	275.066		
3,700.00	3,693.54	3,681.61	3,673.17	0.66	0.67	-136.70	129.76	-230.78	373.51	372.15	1.36	273.692		
3,757.51	3,750.93	3,738.82	3,730.24	0.68	0.68	-136.70	132.20	-233.97	379.37	377.98	1.39	272.936		
3,800.00	3,793.35	3,781.11	3,772.42	0.69	0.69	-136.72	134.01	-236.34	383.54	382.13	1.41	272.413		
3,900.00	3,893.26	3,880.74	3,871.80	0.70	0.72	-136.57	138.27	-241.90	391.98	390.54	1.44	271.372		
4,000.00	3,993.24	3,980.46	3,971.28	0.71	0.74	-136.15	142.54	-247.48	398.55	397.08	1.47	270.702		
4,006.76	4,000.00	3,987.20	3,978.00	0.71	0.74	-91.03	142.83	-247.85	398.93	397.45	1.47	270.623		
4,100.00	4,093.24	4,080.21	4,070.78	0.71	0.77	-90.45	146.81	-253.05	404.09	402.59	1.50	270.219		
4,200.00	4,193.24	4,179.96	4,170.28	0.71	0.79	-89.85	151.07	-258.62	409.67	408.15	1.52	269.908		
4,300.00	4,293.24	4,283.51	4,273.59	0.71	0.81	-89.26	155.35	-264.21	415.12	413.64	1.47	281.520		
4,400.00	4,393.24	4,393.03	4,382.99	0.71	0.83	-88.86	158.33	-268.10	418.71	417.33	1.38	303.142		
4,500.00	4,493.24	4,502.73	4,492.68	0.71	0.84	-88.72	159.40	-269.50	420.00	418.64	1.36	308.031		
4,600.00	4,593.24	4,603.30	4,593.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
4,700.00	4,693.24	4,703.30	4,693.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
4,800.00	4,793.24	4,803.30	4,793.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		

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



Anticollision Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Reference Site:	Fascinator Fed Com Wells	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Facinator FC 704H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Fascinator Fed Com Wells - Fascinator Fed Com 705H - Wellbore #1 - Plan #1													Offset Site Error: 0.00 ft	
Survey Program: 0-Keeper, 11000-MWD+IFR1+MS													Offset Well Error: 0.00 ft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N-S (ft)	+E-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
4,900.00	4,893.24	4,903.30	4,893.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
5,000.00	4,993.24	5,003.30	4,993.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
5,100.00	5,093.24	5,103.30	5,093.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
5,200.00	5,193.24	5,203.30	5,193.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
5,300.00	5,293.24	5,303.30	5,293.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
5,400.00	5,393.24	5,403.30	5,393.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
5,500.00	5,493.24	5,503.30	5,493.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
5,600.00	5,593.24	5,603.30	5,593.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
5,700.00	5,693.24	5,703.30	5,693.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
5,800.00	5,793.24	5,803.30	5,793.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
5,900.00	5,893.24	5,903.30	5,893.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
6,000.00	5,993.24	6,003.30	5,993.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
6,100.00	6,093.24	6,103.30	6,093.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
6,200.00	6,193.24	6,203.30	6,193.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
6,300.00	6,293.24	6,303.30	6,293.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
6,400.00	6,393.24	6,403.30	6,393.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
6,500.00	6,493.24	6,503.30	6,493.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
6,600.00	6,593.24	6,603.30	6,593.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
6,700.00	6,693.24	6,703.30	6,693.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
6,800.00	6,793.24	6,803.30	6,793.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
6,900.00	6,893.24	6,903.30	6,893.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
7,000.00	6,993.24	7,003.30	6,993.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
7,100.00	7,093.24	7,103.30	7,093.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
7,200.00	7,193.24	7,203.30	7,193.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
7,300.00	7,293.24	7,303.30	7,293.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
7,400.00	7,393.24	7,403.30	7,393.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
7,500.00	7,493.24	7,503.30	7,493.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
7,600.00	7,593.24	7,603.30	7,593.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
7,700.00	7,693.24	7,703.30	7,693.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
7,800.00	7,793.24	7,803.30	7,793.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
7,900.00	7,893.24	7,903.30	7,893.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
8,000.00	7,993.24	8,003.30	7,993.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
8,100.00	8,093.24	8,103.30	8,093.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
8,200.00	8,193.24	8,203.30	8,193.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
8,300.00	8,293.24	8,303.30	8,293.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
8,400.00	8,393.24	8,403.30	8,393.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
8,500.00	8,493.24	8,503.30	8,493.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
8,600.00	8,593.24	8,603.30	8,593.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
8,700.00	8,693.24	8,703.30	8,693.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
8,800.00	8,793.24	8,803.30	8,793.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
8,900.00	8,893.24	8,903.30	8,893.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
9,000.00	8,993.24	9,003.30	8,993.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
9,100.00	9,093.24	9,103.30	9,093.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
9,200.00	9,193.24	9,203.30	9,193.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
9,300.00	9,293.24	9,303.30	9,293.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
9,400.00	9,393.24	9,403.30	9,393.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
9,500.00	9,493.24	9,503.30	9,493.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
9,600.00	9,593.24	9,603.30	9,593.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
9,700.00	9,693.24	9,703.30	9,693.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
9,800.00	9,793.24	9,803.30	9,793.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
9,900.00	9,893.24	9,903.30	9,893.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		
10,000.00	9,993.24	10,003.30	9,993.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657		

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



Anticollision Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Reference Site:	Fascinator Fed Com Wells	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Facinator FC 704H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Fascinator Fed Com Wells - Fascinator Fed Com 705H - Wellbore #1 - Plan #1														Offset Site Error:	0.00 ft
Survey Program: 0-Keeper, 11000-MWD+IFR1+MS														Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (ft)	Separation Factor	Warning				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)				Between Centres (ft)	Between Ellipses (ft)		
10,100.00	10,093.24	10,103.30	10,093.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657			
10,200.00	10,193.24	10,203.30	10,193.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657			
10,300.00	10,293.24	10,303.30	10,293.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657			
10,400.00	10,393.24	10,403.30	10,393.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657			
10,500.00	10,493.24	10,503.30	10,493.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657			
10,600.00	10,593.24	10,603.30	10,593.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657			
10,700.00	10,693.24	10,703.30	10,693.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657			
10,800.00	10,793.24	10,803.30	10,793.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657			
10,900.00	10,893.24	10,903.30	10,893.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.657			
11,000.00	10,993.24	11,003.30	10,993.24	0.71	0.84	-88.72	159.40	-269.50	420.01	418.64	1.37	307.495			
11,100.00	11,093.24	11,103.30	11,093.24	0.72	0.86	-88.72	159.40	-269.50	420.01	418.59	1.42	296.460			
11,200.00	11,193.24	11,203.30	11,193.24	0.87	0.98	-88.72	159.40	-269.50	420.01	418.26	1.75	240.456			
11,300.00	11,293.24	11,303.30	11,293.24	1.12	1.20	-88.72	159.40	-269.50	420.01	417.74	2.26	185.564			
11,400.00	11,393.24	11,403.30	11,393.24	1.41	1.48	-88.72	159.40	-269.50	420.01	417.14	2.87	146.471			
11,500.00	11,493.24	11,503.30	11,493.24	1.74	1.79	-88.72	159.40	-269.50	420.01	416.49	3.51	119.517			
11,600.00	11,593.24	11,603.30	11,593.24	2.07	2.12	-88.72	159.40	-269.50	420.01	415.82	4.18	100.382			
11,700.00	11,693.24	11,703.30	11,693.24	2.42	2.46	-88.72	159.40	-269.50	420.01	415.14	4.87	86.290			
11,800.00	11,793.24	11,803.30	11,793.24	2.76	2.80	-88.72	159.40	-269.50	420.01	414.45	5.56	75.552			
11,900.00	11,893.24	11,903.30	11,893.24	3.11	3.15	-88.72	159.40	-269.50	420.01	413.75	6.26	67.130			
12,000.00	11,993.24	12,003.30	11,993.24	3.47	3.50	-88.72	159.40	-269.50	420.01	413.05	6.96	60.362			
12,100.00	12,093.24	12,103.30	12,093.24	3.82	3.85	-88.72	159.40	-269.50	420.01	412.34	7.66	54.814			
12,200.00	12,193.24	12,204.71	12,194.23	4.17	4.18	-89.78	151.65	-269.42	419.83	411.48	8.35	50.284			
12,207.20	12,200.44	12,211.87	12,201.29	4.20	4.20	-89.94	150.43	-269.41	419.81	411.41	8.40	49.999			
12,234.38	12,227.62	12,238.74	12,227.62	4.29	4.29	90.00	145.07	-269.35	419.78	411.21	8.57	48.984			
12,250.00	12,243.20	12,254.08	12,242.52	4.34	4.33	89.63	141.47	-269.32	419.79	411.12	8.67	48.418			
12,300.00	12,292.84	12,302.71	12,289.07	4.50	4.49	88.46	127.41	-269.17	419.94	410.94	9.00	46.670			
12,350.00	12,341.77	12,350.66	12,333.62	4.66	4.64	87.31	109.74	-268.99	420.26	410.88	9.38	44.816			
12,400.00	12,389.63	12,397.96	12,375.98	4.81	4.79	86.19	88.72	-268.78	420.74	410.90	9.84	42.740			
12,450.00	12,436.04	12,444.65	12,415.95	4.97	4.95	85.10	64.61	-268.53	421.36	410.94	10.43	40.412			
12,500.00	12,480.67	12,490.79	12,453.39	5.13	5.10	84.05	37.67	-268.26	422.11	410.97	11.14	37.892			
12,550.00	12,523.16	12,536.41	12,488.16	5.30	5.26	83.05	8.15	-267.96	422.96	410.97	11.98	35.303			
12,600.00	12,563.19	12,581.56	12,520.16	5.46	5.42	82.11	-23.69	-267.63	423.87	410.94	12.93	32.775			
12,650.00	12,600.46	12,626.28	12,549.28	5.63	5.59	81.23	-57.61	-267.29	424.84	410.87	13.97	30.414			
12,700.00	12,634.69	12,670.61	12,575.45	5.81	5.76	80.41	-93.38	-266.92	425.82	410.77	15.06	28.284			
12,750.00	12,665.62	12,714.59	12,598.60	6.00	5.93	79.66	-130.76	-266.54	426.80	410.64	16.16	26.415			
12,800.00	12,693.00	12,758.26	12,618.69	6.19	6.11	78.98	-169.52	-266.14	427.75	410.51	17.24	24.807			
12,850.00	12,716.64	12,801.66	12,635.66	6.39	6.30	78.38	-209.44	-265.74	428.64	410.36	18.28	23.448			
12,900.00	12,736.34	12,844.83	12,649.51	6.59	6.49	77.85	-250.32	-265.32	429.45	410.21	19.24	22.316			
12,950.00	12,751.97	12,887.80	12,660.19	6.80	6.68	77.41	-291.92	-264.89	430.17	410.06	20.11	21.389			
13,000.00	12,763.40	12,930.60	12,667.71	7.02	6.87	77.05	-334.05	-264.46	430.77	409.91	20.86	20.646			
13,050.00	12,770.55	12,973.28	12,672.05	7.24	7.07	76.78	-376.49	-264.03	431.24	409.75	21.49	20.067			
13,100.00	12,773.35	13,018.03	12,673.38	7.47	7.28	76.60	-421.22	-263.57	431.54	409.57	21.96	19.647			
13,100.30	12,773.36	13,018.33	12,673.39	7.47	7.29	76.60	-421.52	-263.57	431.54	409.57	21.97	19.645			
13,200.00	12,774.56	13,118.03	12,674.59	7.95	7.79	76.60	-521.21	-262.55	431.54	408.91	22.63	19.066			
13,300.00	12,775.76	13,218.03	12,675.79	8.47	8.34	76.60	-621.19	-261.53	431.54	408.16	23.38	18.454			
13,400.00	12,776.97	13,318.03	12,676.99	9.03	8.91	76.60	-721.18	-260.51	431.54	407.33	24.21	17.826			
13,500.00	12,778.17	13,418.03	12,678.20	9.62	9.52	76.60	-821.17	-259.49	431.55	406.45	25.10	17.193			
13,600.00	12,779.38	13,518.03	12,679.40	10.23	10.15	76.60	-921.16	-258.47	431.55	405.50	26.05	16.565			
13,700.00	12,780.58	13,618.03	12,680.61	10.86	10.79	76.60	-1,021.14	-257.45	431.55	404.49	27.06	15.950			
13,800.00	12,781.78	13,718.03	12,681.81	11.51	11.45	76.60	-1,121.13	-256.43	431.55	403.44	28.11	15.352			
13,900.00	12,782.99	13,818.03	12,683.02	12.17	12.12	76.60	-1,221.12	-255.41	431.55	402.35	29.21	14.777			
14,000.00	12,784.19	13,918.03	12,684.22	12.84	12.81	76.60	-1,321.11	-254.39	431.56	401.22	30.34	14.225			

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



Anticollision Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Reference Site:	Fascinator Fed Com Wells	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Fascinator FC 704H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Fascinator Fed Com Wells - Fascinator Fed Com 705H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Keeper, 11000-MWD+IFR1+MS													Offset Well Error:	0.00 ft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (ft)	+E-W (ft)	Between Centres (ft)	Ellipses (ft)	Separation (ft)	Factor		
14,100.00	12,785.40	14,018.03	12,685.42	13.53	13.50	76.60	-1,421.10	-253.37	431.56	400.05	31.51	13.698		
14,200.00	12,786.60	14,118.03	12,686.63	14.22	14.20	76.60	-1,521.08	-252.35	431.56	398.86	32.70	13.196		
14,300.00	12,787.81	14,218.03	12,687.83	14.92	14.91	76.60	-1,621.07	-251.33	431.56	397.63	33.93	12.720		
14,400.00	12,789.01	14,318.03	12,689.04	15.62	15.62	76.60	-1,721.06	-250.31	431.57	396.39	35.18	12.268		
14,500.00	12,790.21	14,418.03	12,690.24	16.33	16.33	76.60	-1,821.05	-249.29	431.57	395.12	36.45	11.840		
14,600.00	12,791.42	14,518.03	12,691.45	17.05	17.06	76.60	-1,921.03	-248.27	431.57	393.83	37.74	11.435		
14,700.00	12,792.62	14,618.03	12,692.65	17.77	17.78	76.60	-2,021.02	-247.25	431.57	392.52	39.05	11.052		
14,800.00	12,793.83	14,718.03	12,693.85	18.49	18.51	76.61	-2,121.01	-246.23	431.57	391.20	40.37	10.690		
14,900.00	12,795.03	14,818.03	12,695.06	19.22	19.24	76.61	-2,221.00	-245.21	431.58	389.87	41.71	10.347		
15,000.00	12,796.23	14,918.03	12,696.26	19.95	19.97	76.61	-2,320.98	-244.19	431.58	388.52	43.06	10.022		
15,100.00	12,797.44	15,018.03	12,697.47	20.68	20.71	76.61	-2,420.97	-243.17	431.58	387.16	44.43	9.715		
15,200.00	12,798.64	15,118.03	12,698.67	21.42	21.45	76.61	-2,520.96	-242.14	431.58	385.78	45.80	9.423		
15,300.00	12,799.85	15,218.03	12,699.88	22.15	22.19	76.61	-2,620.95	-241.12	431.59	384.40	47.18	9.147		
15,400.00	12,801.05	15,318.03	12,701.08	22.89	22.93	76.61	-2,720.93	-240.10	431.59	383.01	48.58	8.885		
15,500.00	12,802.26	15,418.03	12,702.28	23.63	23.68	76.61	-2,820.92	-239.08	431.59	381.61	49.98	8.636		
15,600.00	12,803.46	15,518.03	12,703.49	24.38	24.42	76.61	-2,920.91	-238.06	431.59	380.21	51.39	8.399		
15,700.00	12,804.66	15,618.03	12,704.69	25.12	25.17	76.61	-3,020.90	-237.04	431.59	378.79	52.80	8.174		
15,800.00	12,805.87	15,718.03	12,705.90	25.87	25.91	76.61	-3,120.88	-236.02	431.60	377.37	54.22	7.959		
15,900.00	12,807.07	15,818.03	12,707.10	26.61	26.66	76.61	-3,220.87	-235.00	431.60	375.95	55.65	7.755		
16,000.00	12,808.28	15,918.03	12,708.30	27.36	27.41	76.61	-3,320.86	-233.98	431.60	374.51	57.09	7.560		
16,100.00	12,809.48	16,018.03	12,709.51	28.11	28.16	76.61	-3,420.85	-232.96	431.60	373.08	58.53	7.375		
16,200.00	12,810.69	16,118.03	12,710.71	28.86	28.91	76.61	-3,520.83	-231.94	431.61	371.64	59.97	7.197		
16,300.00	12,811.89	16,218.03	12,711.92	29.61	29.67	76.61	-3,620.82	-230.92	431.61	370.19	61.42	7.027		
16,400.00	12,813.09	16,318.03	12,713.12	30.36	30.42	76.61	-3,720.81	-229.90	431.61	368.74	62.87	6.865		
16,500.00	12,814.30	16,418.03	12,714.33	31.11	31.17	76.61	-3,820.80	-228.88	431.61	367.29	64.33	6.710		
16,600.00	12,815.50	16,518.03	12,715.53	31.86	31.93	76.61	-3,920.78	-227.86	431.61	365.83	65.78	6.561		
16,700.00	12,816.71	16,618.03	12,716.73	32.62	32.68	76.61	-4,020.77	-226.84	431.62	364.37	67.25	6.418		
16,800.00	12,817.91	16,718.03	12,717.94	33.37	33.44	76.61	-4,120.76	-225.82	431.62	362.90	68.71	6.281		
16,900.00	12,819.12	16,818.03	12,719.14	34.12	34.19	76.61	-4,220.75	-224.80	431.62	361.44	70.18	6.150		
17,000.00	12,820.32	16,918.03	12,720.35	34.88	34.95	76.61	-4,320.73	-223.78	431.62	359.97	71.65	6.024		
17,100.00	12,821.52	17,018.03	12,721.55	35.64	35.71	76.61	-4,420.72	-222.76	431.62	358.50	73.13	5.902		
17,200.00	12,822.73	17,118.03	12,722.76	36.39	36.46	76.61	-4,520.71	-221.74	431.63	357.02	74.60	5.786		
17,300.00	12,823.93	17,218.03	12,723.96	37.15	37.22	76.61	-4,620.70	-220.71	431.63	355.55	76.08	5.673		
17,400.00	12,825.14	17,318.03	12,725.16	37.90	37.98	76.61	-4,720.68	-219.69	431.63	354.07	77.56	5.565		
17,500.00	12,826.34	17,418.03	12,726.37	38.66	38.74	76.61	-4,820.67	-218.67	431.63	352.59	79.05	5.460		
17,600.00	12,827.55	17,518.03	12,727.57	39.42	39.50	76.61	-4,920.66	-217.65	431.64	351.10	80.53	5.360		
17,700.00	12,828.75	17,618.03	12,728.78	40.18	40.25	76.61	-5,020.65	-216.63	431.64	349.62	82.02	5.263		
17,800.00	12,829.95	17,718.03	12,729.98	40.93	41.01	76.61	-5,120.63	-215.61	431.64	348.13	83.51	5.169		
17,900.00	12,831.16	17,818.03	12,731.19	41.69	41.77	76.61	-5,220.62	-214.59	431.64	346.64	85.00	5.078		
18,000.00	12,832.36	17,918.03	12,732.39	42.45	42.53	76.61	-5,320.61	-213.57	431.64	345.15	86.49	4.991		
18,100.00	12,833.57	18,018.03	12,733.59	43.21	43.29	76.61	-5,420.60	-212.55	431.65	343.66	87.98	4.906		
18,200.00	12,834.77	18,118.03	12,734.80	43.97	44.05	76.61	-5,520.58	-211.53	431.65	342.17	89.48	4.824		
18,300.00	12,835.97	18,218.03	12,736.00	44.73	44.81	76.61	-5,620.57	-210.51	431.65	340.68	90.97	4.745		
18,400.00	12,837.18	18,318.03	12,737.21	45.49	45.57	76.61	-5,720.56	-209.49	431.65	339.18	92.47	4.668		
18,500.00	12,838.38	18,418.03	12,738.41	46.25	46.33	76.61	-5,820.55	-208.47	431.66	337.69	93.97	4.594		
18,600.00	12,839.59	18,518.03	12,739.62	47.01	47.09	76.61	-5,920.53	-207.45	431.66	336.19	95.47	4.521		
18,700.00	12,840.79	18,618.03	12,740.82	47.77	47.86	76.61	-6,020.52	-206.43	431.66	334.69	96.97	4.452		
18,800.00	12,842.00	18,718.03	12,742.02	48.53	48.62	76.61	-6,120.51	-205.41	431.66	333.19	98.47	4.384		
18,900.00	12,843.20	18,818.03	12,743.23	49.29	49.38	76.61	-6,220.50	-204.39	431.66	331.69	99.97	4.318		
19,000.00	12,844.40	18,918.03	12,744.43	50.05	50.14	76.61	-6,320.48	-203.37	431.67	330.19	101.48	4.254		
19,100.00	12,845.61	19,018.03	12,745.64	50.81	50.90	76.61	-6,420.47	-202.35	431.67	328.69	102.98	4.192		
19,200.00	12,846.81	19,118.03	12,746.84	51.57	51.66	76.61	-6,520.46	-201.33	431.67	327.18	104.49	4.131		

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



Anticollision Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Reference Site:	Fascinator Fed Com Wells	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Fascinator FC 704H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design Fascinator Fed Com Wells - Fascinator Fed Com 705H - Wellbore #1 - Plan #1													Offset Site Error:	0.00 ft
Survey Program: 0-Keeper, 11000-MWD+IFR1+MS													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
19,300.00	12,848.02	19,218.03	12,748.05	52.34	52.43	76.61	-6,620.45	-200.31	431.67	325.68	105.99	4.073		
19,400.00	12,849.22	19,318.03	12,749.25	53.10	53.19	76.61	-6,720.43	-199.29	431.68	324.18	107.50	4.016		
19,500.00	12,850.43	19,418.03	12,750.45	53.86	53.95	76.61	-6,820.42	-198.26	431.68	322.67	109.01	3.960		
19,600.00	12,851.63	19,518.03	12,751.66	54.62	54.71	76.61	-6,920.41	-197.24	431.68	321.16	110.51	3.906		
19,700.00	12,852.83	19,618.03	12,752.86	55.38	55.47	76.61	-7,020.40	-196.22	431.68	319.66	112.02	3.853		
19,800.00	12,854.04	19,718.03	12,754.07	56.15	56.24	76.61	-7,120.39	-195.20	431.68	318.15	113.53	3.802		
19,900.00	12,855.24	19,818.03	12,755.27	56.91	57.00	76.61	-7,220.37	-194.18	431.69	316.64	115.04	3.752		
20,000.00	12,856.45	19,918.03	12,756.47	57.67	57.76	76.61	-7,320.36	-193.16	431.69	315.13	116.56	3.704		
20,100.00	12,857.65	20,018.03	12,757.68	58.43	58.53	76.61	-7,420.35	-192.14	431.69	313.62	118.07	3.656		
20,200.00	12,858.86	20,118.03	12,758.88	59.20	59.29	76.61	-7,520.34	-191.12	431.69	312.11	119.58	3.610		
20,300.00	12,860.06	20,218.03	12,760.09	59.96	60.05	76.61	-7,620.32	-190.10	431.69	310.60	121.09	3.565		
20,400.00	12,861.26	20,318.03	12,761.29	60.72	60.82	76.61	-7,720.31	-189.08	431.70	309.09	122.61	3.521		
20,500.00	12,862.47	20,418.03	12,762.50	61.48	61.58	76.61	-7,820.30	-188.06	431.70	307.58	124.12	3.478		
20,600.00	12,863.67	20,518.03	12,763.70	62.25	62.34	76.61	-7,920.29	-187.04	431.70	306.07	125.63	3.436		
20,700.00	12,864.88	20,618.03	12,764.90	63.01	63.11	76.61	-8,020.27	-186.02	431.70	304.56	127.15	3.395		
20,800.00	12,866.08	20,718.03	12,766.11	63.77	63.87	76.61	-8,120.26	-185.00	431.71	303.04	128.66	3.355		
20,900.00	12,867.29	20,818.03	12,767.31	64.54	64.63	76.61	-8,220.25	-183.98	431.71	301.53	130.18	3.316		
21,000.00	12,868.49	20,918.03	12,768.52	65.30	65.40	76.61	-8,320.24	-182.96	431.71	300.01	131.70	3.278		
21,100.00	12,869.69	21,018.03	12,769.72	66.06	66.16	76.61	-8,420.22	-181.94	431.71	298.50	133.21	3.241		
21,200.00	12,870.90	21,118.03	12,770.93	66.83	66.92	76.61	-8,520.21	-180.92	431.71	296.99	134.73	3.204		
21,300.00	12,872.10	21,218.03	12,772.13	67.59	67.69	76.61	-8,620.20	-179.90	431.72	295.47	136.25	3.169		
21,400.00	12,873.31	21,318.03	12,773.33	68.35	68.45	76.61	-8,720.19	-178.88	431.72	293.95	137.76	3.134		
21,500.00	12,874.51	21,418.03	12,774.54	69.12	69.22	76.61	-8,820.17	-177.86	431.72	292.44	139.28	3.100		
21,600.00	12,875.72	21,518.03	12,775.74	69.88	69.98	76.61	-8,920.16	-176.83	431.72	290.92	140.80	3.066		
21,700.00	12,876.92	21,618.03	12,776.95	70.64	70.74	76.61	-9,020.15	-175.81	431.73	289.41	142.32	3.034		
21,800.00	12,878.12	21,718.03	12,778.15	71.41	71.51	76.61	-9,120.14	-174.79	431.73	287.89	143.84	3.001		
21,900.00	12,879.33	21,818.03	12,779.36	72.17	72.27	76.61	-9,220.12	-173.77	431.73	286.37	145.36	2.970		
22,000.00	12,880.53	21,918.03	12,780.56	72.94	73.04	76.61	-9,320.11	-172.75	431.73	284.85	146.88	2.939		
22,100.00	12,881.74	22,018.03	12,781.76	73.70	73.80	76.61	-9,420.10	-171.73	431.73	283.34	148.40	2.909		
22,200.00	12,882.94	22,118.03	12,782.97	74.46	74.56	76.61	-9,520.09	-170.71	431.74	281.82	149.92	2.880		
22,300.00	12,884.14	22,218.03	12,784.17	75.23	75.33	76.61	-9,620.07	-169.69	431.74	280.30	151.44	2.851		
22,400.00	12,885.35	22,318.03	12,785.38	75.99	76.09	76.61	-9,720.06	-168.67	431.74	278.78	152.96	2.823		
22,500.00	12,886.55	22,418.03	12,786.58	76.76	76.86	76.61	-9,820.05	-167.65	431.74	277.26	154.48	2.795		
22,600.00	12,887.76	22,518.03	12,787.79	77.52	77.62	76.61	-9,920.04	-166.63	431.75	275.74	156.00	2.768		
22,700.00	12,888.96	22,618.03	12,788.99	78.28	78.39	76.61	-10,020.02	-165.61	431.75	274.22	157.52	2.741		
22,703.19	12,889.00	22,621.22	12,789.03	78.31	78.41	76.61	-10,023.21	-165.58	431.75	274.18	157.57	2.740		
22,800.00	12,890.17	22,718.03	12,790.19	79.05	79.15	76.61	-10,120.01	-164.59	431.75	272.71	159.04	2.715		
22,833.30	12,890.57	22,751.33	12,790.59	79.30	79.40	76.61	-10,153.31	-164.25	431.75	272.20	159.55	2.706 SF		

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



Anticollision Report

Company: Concho Operating
Project: Lea County, NM (Nad 27)
Reference Site: Fascinator Fed Com Wells
Site Error: 0.00 ft
Reference Well: Fascinator Fed Com 704H
Well Error: 0.00 ft
Reference Wellbore: Facinator FC 704H
Reference Design: Plan #1

Local Co-ordinate Reference: Well Fascinator Fed Com 704H
TVD Reference: GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
MD Reference: GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.14 Single User Db
Offset TVD Reference: Reference Datum

Reference Depths are relative to GL 3370' + 29' RKB @ 3399.00ft (No Coordinates are relative to: Fascinator Fed Com 704H)

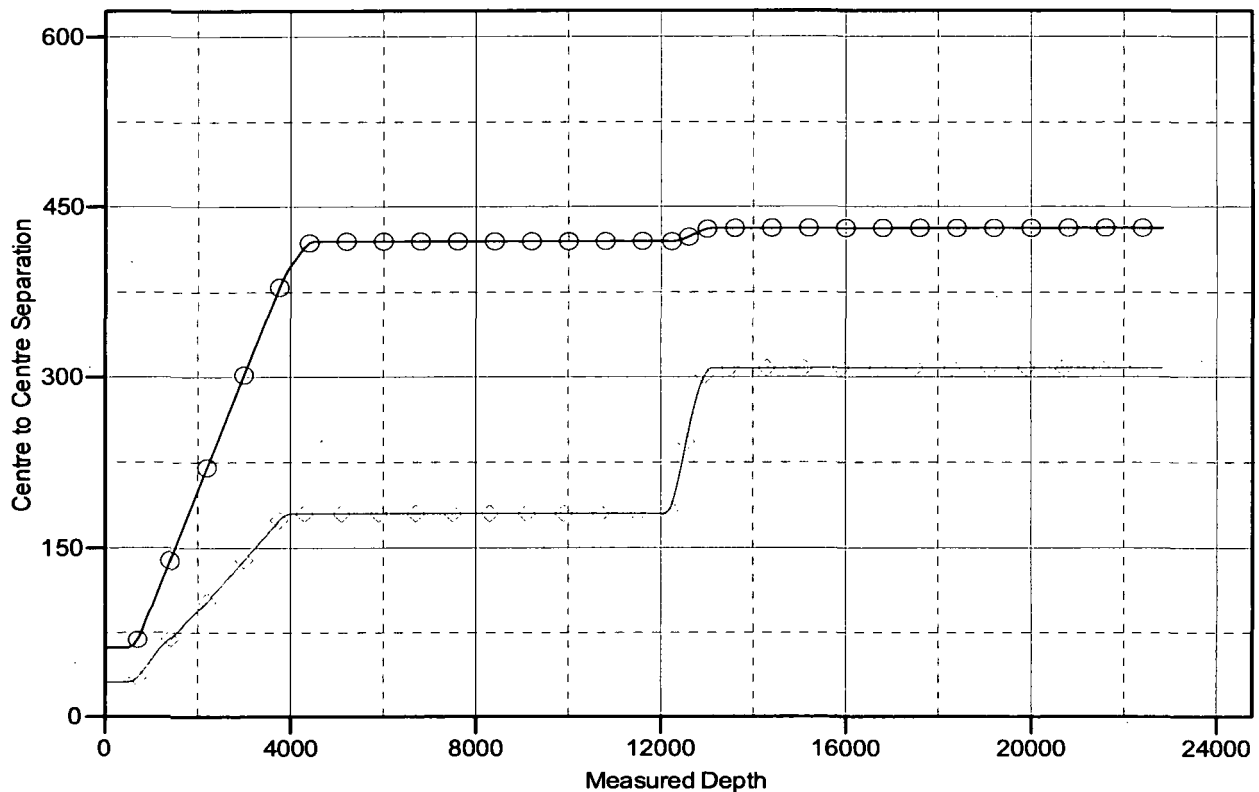
Offset Depths are relative to Offset Datum

Central Meridian is 104.333°W

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Grid Convergence at Surface is: 0.49°

Ladder Plot



LEGEND

Fascinator Fed Com 705H, Wellbore #1, Plan #1 V0 —●— Fascinator Fed Com 603H, Wellbore #1, Plan #1 V0



Anticollision Report

Company:	Concho Operating	Local Co-ordinate Reference:	Well Fascinator Fed Com 704H
Project:	Lea County, NM (Nad 27)	TVD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Reference Site:	Fascinator Fed Com Wells	MD Reference:	GL 3370' + 29' RKB @ 3399.00ft (Noram 23)
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Fascinator Fed Com 704H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 ft	Output errors are at	2.00 sigma
Reference Wellbore	Fascinator FC 704H	Database:	EDM 5000.14 Single User Db
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to GL 3370' + 29' RKB @ 3399.00ft (No Coordinates are relative to: Fascinator Fed Com 704H)

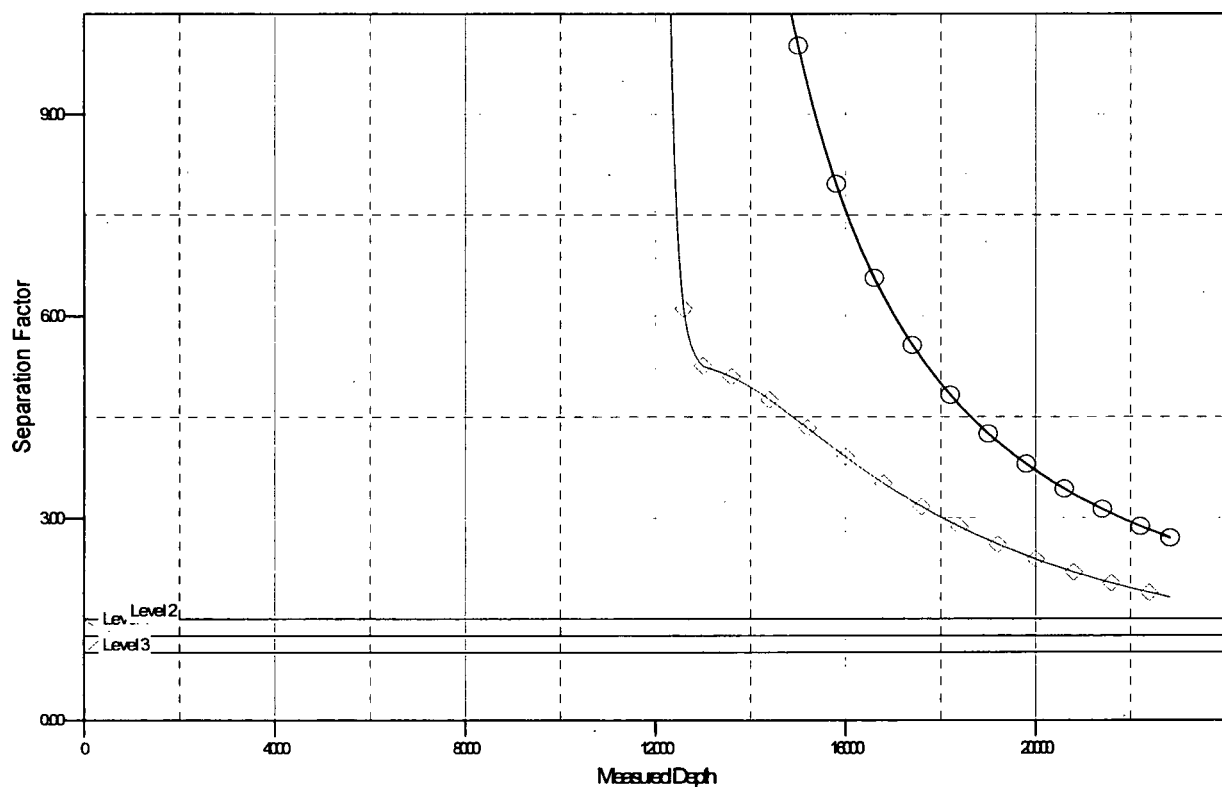
Offset Depths are relative to Offset Datum

Central Meridian is 104.333°W

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Grid Convergence at Surface is: 0.49°

Separation Factor Plot



LEGEND

Fascinator Fed Com 705H, Wellbore #1, Plan #1 V0 —◆— Fascinator Fed Com 603H, Wellbore #1, Plan #1 V0

COG Operating, LLC - Fascinator Fed Com 704H

1. Geologic Formations

TVD of target	12,889' EOL	Pilot hole depth	NA
MD at TD:	22,833'	Deepest expected fresh water:	207'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1105	Water	
Top of Salt	1302	Salt	
Base of Salt	5150	Salt	
Lamar	5476	Salt Water	
Bell Canyon	5499	Salt Water	
Cherry Canyon	6474	Oil/Gas	
Brushy Canyon	8082	Oil/Gas	
Bone Spring Lime	9325	Oil/Gas	
U. Avalon Shale	9675	Oil/Gas	
L. Avalon Shale	9916	Oil/Gas	
1st Bone Spring Sand	10484	Oil/Gas	
2nd Bone Spring Sand	11190	Oil/Gas	
3rd Bone Spring Sand	12140	Oil/Gas	
Wolfcamp	12560	Target Oil/Gas	

2. Casing Program

Hole Size	Casing		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	1190	13.375"	54.5	J55	STC	2.12	5.92	7.93
12.25"	0	12140	9.625"	47	HCL80	BTC	1.45	1.03	1.97
8.5	0	22,833	5.5"	23	P110	BTC	1.74	2.05	2.44
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse. Intermediate burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface.

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h