

Form 3160-3
(June 2015)FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☐ DRILL ☐ REENTER 1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other 1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone		5. Lease Serial No. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA Agreement, Name and No. 8. Lease Name and Well No.
2. Name of Operator		9. API Well No. 30-015-56429
3a. Address	3b. Phone No. (include area code)	10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
13. State		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

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

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		
Office		

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

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

(Continued on page 2)

*(Instructions on page 2)



C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type:	☒ Initial Submittal
			☐ Amended Report
			☐ As Drilled

WELL LOCATION INFORMATION

API Number 30-015-56429	Pool Code 96718	Pool Name LOCO HILLS; GLORIETA-YESO
Property Code 337176	Property Name OCHO 20 FEDERAL COM	Well Number 70H
OGRID No. 328947	Operator Name SPUR ENERGY PARTNERS LLC.	Ground Level Elevation 3623'
Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal		Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL I	Section 19	Township 17S	Range 30E	Lot	Ft. from N/S 1665 FSL	Ft. from E/W 940 FEL	Latitude 32.8173574°N	Longitude 104.0058028°W	County EDDY
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Bottom Hole Location

UL I	Section 20	Township 17S	Range 30E	Lot	Ft. from N/S 2425 FSL	Ft. from E/W 50 FEL	Latitude 32.8194374°N	Longitude 103.9857211°W	County EDDY
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Dedicated Acres 160	Infill or Defining Well INFILL	Defining Well API	Overlapping Spacing Unit (Y/N) N	Consolidation Code
Order Numbers.			Well setbacks are under Common Ownership: ☒ Yes ☐ No	

Kick Off Point (KOP)

UL I	Section 19	Township 17S	Range 30E	Lot	Ft. from N/S 2439 FSL	Ft. from E/W 849 FEL	Latitude 32.8194832°N	Longitude 104.0055067°W	County EDDY
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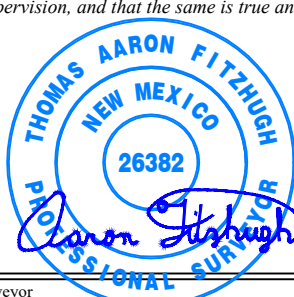
First Take Point (FTP)

UL L	Section 20	Township 17S	Range 30E	Lot	Ft. from N/S 2425 FSL	Ft. from E/W 100 FWL	Latitude 32.8194443°N	Longitude 104.0024190°W	County EDDY
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Last Take Point (LTP)

UL I	Section 20	Township 17S	Range 30E	Lot	Ft. from N/S 2425 FSL	Ft. from E/W 100 FEL	Latitude 32.8194374°N	Longitude 103.9858838°W	County EDDY
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Unitized Area or Area of Uniform Interest Y	Spacing Unit Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation: 3623' GL
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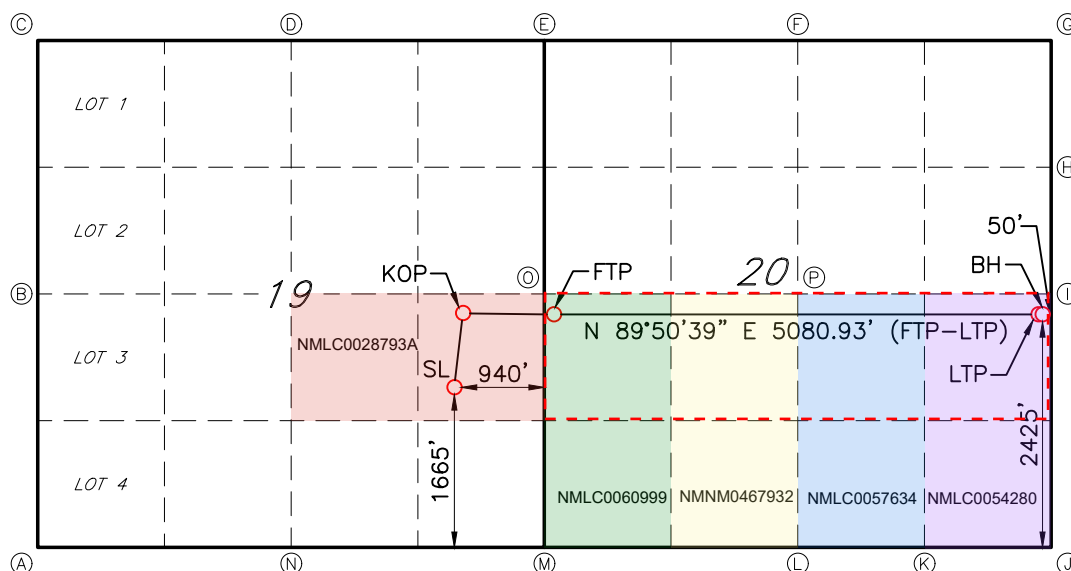
OPERATOR CERTIFICATIONS <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is a vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i> <i>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i> Sarah Chapman 08/23/2024 Signature Date		SURVEYOR CERTIFICATIONS <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me under my supervision, and that the same is true and correct to the best of my belief.</i>  Thomas Aaron Fitzhugh Signature and Seal of Professional Surveyor	
SARAH CHAPMAN Printed Name		26382 Certificate Number	05/28/2024 Date of Survey
SCHAPMAN@SPURENERGY.COM Email Address			

Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is a directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



GEODETTIC DATA
NAD 83 GRID - NM EAST

SURFACE LOCATION (SL)
N: 661243.2 - E: 641957.3

LAT: 32.8173574° N
LONG: 104.0058028° W

KICK OFF POINT (KOP)
2439' FSL - 849' FEL SEC.19
N: 662016.9 - E: 642045.8

LAT: 32.8194832° N
LONG: 104.0055067° W

FIRST TAKE POINT (FTP)
2425' FSL - 100' FWL SEC.20
N: 662005.7 - E: 642994.4

LAT: 32.8194443° N
LONG: 104.0024190° W

LAST TAKE POINT (LTP)
2425' FSL - 100' FEL SEC.20
N: 662019.5 - E: 648074.1

LAT: 32.8194374° N
LONG: 103.9858838° W

BOTTOM HOLE (BH)
N: 662019.6 - E: 648124.1

LAT: 32.8194374° N
LONG: 103.9857211° W

CORNER DATA
NAD 83 GRID - NM EAST

A: FOUND 2 1/2" STEEL PIPE
N: 659567.0 - E: 637708.9

B: FOUND BRASS CAP "1914"
N: 662203.0 - E: 637700.0

C: FOUND BRASS CAP "1914"
N: 664840.4 - E: 637685.9

D: FOUND BRASS CAP "1997"
N: 664849.8 - E: 640242.9

E: FOUND BRASS CAP "1916"
N: 664860.0 - E: 642884.4

F: FOUND BRASS CAP "1916"
N: 664867.5 - E: 645524.3

G: FOUND BRASS CAP "1916"
N: 664876.1 - E: 648164.3

H: FOUND BRASS CAP "1940"
N: 663555.8 - E: 648168.8

I: FOUND ALUM CAP BLM "1984"
N: 662235.5 - E: 648173.3

J: FOUND ALUM CAP "1983"
N: 659595.4 - E: 648182.7

K: FOUND 3" ALUM CAP DOI "1984"
N: 659591.5 - E: 646862.8

L: FOUND BRASS CAP "1916"
N: 659587.8 - E: 645542.7

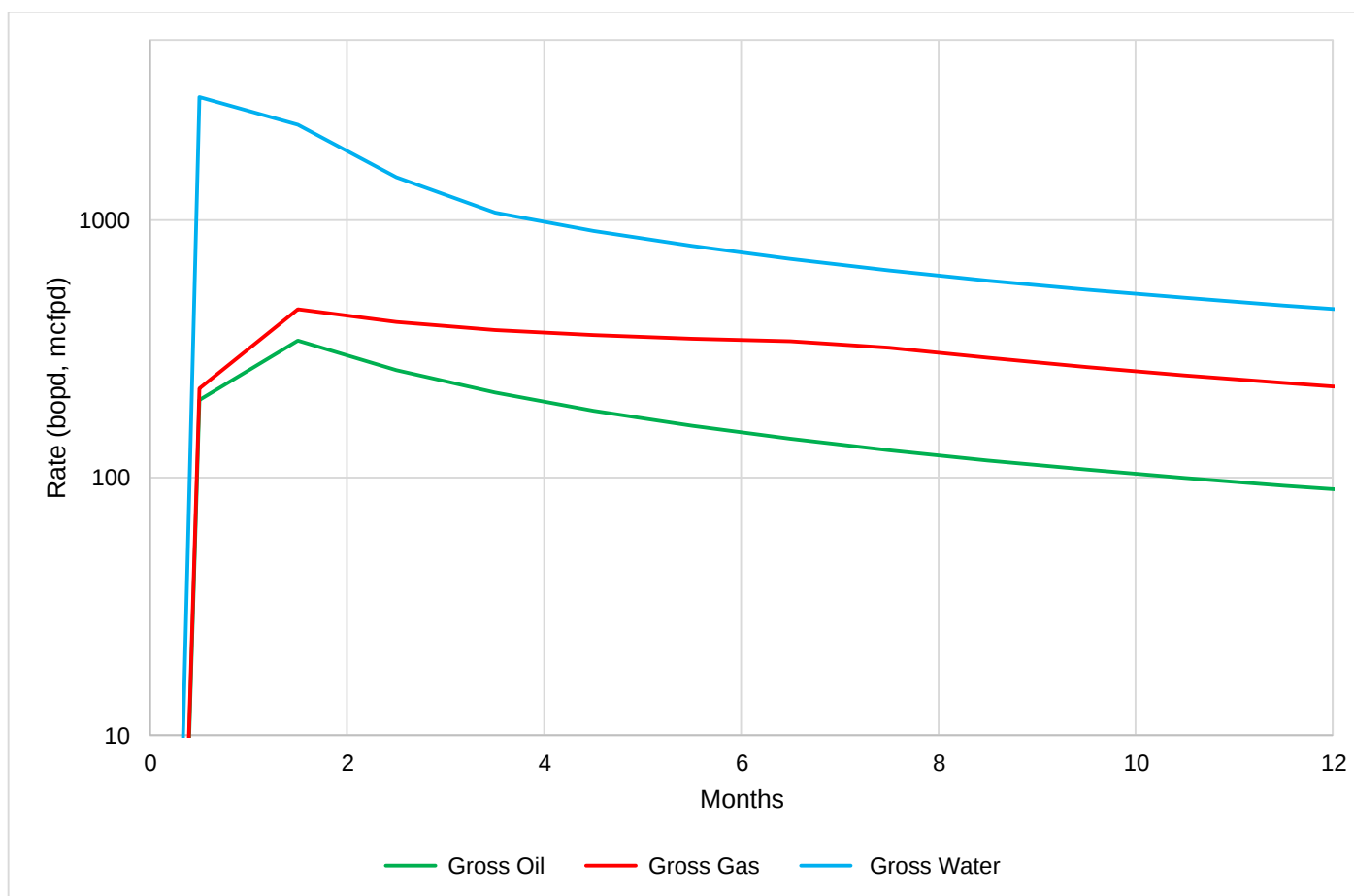
M: FOUND BRASS CAP "1916"
N: 659581.0 - E: 642902.6

N: FOUND BRASS CAP "1916"
N: 659574.2 - E: 640262.1

O: FOUND BRASS CAP "1990"
N: 662220.5 - E: 642893.7

P: FOUND ALUM CAP "1985"
N: 662228.3 - E: 645533.7

Maljamar Blinebry Type Curve



State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Electronically
Via E-permitting

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: SPUR ENERGY PARTNERS LLC **OGRID:** 328947 **Date:** 08 / 26 / 2024

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
OCHO 20 FEDERAL COM 70H	30-015-	I-19-17S-30E	1665' FSL 940' FEL	335 BBL/D	365 MCF/D	1006 BBL/D

IV. Central Delivery Point Name: OCHO TESORO 20 FEDERAL COM TANK BATTERY [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
OCHO 20 FEDERAL COM 70H	30-015-	09/17/2025	09/26/2025	11/03/2025	11/17/2025	11/29/2025

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan**EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	<i>Sarah Chapman</i>
Printed Name:	SARAH CHAPMAN
Title:	REGULATORY DIRECTOR
E-mail Address:	SCHAPMAN@SPUREENERGY.COM
Date:	08/26/2024
Phone:	832-930-8613
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	



Natural Gas Management Plan – Attachment

VI. Separation equipment will be sized by construction engineering staff based on anticipated daily production to ensure adequate capacity.

VII. Spur Energy Partners LLC ("Spur") will take the following actions to comply with the regulations listed in 19.15.27.8:

- A. Spur will maximize the recovery of natural gas by minimizing waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. Spur will ensure that our wells will be connected to a natural gas gathering system with sufficient capacity to transport natural gas.
- B. All drilling operations will be equipped with a rig flare at least 100 feet from the nearest surface hole location. Rig flare will be utilized to combust any natural gas that is brought to surface during normal operations. In the case of emergency, flaring volumes will be reported appropriately.
- C. During completion operations any natural gas brought to surface will be flared. Immediately following completion operations, wells will flow to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. If natural gas does not meet gathering pipeline specifications, Spur will flare for 60 days or until natural gas meets the pipeline specifications. Spur will ensure flare is properly sized and is equipped with an automatic igniter or continuous pilot. Gas samples will be taken twice per week and natural gas will be routed into a gathering system as soon as the pipeline specifications are met.
- D. Natural gas will not be flared with the exception of 19.15.27.8(D)(1-4). If there is no adequate takeaway for the separator gas, wells will be shut-in until that natural gas gathering system is available with exception of emergency or malfunction situations. Volumes will be reported appropriately.
- E. Spur will comply with performance standards pursuant to 19.15.27.8(E)(1-8). All equipment will be designed and sized to handle maximum pressures to minimize waste. Storage tanks constructed after May 25, 2021 will be equipped with an automatic gauging system that reduces venting of natural gas. Flare stacks installed or replaced after May 25, 2021 will be equipped with an automatic igniter or continuous pilot. Spur will conduct AVO inspections as described in 19.15.27.8(E)(5)(a) with frequencies specified in 19.15.27.8(E)(5)(b) and (c). All emergencies or malfunctions will be resolved as quickly and safely as possible to minimize waste.
- F. The volume of natural gas that is vented or flared as the result of an emergency or malfunction during drilling and/or completion operations will be estimated and reported accordingly. The volume of natural gas that is vented, flared or beneficially used during production operations, will be measured and reported accordingly. Spur will install equipment to measure the volume of natural gas flared from existing piping or a flowline piped from equipment such as high-pressure separators, heater treaters, or VRUs associated with a well or facility associated with a well authorized by an APD after May 25, 2021 that has an average daily production of less than 60,000 cubic feet of natural gas. If metering is not practicable due to circumstances such as low flow rate or low pressure venting or flaring, Spur will estimate the volume of flared or vented natural gas. Measuring equipment will conform to industry standards and will not be equipped with a manifold



that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing equipment.

VIII. For maintenance activities involving production equipment and compression, venting be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production equipment, the associated producing wells will be shut-in to eliminate venting. For maintenance of VRUs, all natural gas normally routed to the VRU will be routed to flare.

Spur Energy Partners LLC – Ocho 20 Federal Com 70H

1. Geologic Formations

TVD of Target	5,650'
MD at TD	11,358'

Formation	Depth	Lithology	Expected Fluids
Quaternary	0'	Dolomite, other: Caliche	Useable Water
Rustler	300'	Dolomite, Shale, Anhydrite	Other: Brackish Water
Top Salt	415'	Anhydrite	Other: Salt
Tansill	1015'	Sandstone, Dolomite	None
Yates	1125'	Dolomite, Limestone, Shale, Siltstone	None
Seven Rivers	1415'	Dolomite, Limestone	Natural Gas, Oil
Queen	2035'	Anhydrite, Dolomite, Sandstone	Natural Gas, Oil
Grayburg	2430'	Anhydrite	Natural Gas, Oil
San Andres	2800'	Dolomite	Natural Gas, Oil
Glorieta	4220'	Dolomite, Siltstone	Natural Gas, Oil
Paddock	4335'	Dolomite, Limestone	Natural Gas, Oil
Blinberry	4845'	Dolomite, Limestone	Natural Gas, Oil
Abo	6630'	Dolomite, Limestone	Will Not Penetrate

*H₂S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

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

Casing Formation Set Interval	Hole Size (in)	Casing Interval		Csg. Size (in)	Weight (lbs)	Grade	Conn.	SF	SF Burst	Body SF	Joint SF
		From (ft)	To (ft)					Collapse		Tension	Tension
Rustler	17.5	0	350	13.375	54.5	J-55	BTC	1.125	1.2	1.4	1.4
Seven Rivers	12.25	0	1500	9.625	36	J-55	BTC	1.125	1.2	1.4	1.4
N/A	8.75	0	6000	7	32	L-80	BK-HT	1.125	1.2	1.4	1.4
Yeso	8.75	6000	11358	5.5	20	L-80	BK-HT	1.125	1.2	1.4	1.4
SF Values will meet or Exceed											

Spur Energy Partners LLC – Ocho 20 Federal Com 70H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing String	Top (ft)	Bottom (ft)	% Excess
Surface Tail	0	350	165%
Intermediate (Lead)	0	350	100%
Intermediate (Tail)	350	1500	100%
Production (Lead)	0	5000	100%
Production (Tail)	5000	11358	25%

Casing String	# Sks	Wt. (lb/gal)	Yld (ft3/sack)	H2O (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface Tail	331	13.2	1.87	9.92	6:59	Clas C Premium Plus Cement
Intermediate (Lead)	53	12	2.4	13.48	8:12	Clas C Premium Plus Cement
Intermediate (Tail)	395	13.2	1.87	9.92	6:59	Clas C Premium Plus Cement
Production (Lead)	808	11.4	2.42	15.29	N/A	Clas C Premium Plus Cement
Production (Tail)	1211	13.2	1.56	9.81	N/A	Clas C Premium Plus Cement

Spur Energy Partners LLC – Ocho 20 Federal Com 70H

4. Pressure Control Equipment

Spur requests a variance to use a flex line from the BOP to the choke manifold. Documentation will be attached in the APD and be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no bends).

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12.25" Hole	13-5/8"	5M	Annular	✓	70% of working pressure
		5M	Blind Ram	✓	250 psi / 3000 psi
			Pipe Ram	✓	
			Double Ram		
			Other*		
8.75" Hole	13-5/8"	5M	Annular	✓	70% of working pressure
		5M	Blind Ram	✓	250 psi / 3000 psi
			Pipe Ram	✓	
			Double Ram		
			Other*		

Spur Energy Partners LLC will be utilizing a 5M BOP

Condition	Specify what type and where?
BH Pressure at deepest TVD	2615 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	126°F

*Specify if additional ram is utilized.

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.

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.

Spur Energy Partners LLC – Ocho 20 Federal Com 70H

Y	Are anchors required by manufacturer?
	A conventional wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. 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. See attached schematics.

5. BOP Break Testing Request

Spur Energy Partners LLC requests permission to adjust the BOP break testing requirements as per the verbal agreement reached over the phone between SPUR/BLM on September 7, 2020. A separate sundry will be sent prior to spud that reflects the pad-based break testing plan.

BOP break test under the following conditions:

- After a full BOP test is conducted
- When skidding to drill the production section, where the surface casing point is shallower than the 3 Bone Spring or 10,000 TVD.
- When skidding to drill a production section that does not penetrate the 3rd Bone Spring or deeper.

If the kill line is broken prior to skid, four tests will be performed.

- 1) The void between the wellhead and the spool (this consists of two tests)
- 2) The spool between the kill lines and the choke manifold (this consists of two tests)

If the kill line is not broken prior to skid, two tests will be performed.

- 1) The void between the wellhead and the pipe rams

6. Mud Program

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Spur will use a closed mud system.

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
0	350	Water-Based Mud	8.6-8.9	32-36	N/C
350	1500	Brine	10.0-10.5	32-36	N/C
1500	11358	Brine	10.0-10.5	32-36	N/C

What will be used to monitor the loss or gain of fluid?	PVT/PASON/Visual Monitoring
---	-----------------------------

Spur Energy Partners LLC – Ocho 20 Federal Com 70H

7. Logging and Testing Procedures

Logging, Coring and Testing.		
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.	
No	Logs are planned based on well control or offset log information.	
No	Drill stem test? If yes, explain	
No	Coring? If yes, explain	
Additional logs planned		Interval
No	Resistivity	
No	Density	
No	CBL	
Yes	Mud log	ICP - TD
No	PEX	

8. Drilling Conditions

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

Hydrogen Sulfide (H ₂ S) monitors will be installed prior to drilling out the surface shoe. If H ₂ S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H ₂ S is present
Y	H ₂ S Plan attached

Total estimated cuttings volume: 1107.2 bbls.

Spur Energy Partners LLC – Ocho 20 Federal Com 70H**9. Other facets of operation**

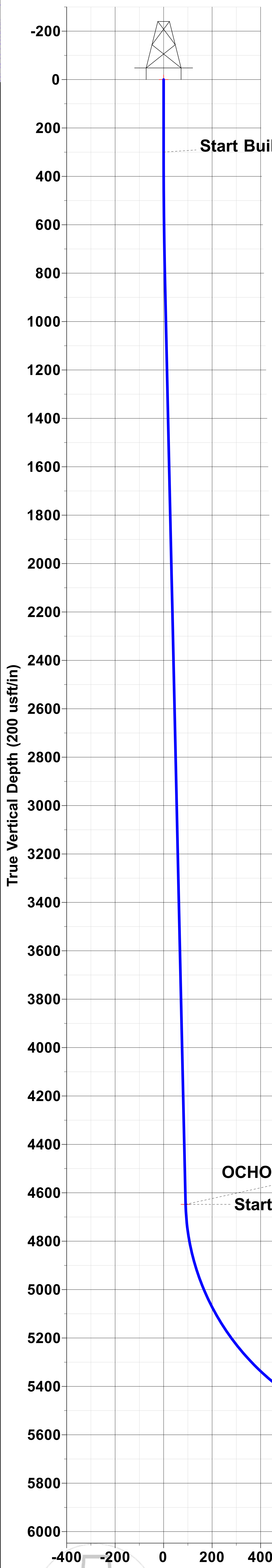
	Yes/No
Will more than one drilling rig be used for drilling operations? If yes, describe. Spur Energy Partners LLC. requests the option to contract a Surface Rig to drill, set surface/intermediate casing and cement for this well. If the timing between rigs is such that Spur Energy Partners LLC. would not be able to preset surface/intermediate the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	Yes

Attachments

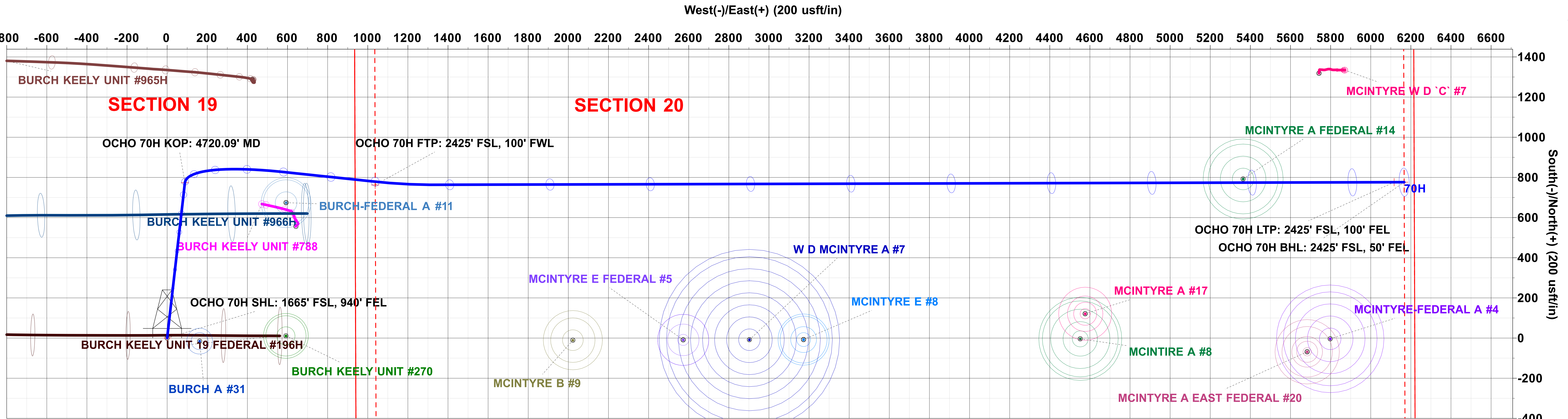
- ☒ Directional Plan
☒ H2S Contingency Plan
☒ Akita 57 Attachments
☒ BOP Schematics
☒ Transcend Spudder Rig Attachments

10. Company Personnel

Name	Title	Office Phone	Mobile Phone
Christopher Hollis	Drilling Manager	832-930-8629	713-380-7754
Johnny Nabors	Senior Vice President Operations	832-930-8502	281-904-8811



Project: EDDY COUNTY, NM (NAD 83 - NME)
Site: OCHO 20 FEDERAL COM
Well: 70H
Wellbore: Wellbore #1
Design: PERMIT



WELL DETAILS: 70H

Rig Name:		AKITA 57		RKB = 20' @ 3643.00usft (AKITA 57)	
Ground Level:		3623.00			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	661243.20	641957.30	32.81736	-104.00580

SECTION DETAILS

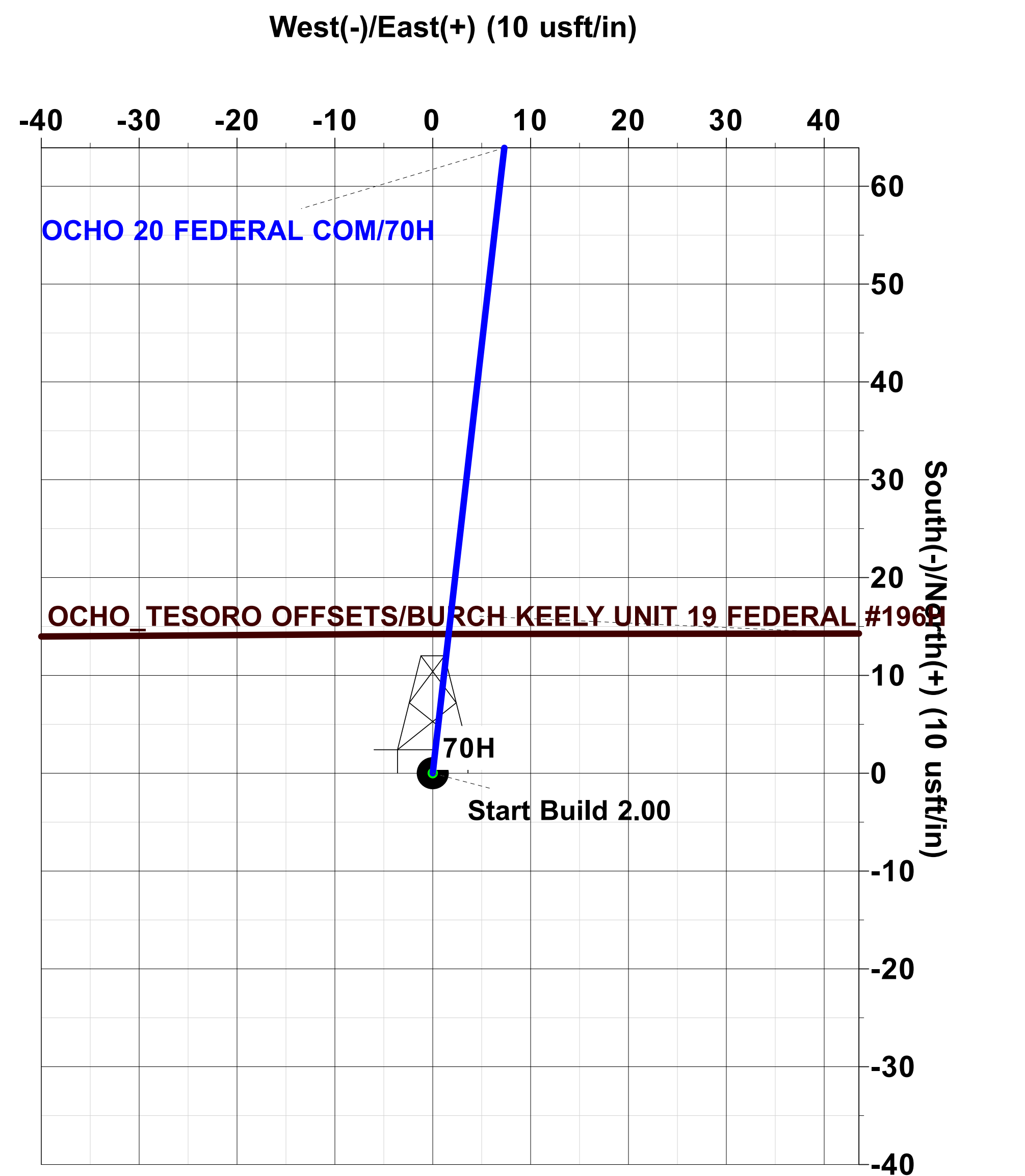
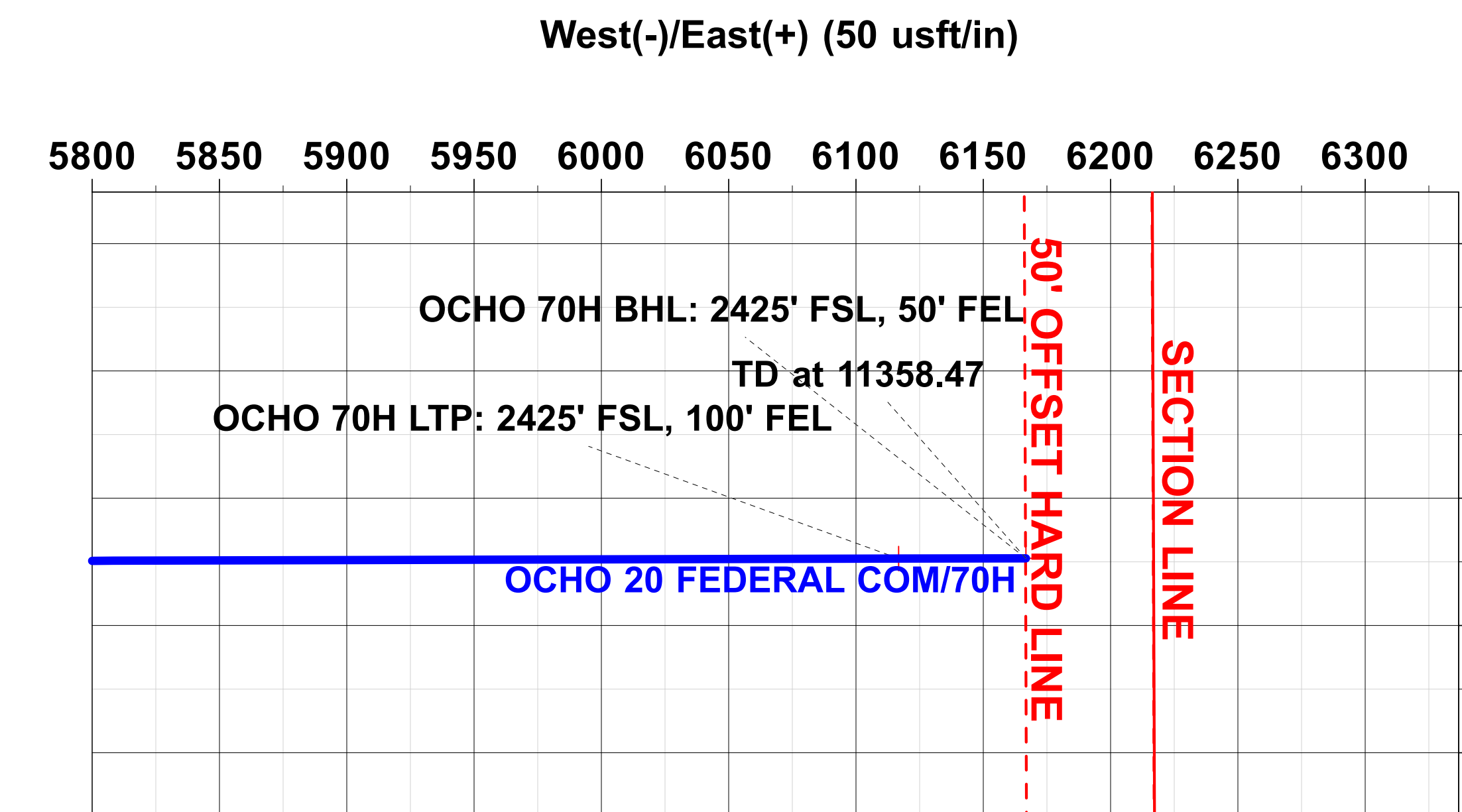
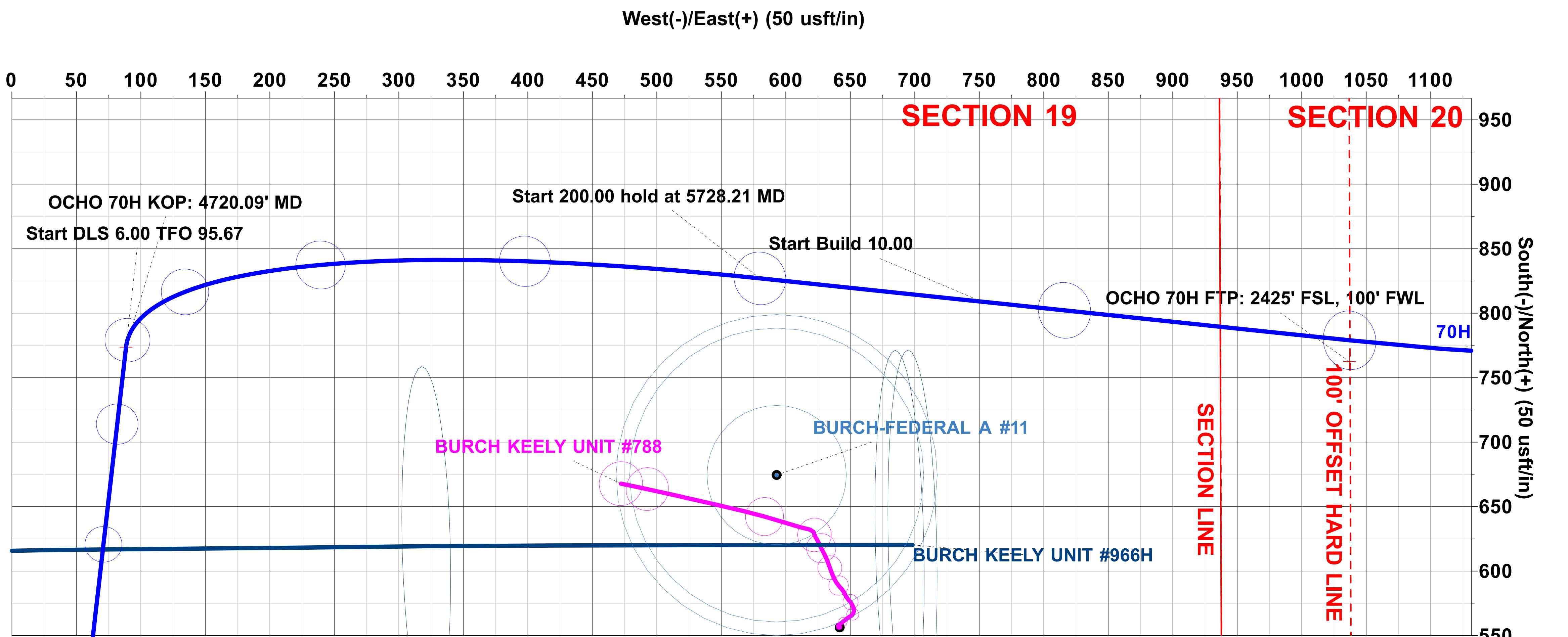
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00
3	840.69	10.81	6.53	837.49	50.54	5.78	2.00	5.93
4	4720.09	10.81	6.53	4647.99	773.67	88.54	0.00	90.70
5	5728.21	60.00	96.00	5473.24	827.05	579.93	6.00	582.24
6	5928.21	60.00	96.00	5573.24	808.95	752.19	0.00	754.45
7	6228.21	90.00	96.00	5650.00	779.00	1037.10	10.00	1039.27
8	6536.00	90.00	89.84	5650.00	763.32	1344.35	2.00	1346.47
9	11308.47	90.00	89.84	5650.00	776.30	6116.80	0.00	6118.94
10	11358.47	90.00	89.84	5650.00	776.44	6166.80	0.00	6168.94

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
OCHO 70H BHL: 2425' FSL, 50' FEL	5650.00	776.40	6166.80	662019.60	648124.10
OCHO 70H FTP: 2425' FSL, 100' FWL	5650.00	762.50	1037.10	662005.70	642994.40
OCHO 70H KOP: 4720.09' MD	4647.99	773.67	88.54	662016.87	642045.84
OCHO 70H LTP: 2425' FSL, 100' FEL	5650.00	776.30	6116.80	662019.50	648074.10
OCHO 70H SHL: 1665' FSL, 940' FEL	0.00	0.00	0.00	661243.20	641957.30

PROJECT DETAILS: EDDY COUNTY, NM (NAD 83 - NME)

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



Vertical Section at 89.84° (200 usft/in)

Plan: PERMIT (70H/Wellbore #1)

Created By: PROTOTYPE WELL PLANNING / Date: 15:38, August 05 2024

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SPUR ENERGY PARTNERS, LLC

EDDY COUNTY, NM (NAD 83 - NME)

OCHO 20 FEDERAL COM

70H

Wellbore #1

Plan: PERMIT

Standard Planning Report

05 August, 2024

Planning Report

Database:	EDM 5000.17 Single User Db	Local Co-ordinate Reference:	Well 70H
Company:	SPUR ENERGY PARTNERS, LLC	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site:	OCHO 20 FEDERAL COM	North Reference:	Grid
Well:	70H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

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

Site	OCHO 20 FEDERAL COM		
Site Position:		Northing:	661,243.20 usft
From:	Map	Easting:	641,957.30 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.81736
		Longitude:	-104.00581

Well	70H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
Grid Convergence:	0.18 °		
		Latitude:	32.81736
		Longitude:	-104.00581
		Ground Level:	3,623.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	7/24/2024	6.43	60.27	47,474.06066164

Design	PERMIT				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	89.84	

Plan Survey Tool Program		Date 8/5/2024			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	11,357.56 PERMIT (Wellbore #1)	MWD+IFR1+SAG+FDIR	OWSG MWD + IFR1 + Sag	

Planning Report

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Site:	OCHO 20 FEDERAL COM	North Reference:	Grid
Well:	70H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
840.69	10.81	6.53	837.49	50.54	5.78	2.00	2.00	0.00	6.53	
4,720.09	10.81	6.53	4,647.99	773.67	88.54	0.00	0.00	0.00	0.00	
5,728.21	60.00	96.00	5,473.24	827.05	579.93	6.00	4.88	8.88	95.67	
5,928.21	60.00	96.00	5,573.24	808.95	752.19	0.00	0.00	0.00	0.00	
6,228.21	90.00	96.00	5,650.00	779.00	1,037.10	10.00	10.00	0.00	0.00	
6,536.00	90.00	89.84	5,650.00	763.32	1,344.35	2.00	0.00	-2.00	-90.00	
11,308.47	90.00	89.84	5,650.00	776.30	6,116.80	0.00	0.00	0.00	0.00	OCHO 70H LTP: 24
11,358.47	90.00	89.84	5,650.00	776.44	6,166.80	0.00	0.00	0.00	0.00	OCHO 70H BHL: 24

Planning Report

Database:	EDM 5000.17 Single User Db	Local Co-ordinate Reference:	Well 70H
Company:	SPUR ENERGY PARTNERS, LLC	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site:	OCHO 20 FEDERAL COM	North Reference:	Grid
Well:	70H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OCHO 70H SHL: 1665' FSL, 940' FEL									
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	2.00	6.53	399.98	1.73	0.20	0.20	2.00	2.00	0.00
500.00	4.00	6.53	499.84	6.93	0.79	0.81	2.00	2.00	0.00
600.00	6.00	6.53	599.45	15.59	1.78	1.83	2.00	2.00	0.00
700.00	8.00	6.53	698.70	27.70	3.17	3.25	2.00	2.00	0.00
800.00	10.00	6.53	797.47	43.24	4.95	5.07	2.00	2.00	0.00
840.69	10.81	6.53	837.49	50.54	5.78	5.93	2.00	2.00	0.00
900.00	10.81	6.53	895.74	61.60	7.05	7.22	0.00	0.00	0.00
1,000.00	10.81	6.53	993.97	80.24	9.18	9.41	0.00	0.00	0.00
1,100.00	10.81	6.53	1,092.19	98.88	11.32	11.59	0.00	0.00	0.00
1,200.00	10.81	6.53	1,190.42	117.52	13.45	13.78	0.00	0.00	0.00
1,300.00	10.81	6.53	1,288.64	136.16	15.58	15.96	0.00	0.00	0.00
1,400.00	10.81	6.53	1,386.86	154.80	17.71	18.15	0.00	0.00	0.00
1,500.00	10.81	6.53	1,485.09	173.44	19.85	20.33	0.00	0.00	0.00
1,600.00	10.81	6.53	1,583.31	192.08	21.98	22.52	0.00	0.00	0.00
1,700.00	10.81	6.53	1,681.54	210.72	24.11	24.70	0.00	0.00	0.00
1,800.00	10.81	6.53	1,779.76	229.36	26.25	26.89	0.00	0.00	0.00
1,900.00	10.81	6.53	1,877.98	248.00	28.38	29.07	0.00	0.00	0.00
2,000.00	10.81	6.53	1,976.21	266.64	30.51	31.26	0.00	0.00	0.00
2,100.00	10.81	6.53	2,074.43	285.28	32.65	33.44	0.00	0.00	0.00
2,200.00	10.81	6.53	2,172.66	303.92	34.78	35.63	0.00	0.00	0.00
2,300.00	10.81	6.53	2,270.88	322.56	36.91	37.81	0.00	0.00	0.00
2,400.00	10.81	6.53	2,369.11	341.20	39.05	40.00	0.00	0.00	0.00
2,500.00	10.81	6.53	2,467.33	359.84	41.18	42.18	0.00	0.00	0.00
2,600.00	10.81	6.53	2,565.55	378.48	43.31	44.37	0.00	0.00	0.00
2,700.00	10.81	6.53	2,663.78	397.12	45.45	46.55	0.00	0.00	0.00
2,800.00	10.81	6.53	2,762.00	415.76	47.58	48.74	0.00	0.00	0.00
2,900.00	10.81	6.53	2,860.23	434.40	49.71	50.92	0.00	0.00	0.00
3,000.00	10.81	6.53	2,958.45	453.04	51.84	53.11	0.00	0.00	0.00
3,100.00	10.81	6.53	3,056.67	471.68	53.98	55.29	0.00	0.00	0.00
3,200.00	10.81	6.53	3,154.90	490.32	56.11	57.48	0.00	0.00	0.00
3,300.00	10.81	6.53	3,253.12	508.96	58.24	59.66	0.00	0.00	0.00
3,400.00	10.81	6.53	3,351.35	527.60	60.38	61.85	0.00	0.00	0.00
3,500.00	10.81	6.53	3,449.57	546.24	62.51	64.04	0.00	0.00	0.00
3,600.00	10.81	6.53	3,547.80	564.88	64.64	66.22	0.00	0.00	0.00
3,700.00	10.81	6.53	3,646.02	583.52	66.78	68.41	0.00	0.00	0.00
3,800.00	10.81	6.53	3,744.24	602.16	68.91	70.59	0.00	0.00	0.00
3,900.00	10.81	6.53	3,842.47	620.80	71.04	72.78	0.00	0.00	0.00
4,000.00	10.81	6.53	3,940.69	639.44	73.18	74.96	0.00	0.00	0.00
4,100.00	10.81	6.53	4,038.92	658.08	75.31	77.15	0.00	0.00	0.00
4,200.00	10.81	6.53	4,137.14	676.72	77.44	79.33	0.00	0.00	0.00
4,300.00	10.81	6.53	4,235.37	695.36	79.57	81.52	0.00	0.00	0.00
4,400.00	10.81	6.53	4,333.59	714.00	81.71	83.70	0.00	0.00	0.00
4,500.00	10.81	6.53	4,431.81	732.65	83.84	85.89	0.00	0.00	0.00
4,600.00	10.81	6.53	4,530.04	751.29	85.97	88.07	0.00	0.00	0.00
4,700.00	10.81	6.53	4,628.26	769.93	88.11	90.26	0.00	0.00	0.00
4,720.09	10.81	6.53	4,647.99	773.67	88.54	90.70	0.00	0.00	0.00
OCHO 70H KOP: 4720.09' MD									
4,750.00	10.78	16.12	4,677.38	779.15	89.63	91.81	6.00	-0.10	32.06
4,800.00	11.38	31.47	4,726.46	787.85	93.51	95.70	6.00	1.18	30.71

Planning Report

Database:	EDM 5000.17 Single User Db	Local Co-ordinate Reference:	Well 70H
Company:	SPUR ENERGY PARTNERS, LLC	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site:	OCHO 20 FEDERAL COM	North Reference:	Grid
Well:	70H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,850.00	12.66	44.53	4,775.37	795.96	99.92	102.15	6.00	2.57	26.12
4,900.00	14.46	54.82	4,823.98	803.47	108.87	111.11	6.00	3.59	20.57
4,950.00	16.60	62.69	4,872.16	810.34	120.32	122.58	6.00	4.28	15.75
5,000.00	18.97	68.73	4,919.77	816.57	134.24	136.52	6.00	4.74	12.08
5,050.00	21.49	73.44	4,966.68	822.13	150.60	152.89	6.00	5.04	9.41
5,100.00	24.12	77.18	5,012.77	827.01	169.34	171.65	6.00	5.25	7.49
5,150.00	26.82	80.22	5,057.91	831.19	190.42	192.74	6.00	5.40	6.08
5,200.00	29.57	82.73	5,101.98	834.67	213.78	216.11	6.00	5.51	5.03
5,250.00	32.37	84.85	5,144.85	837.43	239.36	241.70	6.00	5.59	4.24
5,300.00	35.20	86.67	5,186.40	839.47	267.08	269.42	6.00	5.65	3.63
5,350.00	38.04	88.24	5,226.53	840.78	296.87	299.22	6.00	5.70	3.15
5,400.00	40.91	89.63	5,265.12	841.35	328.65	331.00	6.00	5.74	2.77
5,450.00	43.79	90.87	5,302.07	841.20	362.33	364.68	6.00	5.76	2.47
5,500.00	46.69	91.98	5,337.27	840.31	397.82	400.16	6.00	5.79	2.22
5,550.00	49.59	92.99	5,370.63	838.69	435.01	437.36	6.00	5.81	2.02
5,600.00	52.50	93.92	5,402.06	836.34	473.82	476.16	6.00	5.82	1.85
5,650.00	55.42	94.77	5,431.47	833.27	514.13	516.46	6.00	5.84	1.71
5,700.00	58.35	95.57	5,458.78	829.49	555.84	558.15	6.00	5.85	1.60
5,728.21	60.00	96.00	5,473.24	827.05	579.93	582.24	6.00	5.86	1.52
5,800.00	60.00	96.00	5,509.14	820.55	641.77	644.06	0.00	0.00	0.00
5,900.00	60.00	96.00	5,559.14	811.50	727.90	730.16	0.00	0.00	0.00
5,928.21	60.00	96.00	5,573.24	808.95	752.19	754.45	0.00	0.00	0.00
5,950.00	62.18	96.00	5,583.77	806.95	771.16	773.41	10.00	10.00	0.00
6,000.00	67.18	96.00	5,605.15	802.23	816.10	818.33	10.00	10.00	0.00
6,050.00	72.18	96.00	5,622.51	797.33	862.71	864.94	10.00	10.00	0.00
6,100.00	77.18	96.00	5,635.72	792.29	910.66	912.87	10.00	10.00	0.00
6,150.00	82.18	96.00	5,644.67	787.15	959.56	961.76	10.00	10.00	0.00
6,200.00	87.18	96.00	5,649.31	781.95	1,009.06	1,011.24	10.00	10.00	0.00
6,228.21	90.00	96.00	5,650.00	779.00	1,037.10	1,039.27	10.00	10.00	0.00
6,229.73	90.00	95.97	5,650.00	778.84	1,038.61	1,040.78	2.00	0.00	-2.00
OCHO 70H FTP: 2425' FSL, 100' FWL									
6,300.00	90.00	94.56	5,650.00	772.39	1,108.59	1,110.74	2.00	0.00	-2.00
6,400.00	90.00	92.56	5,650.00	766.17	1,208.39	1,210.52	2.00	0.00	-2.00
6,500.00	90.00	90.56	5,650.00	763.45	1,308.35	1,310.47	2.00	0.00	-2.00
6,536.00	90.00	89.84	5,650.00	763.32	1,344.35	1,346.47	2.00	0.00	-2.00
6,600.00	90.00	89.84	5,650.00	763.49	1,408.35	1,410.47	0.00	0.00	0.00
6,700.00	90.00	89.84	5,650.00	763.76	1,508.35	1,510.47	0.00	0.00	0.00
6,800.00	90.00	89.84	5,650.00	764.04	1,608.34	1,610.47	0.00	0.00	0.00
6,900.00	90.00	89.84	5,650.00	764.31	1,708.34	1,710.47	0.00	0.00	0.00
7,000.00	90.00	89.84	5,650.00	764.58	1,808.34	1,810.47	0.00	0.00	0.00
7,100.00	90.00	89.84	5,650.00	764.85	1,908.34	1,910.47	0.00	0.00	0.00
7,200.00	90.00	89.84	5,650.00	765.12	2,008.34	2,010.47	0.00	0.00	0.00
7,300.00	90.00	89.84	5,650.00	765.40	2,108.34	2,110.47	0.00	0.00	0.00
7,400.00	90.00	89.84	5,650.00	765.67	2,208.34	2,210.47	0.00	0.00	0.00
7,500.00	90.00	89.84	5,650.00	765.94	2,308.34	2,310.47	0.00	0.00	0.00
7,600.00	90.00	89.84	5,650.00	766.21	2,408.34	2,410.47	0.00	0.00	0.00
7,700.00	90.00	89.84	5,650.00	766.48	2,508.34	2,510.47	0.00	0.00	0.00
7,800.00	90.00	89.84	5,650.00	766.76	2,608.34	2,610.47	0.00	0.00	0.00
7,900.00	90.00	89.84	5,650.00	767.03	2,708.34	2,710.47	0.00	0.00	0.00
8,000.00	90.00	89.84	5,650.00	767.30	2,808.34	2,810.47	0.00	0.00	0.00
8,100.00	90.00	89.84	5,650.00	767.57	2,908.34	2,910.47	0.00	0.00	0.00
8,200.00	90.00	89.84	5,650.00	767.84	3,008.34	3,010.47	0.00	0.00	0.00
8,300.00	90.00	89.84	5,650.00	768.12	3,108.34	3,110.47	0.00	0.00	0.00
8,400.00	90.00	89.84	5,650.00	768.39	3,208.34	3,210.47	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.17 Single User Db	Local Co-ordinate Reference:	Well 70H
Company:	SPUR ENERGY PARTNERS, LLC	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site:	OCHO 20 FEDERAL COM	North Reference:	Grid
Well:	70H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,500.00	90.00	89.84	5,650.00	768.66	3,308.34	3,310.47	0.00	0.00	0.00
8,600.00	90.00	89.84	5,650.00	768.93	3,408.34	3,410.47	0.00	0.00	0.00
8,700.00	90.00	89.84	5,650.00	769.20	3,508.34	3,510.47	0.00	0.00	0.00
8,800.00	90.00	89.84	5,650.00	769.48	3,608.34	3,610.47	0.00	0.00	0.00
8,900.00	90.00	89.84	5,650.00	769.75	3,708.34	3,710.47	0.00	0.00	0.00
9,000.00	90.00	89.84	5,650.00	770.02	3,808.34	3,810.47	0.00	0.00	0.00
9,100.00	90.00	89.84	5,650.00	770.29	3,908.34	3,910.47	0.00	0.00	0.00
9,200.00	90.00	89.84	5,650.00	770.56	4,008.34	4,010.47	0.00	0.00	0.00
9,300.00	90.00	89.84	5,650.00	770.84	4,108.34	4,110.47	0.00	0.00	0.00
9,400.00	90.00	89.84	5,650.00	771.11	4,208.34	4,210.47	0.00	0.00	0.00
9,500.00	90.00	89.84	5,650.00	771.38	4,308.33	4,310.47	0.00	0.00	0.00
9,600.00	90.00	89.84	5,650.00	771.65	4,408.33	4,410.47	0.00	0.00	0.00
9,700.00	90.00	89.84	5,650.00	771.92	4,508.33	4,510.47	0.00	0.00	0.00
9,800.00	90.00	89.84	5,650.00	772.20	4,608.33	4,610.47	0.00	0.00	0.00
9,900.00	90.00	89.84	5,650.00	772.47	4,708.33	4,710.47	0.00	0.00	0.00
10,000.00	90.00	89.84	5,650.00	772.74	4,808.33	4,810.47	0.00	0.00	0.00
10,100.00	90.00	89.84	5,650.00	773.01	4,908.33	4,910.47	0.00	0.00	0.00
10,200.00	90.00	89.84	5,650.00	773.28	5,008.33	5,010.47	0.00	0.00	0.00
10,300.00	90.00	89.84	5,650.00	773.56	5,108.33	5,110.47	0.00	0.00	0.00
10,400.00	90.00	89.84	5,650.00	773.83	5,208.33	5,210.47	0.00	0.00	0.00
10,500.00	90.00	89.84	5,650.00	774.10	5,308.33	5,310.47	0.00	0.00	0.00
10,600.00	90.00	89.84	5,650.00	774.37	5,408.33	5,410.47	0.00	0.00	0.00
10,700.00	90.00	89.84	5,650.00	774.64	5,508.33	5,510.47	0.00	0.00	0.00
10,800.00	90.00	89.84	5,650.00	774.92	5,608.33	5,610.47	0.00	0.00	0.00
10,900.00	90.00	89.84	5,650.00	775.19	5,708.33	5,710.47	0.00	0.00	0.00
11,000.00	90.00	89.84	5,650.00	775.46	5,808.33	5,810.47	0.00	0.00	0.00
11,100.00	90.00	89.84	5,650.00	775.73	5,908.33	5,910.47	0.00	0.00	0.00
11,200.00	90.00	89.84	5,650.00	776.00	6,008.33	6,010.47	0.00	0.00	0.00
11,308.47	90.00	89.84	5,650.00	776.30	6,116.80	6,118.94	0.00	0.00	0.00
OCHO 70H LTP: 2425' FSL, 100' FEL									
11,358.47	90.00	89.84	5,650.00	776.44	6,166.80	6,168.94	0.00	0.00	0.00
OCHO 70H BHL: 2425' FSL, 50' FEL									

Planning Report

Database:	EDM 5000.17 Single User Db	Local Co-ordinate Reference:	Well 70H
Company:	SPUR ENERGY PARTNERS, LLC	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site:	OCHO 20 FEDERAL COM	North Reference:	Grid
Well:	70H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting		
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude
OCHO 70H SHL: 166: - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	661,243.20	641,957.30	32.81736	-104.00581
OCHO 70H KOP: 472 - plan hits target center - Point	0.00	0.00	4,647.99	773.67	88.54	662,016.87	642,045.84	32.81948	-104.00551
OCHO 70H FTP: 242: - plan misses target center by 16.41usft at 6229.73usft MD (5650.00 TVD, 778.84 N, 1038.61 E) - Point	0.00	0.00	5,650.00	762.50	1,037.10	662,005.70	642,994.40	32.81945	-104.00242
OCHO 70H BHL: 242: - plan misses target center by 0.04usft at 11358.47usft MD (5650.00 TVD, 776.44 N, 6166.80 E) - Point	0.00	0.00	5,650.00	776.40	6,166.80	662,019.60	648,124.10	32.81944	-103.98572
OCHO 70H LTP: 242: - plan hits target center - Point	0.00	0.00	5,650.00	776.30	6,116.80	662,019.50	648,074.10	32.81944	-103.98589

SPUR ENERGY PARTNERS, LLC

**EDDY COUNTY, NM (NAD 83 - NME)
OCHO 20 FEDERAL COM
70H**

**Wellbore #1
PERMIT**

Anticollision Report

05 August, 2024

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Reference	PERMIT
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 100.00usft
Depth Range:	Unlimited
Results Limited by:	Maximum centre distance of 4,999.99usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program		Date	8/5/2024		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	11,357.56	PERMIT (Wellbore #1)	MWD+IFR1+SAG+FDIR	OWSG MWD + IFR1 + Sag + FDIR Correction	

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
OCHO_TESORO OFFSETS						
BURCH A #31 - Wellbore #1 - Wellbore #1	439.81	419.75	162.71	157.56	31.609	CC
BURCH A #31 - Wellbore #1 - Wellbore #1	700.00	678.70	164.54	154.52	16.430	ES
BURCH A #31 - Wellbore #1 - Wellbore #1	3,400.00	3,331.43	552.15	477.44	7.390	SF
BURCH KEELY UNIT #192H - Wellbore #1 - Wellbore #1	5,128.66	8,701.10	1,818.12	1,673.09	12.536	CC, ES
BURCH KEELY UNIT #192H - Wellbore #1 - Wellbore #1	5,200.00	8,728.38	1,819.89	1,674.17	12.489	SF
BURCH KEELY UNIT #225 - Wellbore #1 - Wellbore #1	5,414.14	5,065.00	2,464.40	2,339.26	19.693	CC, ES, SF
BURCH KEELY UNIT #242 - Wellbore #1 - Wellbore #1	5,100.00	4,820.00	1,225.76	1,103.63	10.037	SF
BURCH KEELY UNIT #242 - Wellbore #1 - Wellbore #1	5,200.00	4,820.00	1,221.66	1,100.75	10.104	ES
BURCH KEELY UNIT #242 - Wellbore #1 - Wellbore #1	5,208.33	4,820.00	1,221.64	1,100.86	10.115	CC
BURCH KEELY UNIT #270 - Wellbore #1 - Wellbore #1	986.93	970.15	586.93	566.11	28.186	CC
BURCH KEELY UNIT #270 - Wellbore #1 - Wellbore #1	1,400.00	1,374.68	591.81	559.69	18.427	ES
BURCH KEELY UNIT #270 - Wellbore #1 - Wellbore #1	5,000.00	4,870.00	927.32	797.72	7.156	SF
BURCH KEELY UNIT #361 - Wellbore #1 - Wellbore #1	5,200.00	4,815.00	1,874.10	1,754.89	15.721	SF
BURCH KEELY UNIT #361 - Wellbore #1 - Wellbore #1	5,239.50	4,815.00	1,873.66	1,754.62	15.739	CC, ES
BURCH KEELY UNIT #656 - Wellbore #1 - Wellbore #1	4,800.00	4,656.00	852.90	748.77	8.191	SF
BURCH KEELY UNIT #656 - Wellbore #1 - Wellbore #1	4,838.87	4,656.00	851.73	747.87	8.201	CC, ES
BURCH KEELY UNIT #788 - Wellbore #1 - Wellbore #1	4,899.99	4,768.00	391.86	357.62	11.446	CC, ES, SF
BURCH KEELY UNIT #962H - Wellbore #1 - Wellbore #1	5,184.90	9,623.97	2,431.11	2,261.02	14.293	CC
BURCH KEELY UNIT #962H - Wellbore #1 - Wellbore #1	5,200.00	9,630.29	2,431.18	2,260.89	14.277	ES
BURCH KEELY UNIT #962H - Wellbore #1 - Wellbore #1	6,000.00	10,284.35	2,544.77	2,357.09	13.560	SF
BURCH KEELY UNIT #964H - Wellbore #1 - Wellbore #1	5,085.45	9,582.49	1,121.40	953.05	6.661	CC, ES
BURCH KEELY UNIT #964H - Wellbore #1 - Wellbore #1	5,100.00	9,588.88	1,121.50	953.08	6.659	SF
BURCH KEELY UNIT #965H - Wellbore #1 - Wellbore #1	5,024.95	4,961.96	507.55	471.41	14.041	CC, ES, SF
BURCH KEELY UNIT #966H - Wellbore #1 - Wellbore #1	4,942.73	9,002.50	193.84	44.02	1.294	Level 3, CC, ES, SF
BURCH KEELY UNIT 19 FEDERAL #196H - Wellbore #1	4,739.99	8,761.00	775.51	631.85	5.398	CC, ES
BURCH KEELY UNIT 19 FEDERAL #196H - Wellbore #1	4,800.00	8,761.00	777.68	632.52	5.357	SF
BURCH-FEDERAL A #10 - Wellbore #1 - Wellbore #1	3,600.00	3,242.00	2,165.97	2,030.64	16.006	SF
BURCH-FEDERAL A #10 - Wellbore #1 - Wellbore #1	3,700.00	3,242.00	2,163.30	2,028.53	16.051	ES
BURCH-FEDERAL A #10 - Wellbore #1 - Wellbore #1	3,707.78	3,242.00	2,163.28	2,028.57	16.058	CC
BURCH-FEDERAL A #11 - Wellbore #1 - Wellbore #1	3,364.73	3,262.00	556.48	420.05	4.079	CC, ES, SF
BURCH-FEDERAL A #6 - Wellbore #1 - Wellbore #1	3,400.00	3,195.00	1,155.01	1,022.13	8.692	SF
BURCH-FEDERAL A #6 - Wellbore #1 - Wellbore #1	3,469.86	3,195.00	1,152.89	1,020.92	8.736	CC, ES
JENKINS B FEDERAL #18 - Wellbore #1 - Wellbore #1	6,508.66	5,662.08	2,523.97	2,390.67	18.934	CC, ES
JENKINS B FEDERAL #18 - Wellbore #1 - Wellbore #1	6,900.00	5,662.08	2,549.81	2,413.83	18.751	SF
MCINTYRE A #8 - Wellbore #1 - Wellbore #1	9,741.57	5,651.19	775.79	558.73	3.574	CC, ES, SF
MCINTYRE A #17 - Wellbore #1 - Wellbore #1	9,766.42	5,052.00	884.29	746.50	6.418	CC, ES
MCINTYRE A #17 - Wellbore #1 - Wellbore #1	9,800.00	5,052.00	884.93	746.93	6.413	SF

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
OCHO_TESORO OFFSETS						
MCINTYRE A EAST FEDERAL #20 - Wellbore #1 - Wellbore #1	10,872.56	5,657.41	841.65	655.74	4.527	CC, ES
MCINTYRE A EAST FEDERAL #20 - Wellbore #1 - Wellbore #1	10,900.00	5,657.40	842.10	656.00	4.525	SF
MCINTYRE A FEDERAL #14 - Wellbore #1 - Wellbore #1	10,400.00	5,141.00	544.02	461.48	6.591	ES
MCINTYRE A FEDERAL #14 - Wellbore #1 - Wellbore #1	10,555.53	5,141.00	521.32	488.22	15.750	CC
MCINTYRE A FEDERAL #14 - Wellbore #1 - Wellbore #1	11,000.00	5,141.00	685.07	531.13	4.450	SF
MCINTYRE B #9 - Wellbore #1 - Wellbore #1	7,211.99	5,647.39	775.37	618.65	4.948	CC, ES, SF
MCINTYRE E #8 - Wellbore #1 - Wellbore #1	8,362.26	5,020.00	1,002.12	872.90	7.755	CC, ES
MCINTYRE E #8 - Wellbore #1 - Wellbore #1	8,400.00	5,020.00	1,002.83	873.39	7.747	SF
MCINTYRE E FEDERAL #5 - Wellbore #1 - Wellbore #1	7,762.12	5,542.00	781.93	622.17	4.894	CC, ES
MCINTYRE E FEDERAL #5 - Wellbore #1 - Wellbore #1	7,800.00	5,542.00	782.85	622.87	4.893	SF
MCINTYRE W D 'C' #7 - Wellbore #1 - Wellbore #1	11,063.57	5,037.00	845.57	784.29	13.798	CC, ES
MCINTYRE W D 'C' #7 - Wellbore #1 - Wellbore #1	11,100.00	5,037.00	846.36	784.79	13.746	SF
MCINTYRE-FEDERAL A #4 - Wellbore #1 - Wellbore #1	10,987.57	5,651.00	778.96	492.60	2.720	CC, ES
MCINTYRE-FEDERAL A #4 - Wellbore #1 - Wellbore #1	11,000.00	5,651.00	779.06	492.61	2.720	SF
THUNDER ROAD FEDERAL #7 - Wellbore #1 - Wellbore #1	9,088.79	5,695.50	2,525.04	2,367.54	16.032	CC
THUNDER ROAD FEDERAL #7 - Wellbore #1 - Wellbore #1	9,100.00	5,695.50	2,525.06	2,367.44	16.020	ES
THUNDER ROAD FEDERAL #7 - Wellbore #1 - Wellbore #1	9,400.00	5,695.49	2,544.14	2,383.53	15.840	SF
THUNDER ROAD FEDERAL #8 - Wellbore #1 - Wellbore #1	9,079.18	5,666.25	1,178.63	1,016.71	7.279	CC
THUNDER ROAD FEDERAL #8 - Wellbore #1 - Wellbore #1	9,100.00	5,666.25	1,178.81	1,016.66	7.270	ES
THUNDER ROAD FEDERAL #8 - Wellbore #1 - Wellbore #1	9,200.00	5,666.25	1,184.81	1,021.66	7.262	SF
W D MCINTYRE A #7 - Wellbore #1 - Wellbore #1	8,092.19	5,657.00	775.50	518.51	3.018	CC
W D MCINTYRE A #7 - Wellbore #1 - Wellbore #1	8,100.00	5,657.00	775.54	518.50	3.017	ES, SF
W.D. MCINTYRE C #8 - Wellbore #1 - Wellbore #1	11,058.84	5,696.80	1,865.09	1,654.81	8.869	CC
W.D. MCINTYRE C #8 - Wellbore #1 - Wellbore #1	11,100.00	5,696.80	1,865.54	1,654.78	8.852	ES
W.D. MCINTYRE C #8 - Wellbore #1 - Wellbore #1	11,200.00	5,696.80	1,870.42	1,658.63	8.831	SF
W.D. MCINTYRE C #9 - Wellbore #1 - Wellbore #1	10,397.92	5,739.64	2,524.06	2,340.24	13.731	CC
W.D. MCINTYRE C #9 - Wellbore #1 - Wellbore #1	10,400.00	5,739.64	2,524.06	2,340.22	13.730	ES
W.D. MCINTYRE C #9 - Wellbore #1 - Wellbore #1	10,700.00	5,739.62	2,542.07	2,355.18	13.602	SF

Offset Design: OCHO_TESORO OFFSETS - BURCH A #31 - Wellbore #1 - Wellbore #1

Survey Program: 498-INC-ONLY													Offset Site Error: 0.00 usft		
Reference				Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.00	0.00	0.00	0.00	0.00	0.00	95.33	-15.11	162.04	163.97						
100.00	100.00	80.00	80.00	0.29	0.69	95.33	-15.11	162.04	162.74	161.76	0.98	165.857			
200.00	200.00	180.00	180.00	0.65	1.56	95.33	-15.11	162.04	162.74	160.54	2.21	73.714			
300.00	300.00	280.00	280.00	1.00	2.43	95.33	-15.11	162.04	162.74	159.31	3.43	47.388			
400.00	399.98	379.98	379.98	1.36	3.30	89.41	-15.11	162.04	162.72	158.06	4.66	34.917			
439.81	439.75	419.75	419.75	1.51	3.64	90.00	-15.11	162.04	162.71	157.56	5.15	31.609	CC		
500.00	499.84	479.84	479.84	1.73	4.17	91.25	-15.11	162.04	162.75	156.86	5.88	27.659			
600.00	599.45	579.45	579.45	2.09	5.79	94.29	-15.11	162.04	163.17	155.30	7.87	20.741			
700.00	698.70	678.70	678.70	2.45	7.58	98.47	-15.11	162.04	164.54	154.52	10.01	16.430	ES		
800.00	797.47	777.44	777.44	2.81	9.36	103.56	-14.86	162.04	167.49	155.34	12.16	13.779			
900.00	895.74	875.65	875.65	3.17	11.13	109.42	-14.94	162.04	172.86	158.57	14.29	12.098			
1,000.00	993.97	973.76	973.76	3.52	12.90	115.02	-15.11	162.04	180.16	163.73	16.42	10.971			
1,100.00	1,092.19	1,072.19	1,072.19	3.89	14.75	120.12	-15.11	162.04	188.97	170.34	18.64	10.139			
1,200.00	1,190.42	1,170.42	1,170.42	4.26	16.60	124.74	-15.11	162.04	199.17	178.32	20.85	9.552			
1,300.00	1,288.64	1,268.48	1,268.47	4.63	18.45	128.80	-14.63	162.04	210.21	187.15	23.06	9.116			
1,400.00	1,386.86	1,366.38	1,366.37	5.00	20.30	132.55	-14.83	162.04	222.72	197.45	25.27	8.815			

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH A #31 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 498-INC-ONLY													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
1,500.00	1,485.09	1,465.10	1,465.09	5.37	22.18	135.94	-15.11	162.04	236.16	208.65	27.51	8.584		
1,600.00	1,583.31	1,563.32	1,563.31	5.74	24.15	138.91	-15.11	162.04	250.09	220.25	29.83	8.383		
1,700.00	1,681.54	1,661.54	1,661.54	6.11	26.12	141.56	-15.11	162.04	264.62	232.46	32.16	8.228		
1,800.00	1,779.76	1,759.35	1,759.34	6.49	28.08	143.85	-14.35	162.04	278.99	244.51	34.47	8.093		
1,900.00	1,877.98	1,856.88	1,856.87	6.86	30.03	146.00	-14.64	162.04	294.70	257.92	36.78	8.012		
2,000.00	1,976.21	1,956.23	1,956.21	7.23	32.04	147.99	-15.11	162.04	310.94	271.79	39.15	7.942		
2,100.00	2,074.43	2,054.45	2,054.43	7.60	34.15	149.72	-15.11	162.04	327.07	285.45	41.62	7.859		
2,200.00	2,172.66	2,152.68	2,152.66	7.98	36.27	151.29	-15.11	162.04	343.48	299.39	44.09	7.791		
2,300.00	2,270.88	2,250.22	2,250.19	8.35	38.37	152.66	-14.08	162.04	359.15	312.60	46.54	7.717		
2,400.00	2,369.11	2,347.22	2,347.18	8.72	40.46	153.97	-14.45	162.04	376.32	327.34	48.98	7.683		
2,500.00	2,467.33	2,447.38	2,447.33	9.10	42.62	155.22	-15.11	162.04	393.95	342.44	51.50	7.649		
2,600.00	2,565.55	2,545.60	2,545.55	9.47	44.83	156.31	-15.11	162.04	411.11	357.04	54.07	7.603		
2,700.00	2,663.78	2,643.83	2,643.78	9.84	47.04	157.32	-15.11	162.04	428.40	371.76	56.64	7.563		
2,800.00	2,762.00	2,740.88	2,740.82	10.22	49.23	158.19	-13.89	162.04	444.64	385.46	59.18	7.513		
2,900.00	2,860.23	2,837.12	2,837.05	10.59	51.40	159.05	-14.36	162.04	462.62	400.92	61.70	7.498		
3,000.00	2,958.45	2,938.54	2,938.45	10.96	53.69	159.90	-15.11	162.04	480.95	416.60	64.35	7.474		
3,100.00	3,056.67	3,036.76	3,036.67	11.34	55.92	160.64	-15.11	162.04	498.64	431.70	66.94	7.449		
3,200.00	3,154.90	3,134.98	3,134.90	11.71	58.15	161.33	-15.11	162.04	516.41	446.88	69.53	7.427		
3,300.00	3,253.12	3,233.21	3,233.12	12.08	60.39	161.97	-15.11	162.04	534.25	462.13	72.12	7.408		
3,400.00	3,351.35	3,331.43	3,331.35	12.46	62.62	162.57	-15.11	162.04	552.15	477.44	74.71	7.390 SF		
3,500.00	3,449.57	3,410.00	3,409.88	12.83	64.41	163.02	-15.11	162.04	570.45	493.69	76.76	7.432		
3,600.00	3,547.80	3,410.00	3,409.88	13.20	64.41	163.02	-15.11	162.04	599.82	524.40	75.42	7.953		
3,700.00	3,646.02	3,410.00	3,409.88	13.58	64.41	163.02	-15.11	162.04	643.55	570.93	72.62	8.862		
3,800.00	3,744.24	3,410.00	3,409.88	13.95	64.41	163.02	-15.11	162.04	698.95	629.88	69.06	10.120		
3,900.00	3,842.47	3,410.00	3,409.88	14.33	64.41	163.02	-15.11	162.04	763.48	698.18	65.30	11.693		
4,000.00	3,940.69	3,410.00	3,409.88	14.70	64.41	163.02	-15.11	162.04	835.03	773.38	61.64	13.546		
4,100.00	4,038.92	3,410.00	3,409.88	15.07	64.41	163.02	-15.11	162.04	911.94	853.67	58.27	15.650		
4,200.00	4,137.14	3,410.00	3,409.88	15.45	64.41	163.02	-15.11	162.04	992.98	937.75	55.24	17.977		
4,300.00	4,235.37	3,410.00	3,409.88	15.82	64.41	163.02	-15.11	162.04	1,077.21	1,024.67	52.54	20.501		
4,400.00	4,333.59	3,410.00	3,409.88	16.20	64.41	163.02	-15.11	162.04	1,163.94	1,113.77	50.17	23.199		
4,500.00	4,431.81	3,410.00	3,409.88	16.57	64.41	163.02	-15.11	162.04	1,252.65	1,204.56	48.09	26.050		
4,600.00	4,530.04	3,410.00	3,409.88	16.94	64.41	163.02	-15.11	162.04	1,342.95	1,296.69	46.26	29.033		
4,700.00	4,628.26	3,410.00	3,409.88	17.32	64.41	163.02	-15.11	162.04	1,434.53	1,389.88	44.65	32.131		
4,800.00	4,726.46	3,410.00	3,409.88	17.69	64.41	128.55	-15.11	162.04	1,526.62	1,483.43	43.19	35.348		
4,900.00	4,823.98	3,410.00	3,409.88	18.06	64.41	95.44	-15.11	162.04	1,617.54	1,575.73	41.80	38.695		
5,000.00	4,919.77	3,410.00	3,409.88	18.41	64.41	74.11	-15.11	162.04	1,706.53	1,666.02	40.51	42.131		
5,100.00	5,012.77	3,410.00	3,409.88	18.74	64.41	60.18	-15.11	162.04	1,792.98	1,753.66	39.32	45.600		
5,200.00	5,101.98	3,410.00	3,409.88	19.06	64.41	50.60	-15.11	162.04	1,876.36	1,838.09	38.27	49.026		
5,300.00	5,186.40	3,410.00	3,409.88	19.36	64.41	43.71	-15.11	162.04	1,956.20	1,918.80	37.39	52.314		
5,400.00	5,265.12	3,410.00	3,409.88	19.64	64.41	38.59	-15.11	162.04	2,032.09	1,995.38	36.71	55.350		
5,500.00	5,337.27	3,410.00	3,409.88	19.93	64.41	34.70	-15.11	162.04	2,103.68	2,067.42	36.26	58.013		
5,600.00	5,402.06	3,410.00	3,409.88	20.23	64.41	31.68	-15.11	162.04	2,170.64	2,134.58	36.07	60.185		
5,700.00	5,458.78	3,410.00	3,409.88	20.56	64.41	29.33	-15.11	162.04	2,232.69	2,196.55	36.14	61.775		
5,800.00	5,509.14	3,410.00	3,409.88	20.93	64.41	28.76	-15.11	162.04	2,291.68	2,255.19	36.49	62.804		
5,900.00	5,559.14	3,410.00	3,409.88	21.35	64.41	28.76	-15.11	162.04	2,353.13	2,316.11	37.02	63.560		
6,000.00	5,605.15	3,410.00	3,409.88	21.81	64.41	26.26	-15.11	162.04	2,414.05	2,376.31	37.74	63.965		
6,100.00	5,635.72	3,410.00	3,409.88	22.29	64.41	23.73	-15.11	162.04	2,465.37	2,426.55	38.82	63.512		
6,200.00	5,649.31	3,410.00	3,409.88	22.76	64.41	22.02	-15.11	162.04	2,505.72	2,465.46	40.25	62.249		
6,300.00	5,650.00	3,410.00	3,409.88	23.24	64.41	21.18	-15.11	162.04	2,538.71	2,496.74	41.97	60.485		
6,400.00	5,650.00	3,410.00	3,409.88	23.77	64.41	20.44	-15.11	162.04	2,575.69	2,531.88	43.81	58.787		
6,500.00	5,650.00	3,410.00	3,409.88	24.33	64.41	19.58	-15.11	162.04	2,617.08	2,571.37	45.71	57.253		
6,600.00	5,650.00	3,410.00	3,409.88	24.94	64.41	19.25	-15.11	162.04	2,662.41	2,614.80	47.61	55.917		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH A #31 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft	
Survey Program:	498-INC-ONLY		Offset	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:		Minimum Separation (usft)	Separation Factor	Offset Well Error:	0.00 usft
Reference	Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)			Warning	
6,700.00	5,650.00	3,410.00	3,409.88	25.59	64.41	19.25	-15.11	162.04	2,710.74	2,661.27	49.47	54.790		
6,800.00	5,650.00	3,410.00	3,409.88	26.26	64.41	19.25	-15.11	162.04	2,761.85	2,710.57	51.28	53.858		
6,900.00	5,650.00	3,410.00	3,409.88	26.97	64.41	19.25	-15.11	162.04	2,815.58	2,762.56	53.02	53.102		
7,000.00	5,650.00	3,410.00	3,409.88	27.71	64.41	19.25	-15.11	162.04	2,871.79	2,817.10	54.69	52.506		
7,100.00	5,650.00	3,410.00	3,409.88	28.47	64.41	19.25	-15.11	162.04	2,930.34	2,874.04	56.29	52.053		
7,200.00	5,650.00	3,410.00	3,409.88	29.25	64.41	19.25	-15.11	162.04	2,991.08	2,933.26	57.82	51.730		
7,300.00	5,650.00	3,410.00	3,409.88	30.06	64.41	19.25	-15.11	162.04	3,053.89	2,994.61	59.27	51.521		
7,400.00	5,650.00	3,410.00	3,409.88	30.88	64.41	19.25	-15.11	162.04	3,118.64	3,057.99	60.65	51.417		
7,500.00	5,650.00	3,410.00	3,409.88	31.73	64.41	19.25	-15.11	162.04	3,185.22	3,123.25	61.96	51.406		
7,600.00	5,650.00	3,410.00	3,409.88	32.59	64.41	19.25	-15.11	162.04	3,253.50	3,190.30	63.20	51.478		
7,700.00	5,650.00	3,410.00	3,409.88	33.47	64.41	19.25	-15.11	162.04	3,323.40	3,259.02	64.37	51.626		
7,800.00	5,650.00	3,410.00	3,409.88	34.36	64.41	19.25	-15.11	162.04	3,394.80	3,329.31	65.48	51.841		
7,900.00	5,650.00	3,410.00	3,409.88	35.26	64.41	19.25	-15.11	162.04	3,467.61	3,401.08	66.53	52.118		
8,000.00	5,650.00	3,410.00	3,409.88	36.18	64.41	19.25	-15.11	162.04	3,541.75	3,474.23	67.53	52.450		
8,100.00	5,650.00	3,410.00	3,409.88	37.11	64.41	19.25	-15.11	162.04	3,617.14	3,548.68	68.46	52.833		
8,200.00	5,650.00	3,410.00	3,409.88	38.05	64.41	19.25	-15.11	162.04	3,693.70	3,624.34	69.35	53.261		
8,300.00	5,650.00	3,410.00	3,409.88	39.00	64.41	19.25	-15.11	162.04	3,771.35	3,701.16	70.19	53.731		
8,400.00	5,650.00	3,410.00	3,409.88	39.96	64.41	19.25	-15.11	162.04	3,850.03	3,779.05	70.98	54.239		
8,500.00	5,650.00	3,410.00	3,409.88	40.93	64.41	19.25	-15.11	162.04	3,929.69	3,857.95	71.73	54.781		
8,600.00	5,650.00	3,410.00	3,409.88	41.90	64.41	19.25	-15.11	162.04	4,010.25	3,937.81	72.45	55.355		
8,700.00	5,650.00	3,410.00	3,409.88	42.89	64.41	19.25	-15.11	162.04	4,091.68	4,018.55	73.12	55.958		
8,800.00	5,650.00	3,410.00	3,409.88	43.88	64.41	19.25	-15.11	162.04	4,173.91	4,100.15	73.76	56.588		
8,900.00	5,650.00	3,410.00	3,409.88	44.87	64.41	19.25	-15.11	162.04	4,256.90	4,182.53	74.37	57.242		
9,000.00	5,650.00	3,410.00	3,409.88	45.88	64.41	19.25	-15.11	162.04	4,340.61	4,265.66	74.94	57.919		
9,100.00	5,650.00	3,410.00	3,409.88	46.88	64.41	19.25	-15.11	162.04	4,424.99	4,349.50	75.49	58.616		
9,200.00	5,650.00	3,410.00	3,409.88	47.90	64.41	19.25	-15.11	162.04	4,510.01	4,434.00	76.01	59.333		
9,300.00	5,650.00	3,410.00	3,409.88	48.92	64.41	19.25	-15.11	162.04	4,595.64	4,519.13	76.51	60.067		
9,400.00	5,650.00	3,410.00	3,409.88	49.94	64.41	19.25	-15.11	162.04	4,681.84	4,604.86	76.98	60.818		
9,500.00	5,650.00	3,410.00	3,409.88	50.97	64.41	19.25	-15.11	162.04	4,768.57	4,691.14	77.43	61.584		
9,600.00	5,650.00	3,410.00	3,409.88	52.00	64.41	19.25	-15.11	162.04	4,855.82	4,777.95	77.86	62.364		
9,700.00	5,650.00	3,410.00	3,409.88	53.03	64.41	19.25	-15.11	162.04	4,943.55	4,865.27	78.27	63.157		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #192H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 4262-MWD+IGRF													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning	
							+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	0.00	0.00	0.00	0.00	-55.29	2,717.29	-3,923.02	4,772.28					
100.00	100.00	70.73	70.73	0.29	0.13	-55.29	2,717.28	-3,923.02	4,772.18	4,771.77	0.41	N/A		
200.00	200.00	171.77	171.77	0.65	0.31	-55.29	2,717.25	-3,923.01	4,772.15	4,771.20	0.95	5,003.576		
300.00	300.00	272.81	272.81	1.00	0.49	-55.29	2,717.19	-3,922.99	4,772.11	4,770.61	1.49	3,195.093		
400.00	399.98	373.83	373.83	1.36	0.67	-61.86	2,717.11	-3,922.96	4,771.21	4,769.18	2.03	2,346.729		
500.00	499.84	474.73	474.73	1.73	0.85	-61.96	2,716.99	-3,922.93	4,768.65	4,766.08	2.57	1,853.494		
600.00	599.45	575.36	575.36	2.09	1.03	-62.13	2,716.86	-3,922.89	4,764.44	4,761.33	3.11	1,530.882		
700.00	698.70	675.62	675.62	2.45	1.21	-62.36	2,716.69	-3,922.83	4,758.60	4,754.94	3.65	1,303.116		
800.00	797.47	775.38	775.38	2.81	1.39	-62.66	2,716.50	-3,922.78	4,751.15	4,746.96	4.19	1,133.485		
900.00	895.74	8,569.00	4,843.57	3.17	122.97	-8.37	2,640.35	39.46	4,740.69	4,666.47	74.23	63.869		
1,000.00	993.97	8,569.00	4,843.57	3.52	122.97	-8.37	2,640.35	39.46	4,648.27	4,573.19	75.08	61.910		
1,100.00	1,092.19	8,569.00	4,843.57	3.89	122.97	-8.37	2,640.35	39.46	4,556.17	4,480.20	75.98	59.969		
1,200.00	1,190.42	8,569.00	4,843.57	4.26	122.97	-8.37	2,640.35	39.46	4,464.42	4,387.51	76.91	58.048		
1,300.00	1,288.64	8,569.00	4,843.57	4.63	122.97	-8.37	2,640.35	39.46	4,373.02	4,295.14	77.88	56.149		
1,400.00	1,386.86	8,569.00	4,843.57	5.00	122.97	-8.37	2,640.35	39.46	4,282.01	4,203.11	78.90	54.273		
1,500.00	1,485.09	8,569.00	4,843.57	5.37	122.97	-8.37	2,640.35	39.46	4,191.40	4,111.45	79.96	52.421		
1,600.00	1,583.31	8,569.00	4,843.57	5.74	122.97	-8.37	2,640.35	39.46	4,101.24	4,020.18	81.06	50.595		
1,700.00	1,681.54	8,569.00	4,843.57	6.11	122.97	-8.37	2,640.35	39.46	4,011.54	3,929.33	82.21	48.796		
1,800.00	1,779.76	8,569.00	4,843.57	6.49	122.97	-8.37	2,640.35	39.46	3,922.34	3,838.93	83.41	47.025		
1,900.00	1,877.98	8,569.00	4,843.57	6.86	122.97	-8.37	2,640.35	39.46	3,833.67	3,749.01	84.66	45.285		
2,000.00	1,976.21	8,569.00	4,843.57	7.23	122.97	-8.37	2,640.35	39.46	3,745.57	3,659.61	85.96	43.575		
2,100.00	2,074.43	8,569.00	4,843.57	7.60	122.97	-8.37	2,640.35	39.46	3,658.09	3,570.78	87.31	41.898		
2,200.00	2,172.66	8,569.00	4,843.57	7.98	122.97	-8.37	2,640.35	39.46	3,571.26	3,482.54	88.72	40.253		
2,300.00	2,270.88	8,569.00	4,843.57	8.35	122.97	-8.37	2,640.35	39.46	3,485.14	3,394.95	90.19	38.644		
2,400.00	2,369.11	8,569.00	4,843.57	8.72	122.97	-8.37	2,640.35	39.46	3,399.77	3,308.06	91.71	37.070		
2,500.00	2,467.33	8,569.00	4,843.57	9.10	122.97	-8.37	2,640.35	39.46	3,315.23	3,221.93	93.30	35.532		
2,600.00	2,565.55	8,569.00	4,843.57	9.47	122.97	-8.37	2,640.35	39.46	3,231.57	3,136.61	94.95	34.033		
2,700.00	2,663.78	8,569.00	4,843.57	9.84	122.97	-8.37	2,640.35	39.46	3,148.86	3,052.19	96.67	32.574		
2,800.00	2,762.00	8,569.00	4,843.57	10.22	122.97	-8.37	2,640.35	39.46	3,067.18	2,968.73	98.45	31.154		
2,900.00	2,860.23	8,569.00	4,843.57	10.59	122.97	-8.37	2,640.35	39.46	2,986.62	2,886.32	100.30	29.777		
3,000.00	2,958.45	8,569.00	4,843.57	10.96	122.97	-8.37	2,640.35	39.46	2,907.26	2,805.04	102.22	28.442		
3,100.00	3,056.67	8,569.00	4,843.57	11.34	122.97	-8.37	2,640.35	39.46	2,829.22	2,725.01	104.20	27.152		
3,200.00	3,154.90	8,569.00	4,843.57	11.71	122.97	-8.37	2,640.35	39.46	2,752.59	2,646.34	106.25	25.907		
3,300.00	3,253.12	8,569.00	4,843.57	12.08	122.97	-8.37	2,640.35	39.46	2,677.50	2,569.14	108.36	24.709		
3,400.00	3,351.35	8,569.00	4,843.57	12.46	122.97	-8.37	2,640.35	39.46	2,604.10	2,493.56	110.54	23.559		
3,500.00	3,449.57	8,569.00	4,843.57	12.83	122.97	-8.37	2,640.35	39.46	2,532.51	2,419.75	112.76	22.459		
3,600.00	3,547.80	8,569.00	4,843.57	13.20	122.97	-8.37	2,640.35	39.46	2,462.90	2,347.87	115.04	21.410		
3,700.00	3,646.02	8,569.00	4,843.57	13.58	122.97	-8.37	2,640.35	39.46	2,395.45	2,278.10	117.35	20.413		
3,800.00	3,744.24	8,584.58	4,843.89	13.95	123.46	-7.87	2,640.26	55.04	2,330.26	2,210.13	120.13	19.398		
3,900.00	3,842.47	8,587.58	4,843.96	14.33	123.55	-7.78	2,640.24	58.03	2,267.66	2,145.08	122.57	18.500		
4,000.00	3,940.69	8,590.65	4,844.03	14.70	123.65	-7.68	2,640.23	61.11	2,207.80	2,082.79	125.02	17.660		
4,100.00	4,038.92	8,593.81	4,844.10	15.07	123.75	-7.58	2,640.21	64.26	2,150.93	2,023.50	127.43	16.879		
4,200.00	4,137.14	8,597.05	4,844.18	15.45	123.85	-7.47	2,640.20	67.51	2,097.27	1,967.48	129.80	16.158		
4,300.00	4,235.37	8,600.39	4,844.26	15.82	123.96	-7.37	2,640.19	70.84	2,047.09	1,915.01	132.08	15.499		
4,400.00	4,333.59	8,603.82	4,844.34	16.20	124.07	-7.26	2,640.18	74.27	2,000.65	1,866.40	134.25	14.902		
4,500.00	4,431.81	8,607.34	4,844.43	16.57	124.18	-7.15	2,640.17	77.79	1,958.21	1,821.95	136.26	14.371		
4,600.00	4,530.04	8,610.97	4,844.52	16.94	124.29	-7.03	2,640.16	81.42	1,920.03	1,781.95	138.08	13.905		
4,700.00	4,628.26	8,614.70	4,844.62	17.32	124.41	-6.91	2,640.15	85.15	1,886.38	1,746.72	139.66	13.507		
4,800.00	4,726.46	8,621.21	4,844.80	17.69	124.61	-32.53	2,640.14	91.65	1,858.22	1,717.18	141.04	13.175		
4,900.00	4,823.98	8,636.12	4,845.23	18.06	125.08	-56.09	2,640.13	106.55	1,837.38	1,695.02	142.36	12.906		
5,000.00	4,919.77	8,664.00	4,846.14	18.41	125.96	-69.36	2,640.19	134.42	1,824.14	1,680.40	143.74	12.690		
5,100.00	5,012.77	8,691.00	4,846.99	18.74	126.81	-76.78	2,640.32	161.41	1,818.41	1,673.68	144.73	12.564		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #192H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 4262-MWD+IGRF													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	Offset Wellbore Centre +E-W (usft)	Distance Between Centres (usft)	Rule Assigned: Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,128.66	5,038.77	8,701.10	4,847.26	18.84	127.13	-78.16	2,640.39	171.51	1,818.12	1,673.09	145.03	12.536	CC, ES	
5,200.00	5,101.98	8,728.38	4,847.86	19.06	127.98	-80.62	2,640.64	198.77	1,819.89	1,674.17	145.72	12.489	SF	
5,300.00	5,186.40	8,759.00	4,848.30	19.36	128.95	-82.65	2,641.02	229.39	1,828.09	1,681.90	146.20	12.504		
5,400.00	5,265.12	8,816.60	4,848.50	19.64	130.75	-82.71	2,642.06	286.98	1,842.22	1,694.88	147.34	12.503		
5,500.00	5,337.27	8,867.24	4,848.04	19.93	132.34	-82.09	2,643.39	337.60	1,861.61	1,713.51	148.10	12.570		
5,600.00	5,402.06	8,923.44	4,846.92	20.23	134.11	-80.76	2,645.26	393.76	1,885.30	1,736.32	148.98	12.655		
5,700.00	5,458.78	8,983.21	4,845.07	20.56	135.98	-78.97	2,647.69	453.45	1,912.34	1,762.36	149.98	12.751		
5,800.00	5,509.14	9,049.00	4,842.19	20.93	138.03	-77.67	2,650.87	519.10	1,941.86	1,790.64	151.21	12.842		
5,900.00	5,559.14	9,103.00	4,839.46	21.35	139.72	-76.86	2,653.69	572.96	1,973.15	1,821.17	151.98	12.983		
6,000.00	5,605.15	9,103.00	4,839.46	21.81	139.72	-74.33	2,653.69	572.96	2,007.06	1,856.25	150.80	13.309		
6,100.00	5,635.72	9,103.00	4,839.46	22.29	139.72	-70.88	2,653.69	572.96	2,041.08	1,891.38	149.70	13.634		
6,200.00	5,649.31	9,103.00	4,839.46	22.76	139.72	-67.61	2,653.69	572.96	2,074.07	1,925.34	148.73	13.945		
6,300.00	5,650.00	9,103.00	4,839.46	23.24	139.72	-66.93	2,653.69	572.96	2,106.05	1,958.25	147.79	14.250		
6,400.00	5,650.00	9,103.00	4,839.46	23.77	139.72	-67.20	2,653.69	572.96	2,139.10	1,992.45	146.64	14.587		
6,500.00	5,650.00	9,103.00	4,839.46	24.33	139.72	-67.48	2,653.69	572.96	2,173.26	2,028.00	145.26	14.961		
6,600.00	5,650.00	9,103.00	4,839.46	24.94	139.72	-67.59	2,653.69	572.96	2,209.07	2,065.39	143.68	15.375		
6,700.00	5,650.00	9,103.00	4,839.46	25.59	139.72	-67.59	2,653.69	572.96	2,248.56	2,106.60	141.96	15.840		
6,800.00	5,650.00	9,103.00	4,839.46	26.26	139.72	-67.59	2,653.69	572.96	2,291.74	2,151.62	140.12	16.356		
6,900.00	5,650.00	9,103.00	4,839.46	26.97	139.72	-67.59	2,653.69	572.96	2,338.40	2,200.21	138.19	16.922		
7,000.00	5,650.00	9,103.00	4,839.46	27.71	139.72	-67.59	2,653.69	572.96	2,388.34	2,252.16	136.18	17.538		
7,100.00	5,650.00	9,103.00	4,839.46	28.47	139.72	-67.59	2,653.69	572.96	2,441.36	2,307.23	134.12	18.203		
7,200.00	5,650.00	9,103.00	4,839.46	29.25	139.72	-67.59	2,653.69	572.96	2,497.25	2,365.22	132.03	18.915		
7,300.00	5,650.00	9,103.00	4,839.46	30.06	139.72	-67.59	2,653.69	572.96	2,555.84	2,425.92	129.92	19.673		
7,400.00	5,650.00	9,103.00	4,839.46	30.88	139.72	-67.59	2,653.69	572.96	2,616.94	2,489.14	127.80	20.477		
7,500.00	5,650.00	9,103.00	4,839.46	31.73	139.72	-67.59	2,653.69	572.96	2,680.38	2,554.68	125.69	21.325		
7,600.00	5,650.00	9,103.00	4,839.46	32.59	139.72	-67.59	2,653.69	572.96	2,745.99	2,622.39	123.60	22.216		
7,700.00	5,650.00	9,103.00	4,839.46	33.47	139.72	-67.59	2,653.69	572.96	2,813.63	2,692.09	121.54	23.149		
7,800.00	5,650.00	9,103.00	4,839.46	34.36	139.72	-67.59	2,653.69	572.96	2,883.15	2,763.64	119.52	24.124		
7,900.00	5,650.00	9,103.00	4,839.46	35.26	139.72	-67.59	2,653.69	572.96	2,954.42	2,836.89	117.53	25.138		
8,000.00	5,650.00	9,103.00	4,839.46	36.18	139.72	-67.59	2,653.69	572.96	3,027.32	2,911.73	115.59	26.191		
8,100.00	5,650.00	9,103.00	4,839.46	37.11	139.72	-67.59	2,653.69	572.96	3,101.73	2,988.03	113.69	27.282		
8,200.00	5,650.00	9,103.00	4,839.46	38.05	139.72	-67.59	2,653.69	572.96	3,177.54	3,065.69	111.85	28.410		
8,300.00	5,650.00	9,103.00	4,839.46	39.00	139.72	-67.59	2,653.69	572.96	3,254.66	3,144.60	110.05	29.573		
8,400.00	5,650.00	9,103.00	4,839.46	39.96	139.72	-67.59	2,653.69	572.96	3,332.99	3,224.68	108.31	30.771		
8,500.00	5,650.00	9,103.00	4,839.46	40.93	139.72	-67.59	2,653.69	572.96	3,412.46	3,305.83	106.63	32.003		
8,600.00	5,650.00	9,103.00	4,839.46	41.90	139.72	-67.59	2,653.69	572.96	3,492.99	3,387.99	104.99	33.268		
8,700.00	5,650.00	9,103.00	4,839.46	42.89	139.72	-67.59	2,653.69	572.96	3,574.49	3,471.08	103.41	34.565		
8,800.00	5,650.00	9,103.00	4,839.46	43.88	139.72	-67.59	2,653.69	572.96	3,656.92	3,555.03	101.88	35.893		
8,900.00	5,650.00	9,103.00	4,839.46	44.87	139.72	-67.59	2,653.69	572.96	3,740.20	3,639.79	100.41	37.250		
9,000.00	5,650.00	9,103.00	4,839.46	45.88	139.72	-67.59	2,653.69	572.96	3,824.28	3,725.30	98.98	38.637		
9,100.00	5,650.00	9,103.00	4,839.46	46.88	139.72	-67.59	2,653.69	572.96	3,909.12	3,811.52	97.60	40.052		
9,200.00	5,650.00	9,103.00	4,839.46	47.90	139.72	-67.59	2,653.69	572.96	3,994.65	3,898.38	96.27	41.495		
9,300.00	5,650.00	9,103.00	4,839.46	48.92	139.72	-67.59	2,653.69	572.96	4,080.84	3,985.86	94.98	42.964		
9,400.00	5,650.00	9,103.00	4,839.46	49.94	139.72	-67.59	2,653.69	572.96	4,167.65	4,073.91	93.74	44.459		
9,500.00	5,650.00	9,103.00	4,839.46	50.97	139.72	-67.59	2,653.69	572.96	4,255.04	4,162.50	92.54	45.979		
9,600.00	5,650.00	9,103.00	4,839.46	52.00	139.72	-67.59	2,653.69	572.96	4,342.98	4,251.59	91.39	47.523		
9,700.00	5,650.00	9,103.00	4,839.46	53.03	139.72	-67.59	2,653.69	572.96	4,431.42	4,341.15	90.27	49.091		
9,800.00	5,650.00	9,103.00	4,839.46	54.07	139.72	-67.59	2,653.69	572.96	4,520.35	4,431.15	89.19	50.681		
9,900.00	5,650.00	9,103.00	4,839.46	55.12	139.72	-67.59	2,653.69	572.96	4,609.73	4,521.58	88.15	52.293		
10,000.00	5,650.00	9,103.00	4,839.46	56.16	139.72	-67.59	2,653.69	572.96	4,699.54	4,612.39	87.15	53.926		
10,100.00	5,650.00	9,103.00	4,839.46	57.21	139.72	-67.59	2,653.69	572.96	4,789.75	4,703.57	86.18	55.580		
10,200.00	5,650.00	9,103.00	4,839.46	58.26	139.72	-67.59	2,653.69	572.96	4,880.34	4,795.10	85.24	57.254		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - BURCH KEELY UNIT #192H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 4262-MWD+IGRF													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance								
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation	Warning	
Depth	Depth	Depth	Depth			Toolface	+N-S	+E-W	Centres	Ellipses	Separation	Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
10,300.00	5,650.00	9,103.00	4,839.46	59.32	139.72	-67.59	2,653.69	572.96	4,971.30	4,886.96	84.33	58.947		

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #225 - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 usft
Survey Program: 432-INC-ONLY														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Rule Assigned: Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
							+N-S (usft)	+E-W (usft)							
0.00	0.00	4.00	4.00	0.00	0.05	10.00	3,284.53	578.92	3,335.16						
100.00	100.00	104.00	104.00	0.29	1.29	10.00	3,284.53	578.92	3,335.16	3,333.58	1.58	2,113.857			
200.00	200.00	204.00	204.00	0.65	2.53	10.00	3,284.53	578.92	3,335.16	3,331.98	3.18	1,049.597			
300.00	300.00	304.00	304.00	1.00	3.77	10.00	3,284.53	578.92	3,335.16	3,330.38	4.78	698.117			
400.00	399.98	403.98	403.98	1.36	5.01	3.47	3,284.53	578.92	3,333.42	3,327.04	6.38	522.657			
500.00	499.84	503.84	503.84	1.73	7.02	3.48	3,284.53	578.92	3,328.19	3,319.44	8.75	380.388			
600.00	599.45	603.45	603.45	2.09	9.33	3.50	3,284.53	578.92	3,319.49	3,308.08	11.42	290.783			
700.00	698.70	709.11	709.08	2.45	11.77	3.53	3,286.07	578.92	3,308.85	3,294.63	14.22	232.663			
800.00	797.47	829.01	828.97	2.81	14.54	3.57	3,285.45	578.92	3,292.73	3,275.38	17.36	189.712			
900.00	895.74	948.04	947.98	3.17	17.29	3.61	3,284.05	578.92	3,273.16	3,252.69	20.47	159.924			
1,000.00	993.97	998.02	997.97	3.52	18.28	3.62	3,284.53	578.92	3,254.55	3,232.74	21.81	149.250			
1,100.00	1,092.19	1,096.25	1,096.19	3.89	20.36	3.64	3,284.53	578.92	3,235.82	3,211.59	24.24	133.515			
1,200.00	1,190.42	1,198.12	1,198.06	4.26	22.52	3.66	3,285.61	578.92	3,218.16	3,191.42	26.74	120.334			
1,300.00	1,288.64	1,308.42	1,308.35	4.63	24.85	3.68	3,285.27	578.92	3,199.14	3,169.71	29.43	108.705			
1,400.00	1,386.86	1,418.57	1,418.49	5.00	27.18	3.71	3,284.51	578.92	3,179.75	3,147.63	32.11	99.021			
1,500.00	1,485.09	1,489.17	1,489.09	5.37	28.68	3.73	3,284.53	578.92	3,160.93	3,126.96	33.97	93.056			
1,600.00	1,583.31	1,587.39	1,587.31	5.74	30.77	3.75	3,284.53	578.92	3,142.20	3,105.79	36.41	86.305			
1,700.00	1,681.54	1,687.72	1,687.63	6.11	32.90	3.77	3,285.62	578.92	3,124.55	3,085.66	38.89	80.338			
1,800.00	1,779.76	1,797.58	1,797.48	6.49	35.23	3.79	3,285.34	578.92	3,105.58	3,064.00	41.58	74.694			
1,900.00	1,877.98	1,907.28	1,907.18	6.86	37.56	3.82	3,284.64	578.92	3,086.24	3,041.99	44.26	69.733			
2,000.00	1,976.21	1,980.31	1,980.21	7.23	39.11	3.84	3,284.53	578.92	3,067.31	3,021.14	46.17	66.432			
2,100.00	2,074.43	2,078.54	2,078.43	7.60	41.20	3.86	3,284.53	578.92	3,048.59	2,999.98	48.62	62.708			
2,200.00	2,172.66	2,177.73	2,177.62	7.98	43.31	3.88	3,285.61	578.92	3,030.94	2,979.86	51.08	59.337			
2,300.00	2,270.88	2,287.38	2,287.26	8.35	45.64	3.91	3,285.37	578.92	3,012.00	2,958.24	53.76	56.024			
2,400.00	2,369.11	2,396.87	2,396.74	8.72	47.96	3.94	3,284.70	578.92	2,992.69	2,936.25	56.44	53.024			
2,500.00	2,467.33	2,471.46	2,471.33	9.10	49.60	3.96	3,284.53	578.92	2,973.71	2,915.27	58.44	50.883			
2,600.00	2,565.55	2,569.69	2,569.55	9.47	51.78	3.99	3,284.53	578.92	2,954.99	2,894.02	60.98	48.459			
2,700.00	2,663.78	2,667.91	2,667.78	9.84	53.96	4.01	3,284.53	578.92	2,936.28	2,872.76	63.51	46.230			
2,800.00	2,762.00	2,774.58	2,774.44	10.22	56.33	4.03	3,285.56	578.92	2,918.59	2,852.35	66.23	44.064			
2,900.00	2,860.23	2,882.85	2,882.69	10.59	58.73	4.07	3,285.06	578.92	2,899.42	2,830.43	68.99	42.028			
3,000.00	2,958.45	2,962.61	2,962.45	10.96	60.51	4.09	3,284.53	578.92	2,880.13	2,808.99	71.13	40.489			
3,100.00	3,056.67	3,060.83	3,060.67	11.34	62.78	4.12	3,284.53	578.92	2,861.41	2,787.65	73.76	38.792			
3,200.00	3,154.90	3,159.06	3,158.90	11.71	65.05	4.14	3,284.53	578.92	2,842.70	2,766.31	76.39	37.212			
3,300.00	3,253.12	3,265.10	3,264.92	12.08	67.50	4.17	3,285.80	578.92	2,825.24	2,746.04	79.20	35.674			
3,400.00	3,351.35	3,376.80	3,376.61	12.46	70.09	4.20	3,285.21	578.92	2,806.02	2,723.89	82.13	34.167			
3,500.00	3,449.57	3,453.77	3,453.57	12.83	71.85	4.23	3,284.53	578.92	2,786.56	2,702.29	84.26	33.069			
3,600.00	3,547.80	3,551.99	3,551.80	13.20	73.76	4.26	3,284.53	578.92	2,767.84	2,681.32	86.53	31.988			
3,700.00	3,646.02	3,650.22	3,650.02	13.58	75.66	4.28	3,284.53	578.92	2,749.13	2,660.34	88.79	30.962			
3,800.00	3,744.24	3,752.26	3,752.04	13.95	77.64	4.31	3,285.96	578.92	2,731.83	2,640.71	91.13	29.979			
3,900.00	3,842.47	3,862.46	3,862.24	14.33	79.78	4.34	3,285.56	578.92	2,712.77	2,619.16	93.61	28.979			
4,000.00	3,940.69	3,972.49	3,972.25	14.70	81.92	4.38	3,284.66	578.92	2,693.27	2,597.18	96.09	28.028			
4,100.00	4,038.92	4,043.16	4,042.92	15.07	83.19	4.40	3,284.53	578.92	2,674.29	2,576.55	97.75	27.360			
4,200.00	4,137.14	4,141.38	4,141.14	15.45	84.93	4.44	3,284.53	578.92	2,655.58	2,555.74	99.84	26.598			
4,300.00	4,235.37	4,240.67	4,240.43	15.82	86.68	4.47	3,284.76	578.92	2,637.10	2,535.15	101.95	25.866			
4,400.00	4,333.59	4,341.52	4,341.28	16.20	88.47	4.50	3,284.66	578.92	2,618.30	2,514.21	104.09	25.153			
4,500.00	4,431.81	4,436.06	4,435.81	16.57	90.27	4.53	3,284.53	578.92	2,599.47	2,493.21	106.26	24.464			
4,600.00	4,530.04	4,534.28	4,534.04	16.94	92.62	4.56	3,284.53	578.92	2,580.76	2,471.79	108.97	23.684			
4,700.00	4,628.26	4,637.96	4,637.71	17.32	95.10	4.60	3,285.02	578.92	2,562.54	2,450.74	111.80	22.920			
4,800.00	4,726.46	4,746.74	4,746.49	17.69	97.71	-20.87	3,284.55	578.92	2,543.50	2,428.75	114.75	22.165			
4,900.00	4,823.98	4,828.23	4,827.98	18.06	99.88	-45.01	3,284.53	578.92	2,525.20	2,407.91	117.29	21.530			
5,000.00	4,919.77	4,933.74	4,933.46	18.41	102.70	-59.99	3,285.77	578.92	2,508.95	2,388.50	120.44	20.831			
5,100.00	5,012.77	5,064.10	5,063.78	18.74	106.18	-69.91	3,284.27	578.92	2,491.61	2,367.40	124.21	20.060			

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #225 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 432-INC-ONLY													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Rule Assigned: Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,200.00	5,101.98	5,065.00	5,064.69	19.06	106.18	-75.76	3,284.53	578.92	2,477.27	2,352.63	124.64	19.875		
5,300.00	5,186.40	5,065.00	5,064.69	19.36	106.18	-79.64	3,284.53	578.92	2,468.07	2,343.13	124.94	19.754		
5,400.00	5,265.12	5,065.00	5,064.69	19.64	106.18	-82.19	3,284.53	578.92	2,464.45	2,339.33	125.12	19.696		
5,414.14	5,275.74	5,065.00	5,064.69	19.68	106.18	-82.47	3,284.53	578.92	2,464.40	2,339.26	125.14	19.693 CC, ES, SF		
5,500.00	5,337.27	5,065.00	5,064.69	19.93	106.18	-83.77	3,284.53	578.92	2,466.48	2,341.25	125.22	19.696		
5,600.00	5,402.06	5,065.00	5,064.69	20.23	106.18	-84.57	3,284.53	578.92	2,474.11	2,348.82	125.29	19.747		
5,700.00	5,458.78	5,065.00	5,064.69	20.56	106.18	-84.72	3,284.53	578.92	2,487.21	2,361.86	125.36	19.841		
5,800.00	5,509.14	5,065.00	5,064.69	20.93	106.18	-84.66	3,284.53	578.92	2,505.24	2,379.80	125.45	19.970		
5,900.00	5,559.14	5,065.00	5,064.69	21.35	106.18	-84.66	3,284.53	578.92	2,527.16	2,401.62	125.54	20.131		
6,000.00	5,605.15	5,065.00	5,064.69	21.81	106.18	-82.78	3,284.53	578.92	2,552.36	2,426.70	125.65	20.313		
6,100.00	5,635.72	5,065.00	5,064.69	22.29	106.18	-80.03	3,284.53	578.92	2,579.14	2,453.24	125.90	20.486		
6,200.00	5,649.31	5,065.00	5,064.69	22.76	106.18	-77.23	3,284.53	578.92	2,606.61	2,480.32	126.29	20.639		
6,300.00	5,650.00	5,065.00	5,064.69	23.24	106.18	-76.54	3,284.53	578.92	2,634.14	2,507.33	126.80	20.773		
6,400.00	5,650.00	5,065.00	5,064.69	23.77	106.18	-76.67	3,284.53	578.92	2,661.89	2,534.54	127.35	20.903		
6,500.00	5,650.00	5,065.00	5,064.69	24.33	106.18	-76.81	3,284.53	578.92	2,689.84	2,561.93	127.91	21.029		
6,600.00	5,650.00	5,065.00	5,064.69	24.94	106.18	-76.85	3,284.53	578.92	2,718.62	2,590.13	128.49	21.159		
6,700.00	5,650.00	5,065.00	5,064.69	25.59	106.18	-76.85	3,284.53	578.92	2,750.52	2,621.45	129.08	21.309		
6,800.00	5,650.00	5,065.00	5,064.69	26.26	106.18	-76.85	3,284.53	578.92	2,785.66	2,655.98	129.68	21.482		
6,900.00	5,650.00	5,065.00	5,064.69	26.97	106.18	-76.85	3,284.53	578.92	2,823.90	2,693.63	130.27	21.677		
7,000.00	5,650.00	5,065.00	5,064.69	27.71	106.18	-76.85	3,284.53	578.92	2,865.12	2,734.26	130.86	21.894		
7,100.00	5,650.00	5,065.00	5,064.69	28.47	106.18	-76.85	3,284.53	578.92	2,909.20	2,777.75	131.44	22.132		
7,200.00	5,650.00	5,065.00	5,064.69	29.25	106.18	-76.85	3,284.53	578.92	2,956.00	2,823.99	132.01	22.392		
7,300.00	5,650.00	5,065.00	5,064.69	30.06	106.18	-76.85	3,284.53	578.92	3,005.41	2,872.84	132.57	22.671		
7,400.00	5,650.00	5,065.00	5,064.69	30.88	106.18	-76.85	3,284.53	578.92	3,057.28	2,924.18	133.11	22.969		
7,500.00	5,650.00	5,065.00	5,064.69	31.73	106.18	-76.85	3,284.53	578.92	3,111.51	2,977.88	133.63	23.285		
7,600.00	5,650.00	5,065.00	5,064.69	32.59	106.18	-76.85	3,284.53	578.92	3,167.97	3,033.84	134.13	23.619		
7,700.00	5,650.00	5,065.00	5,064.69	33.47	106.18	-76.85	3,284.53	578.92	3,226.53	3,091.93	134.61	23.970		
7,800.00	5,650.00	5,065.00	5,064.69	34.36	106.18	-76.85	3,284.53	578.92	3,287.10	3,152.04	135.06	24.337		
7,900.00	5,650.00	5,065.00	5,064.69	35.26	106.18	-76.85	3,284.53	578.92	3,349.56	3,214.05	135.50	24.719		
8,000.00	5,650.00	5,065.00	5,064.69	36.18	106.18	-76.85	3,284.53	578.92	3,413.80	3,277.88	135.92	25.116		
8,100.00	5,650.00	5,065.00	5,064.69	37.11	106.18	-76.85	3,284.53	578.92	3,479.74	3,343.41	136.32	25.526		
8,200.00	5,650.00	5,065.00	5,064.69	38.05	106.18	-76.85	3,284.53	578.92	3,547.26	3,410.56	136.70	25.949		
8,300.00	5,650.00	5,065.00	5,064.69	39.00	106.18	-76.85	3,284.53	578.92	3,616.30	3,479.23	137.07	26.384		
8,400.00	5,650.00	5,065.00	5,064.69	39.96	106.18	-76.85	3,284.53	578.92	3,686.75	3,549.34	137.41	26.830		
8,500.00	5,650.00	5,065.00	5,064.69	40.93	106.18	-76.85	3,284.53	578.92	3,758.54	3,620.80	137.74	27.288		
8,600.00	5,650.00	5,065.00	5,064.69	41.90	106.18	-76.85	3,284.53	578.92	3,831.60	3,693.55	138.05	27.756		
8,700.00	5,650.00	5,065.00	5,064.69	42.89	106.18	-76.85	3,284.53	578.92	3,905.85	3,767.51	138.34	28.233		
8,800.00	5,650.00	5,065.00	5,064.69	43.88	106.18	-76.85	3,284.53	578.92	3,981.23	3,842.60	138.62	28.720		
8,900.00	5,650.00	5,065.00	5,064.69	44.87	106.18	-76.85	3,284.53	578.92	4,057.67	3,918.78	138.89	29.215		
9,000.00	5,650.00	5,065.00	5,064.69	45.88	106.18	-76.85	3,284.53	578.92	4,135.12	3,995.97	139.14	29.719		
9,100.00	5,650.00	5,065.00	5,064.69	46.88	106.18	-76.85	3,284.53	578.92	4,213.51	4,074.13	139.38	30.230		
9,200.00	5,650.00	5,065.00	5,064.69	47.90	106.18	-76.85	3,284.53	578.92	4,292.81	4,153.20	139.61	30.748		
9,300.00	5,650.00	5,065.00	5,064.69	48.92	106.18	-76.85	3,284.53	578.92	4,372.95	4,233.12	139.83	31.273		
9,400.00	5,650.00	5,065.00	5,064.69	49.94	106.18	-76.85	3,284.53	578.92	4,453.90	4,313.86	140.04	31.805		
9,500.00	5,650.00	5,065.00	5,064.69	50.97	106.18	-76.85	3,284.53	578.92	4,535.61	4,395.37	140.24	32.343		
9,600.00	5,650.00	5,065.00	5,064.69	52.00	106.18	-76.85	3,284.53	578.92	4,618.04	4,477.61	140.43	32.886		
9,700.00	5,650.00	5,065.00	5,064.69	53.03	106.18	-76.85	3,284.53	578.92	4,701.15	4,560.54	140.61	33.435		
9,800.00	5,650.00	5,065.00	5,064.69	54.07	106.18	-76.85	3,284.53	578.92	4,784.90	4,644.12	140.78	33.989		
9,900.00	5,650.00	5,065.00	5,064.69	55.12	106.18	-76.85	3,284.53	578.92	4,869.27	4,728.33	140.94	34.548		
10,000.00	5,650.00	5,065.00	5,064.69	56.16	106.18	-76.85	3,284.53	578.92	4,954.22	4,813.12	141.10	35.111		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #242 - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 usft
Survey Program: 418-INC-ONLY														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning		
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
0.00	0.00	0.00	0.00	0.00	0.00	16.56	1,964.30	584.21	2,049.34						
100.00	100.00	99.00	99.00	0.29	0.86	16.56	1,964.30	584.21	2,049.34	2,048.19	1.14	1,793.190			
200.00	200.00	199.00	199.00	0.65	1.72	16.56	1,964.30	584.21	2,049.34	2,046.97	2.37	866.150			
300.00	300.00	299.00	299.00	1.00	2.59	16.56	1,964.30	584.21	2,049.34	2,045.75	3.59	570.971			
400.00	399.98	398.98	398.98	1.36	3.45	10.05	1,964.30	584.21	2,047.62	2,042.80	4.81	425.426			
500.00	499.84	498.84	498.84	1.73	5.35	10.09	1,964.30	584.21	2,042.46	2,035.38	7.08	288.482			
600.00	599.45	598.45	598.45	2.09	7.50	10.17	1,964.30	584.21	2,033.88	2,024.30	9.59	212.154			
700.00	698.70	698.30	698.30	2.45	9.65	10.27	1,964.56	584.21	2,022.14	2,010.04	12.10	167.145			
800.00	797.47	798.78	798.78	2.81	11.81	10.41	1,964.49	584.21	2,006.67	1,992.05	14.62	137.237			
900.00	895.74	898.72	898.72	3.17	13.96	10.53	1,964.32	584.21	1,988.34	1,971.21	17.13	116.061			
1,000.00	993.97	992.97	992.97	3.52	16.60	10.63	1,964.30	584.21	1,969.86	1,949.74	20.12	97.911			
1,100.00	1,092.19	1,091.19	1,091.19	3.89	19.42	10.73	1,964.30	584.21	1,951.41	1,928.11	23.30	83.764			
1,200.00	1,190.42	1,194.38	1,194.34	4.26	22.39	10.82	1,966.41	584.21	1,934.99	1,908.37	26.62	72.696			
1,300.00	1,288.64	1,307.20	1,307.13	4.63	25.64	10.95	1,965.66	584.21	1,915.93	1,885.72	30.21	63.412			
1,400.00	1,386.86	1,419.71	1,419.60	5.00	28.87	11.09	1,964.02	584.21	1,896.13	1,862.34	33.80	56.101			
1,500.00	1,485.09	1,484.19	1,484.09	5.37	30.28	11.16	1,964.30	584.21	1,877.68	1,842.11	35.57	52.792			
1,600.00	1,583.31	1,582.41	1,582.31	5.74	32.55	11.27	1,964.30	584.21	1,859.27	1,821.07	38.20	48.676			
1,700.00	1,681.54	1,684.62	1,684.48	6.11	34.92	11.37	1,966.43	584.21	1,842.89	1,801.97	40.92	45.040			
1,800.00	1,779.76	1,796.54	1,796.37	6.49	37.51	11.51	1,965.74	584.21	1,823.91	1,780.05	43.86	41.587			
1,900.00	1,877.98	1,908.15	1,907.95	6.86	40.09	11.66	1,964.17	584.21	1,804.21	1,757.42	46.79	38.562			
2,000.00	1,976.21	1,975.41	1,975.21	7.23	41.28	11.74	1,964.30	584.21	1,785.67	1,737.32	48.35	36.932			
2,100.00	2,074.43	2,073.64	2,073.43	7.60	43.07	11.86	1,964.30	584.21	1,767.29	1,716.80	50.50	34.999			
2,200.00	2,172.66	2,172.50	2,172.29	7.98	44.87	11.98	1,964.84	584.21	1,749.44	1,696.78	52.65	33.227			
2,300.00	2,270.88	2,273.63	2,273.42	8.35	46.71	12.12	1,964.71	584.21	1,730.96	1,676.11	54.85	31.559			
2,400.00	2,369.11	2,374.69	2,374.48	8.72	48.55	12.26	1,964.40	584.21	1,712.32	1,655.28	57.04	30.018			
2,500.00	2,467.33	2,466.54	2,466.33	9.10	50.30	12.38	1,964.30	584.21	1,693.86	1,634.71	59.16	28.634			
2,600.00	2,565.55	2,564.76	2,564.55	9.47	52.21	12.52	1,964.30	584.21	1,675.53	1,614.11	61.42	27.281			
2,700.00	2,663.78	2,663.48	2,663.26	9.84	54.12	12.65	1,965.12	584.21	1,657.98	1,594.29	63.69	26.033			
2,800.00	2,762.00	2,765.83	2,765.61	10.22	56.10	12.80	1,964.95	584.21	1,639.51	1,573.48	66.03	24.831			
2,900.00	2,860.23	2,868.09	2,867.87	10.59	58.09	12.96	1,964.51	584.21	1,620.80	1,552.44	68.36	23.709			
3,000.00	2,958.45	2,957.67	2,957.45	10.96	59.92	13.10	1,964.30	584.21	1,602.28	1,531.72	70.57	22.706			
3,100.00	3,056.67	3,055.90	3,055.67	11.34	62.01	13.26	1,964.30	584.21	1,584.00	1,510.98	73.01	21.694			
3,200.00	3,154.90	3,154.17	3,153.94	11.71	64.10	13.40	1,965.12	584.21	1,566.50	1,491.03	75.46	20.758			
3,300.00	3,253.12	3,256.29	3,256.06	12.08	66.28	13.57	1,964.98	584.21	1,548.11	1,470.12	77.99	19.850			
3,400.00	3,351.35	3,358.32	3,358.09	12.46	68.45	13.75	1,964.57	584.21	1,529.49	1,448.97	80.51	18.997			
3,500.00	3,449.57	3,448.81	3,448.57	12.83	70.50	13.91	1,964.30	584.21	1,510.98	1,428.05	82.93	18.219			
3,600.00	3,547.80	3,547.03	3,546.80	13.20	72.86	14.08	1,964.30	584.21	1,492.75	1,407.10	85.65	17.428			
3,700.00	3,646.02	3,645.26	3,645.02	13.58	75.22	14.26	1,964.30	584.21	1,474.54	1,386.17	88.37	16.686			
3,800.00	3,744.24	3,748.93	3,748.67	13.95	77.71	14.43	1,965.50	584.21	1,457.48	1,366.27	91.21	15.979			
3,900.00	3,842.47	3,853.15	3,852.88	14.33	80.21	14.64	1,964.85	584.21	1,438.73	1,344.66	94.07	15.295			
4,000.00	3,940.69	3,939.97	3,939.69	14.70	82.33	14.82	1,964.30	584.21	1,420.00	1,323.44	96.56	14.706			
4,100.00	4,038.92	4,038.20	4,037.92	15.07	84.79	15.01	1,964.30	584.21	1,401.85	1,302.47	99.38	14.107			
4,200.00	4,137.14	4,136.42	4,136.14	15.45	87.25	15.21	1,964.30	584.21	1,383.71	1,281.52	102.19	13.540			
4,300.00	4,235.37	4,238.54	4,238.23	15.82	89.80	15.40	1,965.95	584.21	1,367.13	1,262.03	105.10	13.008			
4,400.00	4,333.59	4,343.19	4,342.87	16.20	92.42	15.64	1,965.36	584.21	1,348.52	1,240.45	108.07	12.478			
4,500.00	4,431.81	4,447.65	4,447.31	16.57	95.03	15.89	1,964.24	584.21	1,329.46	1,218.43	111.03	11.974			
4,600.00	4,530.04	4,529.38	4,529.04	16.94	97.25	16.07	1,964.30	584.21	1,311.35	1,197.71	113.64	11.540			
4,700.00	4,628.26	4,627.60	4,627.26	17.32	99.91	16.30	1,964.30	584.21	1,293.31	1,176.65	116.65	11.087			
4,800.00	4,726.46	4,725.80	4,725.46	17.69	102.56	-9.00	1,964.30	584.21	1,274.69	1,155.02	119.67	10.652			
4,900.00	4,823.98	4,820.00	4,819.62	18.06	105.11	-33.37	1,964.30	584.21	1,254.39	1,131.82	122.57	10.234			
5,000.00	4,919.77	4,820.00	4,819.62	18.41	105.11	-47.78	1,964.30	584.21	1,236.77	1,114.06	122.70	10.079			
5,100.00	5,012.77	4,820.00	4,819.62	18.74	105.11	-56.31	1,964.30	584.21	1,225.76	1,103.63	122.13	10.037 SF			

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #242 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 418-INC-ONLY												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Rule Assigned: Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.00	5,101.98	4,820.00	4,819.62	19.06	105.11	-61.51	1,964.30	584.21	1,221.66	1,100.75	120.91	10.104	ES
5,208.33	5,109.21	4,820.00	4,819.62	19.09	105.11	-61.84	1,964.30	584.21	1,221.64	1,100.86	120.78	10.115	CC
5,300.00	5,186.40	4,820.00	4,819.62	19.36	105.11	-64.66	1,964.30	584.21	1,224.59	1,105.43	119.16	10.277	
5,400.00	5,265.12	4,820.00	4,819.62	19.64	105.11	-66.41	1,964.30	584.21	1,234.46	1,117.37	117.09	10.543	
5,500.00	5,337.27	4,820.00	4,819.62	19.93	105.11	-67.11	1,964.30	584.21	1,251.01	1,136.10	114.91	10.887	
5,600.00	5,402.06	4,820.00	4,819.62	20.23	105.11	-66.97	1,964.30	584.21	1,273.80	1,160.93	112.86	11.286	
5,700.00	5,458.78	4,820.00	4,819.62	20.56	105.11	-66.16	1,964.30	584.21	1,302.25	1,191.11	111.14	11.717	
5,800.00	5,509.14	4,820.00	4,819.62	20.93	105.11	-65.83	1,964.30	584.21	1,336.24	1,226.43	109.81	12.169	
5,900.00	5,559.14	4,820.00	4,819.62	21.35	105.11	-65.83	1,964.30	584.21	1,376.59	1,267.94	108.65	12.670	
6,000.00	5,605.15	4,820.00	4,819.62	21.81	105.11	-62.60	1,964.30	584.21	1,421.15	1,313.33	107.83	13.180	
6,100.00	5,635.72	4,820.00	4,819.62	22.29	105.11	-58.42	1,964.30	584.21	1,464.43	1,356.63	107.80	13.585	
6,200.00	5,649.31	4,820.00	4,819.62	22.76	105.11	-54.71	1,964.30	584.21	1,505.05	1,396.48	108.57	13.863	
6,300.00	5,650.00	4,820.00	4,819.62	23.24	105.11	-54.12	1,964.30	584.21	1,543.86	1,433.99	109.87	14.052	
6,400.00	5,650.00	4,820.00	4,819.62	23.77	105.11	-54.65	1,964.30	584.21	1,585.24	1,474.05	111.18	14.258	
6,500.00	5,650.00	4,820.00	4,819.62	24.33	105.11	-55.21	1,964.30	584.21	1,629.20	1,516.75	112.46	14.488	
6,600.00	5,650.00	4,820.00	4,819.62	24.94	105.11	-55.42	1,964.30	584.21	1,676.01	1,562.33	113.68	14.743	
6,700.00	5,650.00	4,820.00	4,819.62	25.59	105.11	-55.42	1,964.30	584.21	1,727.19	1,612.30	114.89	15.033	
6,800.00	5,650.00	4,820.00	4,819.62	26.26	105.11	-55.42	1,964.30	584.21	1,782.52	1,666.45	116.06	15.358	
6,900.00	5,650.00	4,820.00	4,819.62	26.97	105.11	-55.42	1,964.30	584.21	1,841.61	1,724.44	117.17	15.717	
7,000.00	5,650.00	4,820.00	4,819.62	27.71	105.11	-55.42	1,964.30	584.21	1,904.13	1,785.90	118.23	16.106	
7,100.00	5,650.00	4,820.00	4,819.62	28.47	105.11	-55.42	1,964.30	584.21	1,969.74	1,850.53	119.21	16.523	
7,200.00	5,650.00	4,820.00	4,819.62	29.25	105.11	-55.42	1,964.30	584.21	2,038.15	1,918.03	120.12	16.967	
7,300.00	5,650.00	4,820.00	4,819.62	30.06	105.11	-55.42	1,964.30	584.21	2,109.08	1,988.11	120.97	17.435	
7,400.00	5,650.00	4,820.00	4,819.62	30.88	105.11	-55.42	1,964.30	584.21	2,182.29	2,060.54	121.75	17.924	
7,500.00	5,650.00	4,820.00	4,819.62	31.73	105.11	-55.42	1,964.30	584.21	2,257.56	2,135.09	122.47	18.434	
7,600.00	5,650.00	4,820.00	4,819.62	32.59	105.11	-55.42	1,964.30	584.21	2,334.68	2,211.55	123.13	18.961	
7,700.00	5,650.00	4,820.00	4,819.62	33.47	105.11	-55.42	1,964.30	584.21	2,413.49	2,289.75	123.74	19.505	
7,800.00	5,650.00	4,820.00	4,819.62	34.36	105.11	-55.42	1,964.30	584.21	2,493.81	2,369.51	124.30	20.063	
7,900.00	5,650.00	4,820.00	4,819.62	35.26	105.11	-55.42	1,964.30	584.21	2,575.51	2,450.70	124.81	20.636	
8,000.00	5,650.00	4,820.00	4,819.62	36.18	105.11	-55.42	1,964.30	584.21	2,658.47	2,533.18	125.28	21.220	
8,100.00	5,650.00	4,820.00	4,819.62	37.11	105.11	-55.42	1,964.30	584.21	2,742.56	2,616.84	125.72	21.815	
8,200.00	5,650.00	4,820.00	4,819.62	38.05	105.11	-55.42	1,964.30	584.21	2,827.68	2,701.56	126.12	22.421	
8,300.00	5,650.00	4,820.00	4,819.62	39.00	105.11	-55.42	1,964.30	584.21	2,913.75	2,787.27	126.49	23.036	
8,400.00	5,650.00	4,820.00	4,819.62	39.96	105.11	-55.42	1,964.30	584.21	3,000.69	2,873.86	126.83	23.659	
8,500.00	5,650.00	4,820.00	4,819.62	40.93	105.11	-55.42	1,964.30	584.21	3,088.41	2,961.27	127.15	24.290	
8,600.00	5,650.00	4,820.00	4,819.62	41.90	105.11	-55.42	1,964.30	584.21	3,176.87	3,049.42	127.44	24.928	
8,700.00	5,650.00	4,820.00	4,819.62	42.89	105.11	-55.42	1,964.30	584.21	3,265.98	3,138.27	127.72	25.572	
8,800.00	5,650.00	4,820.00	4,819.62	43.88	105.11	-55.42	1,964.30	584.21	3,355.72	3,227.74	127.97	26.222	
8,900.00	5,650.00	4,820.00	4,819.62	44.87	105.11	-55.42	1,964.30	584.21	3,446.01	3,317.80	128.21	26.877	
9,000.00	5,650.00	4,820.00	4,819.62	45.88	105.11	-55.42	1,964.30	584.21	3,536.83	3,408.39	128.44	27.538	
9,100.00	5,650.00	4,820.00	4,819.62	46.88	105.11	-55.42	1,964.30	584.21	3,628.13	3,499.49	128.65	28.202	
9,200.00	5,650.00	4,820.00	4,819.62	47.90	105.11	-55.42	1,964.30	584.21	3,719.88	3,591.04	128.84	28.871	
9,300.00	5,650.00	4,820.00	4,819.62	48.92	105.11	-55.42	1,964.30	584.21	3,812.05	3,683.02	129.03	29.544	
9,400.00	5,650.00	4,820.00	4,819.62	49.94	105.11	-55.42	1,964.30	584.21	3,904.60	3,775.39	129.21	30.220	
9,500.00	5,650.00	4,820.00	4,819.62	50.97	105.11	-55.42	1,964.30	584.21	3,997.50	3,868.13	129.37	30.899	
9,600.00	5,650.00	4,820.00	4,819.62	52.00	105.11	-55.42	1,964.30	584.21	4,090.75	3,961.21	129.53	31.581	
9,700.00	5,650.00	4,820.00	4,819.62	53.03	105.11	-55.42	1,964.30	584.21	4,184.30	4,054.62	129.68	32.266	
9,800.00	5,650.00	4,820.00	4,819.62	54.07	105.11	-55.42	1,964.30	584.21	4,278.15	4,148.32	129.83	32.953	
9,900.00	5,650.00	4,820.00	4,819.62	55.12	105.11	-55.42	1,964.30	584.21	4,372.27	4,242.30	129.96	33.642	
10,000.00	5,650.00	4,820.00	4,819.62	56.16	105.11	-55.42	1,964.30	584.21	4,466.64	4,336.55	130.10	34.334	
10,100.00	5,650.00	4,820.00	4,819.62	57.21	105.11	-55.42	1,964.30	584.21	4,561.26	4,431.04	130.22	35.027	
10,200.00	5,650.00	4,820.00	4,819.62	58.26	105.11	-55.42	1,964.30	584.21	4,656.10	4,525.76	130.34	35.722	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - BURCH KEELY UNIT #242 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 418-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
10,300.00	5,650.00	4,820.00	4,819.62	59.32	105.11	-55.42	1,964.30	584.21	4,751.15	4,620.69	130.46	36.419		
10,400.00	5,650.00	4,820.00	4,819.62	60.38	105.11	-55.42	1,964.30	584.21	4,846.40	4,715.83	130.57	37.117		
10,500.00	5,650.00	4,820.00	4,819.62	61.44	105.11	-55.42	1,964.30	584.21	4,941.84	4,811.16	130.68	37.816		

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #270 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.00 usft		
Survey Program: 400-INC-ONLY		Reference		Offset		Semi Major Axis		Highside		Offset Wellbore Centre		Rule Assigned: Distance		Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	88.93	11.08	592.03	592.24				
100.00	100.00	89.00	89.00	0.29	0.92	88.93	0.29	88.93	11.08	592.03	592.13	590.93	1.20	492.173	
200.00	200.00	189.00	189.00	0.65	1.95	88.93	0.65	88.93	11.08	592.03	592.13	589.54	2.59	228.522	
300.00	300.00	289.00	289.00	1.00	2.98	88.93	1.00	88.93	11.08	592.03	592.13	588.15	3.98	148.807	
400.00	399.98	388.98	388.98	1.36	4.01	82.57	1.36	82.57	11.08	592.03	591.91	586.54	5.37	110.298	
500.00	499.84	488.84	488.84	1.73	6.18	83.09	1.73	83.09	11.08	592.03	591.25	583.36	7.89	74.921	
600.00	599.45	588.45	588.45	2.09	8.48	83.94	2.09	83.94	11.08	592.03	590.26	579.71	10.55	55.934	
700.00	698.70	687.69	687.68	2.45	10.77	85.03	2.45	85.03	12.22	592.03	589.06	575.86	13.21	44.604	
800.00	797.47	786.36	786.34	2.81	13.05	86.57	2.81	86.57	11.98	592.03	587.91	572.06	15.85	37.095	
900.00	895.74	884.43	884.40	3.17	15.32	88.40	3.17	88.40	11.43	592.03	587.13	568.65	18.48	31.772	
986.93	981.12	970.15	970.12	3.48	17.35	90.00	3.48	90.00	11.08	592.03	586.93	566.11	20.82	28.186 CC	
1,000.00	993.97	982.99	982.97	3.52	17.66	90.23	3.52	90.23	11.08	592.03	586.94	565.76	21.18	27.710	
1,100.00	1,092.19	1,081.22	1,081.19	3.89	20.03	92.03	3.89	92.03	11.08	592.03	587.31	563.39	23.92	24.552	
1,200.00	1,190.42	1,179.44	1,179.42	4.26	22.40	93.83	4.26	93.83	11.08	592.03	588.29	561.63	26.66	22.065	
1,300.00	1,288.64	1,277.17	1,277.12	4.63	24.76	95.46	4.63	95.46	12.63	592.03	589.54	560.14	29.39	20.058	
1,400.00	1,386.86	1,374.68	1,374.61	5.00	27.12	97.28	5.00	97.28	11.98	592.03	591.81	559.69	32.12	18.427 ES	
1,500.00	1,485.09	1,474.17	1,474.09	5.37	29.52	99.15	5.37	99.15	11.08	592.03	594.77	559.88	34.89	17.047	
1,600.00	1,583.31	1,572.40	1,572.31	5.74	31.89	100.90	5.74	100.90	11.08	592.03	598.09	560.46	37.63	15.893	
1,700.00	1,681.54	1,670.62	1,670.54	6.11	34.27	102.62	6.11	102.62	11.08	592.03	601.98	561.61	40.38	14.909	
1,800.00	1,779.76	1,768.05	1,767.94	6.49	36.62	104.21	6.49	104.21	12.19	592.03	606.03	562.93	43.10	14.060	
1,900.00	1,877.98	1,865.16	1,865.05	6.86	38.97	105.92	6.86	105.92	11.61	592.03	611.22	565.40	45.82	13.340	
2,000.00	1,976.21	1,965.33	1,965.21	7.23	41.44	107.64	7.23	107.64	11.08	592.03	616.94	568.28	48.66	12.680	
2,100.00	2,074.43	2,061.92	2,061.78	7.60	43.87	109.20	7.60	109.20	11.58	592.03	622.76	571.30	51.46	12.103	
2,200.00	2,172.66	2,161.80	2,161.66	7.98	46.39	110.85	7.98	110.85	11.08	592.03	629.51	575.17	54.34	11.584	
2,300.00	2,270.88	2,260.03	2,259.88	8.35	48.87	112.40	8.35	112.40	11.08	592.03	636.53	579.35	57.19	11.131	
2,400.00	2,369.11	2,355.66	2,355.49	8.72	51.28	113.84	8.72	113.84	11.69	592.03	643.72	583.76	59.96	10.735	
2,500.00	2,467.33	2,456.51	2,456.33	9.10	53.83	115.41	9.10	115.41	11.08	592.03	651.98	589.10	62.87	10.370	
2,600.00	2,565.55	2,554.73	2,554.55	9.47	56.30	116.86	9.47	116.86	11.08	592.03	660.36	594.64	65.72	10.048	
2,700.00	2,663.78	2,652.96	2,652.78	9.84	58.78	118.27	9.84	118.27	11.08	592.03	669.17	600.61	68.56	9.760	
2,800.00	2,762.00	2,750.51	2,750.30	10.22	61.24	119.51	10.22	119.51	13.00	592.03	677.24	605.85	71.39	9.487	
2,900.00	2,860.23	2,846.96	2,846.74	10.59	63.68	120.86	10.59	120.86	12.63	592.03	687.03	612.85	74.18	9.262	
3,000.00	2,958.45	2,943.26	2,943.03	10.96	66.11	122.19	10.96	122.19	11.86	592.03	697.47	620.50	76.97	9.062	
3,100.00	3,056.67	3,045.92	3,045.67	11.34	68.66	123.56	11.34	123.56	11.08	592.03	708.28	628.39	79.89	8.866	
3,200.00	3,154.90	3,144.15	3,143.90	11.71	71.04	124.79	11.71	124.79	11.08	592.03	718.95	636.32	82.63	8.701	
3,300.00	3,253.12	3,241.31	3,241.04	12.08	73.39	125.90	12.08	125.90	12.34	592.03	729.08	643.75	85.34	8.544	
3,400.00	3,351.35	3,336.31	3,336.03	12.46	75.69	127.06	12.46	127.06	11.84	592.03	740.73	652.74	87.99	8.419	
3,500.00	3,449.57	3,438.87	3,438.57	12.83	78.13	128.28	12.83	128.28	11.08	592.03	752.86	662.05	90.80	8.291	
3,600.00	3,547.80	3,537.09	3,536.80	13.20	80.41	129.37	13.20	129.37	11.08	592.03	764.75	671.31	93.43	8.185	
3,700.00	3,646.02	3,635.31	3,635.02	13.58	82.68	130.43	13.58	130.43	11.08	592.03	776.91	680.84	96.07	8.087	
3,800.00	3,744.24	3,731.63	3,731.32	13.95	84.91	131.37	13.95	131.37	12.32	592.03	788.40	689.75	98.65	7.992	
3,900.00	3,842.47	3,827.29	3,826.97	14.33	87.12	132.37	14.33	132.37	11.81	592.03	801.45	700.23	101.22	7.918	
4,000.00	3,940.69	3,930.03	3,929.69	14.70	89.50	133.41	14.70	133.41	11.08	592.03	814.89	710.93	103.96	7.839	
4,100.00	4,038.92	4,028.25	4,027.92	15.07	91.77	134.35	15.07	134.35	11.08	592.03	828.02	721.43	106.59	7.768	
4,200.00	4,137.14	4,126.47	4,126.14	15.45	94.04	135.25	15.45	135.25	11.08	592.03	841.36	732.14	109.22	7.703	
4,300.00	4,235.37	4,222.68	4,222.33	15.82	96.27	136.06	15.82	136.06	12.33	592.03	853.90	742.10	111.80	7.638	
4,400.00	4,333.59	4,317.94	4,317.58	16.20	98.48	136.91	16.20	136.91	11.85	592.03	868.03	753.68	114.36	7.591	
4,500.00	4,431.81	4,421.19	4,420.81	16.57	100.88	137.80	16.57	137.80	11.08	592.03	882.56	765.43	117.13	7.535	
4,600.00	4,530.04	4,519.41	4,519.04	16.94	103.26	138.60	16.94	138.60	11.08	592.03	896.66	776.79	119.86	7.481	
4,700.00	4,628.26	4,617.63	4,617.26	17.32	105.64	139.38	17.32	139.38	11.08	592.03	910.93	788.33	122.60	7.430	
4,800.00	4,726.46	4,712.28	4,711.89	17.69	107.92	115.32	17.69	107.92	12.05	592.03	922.17	796.94	125.23	7.364	
4,900.00	4,823.98	4,806.05	4,805.65	18.06	110.19	93.57	18.06	93.57	11.40	592.03	927.83	799.98	127.84	7.258	
5,000.00	4,919.77	4,870.00	4,869.59	18.41	111.77	81.33	18.41	81.33	11.08	592.03	927.32	797.72	129.59	7.156 SF	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #270 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.00 usft
Survey Program: 400-INC-ONLY		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,020.19	4,938.80	4,870.00	4,869.59	18.48	111.77	79.41	11.08	592.03	927.24	797.76	129.48	7.161	
5,100.00	5,012.77	4,870.00	4,869.59	18.74	111.77	73.41	11.08	592.03	928.37	799.82	128.55	7.222	
5,200.00	5,101.98	4,870.00	4,869.59	19.06	111.77	68.25	11.08	592.03	932.94	806.61	126.33	7.385	
5,300.00	5,186.40	4,870.00	4,869.59	19.36	111.77	64.58	11.08	592.03	940.92	817.76	123.17	7.639	
5,400.00	5,265.12	4,870.00	4,869.59	19.64	111.77	61.76	11.08	592.03	952.15	832.82	119.33	7.979	
5,500.00	5,337.27	4,870.00	4,869.59	19.93	111.77	59.46	11.08	592.03	966.38	851.23	115.15	8.392	
5,600.00	5,402.06	4,870.00	4,869.59	20.23	111.77	57.48	11.08	592.03	983.34	872.37	110.97	8.861	
5,700.00	5,458.78	4,870.00	4,869.59	20.56	111.77	55.72	11.08	592.03	1,002.71	895.58	107.12	9.360	
5,800.00	5,509.14	4,870.00	4,869.59	20.93	111.77	55.26	11.08	592.03	1,026.05	922.23	103.82	9.883	
5,900.00	5,559.14	4,870.00	4,869.59	21.35	111.77	55.26	11.08	592.03	1,058.09	957.11	100.98	10.478	
6,000.00	5,605.15	4,870.00	4,869.59	21.81	111.77	52.87	11.08	592.03	1,095.95	997.04	98.91	11.080	
6,100.00	5,635.72	4,870.00	4,869.59	22.29	111.77	49.82	11.08	592.03	1,132.27	1,033.92	98.35	11.513	
6,200.00	5,649.31	4,870.00	4,869.59	22.76	111.77	47.16	11.08	592.03	1,165.79	1,066.50	99.29	11.741	
6,300.00	5,650.00	4,870.00	4,869.59	23.24	111.77	46.12	11.08	592.03	1,199.34	1,097.99	101.35	11.834	
6,400.00	5,650.00	4,870.00	4,869.59	23.77	111.77	45.46	11.08	592.03	1,241.80	1,138.03	103.76	11.968	
6,500.00	5,650.00	4,870.00	4,869.59	24.33	111.77	44.62	11.08	592.03	1,292.73	1,186.44	106.29	12.162	
6,600.00	5,650.00	4,870.00	4,869.59	24.94	111.77	44.28	11.08	592.03	1,350.74	1,241.95	108.78	12.417	
6,700.00	5,650.00	4,870.00	4,869.59	25.59	111.77	44.28	11.08	592.03	1,413.56	1,302.47	111.09	12.724	
6,800.00	5,650.00	4,870.00	4,869.59	26.26	111.77	44.28	11.08	592.03	1,480.48	1,367.29	113.20	13.079	
6,900.00	5,650.00	4,870.00	4,869.59	26.97	111.77	44.28	11.08	592.03	1,550.97	1,435.87	115.10	13.475	
7,000.00	5,650.00	4,870.00	4,869.59	27.71	111.77	44.28	11.08	592.03	1,624.55	1,507.75	116.81	13.908	
7,100.00	5,650.00	4,870.00	4,869.59	28.47	111.77	44.28	11.08	592.03	1,700.84	1,582.50	118.33	14.373	
7,200.00	5,650.00	4,870.00	4,869.59	29.25	111.77	44.28	11.08	592.03	1,779.47	1,659.78	119.69	14.867	
7,300.00	5,650.00	4,870.00	4,869.59	30.06	111.77	44.28	11.08	592.03	1,860.16	1,739.26	120.90	15.386	
7,400.00	5,650.00	4,870.00	4,869.59	30.88	111.77	44.28	11.08	592.03	1,942.64	1,820.66	121.98	15.926	
7,500.00	5,650.00	4,870.00	4,869.59	31.73	111.77	44.28	11.08	592.03	2,026.70	1,903.76	122.94	16.485	
7,600.00	5,650.00	4,870.00	4,869.59	32.59	111.77	44.28	11.08	592.03	2,112.16	1,988.35	123.81	17.060	
7,700.00	5,650.00	4,870.00	4,869.59	33.47	111.77	44.28	11.08	592.03	2,198.84	2,074.26	124.58	17.650	
7,800.00	5,650.00	4,870.00	4,869.59	34.36	111.77	44.28	11.08	592.03	2,286.60	2,161.33	125.27	18.253	
7,900.00	5,650.00	4,870.00	4,869.59	35.26	111.77	44.28	11.08	592.03	2,375.34	2,249.43	125.90	18.867	
8,000.00	5,650.00	4,870.00	4,869.59	36.18	111.77	44.28	11.08	592.03	2,464.93	2,338.46	126.47	19.491	
8,100.00	5,650.00	4,870.00	4,869.59	37.11	111.77	44.28	11.08	592.03	2,555.30	2,428.32	126.98	20.123	
8,200.00	5,650.00	4,870.00	4,869.59	38.05	111.77	44.28	11.08	592.03	2,646.36	2,518.91	127.45	20.764	
8,300.00	5,650.00	4,870.00	4,869.59	39.00	111.77	44.28	11.08	592.03	2,738.05	2,610.17	127.88	21.411	
8,400.00	5,650.00	4,870.00	4,869.59	39.96	111.77	44.28	11.08	592.03	2,830.30	2,702.03	128.27	22.065	
8,500.00	5,650.00	4,870.00	4,869.59	40.93	111.77	44.28	11.08	592.03	2,923.06	2,794.43	128.63	22.725	
8,600.00	5,650.00	4,870.00	4,869.59	41.90	111.77	44.28	11.08	592.03	3,016.28	2,887.31	128.96	23.389	
8,700.00	5,650.00	4,870.00	4,869.59	42.89	111.77	44.28	11.08	592.03	3,109.92	2,980.65	129.27	24.058	
8,800.00	5,650.00	4,870.00	4,869.59	43.88	111.77	44.28	11.08	592.03	3,203.95	3,074.39	129.55	24.731	
8,900.00	5,650.00	4,870.00	4,869.59	44.87	111.77	44.28	11.08	592.03	3,298.32	3,168.50	129.82	25.407	
9,000.00	5,650.00	4,870.00	4,869.59	45.88	111.77	44.28	11.08	592.03	3,393.02	3,262.96	130.07	26.087	
9,100.00	5,650.00	4,870.00	4,869.59	46.88	111.77	44.28	11.08	592.03	3,488.02	3,357.72	130.30	26.769	
9,200.00	5,650.00	4,870.00	4,869.59	47.90	111.77	44.28	11.08	592.03	3,583.29	3,452.77	130.52	27.455	
9,300.00	5,650.00	4,870.00	4,869.59	48.92	111.77	44.28	11.08	592.03	3,678.81	3,548.09	130.72	28.142	
9,400.00	5,650.00	4,870.00	4,869.59	49.94	111.77	44.28	11.08	592.03	3,774.56	3,643.64	130.92	28.832	
9,500.00	5,650.00	4,870.00	4,869.59	50.97	111.77	44.28	11.08	592.03	3,870.53	3,739.43	131.10	29.524	
9,600.00	5,650.00	4,870.00	4,869.59	52.00	111.77	44.28	11.08	592.03	3,966.69	3,835.42	131.27	30.217	
9,700.00	5,650.00	4,870.00	4,869.59	53.03	111.77	44.28	11.08	592.03	4,063.04	3,931.60	131.44	30.912	
9,800.00	5,650.00	4,870.00	4,869.59	54.07	111.77	44.28	11.08	592.03	4,159.57	4,027.97	131.60	31.608	
9,900.00	5,650.00	4,870.00	4,869.59	55.12	111.77	44.28	11.08	592.03	4,256.25	4,124.50	131.75	32.306	
10,000.00	5,650.00	4,870.00	4,869.59	56.16	111.77	44.28	11.08	592.03	4,353.08	4,221.19	131.90	33.004	
10,100.00	5,650.00	4,870.00	4,869.59	57.21	111.77	44.28	11.08	592.03	4,450.06	4,318.02	132.03	33.704	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - BURCH KEELY UNIT #270 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 400-INC-ONLY													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)				+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
10,200.00	5,650.00	4,870.00	4,869.59	58.26	111.77	44.28	11.08	592.03	4,547.16	4,414.99	132.17	34.404		
10,300.00	5,650.00	4,870.00	4,869.59	59.32	111.77	44.28	11.08	592.03	4,644.39	4,512.09	132.30	35.105		
10,400.00	5,650.00	4,870.00	4,869.59	60.38	111.77	44.28	11.08	592.03	4,741.73	4,609.31	132.43	35.807		
10,500.00	5,650.00	4,870.00	4,869.59	61.44	111.77	44.28	11.08	592.03	4,839.18	4,706.63	132.55	36.509		
10,600.00	5,650.00	4,870.00	4,869.59	62.50	111.77	44.28	11.08	592.03	4,936.74	4,804.07	132.67	37.212		

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #361 - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 usft
Survey Program: 327-INC-ONLY														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Minimum Separation (usft)	Separation Factor	Warning			
0.00	0.00	2.00	2.00	0.00	0.02	12.38	2,649.43	581.46	2,712.49						
100.00	100.00	102.00	102.00	0.29	0.87	12.38	2,649.43	581.46	2,712.49	2,711.33	1.16	2,343.824			
200.00	200.00	202.00	202.00	0.65	1.72	12.38	2,649.43	581.46	2,712.49	2,710.12	2.37	1,144.892			
300.00	300.00	302.00	302.00	1.00	2.58	12.38	2,649.43	581.46	2,712.49	2,708.90	3.58	757.440			
400.00	399.98	401.98	401.98	1.36	4.41	5.86	2,649.43	581.46	2,710.75	2,704.97	5.78	469.268			
500.00	499.84	501.84	501.84	1.73	6.57	5.88	2,649.43	581.46	2,705.54	2,697.24	8.30	325.949			
600.00	599.45	602.16	602.16	2.09	8.75	5.92	2,649.69	581.46	2,697.13	2,686.30	10.83	248.932			
700.00	698.70	703.78	703.78	2.45	10.94	5.97	2,649.62	581.46	2,684.94	2,671.54	13.40	200.418			
800.00	797.47	804.87	804.87	2.81	13.13	6.04	2,649.46	581.46	2,669.22	2,653.28	15.95	167.392			
900.00	895.74	910.36	910.35	3.17	16.40	6.10	2,650.02	581.46	2,651.42	2,631.85	19.57	135.493			
1,000.00	993.97	996.01	995.97	3.52	19.25	6.14	2,649.43	581.46	2,632.16	2,609.38	22.77	115.583			
1,100.00	1,092.19	1,094.27	1,094.19	3.89	22.46	6.18	2,649.43	581.46	2,613.50	2,587.17	26.33	99.247			
1,200.00	1,190.42	1,212.00	1,211.89	4.26	25.99	6.23	2,649.43	581.46	2,594.92	2,564.70	30.21	85.886			
1,300.00	1,288.64	1,331.41	1,331.28	4.63	29.53	6.29	2,649.51	581.46	2,576.58	2,542.48	34.10	75.555			
1,400.00	1,386.86	1,389.00	1,388.86	5.00	31.18	6.32	2,649.43	581.46	2,557.54	2,521.42	36.12	70.816			
1,500.00	1,485.09	1,487.25	1,487.09	5.37	33.97	6.36	2,649.43	581.46	2,538.89	2,499.63	39.26	64.676			
1,600.00	1,583.31	1,590.62	1,590.44	5.74	36.81	6.41	2,650.26	581.46	2,521.05	2,478.60	42.45	59.384			
1,700.00	1,681.54	1,683.73	1,683.54	6.11	39.37	6.46	2,649.43	581.46	2,501.59	2,456.22	45.37	55.137			
1,800.00	1,779.76	1,781.95	1,781.76	6.49	41.86	6.51	2,649.43	581.46	2,482.94	2,434.73	48.21	51.501			
1,900.00	1,877.98	1,910.13	1,909.90	6.86	45.10	6.57	2,649.75	581.46	2,464.79	2,412.99	51.79	47.589			
2,000.00	1,976.21	1,978.44	1,978.21	7.23	46.72	6.61	2,649.43	581.46	2,445.66	2,391.87	53.78	45.471			
2,100.00	2,074.43	2,081.84	2,081.60	7.60	49.10	6.66	2,650.08	581.46	2,427.65	2,371.13	56.52	42.952			
2,200.00	2,172.66	2,205.61	2,205.35	7.98	51.95	6.73	2,649.14	581.46	2,408.28	2,348.57	59.71	40.331			
2,300.00	2,270.88	2,273.13	2,272.88	8.35	53.41	6.76	2,649.43	581.46	2,389.74	2,328.20	61.54	38.832			
2,400.00	2,369.11	2,388.73	2,388.47	8.72	55.95	6.82	2,649.78	581.46	2,371.51	2,307.08	64.43	36.810			
2,500.00	2,467.33	2,469.60	2,469.33	9.10	57.68	6.87	2,649.43	581.46	2,352.47	2,285.95	66.52	35.363			
2,600.00	2,565.55	2,571.48	2,571.21	9.47	59.81	6.92	2,649.94	581.46	2,334.34	2,265.34	69.01	33.827			
2,700.00	2,663.78	2,688.57	2,688.28	9.84	62.26	6.99	2,649.27	581.46	2,315.16	2,243.36	71.80	32.244			
2,800.00	2,762.00	2,764.29	2,764.00	10.22	63.85	7.04	2,649.43	581.46	2,296.59	2,222.82	73.76	31.135			
2,900.00	2,860.23	2,879.92	2,879.62	10.59	66.27	7.11	2,649.52	581.46	2,278.12	2,201.59	76.53	29.767			
3,000.00	2,958.45	2,960.75	2,960.45	10.96	67.82	7.15	2,649.43	581.46	2,259.34	2,180.89	78.45	28.798			
3,100.00	3,056.67	3,058.97	3,058.67	11.34	69.68	7.21	2,649.43	581.46	2,240.72	2,160.05	80.67	27.776			
3,200.00	3,154.90	3,166.01	3,165.70	11.71	71.71	7.28	2,650.07	581.46	2,222.74	2,139.69	83.05	26.764			
3,300.00	3,253.12	3,275.05	3,274.73	12.08	73.78	7.35	2,649.35	581.46	2,203.50	2,118.03	85.46	25.783			
3,400.00	3,351.35	3,353.66	3,353.35	12.46	75.19	7.40	2,649.43	581.46	2,184.87	2,097.63	87.25	25.042			
3,500.00	3,449.57	3,451.89	3,451.57	12.83	76.96	7.46	2,649.43	581.46	2,166.27	2,076.88	89.38	24.236			
3,600.00	3,547.80	3,555.12	3,554.80	13.20	78.83	7.53	2,649.71	581.46	2,147.94	2,056.34	91.60	23.449			
3,700.00	3,646.02	3,648.34	3,648.02	13.58	80.52	7.59	2,649.43	581.46	2,129.05	2,035.40	93.65	22.734			
3,800.00	3,744.24	3,746.56	3,746.24	13.95	82.31	7.66	2,649.43	581.46	2,110.45	2,014.65	95.80	22.030			
3,900.00	3,842.47	3,845.20	3,844.88	14.33	84.11	7.73	2,650.08	581.46	2,092.49	1,994.53	97.95	21.362			
4,000.00	3,940.69	3,950.35	3,950.02	14.70	86.02	7.80	2,649.88	581.46	2,073.71	1,973.49	100.22	20.691			
4,100.00	4,038.92	4,041.25	4,040.92	15.07	87.68	7.87	2,649.43	581.46	2,054.66	1,952.42	102.24	20.096			
4,200.00	4,137.14	4,139.47	4,139.14	15.45	89.39	7.94	2,649.43	581.46	2,036.08	1,931.76	104.31	19.519			
4,300.00	4,235.37	4,237.70	4,237.37	15.82	91.10	8.02	2,649.43	581.46	2,017.49	1,911.11	106.38	18.964			
4,400.00	4,333.59	4,337.58	4,337.25	16.20	92.85	8.09	2,649.95	581.46	1,999.41	1,890.93	108.48	18.431			
4,500.00	4,431.81	4,439.20	4,438.87	16.57	94.62	8.17	2,649.78	581.46	1,980.67	1,870.06	110.61	17.907			
4,600.00	4,530.04	4,540.76	4,540.42	16.94	96.39	8.25	2,649.42	581.46	1,961.76	1,849.02	112.73	17.402			
4,700.00	4,628.26	4,630.60	4,630.26	17.32	98.14	8.33	2,649.43	581.46	1,943.18	1,828.33	114.85	16.919			
4,800.00	4,726.46	4,733.59	4,733.25	17.69	100.14	-17.11	2,649.60	581.46	1,924.65	1,807.45	117.20	16.422			
4,900.00	4,823.98	4,815.00	4,814.66	18.06	101.77	-41.31	2,649.43	581.46	1,905.53	1,786.33	119.21	15.985			
5,000.00	4,919.77	4,815.00	4,814.66	18.41	101.77	-55.62	2,649.43	581.46	1,889.67	1,770.18	119.49	15.815			
5,100.00	5,012.77	4,815.00	4,814.66	18.74	101.77	-64.12	2,649.43	581.46	1,879.13	1,759.65	119.48	15.727			

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #361 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.00 usft	
Survey Program: 327-INC-ONLY		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning	Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,200.00	5,101.98	4,815.00	4,814.66	19.06	101.77	-69.39	2,649.43	581.46	1,874.10	1,754.89	119.21	15.721	SF	
5,239.50	5,135.95	4,815.00	4,814.66	19.18	101.77	-70.88	2,649.43	581.46	1,873.66	1,754.62	119.04	15.739	CC, ES	
5,300.00	5,186.40	4,815.00	4,814.66	19.36	101.77	-72.68	2,649.43	581.46	1,874.70	1,755.97	118.73	15.790		
5,400.00	5,265.12	4,815.00	4,814.66	19.64	101.77	-74.64	2,649.43	581.46	1,880.90	1,762.79	118.10	15.926		
5,500.00	5,337.27	4,815.00	4,814.66	19.93	101.77	-75.63	2,649.43	581.46	1,892.58	1,775.16	117.42	16.118		
5,600.00	5,402.06	4,815.00	4,814.66	20.23	101.77	-75.86	2,649.43	581.46	1,909.52	1,792.77	116.75	16.355		
5,700.00	5,458.78	4,815.00	4,814.66	20.56	101.77	-75.45	2,649.43	581.46	1,931.40	1,815.21	116.19	16.623		
5,800.00	5,509.14	4,815.00	4,814.66	20.93	101.77	-75.24	2,649.43	581.46	1,957.94	1,842.19	115.74	16.916		
5,900.00	5,559.14	4,815.00	4,814.66	21.35	101.77	-75.24	2,649.43	581.46	1,989.14	1,873.81	115.32	17.248		
6,000.00	5,605.15	4,815.00	4,814.66	21.81	101.77	-72.69	2,649.43	581.46	2,023.67	1,908.67	115.01	17.596		
6,100.00	5,635.72	4,815.00	4,814.66	22.29	101.77	-69.25	2,649.43	581.46	2,057.85	1,942.82	115.04	17.889		
6,200.00	5,649.31	4,815.00	4,814.66	22.76	101.77	-66.05	2,649.43	581.46	2,090.53	1,975.09	115.44	18.110		
6,300.00	5,650.00	4,815.00	4,814.66	23.24	101.77	-65.40	2,649.43	581.46	2,121.86	2,005.75	116.11	18.275		
6,400.00	5,650.00	4,815.00	4,814.66	23.77	101.77	-65.69	2,649.43	581.46	2,154.26	2,037.45	116.81	18.443		
6,500.00	5,650.00	4,815.00	4,814.66	24.33	101.77	-65.98	2,649.43	581.46	2,187.79	2,070.28	117.51	18.618		
6,600.00	5,650.00	4,815.00	4,814.66	24.94	101.77	-66.08	2,649.43	581.46	2,222.98	2,104.76	118.22	18.804		
6,700.00	5,650.00	4,815.00	4,814.66	25.59	101.77	-66.08	2,649.43	581.46	2,261.86	2,142.92	118.94	19.017		
6,800.00	5,650.00	4,815.00	4,814.66	26.26	101.77	-66.08	2,649.43	581.46	2,304.42	2,184.76	119.66	19.258		
6,900.00	5,650.00	4,815.00	4,814.66	26.97	101.77	-66.08	2,649.43	581.46	2,350.47	2,230.10	120.37	19.527		
7,000.00	5,650.00	4,815.00	4,814.66	27.71	101.77	-66.08	2,649.43	581.46	2,399.80	2,278.73	121.07	19.822		
7,100.00	5,650.00	4,815.00	4,814.66	28.47	101.77	-66.08	2,649.43	581.46	2,452.22	2,330.47	121.75	20.141		
7,200.00	5,650.00	4,815.00	4,814.66	29.25	101.77	-66.08	2,649.43	581.46	2,507.54	2,385.13	122.41	20.485		
7,300.00	5,650.00	4,815.00	4,814.66	30.06	101.77	-66.08	2,649.43	581.46	2,565.56	2,442.52	123.04	20.852		
7,400.00	5,650.00	4,815.00	4,814.66	30.88	101.77	-66.08	2,649.43	581.46	2,626.11	2,502.47	123.64	21.240		
7,500.00	5,650.00	4,815.00	4,814.66	31.73	101.77	-66.08	2,649.43	581.46	2,689.01	2,564.80	124.22	21.648		
7,600.00	5,650.00	4,815.00	4,814.66	32.59	101.77	-66.08	2,649.43	581.46	2,754.12	2,629.35	124.76	22.075		
7,700.00	5,650.00	4,815.00	4,814.66	33.47	101.77	-66.08	2,649.43	581.46	2,821.26	2,695.98	125.28	22.520		
7,800.00	5,650.00	4,815.00	4,814.66	34.36	101.77	-66.08	2,649.43	581.46	2,890.30	2,764.54	125.77	22.981		
7,900.00	5,650.00	4,815.00	4,814.66	35.26	101.77	-66.08	2,649.43	581.46	2,961.11	2,834.89	126.23	23.459		
8,000.00	5,650.00	4,815.00	4,814.66	36.18	101.77	-66.08	2,649.43	581.46	3,033.57	2,906.91	126.66	23.950		
8,100.00	5,650.00	4,815.00	4,814.66	37.11	101.77	-66.08	2,649.43	581.46	3,107.56	2,980.49	127.07	24.456		
8,200.00	5,650.00	4,815.00	4,814.66	38.05	101.77	-66.08	2,649.43	581.46	3,182.96	3,055.51	127.45	24.974		
8,300.00	5,650.00	4,815.00	4,814.66	39.00	101.77	-66.08	2,649.43	581.46	3,259.69	3,131.88	127.81	25.503		
8,400.00	5,650.00	4,815.00	4,814.66	39.96	101.77	-66.08	2,649.43	581.46	3,337.66	3,209.50	128.16	26.044		
8,500.00	5,650.00	4,815.00	4,814.66	40.93	101.77	-66.08	2,649.43	581.46	3,416.77	3,288.29	128.48	26.595		
8,600.00	5,650.00	4,815.00	4,814.66	41.90	101.77	-66.08	2,649.43	581.46	3,496.95	3,368.17	128.78	27.155		
8,700.00	5,650.00	4,815.00	4,814.66	42.89	101.77	-66.08	2,649.43	581.46	3,578.13	3,449.07	129.06	27.724		
8,800.00	5,650.00	4,815.00	4,814.66	43.88	101.77	-66.08	2,649.43	581.46	3,660.24	3,530.91	129.33	28.302		
8,900.00	5,650.00	4,815.00	4,814.66	44.87	101.77	-66.08	2,649.43	581.46	3,743.22	3,613.64	129.58	28.887		
9,000.00	5,650.00	4,815.00	4,814.66	45.88	101.77	-66.08	2,649.43	581.46	3,827.02	3,697.20	129.82	29.479		
9,100.00	5,650.00	4,815.00	4,814.66	46.88	101.77	-66.08	2,649.43	581.46	3,911.57	3,781.53	130.05	30.079		
9,200.00	5,650.00	4,815.00	4,814.66	47.90	101.77	-66.08	2,649.43	581.46	3,996.84	3,866.58	130.26	30.684		
9,300.00	5,650.00	4,815.00	4,814.66	48.92	101.77	-66.08	2,649.43	581.46	4,082.78	3,952.32	130.46	31.295		
9,400.00	5,650.00	4,815.00	4,814.66	49.94	101.77	-66.08	2,649.43	581.46	4,169.35	4,038.69	130.65	31.912		
9,500.00	5,650.00	4,815.00	4,814.66	50.97	101.77	-66.08	2,649.43	581.46	4,256.50	4,125.67	130.84	32.533		
9,600.00	5,650.00	4,815.00	4,814.66	52.00	101.77	-66.08	2,649.43	581.46	4,344.21	4,213.20	131.01	33.160		
9,700.00	5,650.00	4,815.00	4,814.66	53.03	101.77	-66.08	2,649.43	581.46	4,432.44	4,301.26	131.17	33.790		
9,800.00	5,650.00	4,815.00	4,814.66	54.07	101.77	-66.08	2,649.43	581.46	4,521.16	4,389.82	131.33	34.425		
9,900.00	5,650.00	4,815.00	4,814.66	55.12	101.77	-66.08	2,649.43	581.46	4,610.34	4,478.85	131.48	35.064		
10,000.00	5,650.00	4,815.00	4,814.66	56.16	101.77	-66.08	2,649.43	581.46	4,699.95	4,568.33	131.63	35.707		
10,100.00	5,650.00	4,815.00	4,814.66	57.21	101.77	-66.08	2,649.43	581.46	4,789.98	4,658.22	131.77	36.352		
10,200.00	5,650.00	4,815.00	4,814.66	58.26	101.77	-66.08	2,649.43	581.46	4,880.40	4,748.50	131.90	37.001		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - BURCH KEELY UNIT #361 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program:		327-INC-ONLY											Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned:				Warning	
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside			Distance					
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Between	Between	Minimum	Separation		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	Centres	Ellipses	Separation	Factor		
10,300.00	5,650.00	4,815.00	4,814.66	59.32	101.77	-66.08	2,649.43	581.46	4,971.18	4,839.15	132.02	37.653		

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #656 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.00 usft
Survey Program: 167-INC-ONLY		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	8.00	8.00	0.00	0.06	-1.13	1,627.78	-32.09	1,628.10				
100.00	100.00	108.00	108.00	0.29	0.87	-1.13	1,627.78	-32.09	1,628.10	1,626.94	1.15	1,412.751	
200.00	200.00	208.00	208.00	0.65	2.07	-1.13	1,627.78	-32.09	1,628.10	1,625.38	2.71	599.754	
300.00	300.00	308.00	308.00	1.00	3.87	-1.13	1,627.78	-32.09	1,628.10	1,623.22	4.88	333.839	
400.00	399.98	408.21	408.21	1.36	5.70	-7.67	1,627.96	-32.09	1,626.55	1,619.49	7.07	230.187	
500.00	499.84	511.16	511.16	1.73	7.58	-7.71	1,627.85	-32.09	1,621.26	1,611.95	9.31	174.154	
600.00	599.45	607.45	607.45	2.09	9.59	-7.77	1,627.78	-32.09	1,612.54	1,600.86	11.68	138.056	
700.00	698.70	706.70	706.70	2.45	11.78	-7.87	1,627.78	-32.09	1,600.47	1,586.24	14.23	112.438	
800.00	797.47	808.08	808.07	2.81	14.02	-7.99	1,628.26	-32.09	1,585.45	1,568.62	16.83	94.181	
900.00	895.74	910.48	910.47	3.17	16.28	-8.11	1,627.95	-32.09	1,566.86	1,547.40	19.45	80.541	
1,000.00	993.97	1,001.99	1,001.97	3.52	18.56	-8.20	1,627.78	-32.09	1,548.09	1,526.01	22.08	70.110	
1,100.00	1,092.19	1,100.22	1,100.19	3.89	21.10	-8.30	1,627.78	-32.09	1,529.52	1,504.55	24.97	61.250	
1,200.00	1,190.42	1,198.46	1,198.42	4.26	23.41	-8.40	1,627.78	-32.09	1,510.95	1,483.31	27.63	54.679	
1,300.00	1,288.64	1,314.78	1,314.73	4.63	26.00	-8.53	1,627.60	-32.09	1,492.31	1,461.73	30.58	48.803	
1,400.00	1,386.86	1,395.80	1,395.75	5.00	27.68	-8.62	1,628.26	-32.09	1,474.31	1,441.70	32.61	45.211	
1,500.00	1,485.09	1,493.16	1,493.09	5.37	29.68	-8.73	1,627.78	-32.09	1,455.27	1,420.30	34.97	41.620	
1,600.00	1,583.31	1,591.38	1,591.31	5.74	31.38	-8.84	1,627.78	-32.09	1,436.72	1,399.70	37.02	38.808	
1,700.00	1,681.54	1,689.60	1,689.54	6.11	33.08	-8.96	1,627.78	-32.09	1,418.17	1,379.10	39.08	36.292	
1,800.00	1,779.76	1,790.99	1,790.91	6.49	34.83	-9.08	1,628.37	-32.09	1,400.23	1,359.05	41.19	33.998	
1,900.00	1,877.98	1,893.00	1,892.93	6.86	36.60	-9.21	1,628.00	-32.09	1,381.34	1,338.04	43.31	31.898	
2,000.00	1,976.21	1,984.29	1,984.21	7.23	38.22	-9.32	1,627.78	-32.09	1,362.58	1,317.29	45.29	30.086	
2,100.00	2,074.43	2,082.51	2,082.43	7.60	40.01	-9.45	1,627.78	-32.09	1,344.06	1,296.63	47.43	28.338	
2,200.00	2,172.66	2,180.85	2,180.77	7.98	41.79	-9.59	1,627.87	-32.09	1,325.63	1,276.06	49.57	26.741	
2,300.00	2,270.88	2,279.52	2,279.44	8.35	43.59	-9.72	1,627.84	-32.09	1,307.10	1,255.38	51.72	25.272	
2,400.00	2,369.11	2,378.18	2,378.10	8.72	45.38	-9.87	1,627.78	-32.09	1,288.55	1,234.68	53.87	23.920	
2,500.00	2,467.33	2,475.41	2,475.33	9.10	47.34	-10.01	1,627.78	-32.09	1,270.05	1,213.86	56.19	22.602	
2,600.00	2,565.55	2,573.89	2,573.80	9.47	49.34	-10.16	1,628.52	-32.09	1,252.31	1,193.76	58.55	21.390	
2,700.00	2,663.78	2,677.45	2,677.36	9.84	51.44	-10.32	1,628.27	-32.09	1,233.60	1,172.60	61.00	20.223	
2,800.00	2,762.00	2,770.10	2,770.00	10.22	53.29	-10.47	1,627.78	-32.09	1,214.63	1,151.42	63.22	19.214	
2,900.00	2,860.23	2,868.32	2,868.23	10.59	55.09	-10.63	1,627.78	-32.09	1,196.18	1,130.81	65.37	18.299	
3,000.00	2,958.45	2,966.55	2,966.45	10.96	56.88	-10.80	1,627.78	-32.09	1,177.73	1,110.21	67.52	17.443	
3,100.00	3,056.67	3,067.18	3,067.08	11.34	58.72	-10.98	1,628.54	-32.09	1,160.06	1,090.35	69.71	16.641	
3,200.00	3,154.90	3,168.76	3,168.65	11.71	60.57	-11.16	1,628.18	-32.09	1,141.28	1,069.36	71.92	15.869	
3,300.00	3,253.12	3,261.23	3,261.12	12.08	62.24	-11.34	1,627.78	-32.09	1,122.46	1,048.50	73.96	15.177	
3,400.00	3,351.35	3,359.46	3,359.35	12.46	63.96	-11.53	1,627.78	-32.09	1,104.06	1,028.02	76.03	14.521	
3,500.00	3,449.57	3,457.83	3,457.72	12.83	65.69	-11.73	1,627.96	-32.09	1,085.85	1,007.73	78.11	13.901	
3,600.00	3,547.80	3,556.94	3,556.83	13.20	67.42	-11.94	1,627.90	-32.09	1,067.41	987.21	80.21	13.308	
3,700.00	3,646.02	3,654.13	3,654.02	13.58	69.13	-12.15	1,627.78	-32.09	1,048.93	966.65	82.27	12.749	
3,800.00	3,744.24	3,752.36	3,752.24	13.95	70.93	-12.37	1,627.78	-32.09	1,030.58	946.14	84.44	12.205	
3,900.00	3,842.47	3,850.58	3,850.47	14.33	72.74	-12.59	1,627.78	-32.09	1,012.24	925.64	86.60	11.689	
4,000.00	3,940.69	3,949.92	3,949.81	14.70	74.56	-12.83	1,628.27	-32.09	994.41	905.63	88.78	11.200	
4,100.00	4,038.92	4,049.90	4,049.79	15.07	76.40	-13.08	1,628.06	-32.09	975.91	884.93	90.98	10.727	
4,200.00	4,137.14	4,145.26	4,145.14	15.45	78.14	-13.33	1,627.78	-32.09	957.34	864.26	93.08	10.285	
4,300.00	4,235.37	4,243.48	4,243.37	15.82	79.90	-13.59	1,627.78	-32.09	939.08	843.88	95.20	9.864	
4,400.00	4,333.59	4,341.71	4,341.59	16.20	81.66	-13.86	1,627.78	-32.09	920.83	823.52	97.32	9.462	
4,500.00	4,431.81	4,441.40	4,441.28	16.57	83.44	-14.15	1,628.21	-32.09	903.04	803.58	99.46	9.080	
4,600.00	4,530.04	4,541.28	4,541.15	16.94	85.23	-14.45	1,627.95	-32.09	884.58	782.98	101.60	8.707	
4,700.00	4,628.26	4,636.39	4,636.26	17.32	86.91	-14.76	1,627.78	-32.09	866.23	762.59	103.65	8.358	
4,800.00	4,726.46	4,656.00	4,655.88	17.69	87.25	-39.86	1,627.78	-32.09	852.90	748.77	104.13	8.191 SF	
4,838.87	4,764.50	4,656.00	4,655.88	17.83	87.25	-50.10	1,627.78	-32.09	851.73	747.87	103.85	8.201 CC, ES	
4,900.00	4,823.98	4,656.00	4,655.88	18.06	87.25	-62.54	1,627.78	-32.09	854.62	751.60	103.02	8.296	
5,000.00	4,919.77	4,656.00	4,655.88	18.41	87.25	-74.91	1,627.78	-32.09	871.58	770.85	100.74	8.652	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #656 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 167-INC-ONLY												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,012.77	4,656.00	4,655.88	18.74	87.25	-80.92	1,627.78	-32.09	902.75	805.06	97.69	9.241	
5,200.00	5,101.98	4,656.00	4,655.88	19.06	87.25	-83.08	1,627.78	-32.09	946.41	852.02	94.38	10.027	
5,300.00	5,186.40	4,656.00	4,655.88	19.36	87.25	-82.65	1,627.78	-32.09	1,000.47	909.20	91.28	10.961	
5,400.00	5,265.12	4,656.00	4,655.88	19.64	87.25	-80.26	1,627.78	-32.09	1,062.82	974.12	88.70	11.982	
5,500.00	5,337.27	4,656.00	4,655.88	19.93	87.25	-76.30	1,627.78	-32.09	1,131.46	1,044.63	86.82	13.032	
5,600.00	5,402.06	4,656.00	4,655.88	20.23	87.25	-71.12	1,627.78	-32.09	1,204.62	1,118.92	85.70	14.056	
5,700.00	5,458.78	4,656.00	4,655.88	20.56	87.25	-65.08	1,627.78	-32.09	1,280.82	1,195.52	85.29	15.017	
5,800.00	5,509.14	4,656.00	4,655.88	20.93	87.25	-63.28	1,627.78	-32.09	1,359.22	1,273.82	85.40	15.917	
5,900.00	5,559.14	4,656.00	4,655.88	21.35	87.25	-63.28	1,627.78	-32.09	1,440.24	1,354.63	85.61	16.824	
6,000.00	5,605.15	4,656.00	4,655.88	21.81	87.25	-54.54	1,627.78	-32.09	1,522.28	1,436.24	86.04	17.692	
6,100.00	5,635.72	4,656.00	4,655.88	22.29	87.25	-44.87	1,627.78	-32.09	1,600.83	1,513.74	87.09	18.382	
6,200.00	5,649.31	4,656.00	4,655.88	22.76	87.25	-37.78	1,627.78	-32.09	1,674.00	1,585.36	88.64	18.885	
6,300.00	5,650.00	4,656.00	4,655.88	23.24	87.25	-37.25	1,627.78	-32.09	1,742.72	1,652.28	90.45	19.268	
6,400.00	5,650.00	4,656.00	4,655.88	23.77	87.25	-38.78	1,627.78	-32.09	1,812.57	1,720.47	92.09	19.682	
6,500.00	5,650.00	4,656.00	4,655.88	24.33	87.25	-40.34	1,627.78	-32.09	1,883.64	1,790.07	93.57	20.130	
6,600.00	5,650.00	4,656.00	4,655.88	24.94	87.25	-40.90	1,627.78	-32.09	1,956.04	1,861.14	94.90	20.611	
6,700.00	5,650.00	4,656.00	4,655.88	25.59	87.25	-40.90	1,627.78	-32.09	2,030.69	1,934.57	96.12	21.126	
6,800.00	5,650.00	4,656.00	4,655.88	26.26	87.25	-40.90	1,627.78	-32.09	2,107.45	2,010.21	97.24	21.673	
6,900.00	5,650.00	4,656.00	4,655.88	26.97	87.25	-40.90	1,627.78	-32.09	2,186.08	2,087.82	98.26	22.249	
7,000.00	5,650.00	4,656.00	4,655.88	27.71	87.25	-40.90	1,627.78	-32.09	2,266.40	2,167.21	99.18	22.850	
7,100.00	5,650.00	4,656.00	4,655.88	28.47	87.25	-40.90	1,627.78	-32.09	2,348.23	2,248.20	100.03	23.475	
7,200.00	5,650.00	4,656.00	4,655.88	29.25	87.25	-40.90	1,627.78	-32.09	2,431.42	2,330.61	100.80	24.120	
7,300.00	5,650.00	4,656.00	4,655.88	30.06	87.25	-40.90	1,627.78	-32.09	2,515.83	2,414.32	101.51	24.784	
7,400.00	5,650.00	4,656.00	4,655.88	30.88	87.25	-40.90	1,627.78	-32.09	2,601.35	2,499.19	102.16	25.463	
7,500.00	5,650.00	4,656.00	4,655.88	31.73	87.25	-40.90	1,627.78	-32.09	2,687.87	2,585.12	102.75	26.158	
7,600.00	5,650.00	4,656.00	4,655.88	32.59	87.25	-40.90	1,627.78	-32.09	2,775.29	2,671.99	103.30	26.866	
7,700.00	5,650.00	4,656.00	4,655.88	33.47	87.25	-40.90	1,627.78	-32.09	2,863.54	2,759.74	103.80	27.586	
7,800.00	5,650.00	4,656.00	4,655.88	34.36	87.25	-40.90	1,627.78	-32.09	2,952.54	2,848.27	104.27	28.317	
7,900.00	5,650.00	4,656.00	4,655.88	35.26	87.25	-40.90	1,627.78	-32.09	3,042.22	2,937.52	104.70	29.058	
8,000.00	5,650.00	4,656.00	4,655.88	36.18	87.25	-40.90	1,627.78	-32.09	3,132.53	3,027.43	105.09	29.807	
8,100.00	5,650.00	4,656.00	4,655.88	37.11	87.25	-40.90	1,627.78	-32.09	3,223.40	3,117.94	105.46	30.564	
8,200.00	5,650.00	4,656.00	4,655.88	38.05	87.25	-40.90	1,627.78	-32.09	3,314.81	3,209.00	105.81	31.329	
8,300.00	5,650.00	4,656.00	4,655.88	39.00	87.25	-40.90	1,627.78	-32.09	3,406.69	3,300.57	106.13	32.100	
8,400.00	5,650.00	4,656.00	4,655.88	39.96	87.25	-40.90	1,627.78	-32.09	3,499.03	3,392.60	106.43	32.877	
8,500.00	5,650.00	4,656.00	4,655.88	40.93	87.25	-40.90	1,627.78	-32.09	3,591.77	3,485.06	106.71	33.660	
8,600.00	5,650.00	4,656.00	4,655.88	41.90	87.25	-40.90	1,627.78	-32.09	3,684.89	3,577.92	106.97	34.447	
8,700.00	5,650.00	4,656.00	4,655.88	42.89	87.25	-40.90	1,627.78	-32.09	3,778.36	3,671.14	107.22	35.239	
8,800.00	5,650.00	4,656.00	4,655.88	43.88	87.25	-40.90	1,627.78	-32.09	3,872.16	3,764.71	107.45	36.036	
8,900.00	5,650.00	4,656.00	4,655.88	44.87	87.25	-40.90	1,627.78	-32.09	3,966.27	3,858.59	107.68	36.835	
9,000.00	5,650.00	4,656.00	4,655.88	45.88	87.25	-40.90	1,627.78	-32.09	4,060.65	3,952.77	107.88	37.639	
9,100.00	5,650.00	4,656.00	4,655.88	46.88	87.25	-40.90	1,627.78	-32.09	4,155.30	4,047.21	108.08	38.445	
9,200.00	5,650.00	4,656.00	4,655.88	47.90	87.25	-40.90	1,627.78	-32.09	4,250.19	4,141.92	108.27	39.254	
9,300.00	5,650.00	4,656.00	4,655.88	48.92	87.25	-40.90	1,627.78	-32.09	4,345.31	4,236.86	108.45	40.066	
9,400.00	5,650.00	4,656.00	4,655.88	49.94	87.25	-40.90	1,627.78	-32.09	4,440.65	4,332.02	108.63	40.880	
9,500.00	5,650.00	4,656.00	4,655.88	50.97	87.25	-40.90	1,627.78	-32.09	4,536.18	4,427.39	108.79	41.696	
9,600.00	5,650.00	4,656.00	4,655.88	52.00	87.25	-40.90	1,627.78	-32.09	4,631.91	4,522.96	108.95	42.514	
9,700.00	5,650.00	4,656.00	4,655.88	53.03	87.25	-40.90	1,627.78	-32.09	4,727.81	4,618.71	109.10	43.334	
9,800.00	5,650.00	4,656.00	4,655.88	54.07	87.25	-40.90	1,627.78	-32.09	4,823.88	4,714.63	109.25	44.155	
9,900.00	5,650.00	4,656.00	4,655.88	55.12	87.25	-40.90	1,627.78	-32.09	4,920.10	4,810.71	109.39	44.978	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #788 - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning		
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
0.00	0.00	0.00	0.00	0.00	0.00	49.08	556.34	641.85	849.54						
100.00	100.00	83.23	83.23	0.29	0.15	49.08	556.38	641.93	849.49	849.06	0.44	1,948.059			
200.00	200.00	186.35	186.35	0.65	0.48	49.08	556.45	641.98	849.57	848.45	1.12	755.932			
300.00	300.00	289.14	289.14	1.00	0.84	49.07	556.33	641.62	849.24	847.40	1.84	461.529			
400.00	399.98	386.88	386.88	1.36	1.18	42.63	556.23	641.21	847.56	845.02	2.54	333.284			
500.00	499.84	484.92	484.91	1.73	1.53	42.90	556.44	640.88	843.61	840.36	3.25	259.540			
600.00	599.45	581.85	581.84	2.09	1.87	43.35	556.84	640.73	837.38	833.43	3.95	211.825			
700.00	698.70	680.98	680.98	2.45	2.22	44.00	557.50	640.62	828.88	824.22	4.66	177.703			
800.00	797.47	776.39	776.39	2.81	2.56	44.86	558.08	640.75	818.13	812.78	5.36	152.657			
900.00	895.74	864.14	864.12	3.17	2.86	45.75	558.71	641.70	806.34	800.31	6.02	133.844			
1,000.00	993.97	956.31	956.26	3.52	3.18	46.65	560.18	643.63	795.86	789.15	6.71	118.693			
1,100.00	1,092.19	1,054.71	1,054.62	3.89	3.53	47.63	561.98	645.84	785.88	778.46	7.41	106.016			
1,200.00	1,190.42	1,153.87	1,153.74	4.26	3.88	48.65	563.64	648.11	776.07	767.95	8.12	95.517			
1,300.00	1,288.64	1,258.04	1,257.88	4.63	4.25	49.76	565.04	650.26	766.16	757.31	8.86	86.505			
1,400.00	1,386.86	1,358.14	1,357.96	5.00	4.61	50.84	566.30	651.75	756.00	746.42	9.58	78.939			
1,500.00	1,485.09	1,457.36	1,457.16	5.37	4.96	51.86	568.20	652.59	745.90	735.60	10.30	72.439			
1,600.00	1,583.31	1,564.93	1,564.69	5.74	5.35	52.93	570.97	652.78	735.85	724.80	11.04	66.625			
1,700.00	1,681.54	1,664.75	1,664.44	6.11	5.70	53.84	574.23	651.31	724.92	713.16	11.77	61.609			
1,800.00	1,779.76	1,769.93	1,769.57	6.49	6.07	54.85	577.11	649.30	713.55	701.04	12.50	57.065			
1,900.00	1,877.98	1,865.99	1,865.57	6.86	6.41	55.80	579.58	647.18	702.04	688.82	13.22	53.120			
2,000.00	1,976.21	1,960.70	1,960.23	7.23	6.75	56.77	582.26	645.80	691.51	677.59	13.93	49.654			
2,100.00	2,074.43	2,065.00	2,064.48	7.60	7.12	57.87	585.27	644.16	681.15	666.49	14.67	46.445			
2,200.00	2,172.66	2,164.56	2,163.97	7.98	7.48	58.95	587.78	641.74	670.08	654.69	15.39	43.537			
2,300.00	2,270.88	2,260.87	2,260.22	8.35	7.82	60.00	590.64	639.66	659.69	643.58	16.11	40.949			
2,400.00	2,369.11	2,356.62	2,355.92	8.72	8.17	61.11	593.22	638.00	649.82	632.99	16.83	38.613			
2,500.00	2,467.33	2,453.27	2,452.52	9.10	8.51	62.26	596.10	636.71	640.69	623.13	17.55	36.503			
2,600.00	2,565.55	2,551.95	2,551.14	9.47	8.87	63.47	598.99	635.56	631.97	613.69	18.28	34.570			
2,700.00	2,663.78	2,649.66	2,648.81	9.84	9.22	64.70	601.89	634.43	623.57	604.56	19.01	32.805			
2,800.00	2,762.00	2,748.45	2,747.54	10.22	9.58	65.97	604.89	633.41	615.61	595.87	19.74	31.187			
2,900.00	2,860.23	2,847.65	2,846.71	10.59	9.93	67.32	607.55	632.41	607.89	587.41	20.47	29.694			
3,000.00	2,958.45	2,946.75	2,945.77	10.96	10.29	68.71	610.00	631.39	600.43	579.23	21.20	28.316			
3,100.00	3,056.67	3,046.13	3,045.11	11.34	10.65	70.12	612.60	630.23	593.25	571.31	21.94	27.042			
3,200.00	3,154.90	3,146.40	3,145.33	11.71	11.01	71.57	615.31	628.84	586.23	563.56	22.67	25.854			
3,300.00	3,253.12	3,244.00	3,242.89	12.08	11.36	73.02	617.85	627.44	579.54	556.13	23.40	24.762			
3,400.00	3,351.35	3,342.05	3,340.90	12.46	11.71	74.50	620.48	626.18	573.39	549.25	24.14	23.757			
3,500.00	3,449.57	3,441.42	3,440.22	12.83	12.07	76.03	623.18	624.84	567.60	542.73	24.87	22.822			
3,600.00	3,547.80	3,537.19	3,535.97	13.20	12.42	77.61	625.01	623.89	562.48	536.89	25.59	21.976			
3,700.00	3,646.02	3,637.06	3,635.82	13.58	12.77	79.34	626.43	623.01	557.91	531.58	26.33	21.190			
3,800.00	3,744.24	3,734.12	3,732.86	13.95	13.12	80.98	628.48	622.17	553.89	526.84	27.06	20.472			
3,900.00	3,842.47	3,840.04	3,838.74	14.33	13.50	82.76	630.98	621.22	550.38	522.58	27.81	19.794			
4,000.00	3,940.69	3,937.84	3,937.30	14.70	13.98	85.14	633.40	613.94	542.80	514.24	28.56	19.006			
4,100.00	4,038.92	4,115.66	4,112.87	15.07	14.50	87.52	638.63	596.33	528.92	499.76	29.16	18.141			
4,200.00	4,137.14	4,218.63	4,214.22	15.45	14.89	89.27	643.59	578.80	510.82	480.97	29.85	17.115			
4,300.00	4,235.37	4,317.51	4,311.42	15.82	15.27	91.13	648.01	561.22	492.45	461.90	30.55	16.118			
4,400.00	4,333.59	4,420.71	4,412.67	16.20	15.68	93.24	652.53	541.74	473.56	442.34	31.23	15.165			
4,500.00	4,431.81	4,519.71	4,509.60	16.57	16.08	95.45	656.92	522.13	454.36	422.43	31.93	14.231			
4,600.00	4,530.04	4,616.63	4,604.48	16.94	16.48	97.78	661.38	502.80	435.69	403.04	32.65	13.346			
4,700.00	4,628.26	4,714.16	4,699.90	17.32	16.89	100.36	665.62	483.13	417.64	384.28	33.36	12.519			
4,800.00	4,726.46	4,768.00	4,752.57	17.69	17.11	77.52	667.83	472.15	399.33	365.01	34.33	11.633			
4,899.99	4,823.97	4,768.00	4,752.57	18.06	17.11	54.80	667.83	472.15	391.86	357.62	34.23	11.446 CC, ES, SF			
4,900.00	4,823.98	4,768.00	4,752.57	18.06	17.11	54.79	667.83	472.15	391.86	357.62	34.23	11.446			
5,000.00	4,919.77	4,768.00	4,752.57	18.41	17.11	41.40	667.83	472.15	399.34	367.14	32.20	12.401			

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #788 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft		
Survey Program: 100-MWD+IGRF		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:		Minimum Separation (usft)	Separation Factor	Warning	Offset Well Error:		0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)						
5,100.00	5,012.77	4,768.00	4,752.57	18.74	17.11	33.39	667.83	472.15	420.90	392.21	28.69	14.671				
5,200.00	5,101.98	4,768.00	4,752.57	19.06	17.11	28.20	667.83	472.15	454.33	429.86	24.47	18.568				
5,300.00	5,186.40	4,768.00	4,752.57	19.36	17.11	24.59	667.83	472.15	496.92	476.64	20.28	24.502				
5,400.00	5,265.12	4,768.00	4,752.57	19.64	17.11	21.92	667.83	472.15	546.13	529.44	16.69	32.728				
5,500.00	5,337.27	4,768.00	4,752.57	19.93	17.11	19.88	667.83	472.15	599.86	585.74	14.12	42.472				
5,600.00	5,402.06	4,768.00	4,752.57	20.23	17.11	18.28	667.83	472.15	656.49	643.57	12.92	50.804				
5,700.00	5,458.78	4,768.00	4,752.57	20.56	17.11	17.00	667.83	472.15	714.79	701.69	13.10	54.564				
5,800.00	5,509.14	4,768.00	4,752.57	20.93	17.11	16.69	667.83	472.15	775.90	761.64	14.26	54.424				
5,900.00	5,559.14	4,768.00	4,752.57	21.35	17.11	16.69	667.83	472.15	844.17	828.37	15.80	53.439				
6,000.00	5,605.15	4,768.00	4,752.57	21.81	17.11	14.74	667.83	472.15	915.37	897.95	17.42	52.539				
6,100.00	5,635.72	4,768.00	4,752.57	22.29	17.11	12.70	667.83	472.15	980.54	961.32	19.22	51.013				
6,200.00	5,649.31	4,768.00	4,752.57	22.76	17.11	11.22	667.83	472.15	1,038.63	1,017.49	21.15	49.119				
6,300.00	5,650.00	4,768.00	4,752.57	23.24	17.11	9.95	667.83	472.15	1,093.01	1,069.92	23.09	47.344				
6,400.00	5,650.00	4,768.00	4,752.57	23.77	17.11	8.46	667.83	472.15	1,153.43	1,128.59	24.84	46.435				
6,500.00	5,650.00	4,768.00	4,752.57	24.33	17.11	6.71	667.83	472.15	1,219.45	1,193.08	26.37	46.248				
6,600.00	5,650.00	4,768.00	4,752.57	24.94	17.11	6.02	667.83	472.15	1,290.08	1,262.39	27.68	46.600				
6,700.00	5,650.00	4,768.00	4,752.57	25.59	17.11	6.02	667.83	472.15	1,364.40	1,335.58	28.81	47.351				
6,800.00	5,650.00	4,768.00	4,752.57	26.26	17.11	6.02	667.83	472.15	1,441.83	1,412.04	29.79	48.405				
6,900.00	5,650.00	4,768.00	4,752.57	26.97	17.11	6.02	667.83	472.15	1,521.89	1,491.27	30.62	49.697				
7,000.00	5,650.00	4,768.00	4,752.57	27.71	17.11	6.02	667.83	472.15	1,604.20	1,572.85	31.35	51.177				
7,100.00	5,650.00	4,768.00	4,752.57	28.47	17.11	6.02	667.83	472.15	1,688.41	1,656.44	31.97	52.808				
7,200.00	5,650.00	4,768.00	4,752.57	29.25	17.11	6.02	667.83	472.15	1,774.27	1,741.75	32.52	54.562				
7,300.00	5,650.00	4,768.00	4,752.57	30.06	17.11	6.02	667.83	472.15	1,861.54	1,828.54	33.00	56.415				
7,400.00	5,650.00	4,768.00	4,752.57	30.88	17.11	6.02	667.83	472.15	1,950.03	1,916.61	33.42	58.352				
7,500.00	5,650.00	4,768.00	4,752.57	31.73	17.11	6.02	667.83	472.15	2,039.58	2,005.79	33.79	60.358				
7,600.00	5,650.00	4,768.00	4,752.57	32.59	17.11	6.02	667.83	472.15	2,130.07	2,095.94	34.12	62.422				
7,700.00	5,650.00	4,768.00	4,752.57	33.47	17.11	6.02	667.83	472.15	2,221.37	2,186.95	34.42	64.534				
7,800.00	5,650.00	4,768.00	4,752.57	34.36	17.11	6.02	667.83	472.15	2,313.39	2,278.70	34.69	66.688				
7,900.00	5,650.00	4,768.00	4,752.57	35.26	17.11	6.02	667.83	472.15	2,406.05	2,371.11	34.93	68.878				
8,000.00	5,650.00	4,768.00	4,752.57	36.18	17.11	6.02	667.83	472.15	2,499.27	2,464.12	35.15	71.097				
8,100.00	5,650.00	4,768.00	4,752.57	37.11	17.11	6.02	667.83	472.15	2,593.00	2,557.64	35.36	73.341				
8,200.00	5,650.00	4,768.00	4,752.57	38.05	17.11	6.02	667.83	472.15	2,687.18	2,651.64	35.54	75.608				
8,300.00	5,650.00	4,768.00	4,752.57	39.00	17.11	6.02	667.83	472.15	2,781.77	2,746.05	35.71	77.893				
8,400.00	5,650.00	4,768.00	4,752.57	39.96	17.11	6.02	667.83	472.15	2,876.72	2,840.85	35.87	80.193				
8,500.00	5,650.00	4,768.00	4,752.57	40.93	17.11	6.02	667.83	472.15	2,972.00	2,935.98	36.02	82.507				
8,600.00	5,650.00	4,768.00	4,752.57	41.90	17.11	6.02	667.83	472.15	3,067.59	3,031.43	36.16	84.832				
8,700.00	5,650.00	4,768.00	4,752.57	42.89	17.11	6.02	667.83	472.15	3,163.44	3,127.15	36.29	87.167				
8,800.00	5,650.00	4,768.00	4,752.57	43.88	17.11	6.02	667.83	472.15	3,259.55	3,223.13	36.42	89.509				
8,900.00	5,650.00	4,768.00	4,752.57	44.87	17.11	6.02	667.83	472.15	3,355.88	3,319.35	36.53	91.857				
9,000.00	5,650.00	4,768.00	4,752.57	45.88	17.11	6.02	667.83	472.15	3,452.43	3,415.78	36.65	94.210				
9,100.00	5,650.00	4,768.00	4,752.57	46.88	17.11	6.02	667.83	472.15	3,549.16	3,512.41	36.75	96.567				
9,200.00	5,650.00	4,768.00	4,752.57	47.90	17.11	6.02	667.83	472.15	3,646.07	3,609.21	36.86	98.927				
9,300.00	5,650.00	4,768.00	4,752.57	48.92	17.11	6.02	667.83	472.15	3,743.14	3,706.19	36.96	101.288				
9,400.00	5,650.00	4,768.00	4,752.57	49.94	17.11	6.02	667.83	472.15	3,840.37	3,803.31	37.05	103.650				
9,500.00	5,650.00	4,768.00	4,752.57	50.97	17.11	6.02	667.83	472.15	3,937.73	3,900.58	37.14	106.013				
9,600.00	5,650.00	4,768.00	4,752.57	52.00	17.11	6.02	667.83	472.15	4,035.22	3,997.98	37.23	108.374				
9,700.00	5,650.00	4,768.00	4,752.57	53.03	17.11	6.02	667.83	472.15	4,132.83	4,095.51	37.32	110.735				
9,800.00	5,650.00	4,768.00	4,752.57	54.07	17.11	6.02	667.83	472.15	4,230.55	4,193.14	37.41	113.094				
9,900.00	5,650.00	4,768.00	4,752.57	55.12	17.11	6.02	667.83	472.15	4,328.38	4,290.89	37.49	115.450				
10,000.00	5,650.00	4,751.70	4,736.63	56.16	17.05	5.96	667.16	475.47	4,426.27	4,388.77	37.50	118.041				
10,100.00	5,650.00	4,731.33	4,716.70	57.21	16.96	5.88	666.33	479.63	4,524.17	4,486.68	37.49	120.689				
10,200.00	5,650.00	4,712.20	4,697.99	58.26	16.88	5.82	665.54	483.52	4,622.07	4,584.58	37.48	123.317				

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - BURCH KEELY UNIT #788 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
10,300.00	5,650.00	4,695.48	4,681.63	59.32	16.81	5.76	664.84	486.92	4,719.98	4,682.49	37.49	125.906		
10,400.00	5,650.00	4,678.89	4,665.40	60.38	16.74	5.70	664.13	490.28	4,817.90	4,780.40	37.50	128.490		
10,500.00	5,650.00	4,667.00	4,653.77	61.44	16.69	5.67	663.62	492.68	4,915.84	4,878.32	37.53	130.999		

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #962H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
1,100.00	1,092.19	9,536.62	4,882.66	3.89	149.28	-5.33	3,257.70	148.86	4,941.44	4,838.63	102.80	48.066		
1,200.00	1,190.42	9,536.42	4,882.66	4.26	149.28	-5.33	3,257.70	148.65	4,854.22	4,750.22	104.00	46.676		
1,300.00	1,288.64	9,536.21	4,882.66	4.63	149.27	-5.34	3,257.71	148.45	4,767.51	4,662.27	105.23	45.304		
1,400.00	1,386.86	9,536.00	4,882.67	5.00	149.26	-5.34	3,257.71	148.24	4,681.32	4,574.81	106.51	43.952		
1,500.00	1,485.09	9,535.79	4,882.67	5.37	149.26	-5.35	3,257.72	148.02	4,595.69	4,487.86	107.83	42.620		
1,600.00	1,583.31	9,535.57	4,882.68	5.74	149.25	-5.35	3,257.72	147.81	4,510.66	4,401.47	109.19	41.310		
1,700.00	1,681.54	9,535.35	4,882.68	6.11	149.24	-5.36	3,257.72	147.59	4,426.25	4,315.65	110.60	40.021		
1,800.00	1,779.76	9,535.13	4,882.69	6.49	149.24	-5.36	3,257.73	147.36	4,342.50	4,230.46	112.05	38.756		
1,900.00	1,877.98	9,534.90	4,882.69	6.86	149.23	-5.37	3,257.73	147.13	4,259.46	4,145.92	113.54	37.514		
2,000.00	1,976.21	9,534.67	4,882.70	7.23	149.22	-5.38	3,257.74	146.90	4,177.15	4,062.07	115.08	36.297		
2,100.00	2,074.43	9,534.43	4,882.70	7.60	149.21	-5.38	3,257.74	146.66	4,095.64	3,978.97	116.67	35.105		
2,200.00	2,172.66	9,534.19	4,882.71	7.98	149.21	-5.39	3,257.74	146.42	4,014.96	3,896.66	118.30	33.939		
2,300.00	2,270.88	9,533.94	4,882.71	8.35	149.20	-5.39	3,257.75	146.18	3,935.17	3,815.19	119.98	32.800		
2,400.00	2,369.11	9,533.69	4,882.72	8.72	149.19	-5.40	3,257.75	145.93	3,856.32	3,734.62	121.70	31.687		
2,500.00	2,467.33	9,533.44	4,882.73	9.10	149.18	-5.40	3,257.76	145.67	3,778.47	3,655.00	123.47	30.603		
2,600.00	2,565.55	9,533.18	4,882.73	9.47	149.17	-5.41	3,257.76	145.41	3,701.69	3,576.41	125.28	29.547		
2,700.00	2,663.78	9,532.91	4,882.74	9.84	149.17	-5.42	3,257.77	145.15	3,626.03	3,498.90	127.14	28.521		
2,800.00	2,762.00	9,532.64	4,882.74	10.22	149.16	-5.42	3,257.77	144.88	3,551.59	3,422.55	129.03	27.524		
2,900.00	2,860.23	9,532.37	4,882.75	10.59	149.15	-5.43	3,257.78	144.61	3,478.42	3,347.45	130.97	26.558		
3,000.00	2,958.45	9,532.09	4,882.76	10.96	149.14	-5.44	3,257.78	144.33	3,406.62	3,273.67	132.95	25.624		
3,100.00	3,056.67	9,531.80	4,882.76	11.34	149.13	-5.44	3,257.79	144.04	3,336.27	3,201.31	134.96	24.721		
3,200.00	3,154.90	9,531.51	4,882.77	11.71	149.12	-5.45	3,257.79	143.75	3,267.47	3,130.47	136.99	23.851		
3,300.00	3,253.12	9,531.22	4,882.77	12.08	149.11	-5.46	3,257.80	143.45	3,200.31	3,061.25	139.06	23.015		
3,400.00	3,351.35	9,530.91	4,882.78	12.46	149.10	-5.46	3,257.80	143.15	3,134.90	2,993.77	141.13	22.212		
3,500.00	3,449.57	9,530.60	4,882.79	12.83	149.09	-5.47	3,257.81	142.84	3,071.36	2,928.14	143.22	21.444		
3,600.00	3,547.80	9,530.29	4,882.80	13.20	149.08	-5.48	3,257.81	142.52	3,009.80	2,864.48	145.31	20.712		
3,700.00	3,646.02	9,529.97	4,882.80	13.58	149.07	-5.49	3,257.82	142.20	2,950.34	2,802.95	147.40	20.016		
3,800.00	3,744.24	9,529.64	4,882.81	13.95	149.06	-5.50	3,257.82	141.87	2,893.13	2,743.67	149.46	19.357		
3,900.00	3,842.47	9,529.30	4,882.82	14.33	149.05	-5.50	3,257.83	141.54	2,838.28	2,686.79	151.49	18.736		
4,000.00	3,940.69	9,528.96	4,882.83	14.70	149.04	-5.51	3,257.84	141.19	2,785.94	2,632.47	153.47	18.153		
4,100.00	4,038.92	9,528.61	4,882.83	15.07	149.03	-5.52	3,257.84	140.84	2,736.26	2,580.86	155.39	17.609		
4,200.00	4,137.14	9,528.25	4,882.84	15.45	149.02	-5.53	3,257.85	140.49	2,689.37	2,532.14	157.23	17.105		
4,300.00	4,235.37	9,527.88	4,882.85	15.82	149.01	-5.54	3,257.85	140.12	2,645.44	2,486.47	158.97	16.641		
4,400.00	4,333.59	9,527.51	4,882.86	16.20	149.00	-5.55	3,257.86	139.74	2,604.61	2,444.02	160.59	16.219		
4,500.00	4,431.81	9,527.12	4,882.87	16.57	148.98	-5.56	3,257.87	139.36	2,567.03	2,404.96	162.07	15.839		
4,600.00	4,530.04	9,526.73	4,882.88	16.94	148.97	-5.56	3,257.88	138.97	2,532.84	2,369.45	163.39	15.502		
4,700.00	4,628.26	9,526.33	4,882.89	17.32	148.96	-5.57	3,257.88	138.57	2,502.18	2,337.65	164.53	15.208		
4,800.00	4,726.46	9,526.00	4,882.89	17.69	149.04	-31.26	3,257.84	141.10	2,475.84	2,310.28	165.57	14.954		
4,900.00	4,823.98	9,540.59	4,882.57	18.06	149.41	-54.98	3,257.63	152.82	2,455.43	2,288.77	166.67	14.733		
5,000.00	4,919.77	9,561.87	4,882.15	18.41	150.07	-68.67	3,257.27	174.09	2,441.22	2,273.39	167.83	14.546		
5,100.00	5,012.77	9,592.28	4,881.65	18.74	151.03	-76.34	3,256.79	204.50	2,433.20	2,264.16	169.05	14.394		
5,184.90	5,088.79	9,623.97	4,881.28	19.01	152.02	-80.12	3,256.34	236.18	2,431.11	2,261.02	170.09	14.293 CC		
5,200.00	5,101.98	9,630.29	4,881.23	19.06	152.22	-80.61	3,256.26	242.50	2,431.18	2,260.89	170.28	14.277 ES		
5,300.00	5,186.40	9,680.00	4,881.05	19.36	153.78	-82.74	3,255.72	292.21	2,434.73	2,263.03	171.70	14.180		
5,400.00	5,265.12	9,756.27	4,880.39	19.64	156.17	-83.17	3,254.64	368.46	2,442.99	2,269.22	173.77	14.058		
5,500.00	5,337.27	9,836.90	4,878.73	19.93	158.70	-82.76	3,252.81	449.06	2,454.93	2,279.06	175.87	13.958		
5,600.00	5,402.06	9,911.90	4,877.47	20.23	161.06	-81.96	3,250.91	524.02	2,469.94	2,292.15	177.79	13.893		
5,700.00	5,458.78	9,991.15	4,876.53	20.56	163.55	-80.79	3,249.17	603.24	2,487.57	2,307.72	179.85	13.831		
5,800.00	5,509.14	10,090.42	4,875.30	20.93	166.67	-79.55	3,246.67	702.48	2,506.52	2,323.99	182.53	13.732		
5,900.00	5,559.14	10,191.61	4,873.48	21.35	169.84	-78.40	3,243.32	803.59	2,525.88	2,340.67	185.21	13.638		
6,000.00	5,605.15	10,284.35	4,871.65	21.81	172.76	-76.11	3,239.77	896.25	2,544.77	2,357.09	187.67	13.560 SF		
6,100.00	5,635.72	10,290.00	4,871.54	22.29	172.94	-74.39	3,239.55	901.90	2,561.73	2,373.82	187.91	13.633		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #962H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning	
+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)											
6,200.00	5,649.31	10,290.00	4,871.54	22.76	172.94	-72.83	3,239.55	901.90	2,577.86	2,389.79	188.07	13.707		
6,300.00	5,650.00	10,290.00	4,871.54	23.24	172.94	-72.47	3,239.55	901.90	2,593.21	2,404.99	188.22	13.777		
6,400.00	5,650.00	10,290.00	4,871.54	23.77	172.94	-72.57	3,239.55	901.90	2,608.96	2,420.79	188.17	13.865		
6,500.00	5,650.00	10,290.00	4,871.54	24.33	172.94	-72.67	3,239.55	901.90	2,625.16	2,437.27	187.89	13.972		
6,600.00	5,650.00	10,290.00	4,871.54	24.94	172.94	-72.70	3,239.55	901.90	2,642.45	2,455.05	187.40	14.101		
6,700.00	5,650.00	10,290.00	4,871.54	25.59	172.94	-72.70	3,239.55	901.90	2,663.17	2,476.45	186.72	14.263		
6,800.00	5,650.00	10,290.00	4,871.54	26.26	172.94	-72.70	3,239.55	901.90	2,687.45	2,501.60	185.85	14.460		
6,900.00	5,650.00	10,290.00	4,871.54	26.97	172.94	-72.70	3,239.55	901.90	2,715.21	2,530.40	184.81	14.692		
7,000.00	5,650.00	10,290.00	4,871.54	27.71	172.94	-72.70	3,239.55	901.90	2,746.32	2,562.71	183.61	14.957		
7,100.00	5,650.00	10,290.00	4,871.54	28.47	172.94	-72.70	3,239.55	901.90	2,780.69	2,598.42	182.26	15.256		
7,200.00	5,650.00	10,290.00	4,871.54	29.25	172.94	-72.70	3,239.55	901.90	2,818.19	2,637.40	180.79	15.589		
7,300.00	5,650.00	10,290.00	4,871.54	30.06	172.94	-72.70	3,239.55	901.90	2,858.69	2,679.50	179.19	15.954		
7,400.00	5,650.00	10,290.00	4,871.54	30.88	172.94	-72.70	3,239.55	901.90	2,902.08	2,724.59	177.49	16.351		
7,500.00	5,650.00	10,290.00	4,871.54	31.73	172.94	-72.70	3,239.55	901.90	2,948.22	2,772.52	175.70	16.780		
7,600.00	5,650.00	10,290.00	4,871.54	32.59	172.94	-72.70	3,239.55	901.90	2,996.99	2,823.15	173.84	17.240		
7,700.00	5,650.00	10,290.00	4,871.54	33.47	172.94	-72.70	3,239.55	901.90	3,048.26	2,876.34	171.92	17.731		
7,800.00	5,650.00	10,290.00	4,871.54	34.36	172.94	-72.70	3,239.55	901.90	3,101.91	2,931.96	169.95	18.252		
7,900.00	5,650.00	10,290.00	4,871.54	35.26	172.94	-72.70	3,239.55	901.90	3,157.81	2,989.86	167.95	18.802		
8,000.00	5,650.00	10,290.00	4,871.54	36.18	172.94	-72.70	3,239.55	901.90	3,215.85	3,049.93	165.92	19.382		
8,100.00	5,650.00	10,290.00	4,871.54	37.11	172.94	-72.70	3,239.55	901.90	3,275.92	3,112.04	163.88	19.990		
8,200.00	5,650.00	10,290.00	4,871.54	38.05	172.94	-72.70	3,239.55	901.90	3,337.90	3,176.07	161.83	20.626		
8,300.00	5,650.00	10,290.00	4,871.54	39.00	172.94	-72.70	3,239.55	901.90	3,401.70	3,241.91	159.78	21.289		
8,400.00	5,650.00	10,290.00	4,871.54	39.96	172.94	-72.70	3,239.55	901.90	3,467.20	3,309.45	157.75	21.979		
8,500.00	5,650.00	10,290.00	4,871.54	40.93	172.94	-72.70	3,239.55	901.90	3,534.32	3,378.59	155.73	22.695		
8,600.00	5,650.00	10,290.00	4,871.54	41.90	172.94	-72.70	3,239.55	901.90	3,602.97	3,449.24	153.73	23.437		
8,700.00	5,650.00	10,290.00	4,871.54	42.89	172.94	-72.70	3,239.55	901.90	3,673.05	3,521.30	151.75	24.204		
8,800.00	5,650.00	10,290.00	4,871.54	43.88	172.94	-72.70	3,239.55	901.90	3,744.50	3,594.69	149.81	24.996		
8,900.00	5,650.00	10,290.00	4,871.54	44.87	172.94	-72.70	3,239.55	901.90	3,817.22	3,669.33	147.89	25.811		
9,000.00	5,650.00	10,290.00	4,871.54	45.88	172.94	-72.70	3,239.55	901.90	3,891.16	3,745.15	146.01	26.650		
9,100.00	5,650.00	10,290.00	4,871.54	46.88	172.94	-72.70	3,239.55	901.90	3,966.24	3,822.08	144.17	27.512		
9,200.00	5,650.00	10,290.00	4,871.54	47.90	172.94	-72.70	3,239.55	901.90	4,042.40	3,900.04	142.36	28.396		
9,300.00	5,650.00	10,290.00	4,871.54	48.92	172.94	-72.70	3,239.55	901.90	4,119.58	3,978.99	140.59	29.302		
9,400.00	5,650.00	10,290.00	4,871.54	49.94	172.94	-72.70	3,239.55	901.90	4,197.73	4,058.86	138.86	30.229		
9,500.00	5,650.00	10,290.00	4,871.54	50.97	172.94	-72.70	3,239.55	901.90	4,276.78	4,139.61	137.17	31.178		
9,600.00	5,650.00	10,290.00	4,871.54	52.00	172.94	-72.70	3,239.55	901.90	4,356.70	4,221.17	135.53	32.147		
9,700.00	5,650.00	10,290.00	4,871.54	53.03	172.94	-72.70	3,239.55	901.90	4,437.42	4,303.51	133.92	33.135		
9,800.00	5,650.00	10,290.00	4,871.54	54.07	172.94	-72.70	3,239.55	901.90	4,518.92	4,386.57	132.35	34.144		
9,900.00	5,650.00	10,290.00	4,871.54	55.12	172.94	-72.70	3,239.55	901.90	4,601.15	4,470.33	130.82	35.171		
10,000.00	5,650.00	10,290.00	4,871.54	56.16	172.94	-72.70	3,239.55	901.90	4,684.08	4,554.74	129.34	36.216		
10,100.00	5,650.00	10,290.00	4,871.54	57.21	172.94	-72.70	3,239.55	901.90	4,767.65	4,639.76	127.89	37.280		
10,200.00	5,650.00	10,290.00	4,871.54	58.26	172.94	-72.70	3,239.55	901.90	4,851.85	4,725.37	126.48	38.362		
10,300.00	5,650.00	10,290.00	4,871.54	59.32	172.94	-72.70	3,239.55	901.90	4,936.64	4,811.53	125.10	39.460		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #964H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-64.77	2,110.86	-4,479.63	4,952.05					
100.00	100.00	106.77	106.77	0.29	0.17	-64.77	2,110.95	-4,479.45	4,951.94	4,951.48	0.46	N/A		
200.00	200.00	208.42	208.42	0.65	0.53	-64.77	2,110.96	-4,479.21	4,951.73	4,950.55	1.18	4,202.689		
300.00	300.00	332.28	332.28	1.00	0.97	-64.77	2,110.39	-4,478.74	4,951.18	4,949.20	1.98	2,505.053		
400.00	399.98	9,436.18	4,882.19	1.36	146.29	-6.57	1,940.09	16.79	4,887.09	4,817.58	69.51	70.310		
500.00	499.84	9,435.91	4,882.19	1.73	146.28	-7.22	1,940.09	16.52	4,793.48	4,723.11	70.38	68.113		
600.00	599.45	9,436.15	4,882.19	2.09	146.29	-7.98	1,940.09	16.76	4,698.94	4,627.73	71.21	65.983		
700.00	698.70	9,436.91	4,882.19	2.45	146.31	-8.88	1,940.10	17.51	4,603.53	4,531.51	72.02	63.921		
800.00	797.47	9,438.17	4,882.17	2.81	146.35	-9.98	1,940.11	18.77	4,507.31	4,434.53	72.78	61.927		
900.00	895.74	9,439.83	4,882.16	3.17	146.40	-10.45	1,940.13	20.44	4,410.50	4,336.98	73.52	59.993		
1,000.00	993.97	9,441.53	4,882.14	3.52	146.45	-10.36	1,940.15	22.13	4,313.76	4,239.49	74.26	58.087		
1,100.00	1,092.19	9,443.21	4,882.13	3.89	146.51	-10.27	1,940.17	23.82	4,217.17	4,142.12	75.05	56.194		
1,200.00	1,190.42	9,444.89	4,882.11	4.26	146.56	-10.19	1,940.19	25.50	4,120.74	4,044.87	75.87	54.313		
1,300.00	1,288.64	9,446.56	4,882.10	4.63	146.61	-10.10	1,940.21	27.16	4,024.48	3,947.75	76.74	52.446		
1,400.00	1,386.86	9,448.21	4,882.08	5.00	146.66	-10.01	1,940.23	28.82	3,928.41	3,850.77	77.65	50.594		
1,500.00	1,485.09	9,449.86	4,882.07	5.37	146.72	-9.93	1,940.25	30.46	3,832.55	3,753.94	78.60	48.759		
1,600.00	1,583.31	9,451.49	4,882.05	5.74	146.77	-9.84	1,940.27	32.10	3,736.89	3,657.29	79.61	46.941		
1,700.00	1,681.54	9,453.11	4,882.04	6.11	146.82	-9.76	1,940.29	33.72	3,641.48	3,560.81	80.67	45.142		
1,800.00	1,779.76	9,454.73	4,882.02	6.49	146.87	-9.68	1,940.31	35.33	3,546.31	3,464.53	81.78	43.363		
1,900.00	1,877.98	9,456.33	4,882.01	6.86	146.92	-9.59	1,940.33	36.94	3,451.41	3,368.46	82.96	41.606		
2,000.00	1,976.21	9,457.93	4,881.99	7.23	146.97	-9.51	1,940.35	38.53	3,356.81	3,272.62	84.19	39.870		
2,100.00	2,074.43	9,459.51	4,881.98	7.60	147.02	-9.43	1,940.37	40.12	3,262.54	3,177.04	85.50	38.158		
2,200.00	2,172.66	9,461.09	4,881.96	7.98	147.07	-9.35	1,940.38	41.69	3,168.61	3,081.73	86.88	36.471		
2,300.00	2,270.88	9,462.65	4,881.95	8.35	147.12	-9.27	1,940.40	43.26	3,075.07	2,986.73	88.34	34.809		
2,400.00	2,369.11	9,464.21	4,881.93	8.72	147.16	-9.18	1,940.42	44.81	2,981.94	2,892.05	89.88	33.176		
2,500.00	2,467.33	9,465.75	4,881.92	9.10	147.21	-9.10	1,940.44	46.36	2,889.27	2,797.75	91.52	31.570		
2,600.00	2,565.55	9,467.29	4,881.90	9.47	147.26	-9.02	1,940.46	47.89	2,797.11	2,703.86	93.25	29.995		
2,700.00	2,663.78	9,468.82	4,881.89	9.84	147.31	-8.95	1,940.47	49.42	2,705.50	2,610.41	95.09	28.452		
2,800.00	2,762.00	9,470.34	4,881.87	10.22	147.36	-8.87	1,940.49	50.94	2,614.51	2,517.46	97.04	26.942		
2,900.00	2,860.23	9,471.85	4,881.86	10.59	147.40	-8.79	1,940.51	52.45	2,524.19	2,425.08	99.12	25.467		
3,000.00	2,958.45	9,473.35	4,881.85	10.96	147.45	-8.71	1,940.52	53.95	2,434.64	2,333.31	101.32	24.029		
3,100.00	3,056.67	9,474.84	4,881.83	11.34	147.50	-8.63	1,940.54	55.44	2,345.92	2,242.25	103.67	22.629		
3,200.00	3,154.90	9,476.32	4,881.82	11.71	147.54	-8.56	1,940.56	56.92	2,258.15	2,151.98	106.17	21.269		
3,300.00	3,253.12	9,477.80	4,881.80	12.08	147.59	-8.48	1,940.57	58.40	2,171.44	2,062.61	108.83	19.952		
3,400.00	3,351.35	9,479.26	4,881.79	12.46	147.64	-8.40	1,940.59	59.86	2,085.91	1,974.25	111.67	18.680		
3,500.00	3,449.57	9,480.72	4,881.77	12.83	147.68	-8.33	1,940.61	61.32	2,001.73	1,887.05	114.68	17.454		
3,600.00	3,547.80	9,482.17	4,881.76	13.20	147.73	-8.25	1,940.62	62.77	1,919.06	1,801.17	117.89	16.279		
3,700.00	3,646.02	9,483.61	4,881.74	13.58	147.77	-8.18	1,940.64	64.21	1,838.12	1,716.83	121.29	15.155		
3,800.00	3,744.24	9,485.04	4,881.73	13.95	147.82	-8.10	1,940.65	65.64	1,759.13	1,634.25	124.89	14.086		
3,900.00	3,842.47	9,486.46	4,881.71	14.33	147.86	-8.03	1,940.67	67.06	1,682.39	1,553.71	128.68	13.074		
4,000.00	3,940.69	9,488.02	4,881.70	14.70	147.91	-7.95	1,940.69	68.62	1,608.19	1,475.54	132.66	12.123		
4,100.00	4,038.92	9,489.64	4,881.68	15.07	147.96	-7.86	1,940.70	70.24	1,536.93	1,400.14	136.79	11.236		
4,200.00	4,137.14	9,491.25	4,881.67	15.45	148.01	-7.78	1,940.72	71.85	1,469.02	1,327.97	141.04	10.415		
4,300.00	4,235.37	9,492.84	4,881.65	15.82	148.06	-7.70	1,940.74	73.44	1,404.94	1,259.59	145.35	9.666		
4,400.00	4,333.59	9,494.42	4,881.63	16.20	148.11	-7.62	1,940.75	75.02	1,345.25	1,195.63	149.63	8.991		
4,500.00	4,431.81	9,495.98	4,881.62	16.57	148.16	-7.53	1,940.77	76.58	1,290.56	1,136.81	153.76	8.394		
4,600.00	4,530.04	9,497.52	4,881.60	16.94	148.21	-7.45	1,940.78	78.12	1,241.53	1,083.94	157.59	7.878		
4,700.00	4,628.26	9,499.04	4,881.59	17.32	148.26	-7.38	1,940.80	79.64	1,198.85	1,037.90	160.95	7.449		
4,800.00	4,726.46	9,504.36	4,881.53	17.69	148.42	-7.32	1,940.85	84.96	1,163.95	1,000.21	163.75	7.108		
4,900.00	4,823.98	9,521.22	4,881.35	18.06	148.95	-56.68	1,940.98	101.82	1,139.19	973.17	166.02	6.862		
5,000.00	4,919.77	9,549.54	4,881.03	18.41	149.84	-69.45	1,941.12	130.13	1,125.10	957.50	167.60	6.713		
5,085.45	4,999.46	9,582.49	4,880.64	18.70	150.87	-75.03	1,941.16	163.09	1,121.40	953.05	168.35	6.661 CC, ES		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #964H - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Rule Assigned: Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,012.77	9,588.88	4,880.56	18.74	151.07	-75.64	1,941.16	169.48	1,121.50	953.08	168.43	6.659 SF	
5,200.00	5,101.98	9,636.22	4,879.86	19.06	152.55	-78.06	1,940.98	216.80	1,127.62	959.13	168.49	6.693	
5,300.00	5,186.40	9,676.00	4,879.13	19.36	153.80	-78.76	1,940.66	256.58	1,142.24	974.73	167.51	6.819	
5,400.00	5,265.12	9,733.62	4,878.49	19.64	155.61	-77.44	1,940.74	314.20	1,164.15	997.57	166.58	6.988	
5,500.00	5,337.27	9,795.84	4,878.86	19.93	157.56	-75.24	1,942.09	376.40	1,192.00	1,026.36	165.64	7.196	
5,600.00	5,402.06	9,882.24	4,879.65	20.23	160.26	-72.01	1,943.63	462.78	1,222.69	1,057.15	165.54	7.386	
5,700.00	5,458.78	9,965.29	4,880.07	20.56	162.87	-68.93	1,944.62	545.82	1,254.56	1,089.00	165.56	7.578	
5,800.00	5,509.14	10,052.15	4,880.09	20.93	165.59	-66.85	1,945.37	632.68	1,286.85	1,120.91	165.94	7.755	
5,900.00	5,559.14	10,147.67	4,879.35	21.35	168.59	-64.99	1,945.32	728.20	1,319.94	1,153.48	166.46	7.929	
6,000.00	5,605.15	10,263.15	4,879.04	21.81	172.22	-61.03	1,943.64	843.66	1,350.93	1,183.30	167.63	8.059	
6,100.00	5,635.72	10,347.00	4,879.63	22.29	174.85	-58.18	1,941.89	927.49	1,373.86	1,204.98	168.89	8.135	
6,200.00	5,649.31	10,347.00	4,879.63	22.76	174.85	-56.61	1,941.89	927.49	1,392.26	1,223.65	168.61	8.257	
6,300.00	5,650.00	10,347.00	4,879.63	23.24	174.85	-56.35	1,941.89	927.49	1,409.91	1,241.59	168.32	8.376	
6,400.00	5,650.00	10,347.00	4,879.63	23.77	174.85	-56.59	1,941.89	927.49	1,431.27	1,263.97	167.30	8.555	
6,500.00	5,650.00	10,347.00	4,879.63	24.33	174.85	-56.88	1,941.89	927.49	1,456.40	1,290.86	165.55	8.798	
6,600.00	5,650.00	10,347.00	4,879.63	24.94	174.85	-56.99	1,941.89	927.49	1,485.66	1,322.51	163.15	9.106	
6,700.00	5,650.00	10,347.00	4,879.63	25.59	174.85	-56.99	1,941.89	927.49	1,520.76	1,360.46	160.30	9.487	
6,800.00	5,650.00	10,347.00	4,879.63	26.26	174.85	-56.99	1,941.89	927.49	1,561.49	1,404.37	157.11	9.939	
6,900.00	5,650.00	10,347.00	4,879.63	26.97	174.85	-56.99	1,941.89	927.49	1,607.41	1,453.75	153.66	10.461	
7,000.00	5,650.00	10,347.00	4,879.63	27.71	174.85	-56.99	1,941.89	927.49	1,658.10	1,508.06	150.05	11.051	
7,100.00	5,650.00	10,347.00	4,879.63	28.47	174.85	-56.99	1,941.89	927.49	1,713.13	1,566.80	146.33	11.707	
7,200.00	5,650.00	10,347.00	4,879.63	29.25	174.85	-56.99	1,941.89	927.49	1,772.11	1,629.52	142.58	12.429	
7,300.00	5,650.00	10,347.00	4,879.63	30.06	174.85	-56.99	1,941.89	927.49	1,834.64	1,695.78	138.85	13.213	
7,400.00	5,650.00	10,347.00	4,879.63	30.88	174.85	-56.99	1,941.89	927.49	1,900.37	1,765.19	135.18	14.058	
7,500.00	5,650.00	10,347.00	4,879.63	31.73	174.85	-56.99	1,941.89	927.49	1,969.00	1,837.40	131.60	14.962	
7,600.00	5,650.00	10,347.00	4,879.63	32.59	174.85	-56.99	1,941.89	927.49	2,040.22	1,912.09	128.12	15.924	
7,700.00	5,650.00	10,347.00	4,879.63	33.47	174.85	-56.99	1,941.89	927.49	2,113.77	1,988.99	124.77	16.941	
7,800.00	5,650.00	10,347.00	4,879.63	34.36	174.85	-56.99	1,941.89	927.49	2,189.41	2,067.86	121.56	18.011	
7,900.00	5,650.00	10,347.00	4,879.63	35.26	174.85	-56.99	1,941.89	927.49	2,266.95	2,148.47	118.48	19.133	
8,000.00	5,650.00	10,347.00	4,879.63	36.18	174.85	-56.99	1,941.89	927.49	2,346.19	2,230.64	115.55	20.305	
8,100.00	5,650.00	10,347.00	4,879.63	37.11	174.85	-56.99	1,941.89	927.49	2,426.96	2,314.21	112.75	21.525	
8,200.00	5,650.00	10,347.00	4,879.63	38.05	174.85	-56.99	1,941.89	927.49	2,509.11	2,399.02	110.09	22.791	
8,300.00	5,650.00	10,347.00	4,879.63	39.00	174.85	-56.99	1,941.89	927.49	2,592.53	2,484.96	107.57	24.102	
8,400.00	5,650.00	10,347.00	4,879.63	39.96	174.85	-56.99	1,941.89	927.49	2,677.07	2,571.91	105.17	25.456	
8,500.00	5,650.00	10,347.00	4,879.63	40.93	174.85	-56.99	1,941.89	927.49	2,762.65	2,659.76	102.89	26.850	
8,600.00	5,650.00	10,347.00	4,879.63	41.90	174.85	-56.99	1,941.89	927.49	2,849.17	2,748.44	100.73	28.285	
8,700.00	5,650.00	10,347.00	4,879.63	42.89	174.85	-56.99	1,941.89	927.49	2,936.55	2,837.86	98.68	29.758	
8,800.00	5,650.00	10,347.00	4,879.63	43.88	174.85	-56.99	1,941.89	927.49	3,024.70	2,927.97	96.74	31.267	
8,900.00	5,650.00	10,347.00	4,879.63	44.87	174.85	-56.99	1,941.89	927.49	3,113.58	3,018.68	94.89	32.811	
9,000.00	5,650.00	10,347.00	4,879.63	45.88	174.85	-56.99	1,941.89	927.49	3,203.11	3,109.96	93.14	34.389	
9,100.00	5,650.00	10,347.00	4,879.63	46.88	174.85	-56.99	1,941.89	927.49	3,293.24	3,201.76	91.48	35.999	
9,200.00	5,650.00	10,347.00	4,879.63	47.90	174.85	-56.99	1,941.89	927.49	3,383.93	3,294.02	89.90	37.640	
9,300.00	5,650.00	10,347.00	4,879.63	48.92	174.85	-56.99	1,941.89	927.49	3,475.12	3,386.72	88.40	39.310	
9,400.00	5,650.00	10,347.00	4,879.63	49.94	174.85	-56.99	1,941.89	927.49	3,566.79	3,479.82	86.98	41.009	
9,500.00	5,650.00	10,347.00	4,879.63	50.97	174.85	-56.99	1,941.89	927.49	3,658.90	3,573.28	85.62	42.735	
9,600.00	5,650.00	10,347.00	4,879.63	52.00	174.85	-56.99	1,941.89	927.49	3,751.41	3,667.08	84.33	44.486	
9,700.00	5,650.00	10,347.00	4,879.63	53.03	174.85	-56.99	1,941.89	927.49	3,844.30	3,761.20	83.10	46.262	
9,800.00	5,650.00	10,347.00	4,879.63	54.07	174.85	-56.99	1,941.89	927.49	3,937.53	3,855.60	81.93	48.061	
9,900.00	5,650.00	10,347.00	4,879.63	55.12	174.85	-56.99	1,941.89	927.49	4,031.09	3,950.27	80.81	49.882	
10,000.00	5,650.00	10,347.00	4,879.63	56.16	174.85	-56.99	1,941.89	927.49	4,124.95	4,045.20	79.75	51.724	
10,100.00	5,650.00	10,347.00	4,879.63	57.21	174.85	-56.99	1,941.89	927.49	4,219.09	4,140.36	78.73	53.587	
10,200.00	5,650.00	10,347.00	4,879.63	58.26	174.85	-56.99	1,941.89	927.49	4,313.50	4,235.73	77.76	55.468	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - BURCH KEELY UNIT #964H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Minimum		Separation		Warning		
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Separation	Factor		
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses				
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
10,300.00	5,650.00	10,347.00	4,879.63	59.32	174.85	-56.99	1,941.89	927.49	4,408.15	4,331.31	76.84	57.368		
10,400.00	5,650.00	10,347.00	4,879.63	60.38	174.85	-56.99	1,941.89	927.49	4,503.03	4,427.08	75.96	59.284		
10,500.00	5,650.00	10,347.00	4,879.63	61.44	174.85	-56.99	1,941.89	927.49	4,598.14	4,523.02	75.11	61.217		
10,600.00	5,650.00	10,347.00	4,879.63	62.50	174.85	-56.99	1,941.89	927.49	4,693.44	4,619.14	74.30	63.165		
10,700.00	5,650.00	10,347.00	4,879.63	63.56	174.85	-56.99	1,941.89	927.49	4,788.94	4,715.40	73.53	65.127		
10,800.00	5,650.00	10,347.00	4,879.63	64.63	174.85	-56.99	1,941.89	927.49	4,884.61	4,811.82	72.79	67.102		
10,900.00	5,650.00	10,347.00	4,879.63	65.70	174.85	-56.99	1,941.89	927.49	4,980.46	4,908.37	72.09	69.091		

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #965H - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF														Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning		
							+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
0.00	0.00	0.00	0.00	0.00	0.00	18.26	1,287.65	424.77	1,356.07						
100.00	100.00	87.94	87.94	0.29	0.16	18.26	1,287.37	424.69	1,355.64	1,355.20	0.45	3,044.633			
200.00	200.00	191.76	191.76	0.65	0.51	18.26	1,286.54	424.45	1,354.81	1,353.66	1.15	1,173.559			
300.00	300.00	310.70	310.68	1.00	0.94	18.27	1,284.62	424.12	1,353.20	1,351.25	1.94	696.463			
400.00	399.98	419.26	419.19	1.36	1.33	11.82	1,281.43	424.09	1,348.68	1,345.98	2.69	500.623			
500.00	499.84	509.51	509.40	1.73	1.66	11.95	1,278.80	424.57	1,340.96	1,337.58	3.38	396.903			
600.00	599.45	606.80	606.66	2.09	2.01	12.13	1,276.27	425.31	1,330.22	1,326.13	4.09	325.258			
700.00	698.70	700.00	699.83	2.45	2.34	12.37	1,274.28	426.35	1,316.64	1,311.85	4.78	275.238			
800.00	797.47	781.93	781.74	2.81	2.63	12.62	1,273.25	427.30	1,300.52	1,295.08	5.43	239.406			
900.00	895.74	874.19	874.00	3.17	2.96	12.86	1,272.85	428.10	1,282.35	1,276.23	6.11	209.715			
1,000.00	993.97	971.93	971.74	3.52	3.30	13.10	1,272.62	429.11	1,264.17	1,257.36	6.81	185.683			
1,100.00	1,092.19	1,070.46	1,070.26	3.89	3.64	13.35	1,272.29	430.29	1,245.96	1,238.45	7.51	165.959			
1,200.00	1,190.42	1,166.25	1,166.04	4.26	3.98	13.60	1,272.00	431.50	1,227.84	1,219.64	8.20	149.753			
1,300.00	1,288.64	1,263.89	1,263.67	4.63	4.32	13.86	1,271.94	432.63	1,209.94	1,201.04	8.90	135.986			
1,400.00	1,386.86	1,360.94	1,360.72	5.00	4.67	14.12	1,271.95	433.57	1,192.05	1,182.46	9.59	124.245			
1,500.00	1,485.09	1,458.16	1,457.94	5.37	5.00	14.38	1,272.14	434.46	1,174.34	1,164.05	10.29	114.121			
1,600.00	1,583.31	1,558.27	1,558.04	5.74	5.35	14.63	1,272.47	434.94	1,156.63	1,145.64	10.99	105.211			
1,700.00	1,681.54	1,655.00	1,654.77	6.11	5.69	14.87	1,272.74	435.20	1,138.82	1,127.13	11.68	97.461			
1,800.00	1,779.76	1,750.12	1,749.89	6.49	6.01	15.11	1,273.33	435.48	1,121.34	1,108.97	12.37	90.651			
1,900.00	1,877.98	1,848.27	1,848.04	6.86	6.35	15.35	1,274.17	435.58	1,104.04	1,090.98	13.06	84.523			
2,000.00	1,976.21	1,947.21	1,946.97	7.23	6.68	15.58	1,275.09	435.30	1,086.69	1,072.94	13.76	79.003			
2,100.00	2,074.43	2,041.41	2,041.17	7.60	7.00	15.79	1,276.16	434.79	1,069.45	1,055.01	14.44	74.085			
2,200.00	2,172.66	2,137.17	2,136.91	7.98	7.33	16.02	1,277.79	434.52	1,052.82	1,037.69	15.12	69.614			
2,300.00	2,270.88	2,240.33	2,240.06	8.35	7.68	16.28	1,279.04	434.39	1,035.83	1,019.99	15.83	65.415			
2,400.00	2,369.11	2,341.04	2,340.76	8.72	8.03	16.52	1,280.32	433.72	1,018.71	1,002.17	16.54	61.598			
2,500.00	2,467.33	2,442.17	2,441.89	9.10	8.38	16.79	1,281.10	433.14	1,001.18	983.94	17.24	58.066			
2,600.00	2,565.55	2,539.26	2,538.97	9.47	8.71	17.06	1,281.85	432.68	983.72	965.78	17.94	54.840			
2,700.00	2,663.78	2,638.72	2,638.43	9.84	9.06	17.36	1,282.53	432.49	966.32	947.67	18.64	51.836			
2,800.00	2,762.00	2,739.55	2,739.26	10.22	9.41	17.67	1,283.03	432.09	948.68	929.34	19.35	49.033			
2,900.00	2,860.23	2,837.25	2,836.95	10.59	9.75	17.96	1,283.58	431.22	930.94	910.90	20.05	46.439			
3,000.00	2,958.45	2,933.58	2,933.27	10.96	10.08	18.24	1,284.40	430.35	913.48	892.73	20.74	44.036			
3,100.00	3,056.67	3,033.56	3,033.26	11.34	10.43	18.59	1,284.94	430.11	896.03	874.58	21.45	41.770			
3,200.00	3,154.90	3,134.01	3,133.70	11.71	10.78	18.97	1,285.15	429.93	878.35	856.19	22.16	39.638			
3,300.00	3,253.12	3,232.45	3,232.14	12.08	11.12	19.36	1,285.25	429.72	860.59	837.73	22.86	37.643			
3,400.00	3,351.35	3,330.24	3,329.93	12.46	11.47	19.76	1,285.38	429.49	842.90	819.33	23.56	35.769			
3,500.00	3,449.57	3,427.71	3,427.40	12.83	11.81	20.19	1,285.53	429.40	825.32	801.05	24.27	34.006			
3,600.00	3,547.80	3,525.54	3,525.23	13.20	12.15	20.64	1,285.76	429.36	807.88	782.91	24.98	32.345			
3,700.00	3,646.02	3,624.52	3,624.21	13.58	12.50	21.11	1,285.94	429.31	790.45	764.76	25.69	30.773			
3,800.00	3,744.24	3,722.48	3,722.17	13.95	12.85	21.60	1,286.07	429.28	773.04	746.64	26.40	29.287			
3,900.00	3,842.47	3,819.97	3,819.66	14.33	13.19	22.12	1,286.27	429.34	755.80	728.69	27.10	27.885			
4,000.00	3,940.69	3,918.80	3,918.49	14.70	13.54	22.67	1,286.39	429.45	738.56	710.75	27.81	26.553			
4,100.00	4,038.92	4,015.28	4,014.97	15.07	13.88	23.22	1,286.75	429.48	721.57	693.05	28.52	25.298			
4,200.00	4,137.14	4,115.43	4,115.11	15.45	14.23	23.83	1,286.95	429.58	704.54	675.31	29.23	24.100			
4,300.00	4,235.37	4,211.52	4,211.20	15.82	14.57	24.40	1,287.47	429.31	687.69	657.75	29.94	22.968			
4,400.00	4,333.59	4,309.88	4,309.56	16.20	14.92	25.03	1,288.07	429.15	671.03	640.37	30.65	21.890			
4,500.00	4,431.81	4,431.14	4,430.71	16.57	15.34	25.55	1,289.32	425.55	653.49	622.14	31.36	20.839			
4,600.00	4,530.04	4,613.15	4,605.85	16.94	15.99	22.74	1,298.49	380.01	628.70	596.96	31.74	19.810			
4,700.00	4,628.26	4,768.27	4,736.03	17.32	16.68	15.62	1,307.72	297.11	591.18	558.98	32.19	18.363			
4,800.00	4,726.46	4,861.29	4,801.50	17.69	17.29	-17.72	1,314.76	231.57	553.10	519.64	33.47	16.527			
4,900.00	4,823.98	4,920.17	4,837.21	18.06	17.80	-48.05	1,319.63	185.04	522.87	487.90	34.98	14.949			
5,000.00	4,919.77	4,955.74	4,856.44	18.41	18.16	-66.07	1,322.55	155.26	508.19	472.16	36.02	14.107			
5,024.95	4,943.28	4,961.96	4,859.63	18.49	18.23	-69.14	1,323.04	149.95	507.55	471.41	36.15	14.041	CC, ES, SF		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #965H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,100.00	5,012.77	4,974.35	4,865.86	18.74	18.37	-75.69	1,323.97	139.27	513.54	477.44	36.10	14.224		
5,200.00	5,101.98	4,979.41	4,868.34	19.06	18.43	-79.63	1,324.33	134.89	539.64	504.44	35.20	15.329		
5,300.00	5,186.40	4,975.00	4,866.18	19.36	18.37	-79.53	1,324.01	138.71	583.78	550.05	33.73	17.307		
5,400.00	5,265.12	4,966.06	4,861.72	19.64	18.28	-76.60	1,323.35	146.42	641.68	609.45	32.24	19.906		
5,500.00	5,337.27	4,951.57	4,854.27	19.93	18.12	-71.23	1,322.22	158.80	709.09	678.14	30.95	22.912		
5,600.00	5,402.06	4,935.00	4,845.44	20.23	17.94	-64.38	1,320.86	172.76	782.49	752.45	30.05	26.044		
5,700.00	5,458.78	4,912.00	4,832.55	20.56	17.72	-56.41	1,318.94	191.71	859.34	829.93	29.40	29.224		
5,800.00	5,509.14	4,899.91	4,825.47	20.93	17.61	-53.75	1,317.93	201.46	938.29	908.97	29.32	32.002		
5,900.00	5,559.14	4,880.00	4,813.36	21.35	17.44	-52.25	1,316.29	217.18	1,020.27	991.13	29.14	35.009		
6,000.00	5,605.15	4,868.90	4,806.38	21.81	17.35	-43.77	1,315.38	225.75	1,103.07	1,073.80	29.27	37.683		
6,100.00	5,635.72	4,848.00	4,792.81	22.29	17.19	-34.96	1,313.68	241.57	1,181.13	1,151.65	29.48	40.069		
6,200.00	5,649.31	4,827.33	4,778.86	22.76	17.04	-29.01	1,312.04	256.74	1,252.41	1,222.49	29.93	41.849		
6,300.00	5,650.00	4,816.00	4,770.99	23.24	16.97	-28.71	1,311.16	264.83	1,318.47	1,287.81	30.67	42.995		
6,400.00	5,650.00	4,785.00	4,748.60	23.77	16.77	-29.64	1,308.88	286.14	1,385.70	1,354.69	31.01	44.679		
6,500.00	5,650.00	4,765.47	4,733.89	24.33	16.67	-30.82	1,307.53	298.92	1,454.72	1,423.23	31.49	46.197		
6,600.00	5,650.00	4,753.00	4,724.27	24.94	16.60	-31.12	1,306.69	306.81	1,525.45	1,493.44	32.01	47.657		
6,700.00	5,650.00	4,721.00	4,698.87	25.59	16.44	-30.33	1,304.62	326.15	1,598.51	1,566.30	32.21	49.623		
6,800.00	5,650.00	4,721.00	4,698.87	26.26	16.44	-30.33	1,304.62	326.15	1,673.74	1,640.92	32.81	51.011		
6,900.00	5,650.00	4,690.00	4,673.28	26.97	16.30	-29.57	1,302.76	343.54	1,751.01	1,718.03	32.97	53.107		
7,000.00	5,650.00	4,690.00	4,673.28	27.71	16.30	-29.57	1,302.76	343.54	1,829.94	1,796.47	33.47	54.670		
7,100.00	5,650.00	4,675.26	4,660.76	28.47	16.24	-29.21	1,301.93	351.29	1,910.59	1,876.83	33.76	56.591		
7,200.00	5,650.00	4,658.00	4,645.84	29.25	16.16	-28.79	1,300.99	359.90	1,992.77	1,958.77	34.00	58.618		
7,300.00	5,650.00	4,658.00	4,645.84	30.06	16.16	-28.79	1,300.99	359.90	2,076.18	2,041.80	34.38	60.395		
7,400.00	5,650.00	4,643.98	4,633.52	30.88	16.11	-28.46	1,300.23	366.54	2,160.78	2,126.19	34.59	62.471		
7,500.00	5,650.00	4,626.00	4,617.47	31.73	16.04	-28.03	1,299.23	374.59	2,246.55	2,211.80	34.75	64.657		
7,600.00	5,650.00	4,626.00	4,617.47	32.59	16.04	-28.03	1,299.23	374.59	2,333.11	2,298.07	35.04	66.580		
7,700.00	5,650.00	4,626.00	4,617.47	33.47	16.04	-28.03	1,299.23	374.59	2,420.72	2,385.41	35.31	68.552		
7,800.00	5,650.00	4,610.59	4,603.52	34.36	15.98	-27.67	1,298.33	381.06	2,508.98	2,473.54	35.44	70.801		
7,900.00	5,650.00	4,595.00	4,589.20	35.26	15.92	-27.30	1,297.37	387.16	2,598.14	2,562.59	35.55	73.084		
8,000.00	5,650.00	4,595.00	4,589.20	36.18	15.92	-27.30	1,297.37	387.16	2,687.80	2,652.03	35.77	75.145		
8,100.00	5,650.00	4,595.00	4,589.20	37.11	15.92	-27.30	1,297.37	387.16	2,778.17	2,742.20	35.97	77.236		
8,200.00	5,650.00	4,595.00	4,589.20	38.05	15.92	-27.30	1,297.37	387.16	2,869.17	2,833.02	36.16	79.353		
8,300.00	5,650.00	4,579.59	4,574.88	39.00	15.87	-26.94	1,296.40	392.77	2,960.50	2,924.27	36.23	81.721		
8,400.00	5,650.00	4,563.00	4,559.29	39.96	15.81	-26.56	1,295.41	398.35	3,052.55	3,016.26	36.29	84.122		
8,500.00	5,650.00	4,563.00	4,559.29	40.93	15.81	-26.56	1,295.41	398.35	3,144.80	3,108.35	36.45	86.287		
8,600.00	5,650.00	4,563.00	4,559.29	41.90	15.81	-26.56	1,295.41	398.35	3,237.51	3,200.91	36.60	88.468		
8,700.00	5,650.00	4,563.00	4,559.29	42.89	15.81	-26.56	1,295.41	398.35	3,330.64	3,293.91	36.74	90.665		
8,800.00	5,650.00	4,563.00	4,559.29	43.88	15.81	-26.56	1,295.41	398.35	3,424.16	3,387.29	36.87	92.874		
8,900.00	5,650.00	4,563.00	4,559.29	44.87	15.81	-26.56	1,295.41	398.35	3,518.04	3,481.04	37.00	95.094		
9,000.00	5,650.00	4,548.49	4,545.51	45.88	15.76	-26.23	1,294.58	402.83	3,612.01	3,574.97	37.04	97.526		
9,100.00	5,650.00	4,531.00	4,528.74	46.88	15.69	-25.84	1,293.61	407.70	3,706.60	3,669.55	37.06	100.020		
9,200.00	5,650.00	4,531.00	4,528.74	47.90	15.69	-25.84	1,293.61	407.70	3,801.15	3,763.98	37.17	102.257		
9,300.00	5,650.00	4,531.00	4,528.74	48.92	15.69	-25.84	1,293.61	407.70	3,895.97	3,858.69	37.28	104.500		
9,400.00	5,650.00	4,531.00	4,528.74	49.94	15.69	-25.84	1,293.61	407.70	3,991.04	3,953.66	37.39	106.749		
9,500.00	5,650.00	4,531.00	4,528.74	50.97	15.69	-25.84	1,293.61	407.70	4,086.35	4,048.86	37.49	109.002		
9,600.00	5,650.00	4,531.00	4,528.74	52.00	15.69	-25.84	1,293.61	407.70	4,181.88	4,144.29	37.59	111.259		
9,700.00	5,650.00	4,531.00	4,528.74	53.03	15.69	-25.84	1,293.61	407.70	4,277.61	4,239.93	37.68	113.518		
9,800.00	5,650.00	4,531.00	4,528.74	54.07	15.69	-25.84	1,293.61	407.70	4,373.53	4,335.76	37.77	115.779		
9,900.00	5,650.00	4,531.00	4,528.74	55.12	15.69	-25.84	1,293.61	407.70	4,469.64	4,431.77	37.86	118.042		
10,000.00	5,650.00	4,531.00	4,528.74	56.16	15.69	-25.84	1,293.61	407.70	4,565.90	4,527.95	37.95	120.304		
10,100.00	5,650.00	4,514.75	4,513.02	57.21	15.64	-25.49	1,292.75	411.73	4,662.08	4,624.11	37.97	122.796		
10,200.00	5,650.00	4,499.00	4,497.69	58.26	15.58	-25.15	1,291.93	415.22	4,758.73	4,720.75	37.98	125.291		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - BURCH KEELY UNIT #965H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 100-MWD+IGRF													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
10,300.00	5,650.00	4,499.00	4,497.69	59.32	15.58	-25.15	1,291.93	415.22	4,855.29	4,817.22	38.07	127.548		
10,400.00	5,650.00	4,499.00	4,497.69	60.38	15.58	-25.15	1,291.93	415.22	4,951.99	4,913.84	38.15	129.804		

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #966H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 25-MWD+IGRF													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	0.00	0.00	0.00	0.00	-85.94	281.17	-3,965.00	3,974.96					
100.00	100.00	101.55	101.55	0.29	0.28	-85.94	281.13	-3,964.98	3,974.94	3,974.37	0.57	7,008.644		
200.00	200.00	200.00	200.00	0.65	0.63	-85.94	281.35	-3,964.76	3,974.73	3,973.46	1.27	3,124.458		
218.40	218.40	215.42	215.41	0.71	0.68	-85.94	281.40	-3,964.74	3,974.72	3,973.32	1.39	2,854.128		
300.00	300.00	262.48	262.48	1.00	0.85	-85.93	281.89	-3,964.89	3,975.05	3,973.20	1.85	2,146.312		
400.00	399.98	332.76	332.74	1.36	1.10	-92.43	283.31	-3,965.79	3,976.49	3,974.03	2.46	1,616.986		
500.00	499.84	440.87	440.81	1.73	1.48	-92.45	285.39	-3,967.28	3,978.23	3,975.03	3.20	1,243.422		
600.00	599.45	554.54	554.45	2.09	1.89	-92.53	287.69	-3,968.58	3,979.90	3,975.94	3.96	1,004.380		
700.00	698.70	679.51	679.39	2.45	2.34	-92.69	290.41	-3,969.27	3,981.16	3,976.39	4.77	834.801		
800.00	797.47	798.49	798.34	2.81	2.76	-92.89	293.22	-3,969.48	3,982.28	3,976.72	5.56	716.648		
900.00	895.74	930.83	930.65	3.17	3.24	-93.20	296.04	-3,968.63	3,982.76	3,976.37	6.39	623.021		
1,000.00	993.97	8,919.00	4,889.10	3.52	130.49	-170.58	616.40	36.30	3,934.93	3,895.83	39.10	100.632		
1,100.00	1,092.19	8,919.00	4,889.10	3.89	130.49	-170.58	616.40	36.30	3,835.07	3,795.99	39.08	98.133		
1,200.00	1,190.42	8,919.00	4,889.10	4.26	130.49	-170.58	616.40	36.30	3,735.22	3,696.16	39.06	95.628		
1,300.00	1,288.64	8,919.00	4,889.10	4.63	130.49	-170.58	616.40	36.30	3,635.38	3,596.34	39.04	93.119		
1,400.00	1,386.86	8,934.78	4,888.90	5.00	130.98	-174.83	616.64	52.08	3,535.50	3,496.34	39.15	90.298		
1,500.00	1,485.09	8,935.64	4,888.89	5.37	131.01	-175.07	616.65	52.94	3,435.67	3,396.53	39.14	87.776		
1,600.00	1,583.31	8,936.52	4,888.88	5.74	131.03	-175.31	616.66	53.82	3,335.85	3,296.72	39.13	85.252		
1,700.00	1,681.54	8,937.41	4,888.87	6.11	131.06	-175.55	616.68	54.71	3,236.04	3,196.93	39.12	82.729		
1,800.00	1,779.76	8,938.31	4,888.86	6.49	131.09	-175.80	616.69	55.61	3,136.25	3,097.14	39.10	80.206		
1,900.00	1,877.98	8,939.23	4,888.85	6.86	131.12	-176.06	616.70	56.53	3,036.46	2,997.38	39.09	77.685		
2,000.00	1,976.21	8,940.17	4,888.84	7.23	131.15	-176.32	616.71	57.47	2,936.69	2,897.62	39.07	75.165		
2,100.00	2,074.43	8,941.13	4,888.83	7.60	131.18	-176.59	616.73	58.43	2,836.94	2,797.89	39.05	72.648		
2,200.00	2,172.66	8,942.10	4,888.82	7.98	131.21	-176.86	616.74	59.40	2,737.21	2,698.18	39.03	70.133		
2,300.00	2,270.88	8,943.09	4,888.81	8.35	131.24	-177.13	616.75	60.39	2,637.49	2,598.49	39.00	67.621		
2,400.00	2,369.11	8,944.10	4,888.80	8.72	131.27	-177.41	616.76	61.40	2,537.80	2,498.82	38.98	65.112		
2,500.00	2,467.33	8,945.13	4,888.79	9.10	131.30	-177.70	616.78	62.43	2,438.13	2,399.18	38.94	62.605		
2,600.00	2,565.55	8,946.18	4,888.78	9.47	131.34	-177.99	616.79	63.47	2,338.48	2,299.58	38.91	60.102		
2,700.00	2,663.78	8,947.24	4,888.77	9.84	131.37	-178.29	616.80	64.54	2,238.87	2,200.00	38.87	57.601		
2,800.00	2,762.00	8,948.33	4,888.75	10.22	131.40	-178.60	616.82	65.63	2,139.30	2,100.47	38.82	55.102		
2,900.00	2,860.23	8,949.44	4,888.74	10.59	131.44	-178.91	616.83	66.74	2,039.76	2,000.99	38.78	52.603		
3,000.00	2,958.45	8,950.57	4,888.73	10.96	131.47	-179.23	616.85	67.87	1,940.28	1,901.55	38.72	50.105		
3,100.00	3,056.67	8,951.72	4,888.72	11.34	131.51	-179.55	616.86	69.02	1,840.84	1,802.17	38.67	47.604		
3,200.00	3,154.90	8,952.90	4,888.71	11.71	131.55	-179.89	616.87	70.19	1,741.47	1,702.86	38.62	45.098		
3,300.00	3,253.12	8,954.10	4,888.70	12.08	131.58	-179.77	616.89	71.39	1,642.18	1,603.62	38.56	42.584		
3,400.00	3,351.35	8,955.32	4,888.69	12.46	131.62	-179.43	616.90	72.62	1,542.98	1,504.46	38.52	40.058		
3,500.00	3,449.57	8,956.57	4,888.68	12.83	131.66	-179.07	616.92	73.87	1,443.88	1,405.40	38.49	37.515		
3,600.00	3,547.80	8,957.84	4,888.67	13.20	131.70	-178.71	616.93	75.14	1,344.92	1,306.44	38.49	34.945		
3,700.00	3,646.02	8,959.15	4,888.66	13.58	131.74	-178.34	616.95	76.44	1,246.12	1,207.59	38.53	32.339		
3,800.00	3,744.24	8,960.47	4,888.65	13.95	131.78	-177.96	616.96	77.77	1,147.53	1,108.87	38.66	29.684		
3,900.00	3,842.47	8,961.83	4,888.64	14.33	131.82	-177.57	616.98	79.13	1,049.21	1,010.29	38.92	26.961		
4,000.00	3,940.69	8,963.22	4,888.63	14.70	131.87	-177.17	616.99	80.52	951.23	911.84	39.39	24.152		
4,100.00	4,038.92	8,964.64	4,888.62	15.07	131.91	-176.77	617.01	81.93	853.71	813.51	40.21	21.232		
4,200.00	4,137.14	8,966.09	4,888.61	15.45	131.96	-176.35	617.02	83.38	756.85	715.23	41.62	18.186		
4,300.00	4,235.37	8,967.57	4,888.60	15.82	132.00	-175.93	617.04	84.86	660.91	616.91	44.00	15.020		
4,400.00	4,333.59	8,969.08	4,888.59	16.20	132.05	-175.49	617.05	86.38	566.38	518.35	48.02	11.794		
4,500.00	4,431.81	8,970.63	4,888.58	16.57	132.10	-175.05	617.07	87.93	474.08	419.29	54.79	8.652		
4,600.00	4,530.04	8,972.22	4,888.57	16.94	132.15	-174.59	617.08	89.52	385.65	319.49	66.16	5.829		
4,700.00	4,628.26	8,973.84	4,888.56	17.32	132.20	-174.13	617.10	91.14	304.45	219.51	84.94	3.584		
4,800.00	4,726.46	8,978.63	4,888.53	17.69	132.35	-152.35	617.15	95.92	237.47	124.24	113.24	2.097		
4,900.00	4,823.98	8,993.18	4,888.47	18.06	132.80	-127.96	617.27	110.48	198.06	55.02	143.04	1.385 Level 3		
4,942.73	4,865.18	9,002.50	4,888.45	18.21	133.10	-118.92	617.33	119.79	193.84	44.02	149.82	1.294 Level 3, CC, ES, SF		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT #966H - Wellbore #1 - Wellbore #1													Offset Site Error: 0.00 usft
Survey Program: 25-MWD+IGRF		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,000.00	4,919.77	9,018.06	4,888.44	18.41	133.58	107.36	617.42	135.35	201.15	51.70	149.46	1.346	Level 3
5,100.00	5,012.77	9,054.03	4,888.48	18.74	134.71	87.50	617.67	171.32	241.95	109.76	132.19	1.830	
5,200.00	5,101.98	9,099.99	4,888.64	19.06	136.14	68.91	618.12	217.28	301.90	189.42	112.48	2.684	
5,300.00	5,186.40	9,150.70	4,888.68	19.36	137.73	54.00	618.72	267.99	368.22	270.85	97.38	3.781	
5,400.00	5,265.12	9,206.70	4,887.97	19.64	139.48	42.72	619.33	323.98	435.09	348.60	86.49	5.030	
5,500.00	5,337.27	9,280.92	4,887.25	19.93	141.80	33.67	619.84	398.20	498.43	419.40	79.02	6.307	
5,600.00	5,402.06	9,363.03	4,887.80	20.23	144.37	27.23	620.00	480.31	555.19	481.42	73.77	7.526	
5,700.00	5,458.78	9,443.20	4,888.58	20.56	146.88	22.75	620.14	560.47	604.62	534.97	69.65	8.681	
5,800.00	5,509.14	9,530.24	4,889.30	20.93	149.61	19.93	620.29	647.50	648.56	582.07	66.48	9.755	
5,900.00	5,559.14	9,581.00	4,889.74	21.35	151.20	18.65	620.38	698.26	693.89	630.73	63.17	10.985	
6,000.00	5,605.15	9,581.00	4,889.74	21.81	151.20	17.34	620.38	698.26	744.64	685.21	59.43	12.530	
6,100.00	5,635.72	9,581.00	4,889.74	22.29	151.20	15.82	620.38	698.26	791.63	735.12	56.51	14.008	
6,200.00	5,649.31	9,581.00	4,889.74	22.76	151.20	14.61	620.38	698.26	833.72	779.49	54.23	15.374	
6,300.00	5,650.00	9,581.00	4,889.74	23.24	151.20	13.67	620.38	698.26	874.59	822.18	52.41	16.687	
6,400.00	5,650.00	9,581.00	4,889.74	23.77	151.20	12.54	620.38	698.26	924.62	873.66	50.97	18.142	
6,500.00	5,650.00	9,581.00	4,889.74	24.33	151.20	11.14	620.38	698.26	982.91	933.09	49.82	19.730	
6,600.00	5,650.00	9,581.00	4,889.74	24.94	151.20	10.56	620.38	698.26	1,047.92	999.04	48.88	21.438	
6,700.00	5,650.00	9,581.00	4,889.74	25.59	151.20	10.56	620.38	698.26	1,118.14	1,070.16	47.98	23.304	
6,800.00	5,650.00	9,581.00	4,889.74	26.26	151.20	10.56	620.38	698.26	1,192.61	1,145.49	47.13	25.305	
6,900.00	5,650.00	9,581.00	4,889.74	26.97	151.20	10.56	620.38	698.26	1,270.60	1,224.26	46.34	27.419	
7,000.00	5,650.00	9,581.00	4,889.74	27.71	151.20	10.56	620.38	698.26	1,351.49	1,305.86	45.62	29.623	
7,100.00	5,650.00	9,581.00	4,889.74	28.47	151.20	10.56	620.38	698.26	1,434.79	1,389.81	44.98	31.900	
7,200.00	5,650.00	9,581.00	4,889.74	29.25	151.20	10.56	620.38	698.26	1,520.10	1,475.70	44.40	34.235	
7,300.00	5,650.00	9,581.00	4,889.74	30.06	151.20	10.56	620.38	698.26	1,607.11	1,563.22	43.89	36.615	
7,400.00	5,650.00	9,581.00	4,889.74	30.88	151.20	10.56	620.38	698.26	1,695.55	1,652.11	43.44	39.031	
7,500.00	5,650.00	9,581.00	4,889.74	31.73	151.20	10.56	620.38	698.26	1,785.21	1,742.17	43.04	41.475	
7,600.00	5,650.00	9,581.00	4,889.74	32.59	151.20	10.56	620.38	698.26	1,875.92	1,833.23	42.69	43.938	
7,700.00	5,650.00	9,581.00	4,889.74	33.47	151.20	10.56	620.38	698.26	1,967.53	1,925.14	42.39	46.416	
7,800.00	5,650.00	9,581.00	4,889.74	34.36	151.20	10.56	620.38	698.26	2,059.92	2,017.80	42.12	48.905	
7,900.00	5,650.00	9,581.00	4,889.74	35.26	151.20	10.56	620.38	698.26	2,152.99	2,111.10	41.89	51.400	
8,000.00	5,650.00	9,581.00	4,889.74	36.18	151.20	10.56	620.38	698.26	2,246.66	2,204.97	41.68	53.900	
8,100.00	5,650.00	9,581.00	4,889.74	37.11	151.20	10.56	620.38	698.26	2,340.84	2,299.34	41.50	56.400	
8,200.00	5,650.00	9,581.00	4,889.74	38.05	151.20	10.56	620.38	698.26	2,435.50	2,394.15	41.35	58.901	
8,300.00	5,650.00	9,581.00	4,889.74	39.00	151.20	10.56	620.38	698.26	2,530.56	2,489.35	41.21	61.399	
8,400.00	5,650.00	9,581.00	4,889.74	39.96	151.20	10.56	620.38	698.26	2,625.99	2,584.89	41.10	63.894	
8,500.00	5,650.00	9,581.00	4,889.74	40.93	151.20	10.56	620.38	698.26	2,721.75	2,680.75	41.00	66.386	
8,600.00	5,650.00	9,581.00	4,889.74	41.90	151.20	10.56	620.38	698.26	2,817.80	2,776.89	40.91	68.872	
8,700.00	5,650.00	9,581.00	4,889.74	42.89	151.20	10.56	620.38	698.26	2,914.12	2,873.28	40.84	71.352	
8,800.00	5,650.00	9,581.00	4,889.74	43.88	151.20	10.56	620.38	698.26	3,010.68	2,969.90	40.78	73.827	
8,900.00	5,650.00	9,581.00	4,889.74	44.87	151.20	10.56	620.38	698.26	3,107.46	3,066.73	40.73	76.294	
9,000.00	5,650.00	9,581.00	4,889.74	45.88	151.20	10.56	620.38	698.26	3,204.43	3,163.75	40.69	78.755	
9,100.00	5,650.00	9,581.00	4,889.74	46.88	151.20	10.56	620.38	698.26	3,301.59	3,260.93	40.66	81.209	
9,200.00	5,650.00	9,581.00	4,889.74	47.90	151.20	10.56	620.38	698.26	3,398.91	3,358.28	40.63	83.655	
9,300.00	5,650.00	9,581.00	4,889.74	48.92	151.20	10.56	620.38	698.26	3,496.38	3,455.77	40.61	86.093	
9,400.00	5,650.00	9,581.00	4,889.74	49.94	151.20	10.56	620.38	698.26	3,593.99	3,553.39	40.60	88.523	
9,500.00	5,650.00	9,581.00	4,889.74	50.97	151.20	10.56	620.38	698.26	3,691.73	3,651.14	40.59	90.945	
9,600.00	5,650.00	9,581.00	4,889.74	52.00	151.20	10.56	620.38	698.26	3,789.59	3,748.99	40.59	93.359	
9,700.00	5,650.00	9,581.00	4,889.74	53.03	151.20	10.56	620.38	698.26	3,887.55	3,846.96	40.60	95.764	
9,800.00	5,650.00	9,581.00	4,889.74	54.07	151.20	10.56	620.38	698.26	3,985.62	3,945.02	40.60	98.161	
9,900.00	5,650.00	9,581.00	4,889.74	55.12	151.20	10.56	620.38	698.26	4,083.78	4,043.16	40.61	100.549	
10,000.00	5,650.00	9,581.00	4,889.74	56.16	151.20	10.56	620.38	698.26	4,182.03	4,141.40	40.63	102.929	
10,100.00	5,650.00	9,581.00	4,889.74	57.21	151.20	10.56	620.38	698.26	4,280.35	4,239.71	40.65	105.300	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - BURCH KEELY UNIT #966H - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 25-MWD+IGRF													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,200.00	5,650.00	9,581.00	4,889.74	58.26	151.20	10.56	620.38	698.26	4,378.76	4,338.09	40.67	107.663		
10,300.00	5,650.00	9,581.00	4,889.74	59.32	151.20	10.56	620.38	698.26	4,477.23	4,436.54	40.70	110.016		
10,400.00	5,650.00	9,581.00	4,889.74	60.38	151.20	10.56	620.38	698.26	4,575.78	4,535.05	40.72	112.361		
10,500.00	5,650.00	9,581.00	4,889.74	61.44	151.20	10.56	620.38	698.26	4,674.38	4,633.62	40.75	114.696		
10,600.00	5,650.00	9,581.00	4,889.74	62.50	151.20	10.56	620.38	698.26	4,773.04	4,732.25	40.79	117.023		
10,700.00	5,650.00	9,581.00	4,889.74	63.56	151.20	10.56	620.38	698.26	4,871.76	4,830.93	40.82	119.340		
10,800.00	5,650.00	9,581.00	4,889.74	64.63	151.20	10.56	620.38	698.26	4,970.52	4,929.66	40.86	121.649		

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT 19 FEDERAL #196H - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 4280-MWD+IGRF													Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
+N/-S (usft)	+E/-W (usft)												
0.00	0.00	0.00	0.00	0.00	0.00	-89.27	51.20	-4,027.51	4,027.89				
100.00	100.00	79.14	79.14	0.29	0.14	-89.27	51.20	-4,027.52	4,027.84	4,027.42	0.43	9,392.427	
200.00	200.00	178.07	178.07	0.65	0.32	-89.27	51.22	-4,027.55	4,027.88	4,026.91	0.96	4,175.528	
300.00	300.00	277.00	277.00	1.00	0.50	-89.27	51.25	-4,027.61	4,027.94	4,026.44	1.50	2,684.506	
400.00	399.98	375.91	375.91	1.36	0.67	-95.82	51.29	-4,027.70	4,028.20	4,026.17	2.04	1,978.877	
500.00	499.84	474.70	474.70	1.73	0.85	-95.88	51.34	-4,027.81	4,028.85	4,026.28	2.57	1,567.683	
600.00	599.45	573.25	573.25	2.09	1.03	-95.98	51.40	-4,027.95	4,029.90	4,026.79	3.10	1,298.258	
700.00	698.70	671.45	671.45	2.45	1.21	-96.12	51.47	-4,028.11	4,031.36	4,027.72	3.64	1,107.905	
800.00	797.47	8,771.99	4,786.46	2.81	128.90	172.06	14.23	101.87	4,010.27	3,976.07	34.20	117.271	
900.00	895.74	8,771.58	4,786.47	3.17	128.89	172.65	14.23	101.45	3,912.15	3,877.89	34.26	114.204	
1,000.00	993.97	8,771.20	4,786.48	3.52	128.88	172.68	14.23	101.07	3,814.19	3,779.84	34.35	111.042	
1,100.00	1,092.19	8,770.81	4,786.48	3.89	128.87	172.71	14.24	100.69	3,716.33	3,681.87	34.47	107.827	
1,200.00	1,190.42	8,770.43	4,786.49	4.26	128.85	172.74	14.24	100.30	3,618.60	3,583.99	34.61	104.557	
1,300.00	1,288.64	8,770.04	4,786.50	4.63	128.84	172.77	14.24	99.91	3,520.99	3,486.20	34.78	101.232	
1,400.00	1,386.86	8,769.65	4,786.51	5.00	128.83	172.80	14.25	99.52	3,423.51	3,388.53	34.99	97.854	
1,500.00	1,485.09	8,769.26	4,786.52	5.37	128.82	172.83	14.25	99.13	3,326.19	3,290.97	35.23	94.422	
1,600.00	1,583.31	8,768.87	4,786.53	5.74	128.80	172.86	14.25	98.74	3,229.03	3,193.53	35.51	90.938	
1,700.00	1,681.54	8,768.47	4,786.54	6.11	128.79	172.88	14.26	98.35	3,132.05	3,096.22	35.84	87.402	
1,800.00	1,779.76	8,768.08	4,786.55	6.49	128.78	172.91	14.26	97.95	3,035.27	2,999.06	36.21	83.817	
1,900.00	1,877.98	8,767.68	4,786.56	6.86	128.77	172.94	14.27	97.56	2,938.70	2,902.05	36.65	80.184	
2,000.00	1,976.21	8,767.29	4,786.57	7.23	128.76	172.97	14.27	97.16	2,842.37	2,805.22	37.15	76.509	
2,100.00	2,074.43	8,766.89	4,786.58	7.60	128.74	173.00	14.27	96.76	2,746.30	2,708.58	37.73	72.794	
2,200.00	2,172.66	8,766.49	4,786.59	7.98	128.73	173.03	14.28	96.36	2,650.53	2,612.14	38.39	69.046	
2,300.00	2,270.88	8,766.09	4,786.60	8.35	128.72	173.06	14.28	95.96	2,555.07	2,515.93	39.14	65.273	
2,400.00	2,369.11	8,765.68	4,786.61	8.72	128.70	173.09	14.28	95.56	2,459.98	2,419.97	40.01	61.484	
2,500.00	2,467.33	8,765.28	4,786.62	9.10	128.69	173.12	14.29	95.15	2,365.29	2,324.29	41.00	57.689	
2,600.00	2,565.55	8,764.87	4,786.63	9.47	128.68	173.15	14.29	94.75	2,271.06	2,228.92	42.13	53.902	
2,700.00	2,663.78	8,764.47	4,786.64	9.84	128.67	173.18	14.29	94.34	2,177.34	2,133.91	43.43	50.138	
2,800.00	2,762.00	8,764.06	4,786.65	10.22	128.65	173.21	14.30	93.93	2,084.20	2,039.30	44.91	46.412	
2,900.00	2,860.23	8,763.65	4,786.66	10.59	128.64	173.24	14.30	93.52	1,991.73	1,945.14	46.60	42.745	
3,000.00	2,958.45	8,763.24	4,786.67	10.96	128.63	173.27	14.30	93.11	1,900.03	1,851.50	48.52	39.156	
3,100.00	3,056.67	8,762.82	4,786.68	11.34	128.61	173.30	14.31	92.70	1,809.20	1,758.47	50.73	35.665	
3,200.00	3,154.90	8,762.41	4,786.69	11.71	128.60	173.33	14.31	92.28	1,719.39	1,666.15	53.24	32.294	
3,300.00	3,253.12	8,761.00	4,786.72	12.08	128.56	173.44	14.32	90.88	1,630.77	1,574.67	56.10	29.069	
3,400.00	3,351.35	8,761.00	4,786.72	12.46	128.56	173.44	14.32	90.88	1,543.54	1,484.16	59.37	25.997	
3,500.00	3,449.57	8,761.00	4,786.72	12.83	128.56	173.44	14.32	90.88	1,457.95	1,394.84	63.10	23.104	
3,600.00	3,547.80	8,761.00	4,786.72	13.20	128.56	173.44	14.32	90.88	1,374.30	1,306.96	67.34	20.407	
3,700.00	3,646.02	8,761.00	4,786.72	13.58	128.56	173.44	14.32	90.88	1,292.98	1,220.83	72.15	17.920	
3,800.00	3,744.24	8,761.00	4,786.72	13.95	128.56	173.44	14.32	90.88	1,214.46	1,136.87	77.58	15.653	
3,900.00	3,842.47	8,761.00	4,786.72	14.33	128.56	173.44	14.32	90.88	1,139.30	1,055.61	83.68	13.614	
4,000.00	3,940.69	8,761.00	4,786.72	14.70	128.56	173.44	14.32	90.88	1,068.22	977.75	90.47	11.808	
4,100.00	4,038.92	8,761.00	4,786.72	15.07	128.56	173.44	14.32	90.88	1,002.10	904.18	97.91	10.235	
4,200.00	4,137.14	8,761.00	4,786.72	15.45	128.56	173.44	14.32	90.88	941.96	836.05	105.91	8.894	
4,300.00	4,235.37	8,761.00	4,786.72	15.82	128.56	173.44	14.32	90.88	889.04	774.78	114.26	7.781	
4,400.00	4,333.59	8,761.00	4,786.72	16.20	128.56	173.44	14.32	90.88	844.69	722.08	122.61	6.889	
4,500.00	4,431.81	8,761.00	4,786.72	16.57	128.56	173.44	14.32	90.88	810.30	679.86	130.44	6.212	
4,600.00	4,530.04	8,761.00	4,786.72	16.94	128.56	173.44	14.32	90.88	787.21	650.03	137.17	5.739	
4,700.00	4,628.26	8,761.00	4,786.72	17.32	128.56	173.44	14.32	90.88	776.40	634.18	142.22	5.459	
4,739.99	4,667.55	8,761.00	4,786.72	17.47	128.56	163.42	14.32	90.88	775.51	631.85	143.66	5.398 CC, ES	
4,800.00	4,726.46	8,761.00	4,786.72	17.69	128.56	148.83	14.32	90.88	777.68	632.52	145.16	5.357 SF	
4,900.00	4,823.98	8,771.69	4,786.46	18.06	128.89	124.58	14.23	101.56	789.47	643.24	146.22	5.399	
5,000.00	4,919.77	8,794.66	4,785.91	18.41	129.62	108.35	14.03	124.53	810.63	664.97	145.66	5.565	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH KEELY UNIT 19 FEDERAL #196H - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 4280-MWD+IGRF													Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	5,012.77	8,827.57	4,785.14	18.74	130.65	96.53	13.74	157.42	839.43	695.61	143.83	5.836	
5,200.00	5,101.98	8,870.17	4,784.17	19.06	131.99	86.85	13.37	200.01	873.73	732.53	141.20	6.188	
5,300.00	5,186.40	8,922.27	4,783.06	19.36	133.64	78.38	12.92	252.10	911.24	773.01	138.23	6.592	
5,400.00	5,265.12	8,982.92	4,781.87	19.64	135.54	70.88	12.40	312.73	949.75	814.51	135.24	7.023	
5,500.00	5,337.27	9,051.37	4,780.48	19.93	137.70	64.30	11.88	381.17	987.27	854.83	132.45	7.454	
5,600.00	5,402.06	9,131.80	4,778.86	20.23	140.23	58.47	11.59	461.58	1,021.87	891.75	130.12	7.853	
5,700.00	5,458.78	9,209.09	4,777.38	20.56	142.67	53.86	11.32	538.85	1,052.22	924.26	127.96	8.223	
5,800.00	5,509.14	9,232.00	4,776.94	20.93	143.39	52.71	11.20	561.76	1,081.06	956.58	124.47	8.685	
5,900.00	5,559.14	9,232.00	4,776.94	21.35	143.39	52.71	11.20	561.76	1,117.60	997.65	119.95	9.317	
6,000.00	5,605.15	9,232.00	4,776.94	21.81	143.39	50.15	11.20	561.76	1,159.15	1,043.81	115.35	10.049	
6,100.00	5,635.72	9,232.00	4,776.94	22.29	143.39	46.98	11.20	561.76	1,198.08	1,086.80	111.28	10.767	
6,200.00	5,649.31	9,232.00	4,776.94	22.76	143.39	44.30	11.20	561.76	1,233.15	1,125.36	107.79	11.440	
6,300.00	5,650.00	9,232.00	4,776.94	23.24	143.39	43.24	11.20	561.76	1,267.34	1,162.61	104.73	12.101	
6,400.00	5,650.00	9,232.00	4,776.94	23.77	143.39	42.55	11.20	561.76	1,309.90	1,208.17	101.73	12.877	
6,500.00	5,650.00	9,232.00	4,776.94	24.33	143.39	41.68	11.20	561.76	1,360.51	1,261.67	98.84	13.765	
6,600.00	5,650.00	9,232.00	4,776.94	24.94	143.39	41.32	11.20	561.76	1,417.88	1,321.79	96.08	14.757	
6,700.00	5,650.00	9,232.00	4,776.94	25.59	143.39	41.32	11.20	561.76	1,479.90	1,386.56	93.34	15.855	
6,800.00	5,650.00	9,232.00	4,776.94	26.26	143.39	41.32	11.20	561.76	1,545.91	1,455.27	90.63	17.057	
6,900.00	5,650.00	9,232.00	4,776.94	26.97	143.39	41.32	11.20	561.76	1,615.41	1,527.40	88.01	18.356	
7,000.00	5,650.00	9,232.00	4,776.94	27.71	143.39	41.32	11.20	561.76	1,687.98	1,602.50	85.48	19.748	
7,100.00	5,650.00	9,232.00	4,776.94	28.47	143.39	41.32	11.20	561.76	1,763.24	1,680.17	83.06	21.228	
7,200.00	5,650.00	9,232.00	4,776.94	29.25	143.39	41.32	11.20	561.76	1,840.85	1,760.08	80.77	22.792	
7,300.00	5,650.00	9,232.00	4,776.94	30.06	143.39	41.32	11.20	561.76	1,920.53	1,841.94	78.59	24.436	
7,400.00	5,650.00	9,232.00	4,776.94	30.88	143.39	41.32	11.20	561.76	2,002.04	1,925.50	76.55	26.155	
7,500.00	5,650.00	9,232.00	4,776.94	31.73	143.39	41.32	11.20	561.76	2,085.16	2,010.54	74.62	27.945	
7,600.00	5,650.00	9,232.00	4,776.94	32.59	143.39	41.32	11.20	561.76	2,169.71	2,096.90	72.81	29.802	
7,700.00	5,650.00	9,232.00	4,776.94	33.47	143.39	41.32	11.20	561.76	2,255.52	2,184.41	71.10	31.722	
7,800.00	5,650.00	9,232.00	4,776.94	34.36	143.39	41.32	11.20	561.76	2,342.45	2,272.95	69.50	33.702	
7,900.00	5,650.00	9,232.00	4,776.94	35.26	143.39	41.32	11.20	561.76	2,430.39	2,362.39	68.00	35.739	
8,000.00	5,650.00	9,232.00	4,776.94	36.18	143.39	41.32	11.20	561.76	2,519.23	2,452.64	66.59	37.829	
8,100.00	5,650.00	9,232.00	4,776.94	37.11	143.39	41.32	11.20	561.76	2,608.88	2,543.61	65.27	39.970	
8,200.00	5,650.00	9,232.00	4,776.94	38.05	143.39	41.32	11.20	561.76	2,699.26	2,635.23	64.03	42.157	
8,300.00	5,650.00	9,232.00	4,776.94	39.00	143.39	41.32	11.20	561.76	2,790.29	2,727.43	62.86	44.389	
8,400.00	5,650.00	9,232.00	4,776.94	39.96	143.39	41.32	11.20	561.76	2,881.91	2,820.15	61.76	46.662	
8,500.00	5,650.00	9,232.00	4,776.94	40.93	143.39	41.32	11.20	561.76	2,974.08	2,913.35	60.73	48.974	
8,600.00	5,650.00	9,232.00	4,776.94	41.90	143.39	41.32	11.20	561.76	3,066.74	3,006.98	59.75	51.323	
8,700.00	5,650.00	9,232.00	4,776.94	42.89	143.39	41.32	11.20	561.76	3,159.84	3,101.01	58.84	53.706	
8,800.00	5,650.00	9,232.00	4,776.94	43.88	143.39	41.32	11.20	561.76	3,253.36	3,195.39	57.97	56.121	
8,900.00	5,650.00	9,232.00	4,776.94	44.87	143.39	41.32	11.20	561.76	3,347.25	3,290.09	57.15	58.566	
9,000.00	5,650.00	9,232.00	4,776.94	45.88	143.39	41.32	11.20	561.76	3,441.48	3,385.10	56.38	61.039	
9,100.00	5,650.00	9,232.00	4,776.94	46.88	143.39	41.32	11.20	561.76	3,536.03	3,480.38	55.65	63.538	
9,200.00	5,650.00	9,232.00	4,776.94	47.90	143.39	41.32	11.20	561.76	3,630.87	3,575.91	54.96	66.061	
9,300.00	5,650.00	9,232.00	4,776.94	48.92	143.39	41.32	11.20	561.76	3,725.98	3,671.67	54.31	68.606	
9,400.00	5,650.00	9,232.00	4,776.94	49.94	143.39	41.32	11.20	561.76	3,821.35	3,767.65	53.69	71.171	
9,500.00	5,650.00	9,232.00	4,776.94	50.97	143.39	41.32	11.20	561.76	3,916.94	3,863.83	53.11	73.756	
9,600.00	5,650.00	9,232.00	4,776.94	52.00	143.39	41.32	11.20	561.76	4,012.75	3,960.19	52.55	76.358	
9,700.00	5,650.00	9,232.00	4,776.94	53.03	143.39	41.32	11.20	561.76	4,108.75	4,056.73	52.03	78.975	
9,800.00	5,650.00	9,232.00	4,776.94	54.07	143.39	41.32	11.20	561.76	4,204.95	4,153.42	51.53	81.608	
9,900.00	5,650.00	9,232.00	4,776.94	55.12	143.39	41.32	11.20	561.76	4,301.32	4,250.26	51.05	84.253	
10,000.00	5,650.00	9,232.00	4,776.94	56.16	143.39	41.32	11.20	561.76	4,397.84	4,347.24	50.60	86.910	
10,100.00	5,650.00	9,232.00	4,776.94	57.21	143.39	41.32	11.20	561.76	4,494.53	4,444.35	50.17	89.578	
10,200.00	5,650.00	9,232.00	4,776.94	58.26	143.39	41.32	11.20	561.76	4,591.35	4,541.58	49.77	92.255	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - BURCH KEELY UNIT 19 FEDERAL #196H - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 4280-MWD+IGRF												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)		Reference	Offset	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		
10,300.00	5,650.00	9,232.00	4,776.94		59.32	143.39	11.20	561.76	4,688.31	4,638.92	49.38		94.941
10,400.00	5,650.00	9,232.00	4,776.94		60.38	143.39	11.20	561.76	4,785.39	4,736.37	49.01		97.633
10,500.00	5,650.00	9,232.00	4,776.94		61.44	143.39	11.20	561.76	4,882.59	4,833.92	48.66		100.332
10,600.00	5,650.00	9,232.00	4,776.94		62.50	143.39	11.20	561.76	4,979.90	4,931.57	48.33		103.036

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH-FEDERAL A #10 - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 300-UNKNOWN													Offset Well Error:
Reference	Offset	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)		+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
0.00	0.00	0.00	0.00	12.27	2,648.54	576.21	2,710.51						
100.00	100.00	91.00	91.00	12.27	2,648.54	576.21	2,710.49	2,708.42	2.08	1,305.354			
200.00	200.00	191.00	191.00	12.27	2,648.54	576.21	2,710.49	2,706.09	4.40	615.800			
300.00	300.00	291.00	291.00	12.27	2,648.54	576.21	2,710.49	2,703.77	6.73	402.944			
400.00	399.98	390.98	390.98	5.75	2,648.54	576.21	2,708.76	2,697.86	10.90	248.458			
500.00	499.84	490.84	490.84	5.77	2,648.54	576.21	2,703.55	2,688.29	15.26	177.172			
600.00	599.45	590.45	590.45	5.81	2,648.54	576.21	2,694.88	2,675.27	19.61	137.443			
700.00	698.70	689.70	689.70	5.86	2,648.54	576.21	2,682.76	2,658.82	23.94	112.063			
800.00	797.47	788.47	788.47	5.93	2,648.54	576.21	2,667.19	2,638.94	28.25	94.409			
900.00	895.74	886.74	886.74	5.99	2,648.54	576.21	2,648.81	2,616.27	32.54	81.398			
1,000.00	993.97	984.97	984.97	6.03	2,648.54	576.21	2,630.15	2,593.33	36.82	71.432			
1,100.00	1,092.19	1,083.19	1,083.19	6.07	2,648.54	576.21	2,611.49	2,570.39	41.10	63.539			
1,200.00	1,190.42	1,181.42	1,181.42	6.12	2,648.54	576.21	2,592.83	2,547.45	45.38	57.133			
1,300.00	1,288.64	1,279.64	1,279.64	6.16	2,648.54	576.21	2,574.17	2,524.51	49.66	51.831			
1,400.00	1,386.86	1,377.86	1,377.86	6.20	2,648.54	576.21	2,555.52	2,501.57	53.95	47.371			
1,500.00	1,485.09	1,476.09	1,476.09	6.25	2,648.54	576.21	2,536.86	2,478.63	58.23	43.566			
1,600.00	1,583.31	1,574.31	1,574.31	6.30	2,648.54	576.21	2,518.21	2,455.69	62.51	40.282			
1,700.00	1,681.54	1,672.54	1,672.54	6.34	2,648.54	576.21	2,499.56	2,432.76	66.80	37.419			
1,800.00	1,779.76	1,770.76	1,770.76	6.39	2,648.54	576.21	2,480.91	2,409.82	71.08	34.902			
1,900.00	1,877.98	1,868.98	1,868.98	6.44	2,648.54	576.21	2,462.26	2,386.89	75.37	32.670			
2,000.00	1,976.21	1,967.21	1,967.21	6.49	2,648.54	576.21	2,443.61	2,363.96	79.65	30.679			
2,100.00	2,074.43	2,065.43	2,065.43	6.54	2,648.54	576.21	2,424.97	2,341.03	83.94	28.890			
2,200.00	2,172.66	2,163.66	2,163.66	6.59	2,648.54	576.21	2,406.32	2,318.10	88.22	27.276			
2,300.00	2,270.88	2,261.88	2,261.88	6.64	2,648.54	576.21	2,387.68	2,295.17	92.51	25.811			
2,400.00	2,369.11	2,360.11	2,360.11	6.69	2,648.54	576.21	2,369.04	2,272.25	96.79	24.475			
2,500.00	2,467.33	2,458.33	2,458.33	6.75	2,648.54	576.21	2,350.40	2,249.33	101.08	23.253			
2,600.00	2,565.55	2,556.55	2,556.55	6.80	2,648.54	576.21	2,331.77	2,226.40	105.36	22.130			
2,700.00	2,663.78	2,654.78	2,654.78	6.86	2,648.54	576.21	2,313.14	2,203.49	109.65	21.096			
2,800.00	2,762.00	2,753.00	2,753.00	6.91	2,648.54	576.21	2,294.50	2,180.57	113.94	20.138			
2,900.00	2,860.23	2,851.23	2,851.23	6.97	2,648.54	576.21	2,275.88	2,157.65	118.22	19.251			
3,000.00	2,958.45	2,949.45	2,949.45	7.03	2,648.54	576.21	2,257.25	2,134.74	122.51	18.425			
3,100.00	3,056.67	3,047.67	3,047.67	7.09	2,648.54	576.21	2,238.62	2,111.83	126.79	17.656			
3,200.00	3,154.90	3,145.90	3,145.90	7.15	2,648.54	576.21	2,220.00	2,088.92	131.08	16.936			
3,300.00	3,253.12	3,242.00	3,242.00	7.21	2,648.54	576.21	2,201.38	2,066.10	135.28	16.272			
3,400.00	3,351.35	3,242.00	3,242.00	7.21	2,648.54	576.21	2,185.07	2,049.50	135.57	16.117			
3,500.00	3,449.57	3,242.00	3,242.00	7.21	2,648.54	576.21	2,173.24	2,037.65	135.59	16.028			
3,600.00	3,547.80	3,242.00	3,242.00	7.21	2,648.54	576.21	2,165.97	2,030.64	135.32	16.006 SF			
3,700.00	3,646.02	3,242.00	3,242.00	7.21	2,648.54	576.21	2,163.30	2,028.53	134.77	16.051 ES			
3,707.78	3,653.66	3,242.00	3,242.00	7.21	2,648.54	576.21	2,163.28	2,028.57	134.72	16.058 CC			
3,800.00	3,744.24	3,242.00	3,242.00	7.21	2,648.54	576.21	2,165.25	2,031.31	133.94	16.166			
3,900.00	3,842.47	3,242.00	3,242.00	7.21	2,648.54	576.21	2,171.81	2,038.98	132.83	16.350			
4,000.00	3,940.69	3,242.00	3,242.00	7.21	2,648.54	576.21	2,182.93	2,051.47	131.46	16.606			
4,100.00	4,038.92	3,242.00	3,242.00	7.21	2,648.54	576.21	2,198.55	2,068.71	129.84	16.933			
4,200.00	4,137.14	3,242.00	3,242.00	7.21	2,648.54	576.21	2,218.57	2,090.58	127.99	17.334			
4,300.00	4,235.37	3,242.00	3,242.00	7.21	2,648.54	576.21	2,242.88	2,116.94	125.94	17.808			
4,400.00	4,333.59	3,242.00	3,242.00	7.21	2,648.54	576.21	2,271.33	2,147.61	123.72	18.358			
4,500.00	4,431.81	3,242.00	3,242.00	7.21	2,648.54	576.21	2,303.78	2,182.43	121.35	18.985			
4,600.00	4,530.04	3,242.00	3,242.00	7.21	2,648.54	576.21	2,340.05	2,221.20	118.86	19.688			
4,700.00	4,628.26	3,242.00	3,242.00	7.21	2,648.54	576.21	2,379.98	2,263.71	116.27	20.470			
4,800.00	4,726.46	3,242.00	3,242.00	-14.96	2,648.54	576.21	2,423.25	2,309.64	113.61	21.330			
4,900.00	4,823.98	3,242.00	3,242.00	-34.65	2,648.54	576.21	2,469.20	2,358.29	110.91	22.263			
5,000.00	4,919.77	3,242.00	3,242.00	-44.75	2,648.54	576.21	2,517.19	2,408.96	108.23	23.257			

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH-FEDERAL A #10 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Rule Assigned: Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,012.77	3,242.00	3,242.00	18.74	123.58	-49.28	2,648.54	576.21	2,566.59	2,460.96	105.63	24.297	
5,200.00	5,101.98	3,242.00	3,242.00	19.06	123.58	-50.89	2,648.54	576.21	2,616.79	2,513.62	103.18	25.362	
5,300.00	5,186.40	3,242.00	3,242.00	19.36	123.58	-50.89	2,648.54	576.21	2,667.22	2,566.30	100.92	26.429	
5,400.00	5,265.12	3,242.00	3,242.00	19.64	123.58	-50.00	2,648.54	576.21	2,717.33	2,618.41	98.92	27.470	
5,500.00	5,337.27	3,242.00	3,242.00	19.93	123.58	-48.62	2,648.54	576.21	2,766.59	2,669.36	97.23	28.454	
5,600.00	5,402.06	3,242.00	3,242.00	20.23	123.58	-46.98	2,648.54	576.21	2,814.54	2,718.64	95.90	29.349	
5,700.00	5,458.78	3,242.00	3,242.00	20.56	123.58	-45.24	2,648.54	576.21	2,860.71	2,765.75	94.96	30.127	
5,800.00	5,509.14	3,242.00	3,242.00	20.93	123.58	-44.74	2,648.54	576.21	2,906.03	2,811.67	94.36	30.796	
5,900.00	5,559.14	3,242.00	3,242.00	21.35	123.58	-44.74	2,648.54	576.21	2,953.85	2,859.92	93.93	31.448	
6,000.00	5,605.15	3,242.00	3,242.00	21.81	123.58	-42.13	2,648.54	576.21	3,001.41	2,907.69	93.72	32.025	
6,100.00	5,635.72	3,242.00	3,242.00	22.29	123.58	-39.36	2,648.54	576.21	3,040.46	2,946.45	94.01	32.341	
6,200.00	5,649.31	3,242.00	3,242.00	22.76	123.58	-37.45	2,648.54	576.21	3,069.76	2,974.93	94.82	32.373	
6,300.00	5,650.00	3,242.00	3,242.00	23.24	123.58	-37.30	2,648.54	576.21	3,091.69	2,995.68	96.01	32.201	
6,400.00	5,650.00	3,242.00	3,242.00	23.77	123.58	-37.67	2,648.54	576.21	3,114.19	3,016.93	97.25	32.022	
6,500.00	5,650.00	3,242.00	3,242.00	24.33	123.58	-38.05	2,648.54	576.21	3,137.64	3,039.13	98.51	31.850	
6,600.00	5,650.00	3,242.00	3,242.00	24.94	123.58	-38.19	2,648.54	576.21	3,162.45	3,062.64	99.80	31.687	
6,700.00	5,650.00	3,242.00	3,242.00	25.59	123.58	-38.19	2,648.54	576.21	3,190.06	3,088.88	101.17	31.530	
6,800.00	5,650.00	3,242.00	3,242.00	26.26	123.58	-38.19	2,648.54	576.21	3,220.54	3,117.92	102.61	31.385	
6,900.00	5,650.00	3,242.00	3,242.00	26.97	123.58	-38.19	2,648.54	576.21	3,253.81	3,149.70	104.10	31.255	
7,000.00	5,650.00	3,242.00	3,242.00	27.71	123.58	-38.19	2,648.54	576.21	3,289.78	3,184.15	105.63	31.144	
7,100.00	5,650.00	3,242.00	3,242.00	28.47	123.58	-38.19	2,648.54	576.21	3,328.37	3,221.19	107.18	31.053	
7,200.00	5,650.00	3,242.00	3,242.00	29.25	123.58	-38.19	2,648.54	576.21	3,369.49	3,260.74	108.75	30.984	
7,300.00	5,650.00	3,242.00	3,242.00	30.06	123.58	-38.19	2,648.54	576.21	3,413.04	3,302.73	110.32	30.938	
7,400.00	5,650.00	3,242.00	3,242.00	30.88	123.58	-38.19	2,648.54	576.21	3,458.94	3,347.06	111.88	30.917	
7,500.00	5,650.00	3,242.00	3,242.00	31.73	123.58	-38.19	2,648.54	576.21	3,507.09	3,393.67	113.42	30.920	
7,600.00	5,650.00	3,242.00	3,242.00	32.59	123.58	-38.19	2,648.54	576.21	3,557.40	3,442.45	114.95	30.949	
7,700.00	5,650.00	3,242.00	3,242.00	33.47	123.58	-38.19	2,648.54	576.21	3,609.77	3,493.33	116.44	31.001	
7,800.00	5,650.00	3,242.00	3,242.00	34.36	123.58	-38.19	2,648.54	576.21	3,664.13	3,546.23	117.90	31.078	
7,900.00	5,650.00	3,242.00	3,242.00	35.26	123.58	-38.19	2,648.54	576.21	3,720.39	3,601.06	119.33	31.178	
8,000.00	5,650.00	3,242.00	3,242.00	36.18	123.58	-38.19	2,648.54	576.21	3,778.45	3,657.73	120.72	31.300	
8,100.00	5,650.00	3,242.00	3,242.00	37.11	123.58	-38.19	2,648.54	576.21	3,838.24	3,716.18	122.06	31.445	
8,200.00	5,650.00	3,242.00	3,242.00	38.05	123.58	-38.19	2,648.54	576.21	3,899.68	3,776.31	123.37	31.611	
8,300.00	5,650.00	3,242.00	3,242.00	39.00	123.58	-38.19	2,648.54	576.21	3,962.69	3,838.06	124.63	31.797	
8,400.00	5,650.00	3,242.00	3,242.00	39.96	123.58	-38.19	2,648.54	576.21	4,027.19	3,901.35	125.84	32.002	
8,500.00	5,650.00	3,242.00	3,242.00	40.93	123.58	-38.19	2,648.54	576.21	4,093.13	3,966.11	127.01	32.226	
8,600.00	5,650.00	3,242.00	3,242.00	41.90	123.58	-38.19	2,648.54	576.21	4,160.42	4,032.27	128.14	32.467	
8,700.00	5,650.00	3,242.00	3,242.00	42.89	123.58	-38.19	2,648.54	576.21	4,229.00	4,099.78	129.23	32.725	
8,800.00	5,650.00	3,242.00	3,242.00	43.88	123.58	-38.19	2,648.54	576.21	4,298.82	4,168.55	130.27	32.999	
8,900.00	5,650.00	3,242.00	3,242.00	44.87	123.58	-38.19	2,648.54	576.21	4,369.81	4,238.54	131.28	33.287	
9,000.00	5,650.00	3,242.00	3,242.00	45.88	123.58	-38.19	2,648.54	576.21	4,441.92	4,309.68	132.24	33.590	
9,100.00	5,650.00	3,242.00	3,242.00	46.88	123.58	-38.19	2,648.54	576.21	4,515.09	4,381.93	133.16	33.907	
9,200.00	5,650.00	3,242.00	3,242.00	47.90	123.58	-38.19	2,648.54	576.21	4,589.28	4,455.23	134.05	34.236	
9,300.00	5,650.00	3,242.00	3,242.00	48.92	123.58	-38.19	2,648.54	576.21	4,664.43	4,529.53	134.90	34.577	
9,400.00	5,650.00	3,242.00	3,242.00	49.94	123.58	-38.19	2,648.54	576.21	4,740.49	4,604.78	135.71	34.930	
9,500.00	5,650.00	3,242.00	3,242.00	50.97	123.58	-38.19	2,648.54	576.21	4,817.44	4,680.94	136.50	35.294	
9,600.00	5,650.00	3,242.00	3,242.00	52.00	123.58	-38.19	2,648.54	576.21	4,895.21	4,757.96	137.25	35.667	
9,700.00	5,650.00	3,242.00	3,242.00	53.03	123.58	-38.19	2,648.54	576.21	4,973.78	4,835.81	137.97	36.051	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH-FEDERAL A #11 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft	
Survey Program: 300-UNKNOWN													Offset Well Error:	0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning		
+N/-S (usft)	+E/-W (usft)														
0.00	0.00	0.00	0.00	0.00	0.00	41.32	674.50	592.97	898.20	898.09	896.08	2.01	447.496		
100.00	100.00	86.00	86.00	0.29	1.72	41.32	674.50	592.97	898.09	896.08	2.01	447.496			
200.00	200.00	186.00	186.00	0.65	3.72	41.32	674.50	592.97	898.09	893.72	4.37	205.732			
300.00	300.00	286.00	286.00	1.00	5.72	41.32	674.50	592.97	898.09	891.37	6.72	133.570			
400.00	399.98	385.98	385.98	1.36	9.44	34.87	674.50	592.97	896.66	885.85	10.80	83.010			
500.00	499.84	485.84	485.84	1.73	13.43	35.11	674.50	592.97	892.37	877.21	15.16	58.875			
600.00	599.45	585.45	585.45	2.09	17.42	35.52	674.50	592.97	885.25	865.74	19.50	45.391			
700.00	698.70	684.70	684.70	2.45	21.39	36.10	674.50	592.97	875.34	851.50	23.83	36.727			
800.00	797.47	783.47	783.47	2.81	25.34	36.86	674.50	592.97	862.70	834.56	28.15	30.652			
900.00	895.74	881.74	881.74	3.17	29.27	37.68	674.50	592.97	847.91	815.47	32.44	26.141			
1,000.00	993.97	979.97	979.97	3.52	33.20	38.46	674.50	592.97	833.04	796.32	36.72	22.686			
1,100.00	1,092.19	1,078.19	1,078.19	3.89	37.13	39.27	674.50	592.97	818.33	777.32	41.01	19.956			
1,200.00	1,190.42	1,176.42	1,176.42	4.26	41.06	40.11	674.50	592.97	803.79	758.49	45.30	17.745			
1,300.00	1,288.64	1,274.64	1,274.64	4.63	44.99	40.98	674.50	592.97	789.42	739.84	49.59	15.921			
1,400.00	1,386.86	1,372.86	1,372.86	5.00	48.91	41.89	674.50	592.97	775.25	721.37	53.88	14.390			
1,500.00	1,485.09	1,471.09	1,471.09	5.37	52.84	42.82	674.50	592.97	761.27	703.10	58.17	13.088			
1,600.00	1,583.31	1,569.31	1,569.31	5.74	56.77	43.79	674.50	592.97	747.50	685.04	62.46	11.968			
1,700.00	1,681.54	1,667.54	1,667.54	6.11	60.70	44.80	674.50	592.97	733.95	667.20	66.75	10.995			
1,800.00	1,779.76	1,765.76	1,765.76	6.49	64.63	45.84	674.50	592.97	720.64	649.59	71.05	10.143			
1,900.00	1,877.98	1,863.98	1,863.98	6.86	68.56	46.92	674.50	592.97	707.58	632.23	75.34	9.391			
2,000.00	1,976.21	1,962.21	1,962.21	7.23	72.49	48.04	674.50	592.97	694.77	615.13	79.64	8.724			
2,100.00	2,074.43	2,060.43	2,060.43	7.60	76.42	49.20	674.50	592.97	682.24	598.30	83.94	8.128			
2,200.00	2,172.66	2,158.66	2,158.66	7.98	80.35	50.40	674.50	592.97	670.00	581.77	88.24	7.593			
2,300.00	2,270.88	2,256.88	2,256.88	8.35	84.28	51.64	674.50	592.97	658.07	565.54	92.54	7.111			
2,400.00	2,369.11	2,355.11	2,355.11	8.72	88.20	52.93	674.50	592.97	646.47	549.63	96.84	6.676			
2,500.00	2,467.33	2,453.33	2,453.33	9.10	92.13	54.27	674.50	592.97	635.20	534.06	101.14	6.280			
2,600.00	2,565.55	2,551.55	2,551.55	9.47	96.06	55.65	674.50	592.97	624.30	518.86	105.44	5.921			
2,700.00	2,663.78	2,649.78	2,649.78	9.84	99.99	57.07	674.50	592.97	613.78	504.03	109.75	5.593			
2,800.00	2,762.00	2,748.00	2,748.00	10.22	103.92	58.55	674.50	592.97	603.65	489.60	114.05	5.293			
2,900.00	2,860.23	2,846.23	2,846.23	10.59	107.85	60.07	674.50	592.97	593.95	475.59	118.36	5.018			
3,000.00	2,958.45	2,944.45	2,944.45	10.96	111.78	61.65	674.50	592.97	584.69	462.03	122.66	4.767			
3,100.00	3,056.67	3,042.67	3,042.67	11.34	115.71	63.27	674.50	592.97	575.89	448.92	126.97	4.536			
3,200.00	3,154.90	3,140.90	3,140.90	11.71	119.64	64.93	674.50	592.97	567.57	436.30	131.28	4.323			
3,300.00	3,253.12	3,239.12	3,239.12	12.08	123.56	66.65	674.50	592.97	559.76	424.18	135.59	4.128			
3,364.73	3,316.71	3,262.00	3,262.00	12.33	124.48	67.05	674.50	592.97	556.48	420.05	136.43	4.079	CC, ES, SF		
3,400.00	3,351.35	3,262.00	3,262.00	12.46	124.48	67.05	674.50	592.97	557.59	421.87	135.72	4.108			
3,500.00	3,449.57	3,262.00	3,262.00	12.83	124.48	67.05	674.50	592.97	572.68	441.61	131.08	4.369			
3,600.00	3,547.80	3,262.00	3,262.00	13.20	124.48	67.05	674.50	592.97	604.17	480.76	123.41	4.896			
3,700.00	3,646.02	3,262.00	3,262.00	13.58	124.48	67.05	674.50	592.97	649.67	535.52	114.16	5.691			
3,800.00	3,744.24	3,262.00	3,262.00	13.95	124.48	67.05	674.50	592.97	706.49	601.91	104.58	6.756			
3,900.00	3,842.47	3,262.00	3,262.00	14.33	124.48	67.05	674.50	592.97	772.13	676.64	95.48	8.087			
4,000.00	3,940.69	3,262.00	3,262.00	14.70	124.48	67.05	674.50	592.97	844.53	757.28	87.25	9.679			
4,100.00	4,038.92	3,262.00	3,262.00	15.07	124.48	67.05	674.50	592.97	922.11	842.11	80.00	11.526			
4,200.00	4,137.14	3,262.00	3,262.00	15.45	124.48	67.05	674.50	592.97	1,003.66	929.95	73.71	13.616			
4,300.00	4,235.37	3,262.00	3,262.00	15.82	124.48	67.05	674.50	592.97	1,088.30	1,020.00	68.29	15.936			
4,400.00	4,333.59	3,262.00	3,262.00	16.20	124.48	67.05	674.50	592.97	1,175.35	1,111.72	63.63	18.471			
4,500.00	4,431.81	3,262.00	3,262.00	16.57	124.48	67.05	674.50	592.97	1,264.32	1,204.69	59.63	21.203			
4,600.00	4,530.04	3,262.00	3,262.00	16.94	124.48	67.05	674.50	592.97	1,354.83	1,298.64	56.18	24.115			
4,700.00	4,628.26	3,262.00	3,262.00	17.32	124.48	67.05	674.50	592.97	1,446.58	1,393.37	53.21	27.185			
4,800.00	4,726.46	3,262.00	3,262.00	17.69	124.48	47.35	674.50	592.97	1,538.23	1,487.84	50.38	30.530			
4,900.00	4,823.98	3,262.00	3,262.00	18.06	124.48	28.85	674.50	592.97	1,627.03	1,579.84	47.19	34.481			
5,000.00	4,919.77	3,262.00	3,262.00	18.41	124.48	18.56	674.50	592.97	1,712.48	1,668.80	43.68	39.204			

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH-FEDERAL A #11 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning	
							+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,100.00	5,012.77	3,262.00	3,262.00	18.74	124.48	12.95	674.50	592.97	1,794.19	1,754.26	39.93	44.936		
5,200.00	5,101.98	3,262.00	3,262.00	19.06	124.48	9.69	674.50	592.97	1,871.80	1,835.81	35.99	52.015		
5,300.00	5,186.40	3,262.00	3,262.00	19.36	124.48	7.69	674.50	592.97	1,945.01	1,913.08	31.92	60.929		
5,400.00	5,265.12	3,262.00	3,262.00	19.64	124.48	6.40	674.50	592.97	2,013.53	1,985.70	27.82	72.366		
5,500.00	5,337.27	3,262.00	3,262.00	19.93	124.48	5.54	674.50	592.97	2,077.11	2,053.28	23.83	87.153		
5,600.00	5,402.06	3,262.00	3,262.00	20.23	124.48	4.96	674.50	592.97	2,135.54	2,115.31	20.23	105.554		
5,700.00	5,458.78	3,262.00	3,262.00	20.56	124.48	4.57	674.50	592.97	2,188.60	2,170.94	17.66	123.931		
5,800.00	5,509.14	3,262.00	3,262.00	20.93	124.48	4.48	674.50	592.97	2,238.44	2,221.19	17.24	129.804		
5,900.00	5,559.14	3,262.00	3,262.00	21.35	124.48	4.48	674.50	592.97	2,291.22	2,272.01	19.21	119.278		
6,000.00	5,605.15	3,262.00	3,262.00	21.81	124.48	4.16	674.50	592.97	2,343.30	2,320.78	22.52	104.076		
6,100.00	5,635.72	3,262.00	3,262.00	22.29	124.48	3.85	674.50	592.97	2,383.92	2,357.24	26.68	89.353		
6,200.00	5,649.31	3,262.00	3,262.00	22.76	124.48	3.66	674.50	592.97	2,411.90	2,380.53	31.37	76.893		
6,300.00	5,650.00	3,262.00	3,262.00	23.24	124.48	3.34	674.50	592.97	2,431.32	2,394.98	36.34	66.909		
6,400.00	5,650.00	3,262.00	3,262.00	23.77	124.48	2.87	674.50	592.97	2,454.18	2,412.81	41.37	59.320		
6,500.00	5,650.00	3,262.00	3,262.00	24.33	124.48	2.32	674.50	592.97	2,481.04	2,434.67	46.37	53.508		
6,600.00	5,650.00	3,262.00	3,262.00	24.94	124.48	2.09	674.50	592.97	2,511.70	2,460.43	51.26	48.995		
6,700.00	5,650.00	3,262.00	3,262.00	25.59	124.48	2.09	674.50	592.97	2,545.93	2,489.91	56.02	45.445		
6,800.00	5,650.00	3,262.00	3,262.00	26.26	124.48	2.09	674.50	592.97	2,583.58	2,522.96	60.62	42.619		
6,900.00	5,650.00	3,262.00	3,262.00	26.97	124.48	2.09	674.50	592.97	2,624.50	2,559.46	65.04	40.349		
7,000.00	5,650.00	3,262.00	3,262.00	27.71	124.48	2.09	674.50	592.97	2,668.54	2,599.26	69.28	38.516		
7,100.00	5,650.00	3,262.00	3,262.00	28.47	124.48	2.09	674.50	592.97	2,715.56	2,642.22	73.33	37.031		
7,200.00	5,650.00	3,262.00	3,262.00	29.25	124.48	2.09	674.50	592.97	2,765.39	2,688.20	77.19	35.827		
7,300.00	5,650.00	3,262.00	3,262.00	30.06	124.48	2.09	674.50	592.97	2,817.89	2,737.04	80.85	34.855		
7,400.00	5,650.00	3,262.00	3,262.00	30.88	124.48	2.09	674.50	592.97	2,872.91	2,788.59	84.32	34.073		
7,500.00	5,650.00	3,262.00	3,262.00	31.73	124.48	2.09	674.50	592.97	2,930.31	2,842.72	87.60	33.452		
7,600.00	5,650.00	3,262.00	3,262.00	32.59	124.48	2.09	674.50	592.97	2,989.96	2,899.26	90.70	32.966		
7,700.00	5,650.00	3,262.00	3,262.00	33.47	124.48	2.09	674.50	592.97	3,051.72	2,958.09	93.62	32.595		
7,800.00	5,650.00	3,262.00	3,262.00	34.36	124.48	2.09	674.50	592.97	3,115.46	3,019.08	96.38	32.324		
7,900.00	5,650.00	3,262.00	3,262.00	35.26	124.48	2.09	674.50	592.97	3,181.07	3,082.10	98.98	32.139		
8,000.00	5,650.00	3,262.00	3,262.00	36.18	124.48	2.09	674.50	592.97	3,248.44	3,147.01	101.42	32.028		
8,100.00	5,650.00	3,262.00	3,262.00	37.11	124.48	2.09	674.50	592.97	3,317.45	3,213.72	103.73	31.983		
8,200.00	5,650.00	3,262.00	3,262.00	38.05	124.48	2.09	674.50	592.97	3,388.01	3,282.12	105.89	31.995		
8,300.00	5,650.00	3,262.00	3,262.00	39.00	124.48	2.09	674.50	592.97	3,460.02	3,352.09	107.93	32.058		
8,400.00	5,650.00	3,262.00	3,262.00	39.96	124.48	2.09	674.50	592.97	3,533.39	3,423.54	109.85	32.166		
8,500.00	5,650.00	3,262.00	3,262.00	40.93	124.48	2.09	674.50	592.97	3,608.04	3,496.39	111.65	32.315		
8,600.00	5,650.00	3,262.00	3,262.00	41.90	124.48	2.09	674.50	592.97	3,683.90	3,570.54	113.35	32.499		
8,700.00	5,650.00	3,262.00	3,262.00	42.89	124.48	2.09	674.50	592.97	3,760.88	3,645.93	114.95	32.716		
8,800.00	5,650.00	3,262.00	3,262.00	43.88	124.48	2.09	674.50	592.97	3,838.92	3,722.46	116.46	32.962		
8,900.00	5,650.00	3,262.00	3,262.00	44.87	124.48	2.09	674.50	592.97	3,917.97	3,800.08	117.89	33.235		
9,000.00	5,650.00	3,262.00	3,262.00	45.88	124.48	2.09	674.50	592.97	3,997.95	3,878.72	119.23	33.532		
9,100.00	5,650.00	3,262.00	3,262.00	46.88	124.48	2.09	674.50	592.97	4,078.81	3,958.31	120.50	33.850		
9,200.00	5,650.00	3,262.00	3,262.00	47.90	124.48	2.09	674.50	592.97	4,160.51	4,038.81	121.69	34.188		
9,300.00	5,650.00	3,262.00	3,262.00	48.92	124.48	2.09	674.50	592.97	4,242.99	4,120.16	122.83	34.544		
9,400.00	5,650.00	3,262.00	3,262.00	49.94	124.48	2.09	674.50	592.97	4,326.21	4,202.31	123.90	34.917		
9,500.00	5,650.00	3,262.00	3,262.00	50.97	124.48	2.09	674.50	592.97	4,410.12	4,285.21	124.91	35.306		
9,600.00	5,650.00	3,262.00	3,262.00	52.00	124.48	2.09	674.50	592.97	4,494.70	4,368.82	125.87	35.708		
9,700.00	5,650.00	3,262.00	3,262.00	53.03	124.48	2.09	674.50	592.97	4,579.90	4,453.11	126.79	36.123		
9,800.00	5,650.00	3,262.00	3,262.00	54.07	124.48	2.09	674.50	592.97	4,665.68	4,538.03	127.65	36.550		
9,900.00	5,650.00	3,262.00	3,262.00	55.12	124.48	2.09	674.50	592.97	4,752.02	4,623.55	128.47	36.988		
10,000.00	5,650.00	3,262.00	3,262.00	56.16	124.48	2.09	674.50	592.97	4,838.89	4,709.63	129.26	37.437		
10,100.00	5,650.00	3,262.00	3,262.00	57.21	124.48	2.09	674.50	592.97	4,926.25	4,796.25	130.00	37.894		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH-FEDERAL A #6 - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 300-UNKNOWN													Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	8.74	1,656.58	254.66	1,676.06				
100.00	100.00	91.00	91.00	0.29	1.79	8.74	1,656.58	254.66	1,676.04	1,673.96	2.08	807.168	
200.00	200.00	191.00	191.00	0.65	3.76	8.74	1,656.58	254.66	1,676.04	1,671.64	4.40	380.781	
300.00	300.00	291.00	291.00	1.00	5.72	8.74	1,656.58	254.66	1,676.04	1,669.31	6.73	249.161	
400.00	399.98	390.98	390.98	1.36	9.54	2.21	1,656.58	254.66	1,674.30	1,663.39	10.90	153.573	
500.00	499.84	490.84	490.84	1.73	13.53	2.23	1,656.58	254.66	1,669.07	1,653.81	15.26	109.378	
600.00	599.45	590.45	590.45	2.09	17.52	2.24	1,656.58	254.66	1,660.36	1,640.75	19.61	84.680	
700.00	698.70	689.70	689.70	2.45	21.49	2.27	1,656.58	254.66	1,648.18	1,624.24	23.94	68.847	
800.00	797.47	788.47	788.47	2.81	25.44	2.31	1,656.58	254.66	1,632.55	1,604.30	28.25	57.786	
900.00	895.74	886.74	886.74	3.17	29.37	2.34	1,656.58	254.66	1,614.09	1,581.55	32.54	49.601	
1,000.00	993.97	984.97	984.97	3.52	33.30	2.37	1,656.58	254.66	1,595.34	1,558.52	36.82	43.327	
1,100.00	1,092.19	1,083.19	1,083.19	3.89	37.23	2.39	1,656.58	254.66	1,576.59	1,535.49	41.10	38.359	
1,200.00	1,190.42	1,181.42	1,181.42	4.26	41.16	2.42	1,656.58	254.66	1,557.85	1,512.47	45.38	34.327	
1,300.00	1,288.64	1,279.64	1,279.64	4.63	45.09	2.45	1,656.58	254.66	1,539.10	1,489.44	49.66	30.990	
1,400.00	1,386.86	1,377.86	1,377.86	5.00	49.01	2.48	1,656.58	254.66	1,520.36	1,466.41	53.95	28.183	
1,500.00	1,485.09	1,476.09	1,476.09	5.37	52.94	2.51	1,656.58	254.66	1,501.61	1,443.38	58.23	25.788	
1,600.00	1,583.31	1,574.31	1,574.31	5.74	56.87	2.54	1,656.58	254.66	1,482.87	1,420.36	62.51	23.721	
1,700.00	1,681.54	1,672.54	1,672.54	6.11	60.80	2.58	1,656.58	254.66	1,464.13	1,397.33	66.80	21.919	
1,800.00	1,779.76	1,770.76	1,770.76	6.49	64.73	2.61	1,656.58	254.66	1,445.38	1,374.30	71.08	20.334	
1,900.00	1,877.98	1,868.98	1,868.98	6.86	68.66	2.64	1,656.58	254.66	1,426.64	1,351.27	75.37	18.930	
2,000.00	1,976.21	1,967.21	1,967.21	7.23	72.59	2.68	1,656.58	254.66	1,407.90	1,328.25	79.65	17.676	
2,100.00	2,074.43	2,065.43	2,065.43	7.60	76.52	2.72	1,656.58	254.66	1,389.16	1,305.22	83.94	16.550	
2,200.00	2,172.66	2,163.66	2,163.66	7.98	80.45	2.75	1,656.58	254.66	1,370.41	1,282.19	88.22	15.534	
2,300.00	2,270.88	2,261.88	2,261.88	8.35	84.38	2.79	1,656.58	254.66	1,351.67	1,259.17	92.51	14.612	
2,400.00	2,369.11	2,360.11	2,360.11	8.72	88.30	2.83	1,656.58	254.66	1,332.93	1,236.14	96.79	13.771	
2,500.00	2,467.33	2,458.33	2,458.33	9.10	92.23	2.87	1,656.58	254.66	1,314.19	1,213.12	101.08	13.002	
2,600.00	2,565.55	2,556.55	2,556.55	9.47	96.16	2.91	1,656.58	254.66	1,295.46	1,190.09	105.36	12.295	
2,700.00	2,663.78	2,654.78	2,654.78	9.84	100.09	2.96	1,656.58	254.66	1,276.72	1,167.07	109.65	11.644	
2,800.00	2,762.00	2,753.00	2,753.00	10.22	104.02	3.00	1,656.58	254.66	1,257.98	1,144.05	113.93	11.041	
2,900.00	2,860.23	2,851.23	2,851.23	10.59	107.95	3.05	1,656.58	254.66	1,239.24	1,121.02	118.22	10.483	
3,000.00	2,958.45	2,949.45	2,949.45	10.96	111.88	3.09	1,656.58	254.66	1,220.51	1,098.00	122.50	9.963	
3,100.00	3,056.67	3,047.67	3,047.67	11.34	115.81	3.14	1,656.58	254.66	1,201.77	1,074.98	126.79	9.478	
3,200.00	3,154.90	3,145.90	3,145.90	11.71	119.74	3.19	1,656.58	254.66	1,183.04	1,051.96	131.08	9.026	
3,300.00	3,253.12	3,195.00	3,195.00	12.08	121.70	3.22	1,656.58	254.66	1,165.34	1,031.99	133.35	8.739	
3,400.00	3,351.35	3,195.00	3,195.00	12.46	121.70	3.22	1,656.58	254.66	1,155.01	1,022.13	132.88	8.692 SF	
3,469.86	3,419.97	3,195.00	3,195.00	12.72	121.70	3.22	1,656.58	254.66	1,152.89	1,020.92	131.98	8.736 CC, ES	
3,500.00	3,449.57	3,195.00	3,195.00	12.83	121.70	3.22	1,656.58	254.66	1,153.29	1,021.85	131.44	8.774	
3,600.00	3,547.80	3,195.00	3,195.00	13.20	121.70	3.22	1,656.58	254.66	1,160.22	1,031.18	129.03	8.992	
3,700.00	3,646.02	3,195.00	3,195.00	13.58	121.70	3.22	1,656.58	254.66	1,175.64	1,049.88	125.76	9.348	
3,800.00	3,744.24	3,195.00	3,195.00	13.95	121.70	3.22	1,656.58	254.66	1,199.23	1,077.48	121.75	9.850	
3,900.00	3,842.47	3,195.00	3,195.00	14.33	121.70	3.22	1,656.58	254.66	1,230.52	1,113.35	117.18	10.502	
4,000.00	3,940.69	3,195.00	3,195.00	14.70	121.70	3.22	1,656.58	254.66	1,268.94	1,156.73	112.21	11.308	
4,100.00	4,038.92	3,195.00	3,195.00	15.07	121.70	3.22	1,656.58	254.66	1,313.87	1,206.84	107.03	12.276	
4,200.00	4,137.14	3,195.00	3,195.00	15.45	121.70	3.22	1,656.58	254.66	1,364.65	1,262.89	101.77	13.410	
4,300.00	4,235.37	3,195.00	3,195.00	15.82	121.70	3.22	1,656.58	254.66	1,420.67	1,324.13	96.54	14.715	
4,400.00	4,333.59	3,195.00	3,195.00	16.20	121.70	3.22	1,656.58	254.66	1,481.33	1,389.88	91.45	16.198	
4,500.00	4,431.81	3,195.00	3,195.00	16.57	121.70	3.22	1,656.58	254.66	1,546.08	1,459.53	86.55	17.864	
4,600.00	4,530.04	3,195.00	3,195.00	16.94	121.70	3.22	1,656.58	254.66	1,614.43	1,532.56	81.88	19.718	
4,700.00	4,628.26	3,195.00	3,195.00	17.32	121.70	3.22	1,656.58	254.66	1,685.95	1,608.49	77.46	21.766	
4,800.00	4,726.46	3,195.00	3,195.00	17.69	121.70	-15.91	1,656.58	254.66	1,760.27	1,686.96	73.31	24.012	
4,900.00	4,823.98	3,195.00	3,195.00	18.06	121.70	-31.63	1,656.58	254.66	1,836.68	1,767.21	69.47	26.438	
5,000.00	4,919.77	3,195.00	3,195.00	18.41	121.70	-37.83	1,656.58	254.66	1,914.15	1,848.16	66.00	29.004	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - BURCH-FEDERAL A #6 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,100.00	5,012.77	3,195.00	3,195.00	18.74	121.70	-38.79	1,656.58	254.66	1,991.77	1,928.83	62.94	31.645		
5,200.00	5,101.98	3,195.00	3,195.00	19.06	121.70	-37.33	1,656.58	254.66	2,068.70	2,008.34	60.37	34.269		
5,300.00	5,186.40	3,195.00	3,195.00	19.36	121.70	-34.88	1,656.58	254.66	2,144.23	2,085.90	58.34	36.756		
5,400.00	5,265.12	3,195.00	3,195.00	19.64	121.70	-32.15	1,656.58	254.66	2,217.72	2,160.81	56.91	38.968		
5,500.00	5,337.27	3,195.00	3,195.00	19.93	121.70	-29.47	1,656.58	254.66	2,288.59	2,232.45	56.13	40.771		
5,600.00	5,402.06	3,195.00	3,195.00	20.23	121.70	-27.00	1,656.58	254.66	2,356.33	2,300.30	56.03	42.057		
5,700.00	5,458.78	3,195.00	3,195.00	20.56	121.70	-24.78	1,656.58	254.66	2,420.50	2,363.91	56.59	42.772		
5,800.00	5,509.14	3,195.00	3,195.00	20.93	121.70	-24.20	1,656.58	254.66	2,482.43	2,424.72	57.70	43.021		
5,900.00	5,559.14	3,195.00	3,195.00	21.35	121.70	-24.20	1,656.58	254.66	2,546.52	2,487.47	59.05	43.122		
6,000.00	5,605.15	3,195.00	3,195.00	21.81	121.70	-21.96	1,656.58	254.66	2,609.72	2,549.05	60.67	43.013		
6,100.00	5,635.72	3,195.00	3,195.00	22.29	121.70	-19.72	1,656.58	254.66	2,662.81	2,599.95	62.86	42.361		
6,200.00	5,649.31	3,195.00	3,195.00	22.76	121.70	-18.23	1,656.58	254.66	2,704.37	2,638.80	65.57	41.242		
6,300.00	5,650.00	3,195.00	3,195.00	23.24	121.70	-18.39	1,656.58	254.66	2,737.50	2,668.88	68.62	39.894		
6,400.00	5,650.00	3,195.00	3,195.00	23.77	121.70	-19.10	1,656.58	254.66	2,772.24	2,700.60	71.65	38.694		
6,500.00	5,650.00	3,195.00	3,195.00	24.33	121.70	-19.84	1,656.58	254.66	2,809.07	2,734.46	74.60	37.653		
6,600.00	5,650.00	3,195.00	3,195.00	24.94	121.70	-20.12	1,656.58	254.66	2,848.07	2,770.57	77.50	36.749		
6,700.00	5,650.00	3,195.00	3,195.00	25.59	121.70	-20.12	1,656.58	254.66	2,889.94	2,809.57	80.37	35.956		
6,800.00	5,650.00	3,195.00	3,195.00	26.26	121.70	-20.12	1,656.58	254.66	2,934.62	2,851.42	83.20	35.270		
6,900.00	5,650.00	3,195.00	3,195.00	26.97	121.70	-20.12	1,656.58	254.66	2,981.99	2,896.01	85.98	34.684		
7,000.00	5,650.00	3,195.00	3,195.00	27.71	121.70	-20.12	1,656.58	254.66	3,031.92	2,943.24	88.67	34.193		
7,100.00	5,650.00	3,195.00	3,195.00	28.47	121.70	-20.12	1,656.58	254.66	3,084.28	2,992.99	91.28	33.788		
7,200.00	5,650.00	3,195.00	3,195.00	29.25	121.70	-20.12	1,656.58	254.66	3,138.95	3,045.15	93.80	33.464		
7,300.00	5,650.00	3,195.00	3,195.00	30.06	121.70	-20.12	1,656.58	254.66	3,195.82	3,099.60	96.22	33.212		
7,400.00	5,650.00	3,195.00	3,195.00	30.88	121.70	-20.12	1,656.58	254.66	3,254.77	3,156.22	98.55	33.028		
7,500.00	5,650.00	3,195.00	3,195.00	31.73	121.70	-20.12	1,656.58	254.66	3,315.68	3,214.92	100.77	32.904		
7,600.00	5,650.00	3,195.00	3,195.00	32.59	121.70	-20.12	1,656.58	254.66	3,378.46	3,275.57	102.89	32.836		
7,700.00	5,650.00	3,195.00	3,195.00	33.47	121.70	-20.12	1,656.58	254.66	3,443.00	3,338.09	104.91	32.818		
7,800.00	5,650.00	3,195.00	3,195.00	34.36	121.70	-20.12	1,656.58	254.66	3,509.20	3,402.37	106.84	32.846		
7,900.00	5,650.00	3,195.00	3,195.00	35.26	121.70	-20.12	1,656.58	254.66	3,576.98	3,468.31	108.67	32.916		
8,000.00	5,650.00	3,195.00	3,195.00	36.18	121.70	-20.12	1,656.58	254.66	3,646.23	3,535.82	110.41	33.024		
8,100.00	5,650.00	3,195.00	3,195.00	37.11	121.70	-20.12	1,656.58	254.66	3,716.89	3,604.83	112.06	33.167		
8,200.00	5,650.00	3,195.00	3,195.00	38.05	121.70	-20.12	1,656.58	254.66	3,788.87	3,675.23	113.64	33.342		
8,300.00	5,650.00	3,195.00	3,195.00	39.00	121.70	-20.12	1,656.58	254.66	3,862.09	3,746.97	115.13	33.546		
8,400.00	5,650.00	3,195.00	3,195.00	39.96	121.70	-20.12	1,656.58	254.66	3,936.50	3,819.96	116.54	33.777		
8,500.00	5,650.00	3,195.00	3,195.00	40.93	121.70	-20.12	1,656.58	254.66	4,012.02	3,894.13	117.89	34.033		
8,600.00	5,650.00	3,195.00	3,195.00	41.90	121.70	-20.12	1,656.58	254.66	4,088.58	3,969.42	119.16	34.311		
8,700.00	5,650.00	3,195.00	3,195.00	42.89	121.70	-20.12	1,656.58	254.66	4,166.15	4,045.77	120.37	34.611		
8,800.00	5,650.00	3,195.00	3,195.00	43.88	121.70	-20.12	1,656.58	254.66	4,244.65	4,123.12	121.52	34.929		
8,900.00	5,650.00	3,195.00	3,195.00	44.87	121.70	-20.12	1,656.58	254.66	4,324.03	4,201.42	122.61	35.265		
9,000.00	5,650.00	3,195.00	3,195.00	45.88	121.70	-20.12	1,656.58	254.66	4,404.26	4,280.61	123.65	35.618		
9,100.00	5,650.00	3,195.00	3,195.00	46.88	121.70	-20.12	1,656.58	254.66	4,485.28	4,360.64	124.64	35.986		
9,200.00	5,650.00	3,195.00	3,195.00	47.90	121.70	-20.12	1,656.58	254.66	4,567.06	4,441.48	125.58	36.368		
9,300.00	5,650.00	3,195.00	3,195.00	48.92	121.70	-20.12	1,656.58	254.66	4,649.55	4,523.07	126.47	36.763		
9,400.00	5,650.00	3,195.00	3,195.00	49.94	121.70	-20.12	1,656.58	254.66	4,732.71	4,605.38	127.32	37.171		
9,500.00	5,650.00	3,195.00	3,195.00	50.97	121.70	-20.12	1,656.58	254.66	4,816.51	4,688.38	128.13	37.590		
9,600.00	5,650.00	3,195.00	3,195.00	52.00	121.70	-20.12	1,656.58	254.66	4,900.92	4,772.01	128.91	38.019		
9,700.00	5,650.00	3,195.00	3,195.00	53.03	121.70	-20.12	1,656.58	254.66	4,985.91	4,856.26	129.64	38.458		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - JENKINS B FEDERAL #18 - Wellbore #1 - Wellbore #1														Offset Site Error:	0.00 usft
Survey Program: Reference		200-INC-ONLY Offset		Semi Major Axis			Offset Wellbore Centre			Rule Assigned: Distance				Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.00	0.00	11.00	11.00	0.00	0.09	22.17	3,287.03	1,339.11	3,549.34						
100.00	100.00	111.00	111.00	0.29	0.92	22.17	3,287.03	1,339.11	3,549.34	3,548.13	1.21	2,941.933			
200.00	200.00	211.00	211.00	0.65	1.87	22.17	3,287.03	1,339.11	3,549.34	3,546.82	2.52	1,410.749			
300.00	300.00	311.94	311.94	1.00	3.83	22.16	3,287.14	1,339.11	3,549.43	3,544.60	4.83	734.222			
400.00	399.98	410.98	410.98	1.36	5.79	15.65	3,287.03	1,339.11	3,547.65	3,540.51	7.15	496.309			
500.00	499.84	510.84	510.84	1.73	7.97	15.70	3,287.03	1,339.11	3,542.62	3,532.92	9.69	365.531			
600.00	599.45	619.74	619.73	2.09	10.34	15.79	3,287.93	1,339.11	3,535.07	3,522.63	12.43	284.314			
700.00	698.70	744.13	744.11	2.45	13.06	15.93	3,287.09	1,339.11	3,522.72	3,507.21	15.51	227.070			
800.00	797.47	808.49	808.47	2.81	14.43	16.06	3,287.03	1,339.11	3,507.44	3,490.20	17.25	203.385			
900.00	895.74	908.58	908.55	3.17	16.56	16.18	3,287.68	1,339.11	3,490.27	3,470.54	19.73	176.881			
1,000.00	993.97	1,029.54	1,029.50	3.52	19.13	16.29	3,287.18	1,339.11	3,471.86	3,449.20	22.65	153.252			
1,100.00	1,092.19	1,103.23	1,103.19	3.89	20.57	16.36	3,287.03	1,339.11	3,453.60	3,429.16	24.44	141.300			
1,200.00	1,190.42	1,201.46	1,201.42	4.26	22.42	16.45	3,287.03	1,339.11	3,435.58	3,408.93	26.65	128.923			
1,300.00	1,288.64	1,309.00	1,308.95	4.63	24.45	16.54	3,287.78	1,339.11	3,418.27	3,389.24	29.03	117.746			
1,400.00	1,386.86	1,423.21	1,423.15	5.00	26.60	16.65	3,287.15	1,339.11	3,399.76	3,368.22	31.54	107.798			
1,500.00	1,485.09	1,496.15	1,496.09	5.37	28.03	16.72	3,287.03	1,339.11	3,381.55	3,348.23	33.32	101.486			
1,600.00	1,583.31	1,594.38	1,594.31	5.74	29.96	16.81	3,287.03	1,339.11	3,363.56	3,327.95	35.61	94.456			
1,700.00	1,681.54	1,694.50	1,694.43	6.11	31.93	16.90	3,287.23	1,339.11	3,345.76	3,307.83	37.94	88.194			
1,800.00	1,779.76	1,796.10	1,796.03	6.49	33.93	17.00	3,287.11	1,339.11	3,327.68	3,287.39	40.29	82.588			
1,900.00	1,877.98	1,889.05	1,888.98	6.86	35.88	17.09	3,287.03	1,339.11	3,309.64	3,267.04	42.60	77.694			
2,000.00	1,976.21	1,987.27	1,987.21	7.23	38.04	17.18	3,287.03	1,339.11	3,291.68	3,246.57	45.12	72.960			
2,100.00	2,074.43	2,086.94	2,086.86	7.60	40.23	17.27	3,288.33	1,339.11	3,274.93	3,227.26	47.67	68.705			
2,200.00	2,172.66	2,200.71	2,200.62	7.98	42.74	17.39	3,287.98	1,339.11	3,256.71	3,206.19	50.52	64.461			
2,300.00	2,270.88	2,314.27	2,314.17	8.35	45.24	17.51	3,287.04	1,339.11	3,238.04	3,184.66	53.37	60.669			
2,400.00	2,369.11	2,380.21	2,380.11	8.72	46.48	17.58	3,287.03	1,339.11	3,219.95	3,164.96	54.99	58.556			
2,500.00	2,467.33	2,478.43	2,478.33	9.10	48.34	17.68	3,287.03	1,339.11	3,202.04	3,144.84	57.20	55.978			
2,600.00	2,565.55	2,582.26	2,582.15	9.47	50.30	17.78	3,287.94	1,339.11	3,184.98	3,125.46	59.52	53.512			
2,700.00	2,663.78	2,693.26	2,693.14	9.84	52.39	17.90	3,287.48	1,339.11	3,166.71	3,104.75	61.97	51.103			
2,800.00	2,762.00	2,773.13	2,773.00	10.22	53.86	17.99	3,287.03	1,339.11	3,148.37	3,084.57	63.80	49.349			
2,900.00	2,860.23	2,871.35	2,871.23	10.59	55.50	18.10	3,287.03	1,339.11	3,130.50	3,064.70	65.80	47.576			
3,000.00	2,958.45	2,969.97	2,969.84	10.96	57.15	18.20	3,287.25	1,339.11	3,112.84	3,045.04	67.81	45.906			
3,100.00	3,056.67	3,071.24	3,071.12	11.34	58.85	18.31	3,287.18	1,339.11	3,094.93	3,025.07	69.86	44.302			
3,200.00	3,154.90	3,166.03	3,165.90	11.71	60.44	18.42	3,287.03	1,339.11	3,076.96	3,005.14	71.82	42.844			
3,300.00	3,253.12	3,264.25	3,264.12	12.08	62.31	18.53	3,287.03	1,339.11	3,059.13	2,985.09	74.04	41.316			
3,400.00	3,351.35	3,362.47	3,362.35	12.46	64.17	18.64	3,287.03	1,339.11	3,041.31	2,965.05	76.27	39.877			
3,500.00	3,449.57	3,463.68	3,463.55	12.83	66.10	18.76	3,287.20	1,339.11	3,023.66	2,945.12	78.55	38.495			
3,600.00	3,547.80	3,564.86	3,564.73	13.20	68.02	18.88	3,287.03	1,339.11	3,005.73	2,924.90	80.83	37.188			
3,700.00	3,646.02	3,657.15	3,657.02	13.58	69.77	18.99	3,287.03	1,339.11	2,987.94	2,905.00	82.94	36.024			
3,800.00	3,744.24	3,755.37	3,755.24	13.95	71.64	19.11	3,287.03	1,339.11	2,970.17	2,885.00	85.17	34.874			
3,900.00	3,842.47	3,857.69	3,857.55	14.33	73.58	19.22	3,288.08	1,339.11	2,953.37	2,865.90	87.47	33.764			
4,000.00	3,940.69	3,965.95	3,965.81	14.70	75.64	19.36	3,287.71	1,339.11	2,935.32	2,845.44	89.88	32.658			
4,100.00	4,038.92	4,074.07	4,073.92	15.07	77.69	19.50	3,286.93	1,339.11	2,916.95	2,824.67	92.29	31.608			
4,200.00	4,137.14	4,148.29	4,148.14	15.45	79.10	19.59	3,287.03	1,339.11	2,899.22	2,805.15	94.08	30.818			
4,300.00	4,235.37	4,246.52	4,246.37	15.82	80.97	19.71	3,287.03	1,339.11	2,881.52	2,785.22	96.30	29.922			
4,400.00	4,333.59	4,345.51	4,345.36	16.20	82.85	19.84	3,287.30	1,339.11	2,864.07	2,765.52	98.54	29.064			
4,500.00	4,431.81	4,445.98	4,445.83	16.57	84.76	19.97	3,287.22	1,339.11	2,846.33	2,745.51	100.81	28.234			
4,600.00	4,530.04	4,546.42	4,546.27	16.94	86.67	20.11	3,287.06	1,339.11	2,828.52	2,725.44	103.08	27.440			
4,700.00	4,628.26	4,639.42	4,639.26	17.32	88.61	20.23	3,287.03	1,339.11	2,810.84	2,705.46	105.38	26.674			
4,800.00	4,726.46	4,737.61	4,737.46	17.69	90.68	-5.08	3,287.03	1,339.11	2,792.39	2,684.58	107.81	25.902			
4,900.00	4,823.98	4,839.22	4,839.06	18.06	92.82	-29.26	3,288.02	1,339.11	2,772.45	2,662.16	110.29	25.137			
5,000.00	4,919.77	4,944.69	4,944.52	18.41	95.04	-44.40	3,287.64	1,339.11	2,749.20	2,636.36	112.84	24.364			
5,100.00	5,012.77	5,047.01	5,046.83	18.74	97.20	-54.43	3,286.88	1,339.11	2,723.94	2,608.63	115.31	23.623			

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - JENKINS B FEDERAL #18 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 200-INC-ONLY													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning	
+N/-S (usft)	+E/-W (usft)	Between Ellipses (usft)	Between Ellipses (usft)	Between Ellipses (usft)	Between Ellipses (usft)	Between Ellipses (usft)	Between Ellipses (usft)	Between Ellipses (usft)	Between Ellipses (usft)	Between Ellipses (usft)	Between Ellipses (usft)	Between Ellipses (usft)	Between Ellipses (usft)	Between Ellipses (usft)
5,200.00	5,101.98	5,113.16	5,112.98	19.06	98.42	-61.56	3,287.03	1,339.11	2,698.23	2,581.36	116.87	23.088		
5,300.00	5,186.40	5,197.58	5,197.40	19.36	100.02	-67.41	3,287.03	1,339.11	2,672.04	2,553.26	118.78	22.496		
5,400.00	5,265.12	5,281.84	5,281.65	19.64	101.63	-72.44	3,287.84	1,339.11	2,646.96	2,526.27	120.68	21.933		
5,500.00	5,337.27	5,362.64	5,362.44	19.93	103.16	-76.89	3,287.52	1,339.11	2,622.04	2,499.51	122.53	21.400		
5,600.00	5,402.06	5,435.24	5,435.04	20.23	104.54	-80.79	3,286.98	1,339.11	2,599.01	2,474.78	124.23	20.921		
5,700.00	5,458.78	5,469.98	5,469.78	20.56	105.23	-83.58	3,287.03	1,339.11	2,579.34	2,454.02	125.32	20.582		
5,800.00	5,509.14	5,520.33	5,520.14	20.93	106.22	-85.07	3,287.03	1,339.11	2,563.16	2,436.45	126.72	20.227		
5,900.00	5,559.14	5,570.33	5,570.14	21.35	107.21	-86.05	3,287.03	1,339.11	2,549.87	2,421.71	128.16	19.896		
6,000.00	5,605.15	5,616.35	5,616.15	21.81	108.11	-87.71	3,287.03	1,339.11	2,539.25	2,409.68	129.57	19.598		
6,100.00	5,635.72	5,647.39	5,647.19	22.29	108.72	-89.18	3,287.25	1,339.11	2,531.48	2,400.77	130.70	19.368		
6,200.00	5,649.31	5,661.36	5,661.16	22.76	109.00	-89.95	3,287.24	1,339.11	2,526.94	2,395.44	131.50	19.216		
6,300.00	5,650.00	5,662.08	5,661.88	23.24	109.01	-90.02	3,287.24	1,339.11	2,525.40	2,393.35	132.05	19.125		
6,400.00	5,650.00	5,662.08	5,661.88	23.77	109.01	-90.02	3,287.24	1,339.11	2,524.45	2,391.83	132.63	19.034		
6,500.00	5,650.00	5,662.08	5,661.88	24.33	109.01	-90.02	3,287.24	1,339.11	2,523.99	2,390.74	133.25	18.942		
6,508.66	5,650.00	5,662.08	5,661.88	24.39	109.01	-90.02	3,287.24	1,339.11	2,523.97	2,390.67	133.30	18.934 CC, ES		
6,600.00	5,650.00	5,662.08	5,661.88	24.94	109.01	-90.02	3,287.24	1,339.11	2,524.70	2,390.80	133.90	18.856		
6,700.00	5,650.00	5,662.08	5,661.88	25.59	109.01	-90.02	3,287.24	1,339.11	2,529.15	2,394.57	134.58	18.793		
6,800.00	5,650.00	5,662.08	5,661.88	26.26	109.01	-90.02	3,287.24	1,339.11	2,537.53	2,402.26	135.27	18.759		
6,900.00	5,650.00	5,662.08	5,661.88	26.97	109.01	-90.02	3,287.24	1,339.11	2,549.81	2,413.83	135.98	18.751 SF		
7,000.00	5,650.00	5,662.08	5,661.88	27.71	109.01	-90.02	3,287.24	1,339.11	2,565.93	2,429.24	136.69	18.772		
7,100.00	5,650.00	5,662.08	5,661.88	28.47	109.01	-90.02	3,287.24	1,339.11	2,585.82	2,448.43	137.39	18.820		
7,200.00	5,650.00	5,662.08	5,661.88	29.25	109.01	-90.02	3,287.24	1,339.11	2,609.40	2,471.31	138.09	18.897		
7,300.00	5,650.00	5,662.08	5,661.88	30.06	109.01	-90.02	3,287.24	1,339.11	2,636.56	2,497.79	138.77	19.000		
7,400.00	5,650.00	5,662.08	5,661.88	30.88	109.01	-90.02	3,287.24	1,339.11	2,667.19	2,527.77	139.42	19.130		
7,500.00	5,650.00	5,662.08	5,661.88	31.73	109.01	-90.02	3,287.24	1,339.11	2,701.18	2,561.12	140.06	19.286		
7,600.00	5,650.00	5,662.08	5,661.88	32.59	109.01	-90.02	3,287.24	1,339.11	2,738.40	2,597.74	140.67	19.467		
7,700.00	5,650.00	5,662.08	5,661.88	33.47	109.01	-90.02	3,287.24	1,339.11	2,778.73	2,637.48	141.25	19.673		
7,800.00	5,650.00	5,662.08	5,661.88	34.36	109.01	-90.02	3,287.24	1,339.11	2,822.02	2,680.23	141.80	19.902		
7,900.00	5,650.00	5,662.08	5,661.88	35.26	109.01	-90.02	3,287.24	1,339.11	2,868.15	2,725.83	142.32	20.154		
8,000.00	5,650.00	5,662.08	5,661.88	36.18	109.01	-90.02	3,287.24	1,339.11	2,916.98	2,774.17	142.80	20.426		
8,100.00	5,650.00	5,662.08	5,661.88	37.11	109.01	-90.02	3,287.24	1,339.11	2,968.37	2,825.11	143.26	20.719		
8,200.00	5,650.00	5,662.08	5,661.88	38.05	109.01	-90.02	3,287.24	1,339.11	3,022.20	2,878.51	143.70	21.032		
8,300.00	5,650.00	5,662.08	5,661.88	39.00	109.01	-90.02	3,287.24	1,339.11	3,078.34	2,934.24	144.10	21.363		
8,400.00	5,650.00	5,662.08	5,661.88	39.96	109.01	-90.02	3,287.24	1,339.11	3,136.66	2,992.19	144.47	21.711		
8,500.00	5,650.00	5,662.08	5,661.88	40.93	109.01	-90.02	3,287.24	1,339.11	3,197.05	3,052.23	144.82	22.076		
8,600.00	5,650.00	5,662.08	5,661.88	41.90	109.01	-90.02	3,287.24	1,339.11	3,259.39	3,114.24	145.15	22.456		
8,700.00	5,650.00	5,662.08	5,661.88	42.89	109.01	-90.02	3,287.24	1,339.11	3,323.56	3,178.11	145.45	22.850		
8,800.00	5,650.00	5,662.08	5,661.88	43.88	109.01	-90.02	3,287.24	1,339.11	3,389.48	3,243.75	145.73	23.259		
8,900.00	5,650.00	5,662.08	5,661.88	44.87	109.01	-90.02	3,287.24	1,339.11	3,457.02	3,311.04	145.99	23.680		
9,000.00	5,650.00	5,662.08	5,661.88	45.88	109.01	-90.02	3,287.24	1,339.11	3,526.12	3,379.89	146.23	24.114		
9,100.00	5,650.00	5,662.08	5,661.88	46.88	109.01	-90.02	3,287.24	1,339.11	3,596.66	3,450.21	146.45	24.559		
9,200.00	5,650.00	5,662.08	5,661.88	47.90	109.01	-90.02	3,287.24	1,339.11	3,668.57	3,521.92	146.66	25.015		
9,300.00	5,650.00	5,662.08	5,661.88	48.92	109.01	-90.02	3,287.24	1,339.11	3,741.78	3,594.93	146.85	25.481		
9,400.00	5,650.00	5,662.08	5,661.88	49.94	109.01	-90.02	3,287.24	1,339.11	3,816.20	3,669.18	147.02	25.956		
9,500.00	5,650.00	5,662.08	5,661.88	50.97	109.01	-90.02	3,287.24	1,339.11	3,891.77	3,744.58	147.19	26.441		
9,600.00	5,650.00	5,662.08	5,661.88	52.00	109.01	-90.02	3,287.24	1,339.11	3,968.42	3,821.08	147.34	26.934		
9,700.00	5,650.00	5,662.08	5,661.88	53.03	109.01	-90.02	3,287.24	1,339.11	4,046.09	3,898.61	147.48	27.435		
9,800.00	5,650.00	5,662.08	5,661.88	54.07	109.01	-90.02	3,287.24	1,339.11	4,124.72	3,977.11	147.61	27.943		
9,900.00	5,650.00	5,662.08	5,661.88	55.12	109.01	-90.02	3,287.24	1,339.11	4,204.25	4,056.52	147.73	28.459		
10,000.00	5,650.00	5,662.08	5,661.88	56.16	109.01	-90.02	3,287.24	1,339.11	4,284.65	4,136.81	147.85	28.981		
10,100.00	5,650.00	5,662.08	5,661.88	57.21	109.01	-90.02	3,287.24	1,339.11	4,365.86	4,217.91	147.95	29.509		
10,200.00	5,650.00	5,662.08	5,661.88	58.26	109.01	-90.02	3,287.24	1,339.11	4,447.83	4,299.78	148.05	30.043		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - JENKINS B FEDERAL #18 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 200-INC-ONLY		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error:	0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,300.00	5,650.00	5,662.08	5,661.88	59.32	109.01	-90.02	3,287.24	1,339.11	4,530.52	4,382.38	148.14	30.582		
10,400.00	5,650.00	5,662.08	5,661.88	60.38	109.01	-90.02	3,287.24	1,339.11	4,613.91	4,465.68	148.23	31.127		
10,500.00	5,650.00	5,662.08	5,661.88	61.44	109.01	-90.02	3,287.24	1,339.11	4,697.94	4,549.63	148.31	31.677		
10,600.00	5,650.00	5,662.08	5,661.88	62.50	109.01	-90.02	3,287.24	1,339.11	4,782.58	4,634.20	148.38	32.231		
10,700.00	5,650.00	5,662.08	5,661.88	63.56	109.01	-90.02	3,287.24	1,339.11	4,867.81	4,719.35	148.46	32.790		
10,800.00	5,650.00	5,662.08	5,661.88	64.63	109.01	-90.02	3,287.24	1,339.11	4,953.59	4,805.06	148.52	33.352		

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTIRE A #8 - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 485-INC-ONLY													Offset Well Error:
Reference	Offset	Semi Major Axis		Rule Assigned:		Distance		Minimum		Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	
0.00	0.00	0.00	0.00	0.00	0.00	90.05	-3.75	4,552.01	4,552.01				
100.00	100.00	100.00	100.00	0.29	0.96	90.05	-3.75	4,552.01	4,552.01	4,550.76	1.25	3,649.241	
200.00	200.00	200.00	200.00	0.65	1.92	90.05	-3.75	4,552.01	4,552.01	4,549.45	2.57	1,773.650	
300.00	300.00	300.00	300.00	1.00	2.88	90.05	-3.75	4,552.01	4,552.01	4,548.13	3.89	1,171.525	
400.00	399.98	399.98	399.98	1.36	3.84	83.54	-3.75	4,552.01	4,551.81	4,546.61	5.20	874.706	
500.00	499.84	499.84	499.84	1.73	4.96	83.62	-3.75	4,552.01	4,551.23	4,544.55	6.68	681.245	
600.00	599.45	599.45	599.45	2.09	7.03	83.75	-3.75	4,552.01	4,550.27	4,541.16	9.10	499.864	
700.00	698.70	698.70	698.70	2.45	9.22	83.93	-3.75	4,552.01	4,548.95	4,537.30	11.65	390.353	
800.00	797.47	797.47	797.47	2.81	11.40	84.15	-3.75	4,552.01	4,547.30	4,533.11	14.20	320.342	
900.00	895.74	895.66	895.65	3.17	13.57	84.38	-2.60	4,552.01	4,545.41	4,528.69	16.73	271.752	
1,000.00	993.97	993.62	993.60	3.52	15.73	84.62	-2.89	4,552.01	4,543.59	4,524.33	19.26	235.965	
1,100.00	1,092.19	1,091.46	1,091.43	3.89	17.89	84.85	-3.49	4,552.01	4,541.85	4,520.07	21.78	208.500	
1,200.00	1,190.42	1,190.45	1,190.42	4.26	20.27	85.09	-3.75	4,552.01	4,540.18	4,515.65	24.53	185.073	
1,300.00	1,288.64	1,288.67	1,288.64	4.63	22.72	85.32	-3.75	4,552.01	4,538.59	4,511.23	27.35	165.928	
1,400.00	1,386.86	1,386.71	1,386.66	5.00	25.17	85.54	-2.47	4,552.01	4,537.02	4,506.85	30.17	150.384	
1,500.00	1,485.09	1,484.15	1,484.10	5.37	27.60	85.77	-2.81	4,552.01	4,535.59	4,502.62	32.97	137.557	
1,600.00	1,583.31	1,581.44	1,581.38	5.74	30.03	86.01	-3.58	4,552.01	4,534.25	4,498.48	35.77	126.756	
1,700.00	1,681.54	1,681.60	1,681.54	6.11	32.71	86.25	-3.75	4,552.01	4,532.97	4,494.15	38.83	116.754	
1,800.00	1,779.76	1,779.66	1,779.58	6.49	35.37	86.47	-2.43	4,552.01	4,531.69	4,489.84	41.86	108.264	
1,900.00	1,877.98	1,875.81	1,875.71	6.86	37.98	86.70	-2.90	4,552.01	4,530.58	4,485.74	44.84	101.041	
2,000.00	1,976.21	1,976.33	1,976.21	7.23	40.78	86.95	-3.75	4,552.01	4,529.57	4,481.56	48.01	94.343	
2,100.00	2,074.43	2,074.55	2,074.43	7.60	43.67	87.18	-3.75	4,552.01	4,528.60	4,477.32	51.28	88.315	
2,200.00	2,172.66	2,172.78	2,172.66	7.98	46.57	87.41	-3.75	4,552.01	4,527.70	4,473.15	54.54	83.010	
2,300.00	2,270.88	2,269.42	2,269.26	8.35	49.41	87.62	-2.08	4,552.01	4,526.75	4,468.99	57.76	78.367	
2,400.00	2,369.11	2,365.56	2,365.38	8.72	52.25	87.86	-2.85	4,552.01	4,526.06	4,465.09	60.97	74.236	
2,500.00	2,467.33	2,467.53	2,467.33	9.10	55.48	88.11	-3.75	4,552.01	4,525.46	4,460.89	64.57	70.082	
2,600.00	2,565.55	2,562.89	2,562.67	9.47	58.94	88.33	-2.97	4,552.01	4,524.81	4,456.40	68.41	66.147	
2,700.00	2,663.78	2,664.02	2,663.78	9.84	62.77	88.58	-3.75	4,552.01	4,524.36	4,451.75	72.61	62.309	
2,800.00	2,762.00	2,756.66	2,756.36	10.22	66.48	88.79	-2.74	4,552.01	4,523.83	4,447.14	76.69	58.987	
2,900.00	2,860.23	2,860.57	2,860.23	10.59	70.59	89.05	-3.75	4,552.01	4,523.57	4,442.39	81.18	55.723	
3,000.00	2,958.45	2,952.23	2,951.83	10.96	74.18	89.25	-2.90	4,552.01	4,523.21	4,438.06	85.15	53.123	
3,100.00	3,056.67	3,057.11	3,056.67	11.34	78.09	89.51	-3.75	4,552.01	4,523.09	4,433.67	89.42	50.581	
3,200.00	3,154.90	3,153.36	3,152.87	11.71	81.54	89.72	-1.99	4,552.01	4,522.77	4,429.53	93.25	48.503	
3,218.11	3,172.69	3,169.63	3,169.13	11.78	82.12	89.76	-2.08	4,552.01	4,522.77	4,428.87	93.90	48.166	
3,300.00	3,253.12	3,243.00	3,242.47	12.08	84.75	89.95	-3.11	4,552.01	4,522.86	4,426.02	96.84	46.706	
3,400.00	3,351.35	3,351.90	3,351.35	12.46	88.67	90.21	-3.75	4,552.01	4,522.95	4,421.83	101.13	44.725	
3,458.10	3,408.42	3,408.97	3,408.39	12.67	90.72	90.33	-2.39	4,552.01	4,522.84	4,419.45	103.40	43.742	
3,500.00	3,449.57	3,447.20	3,446.60	12.83	92.10	90.43	-2.49	4,552.01	4,522.91	4,417.98	104.93	43.104	
3,600.00	3,547.80	3,548.42	3,547.80	13.20	95.74	90.68	-3.75	4,552.01	4,523.25	4,414.30	108.95	41.518	
3,700.00	3,646.02	3,646.65	3,646.02	13.58	99.53	90.91	-3.75	4,552.01	4,523.52	4,410.41	113.11	39.993	
3,800.00	3,744.24	3,740.98	3,740.28	13.95	103.16	91.12	-1.85	4,552.01	4,523.61	4,406.49	117.12	38.625	
3,900.00	3,842.47	3,829.90	3,829.15	14.33	106.59	91.34	-3.10	4,552.01	4,524.21	4,403.30	120.91	37.417	
4,000.00	3,940.69	3,941.46	3,940.69	14.70	110.48	91.61	-3.75	4,552.01	4,524.78	4,399.60	125.18	36.147	
4,100.00	4,038.92	4,037.14	4,036.32	15.07	113.70	91.82	-1.94	4,552.01	4,525.10	4,396.32	128.77	35.140	
4,200.00	4,137.14	4,126.10	4,125.23	15.45	116.70	92.04	-2.90	4,552.01	4,525.90	4,393.76	132.14	34.250	
4,300.00	4,235.37	4,236.25	4,235.37	15.82	120.23	92.31	-3.75	4,552.01	4,526.75	4,390.69	136.06	33.271	
4,400.00	4,333.59	4,334.48	4,333.59	16.20	123.30	92.55	-3.75	4,552.01	4,527.56	4,388.06	139.49	32.457	
4,500.00	4,431.81	4,432.70	4,431.81	16.57	126.36	92.78	-3.75	4,552.01	4,528.44	4,385.51	142.93	31.682	
4,600.00	4,530.04	4,527.30	4,526.35	16.94	129.32	92.98	-1.49	4,552.01	4,529.03	4,382.78	146.26	30.966	
4,700.00	4,628.26	4,621.03	4,620.06	17.32	132.24	93.21	-2.22	4,552.01	4,530.20	4,380.64	149.56	30.291	
4,800.00	4,726.46	4,714.56	4,713.56	17.69	135.16	88.95	-3.49	4,552.01	4,528.21	4,375.36	152.85	29.626	
4,900.00	4,823.98	4,824.98	4,823.98	18.06	138.49	46.40	-3.75	4,552.01	4,515.87	4,359.33	156.54	28.847	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTIRE A #8 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 485-INC-ONLY		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:				Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,000.00	4,919.77	4,920.77	4,919.77	18.41	141.36	33.24	-3.75	4,552.01	4,493.28	4,333.52	159.77	28.124		
5,100.00	5,012.77	5,007.53	5,006.47	18.74	143.96	25.49	-2.08	4,552.01	4,460.41	4,297.70	162.70	27.415		
5,200.00	5,101.98	5,090.01	5,088.92	19.06	146.43	20.67	-3.04	4,552.01	4,418.39	4,252.90	165.49	26.699		
5,300.00	5,186.40	5,187.51	5,186.40	19.36	149.28	17.52	-3.75	4,552.01	4,367.11	4,198.49	168.62	25.898		
5,400.00	5,265.12	5,266.20	5,265.08	19.64	151.54	15.29	-2.71	4,552.01	4,306.88	4,135.74	171.14	25.165		
5,500.00	5,337.27	5,332.15	5,331.02	19.93	153.43	13.68	-2.96	4,552.01	4,238.92	4,065.66	173.26	24.465		
5,600.00	5,402.06	5,403.21	5,402.06	20.23	155.48	12.56	-3.75	4,552.01	4,163.82	3,988.31	175.50	23.725		
5,700.00	5,458.78	5,459.93	5,458.78	20.56	157.32	11.71	-3.75	4,552.01	4,082.12	3,904.61	177.50	22.997		
5,800.00	5,509.14	5,509.38	5,508.21	20.93	158.92	11.66	-2.87	4,552.01	3,996.00	3,816.76	179.24	22.294		
5,900.00	5,559.14	5,553.25	5,552.07	21.35	160.35	11.88	-3.09	4,552.01	3,909.92	3,729.12	180.79	21.627		
6,000.00	5,605.15	5,606.34	5,605.15	21.81	162.08	15.59	-3.75	4,552.01	3,821.86	3,639.22	182.65	20.925		
6,100.00	5,635.72	5,636.91	5,635.72	22.29	163.14	26.57	-3.75	4,552.01	3,727.35	3,543.54	183.81	20.278		
6,200.00	5,649.31	5,650.50	5,649.31	22.76	163.62	66.65	-3.75	4,552.01	3,629.02	3,444.67	184.35	19.685		
6,300.00	5,650.00	5,651.19	5,650.00	23.24	163.64	90.00	-3.75	4,552.01	3,529.81	3,345.38	184.43	19.139		
6,400.00	5,650.00	5,651.19	5,650.00	23.77	163.64	90.00	-3.75	4,552.01	3,431.12	3,246.63	184.49	18.598		
6,500.00	5,650.00	5,651.19	5,650.00	24.33	163.64	90.00	-3.75	4,552.01	3,333.16	3,148.59	184.57	18.059		
6,600.00	5,650.00	5,651.19	5,650.00	24.94	163.64	90.00	-3.75	4,552.01	3,235.94	3,051.26	184.68	17.522		
6,700.00	5,650.00	5,651.19	5,650.00	25.59	163.64	90.00	-3.75	4,552.01	3,138.94	2,954.15	184.79	16.986		
6,800.00	5,650.00	5,651.19	5,650.00	26.26	163.64	90.00	-3.75	4,552.01	3,042.15	2,857.22	184.93	16.451		
6,900.00	5,650.00	5,651.19	5,650.00	26.97	163.64	90.00	-3.75	4,552.01	2,945.56	2,760.49	185.07	15.916		
7,000.00	5,650.00	5,651.19	5,650.00	27.71	163.64	90.00	-3.75	4,552.01	2,849.22	2,663.98	185.24	15.381		
7,100.00	5,650.00	5,651.19	5,650.00	28.47	163.64	90.00	-3.75	4,552.01	2,753.13	2,567.70	185.43	14.848		
7,200.00	5,650.00	5,651.19	5,650.00	29.25	163.64	90.00	-3.75	4,552.01	2,657.33	2,471.70	185.63	14.315		
7,300.00	5,650.00	5,651.19	5,650.00	30.06	163.64	90.00	-3.75	4,552.01	2,561.85	2,375.99	185.87	13.783		
7,400.00	5,650.00	5,651.19	5,650.00	30.88	163.64	90.00	-3.75	4,552.01	2,466.73	2,280.60	186.13	13.253		
7,500.00	5,650.00	5,651.19	5,650.00	31.73	163.64	90.00	-3.75	4,552.01	2,372.02	2,185.59	186.43	12.724		
7,600.00	5,650.00	5,651.19	5,650.00	32.59	163.64	90.00	-3.75	4,552.01	2,277.75	2,090.99	186.76	12.196		
7,700.00	5,650.00	5,651.19	5,650.00	33.47	163.64	90.00	-3.75	4,552.01	2,184.00	1,996.85	187.14	11.670		
7,800.00	5,650.00	5,651.19	5,650.00	34.36	163.64	90.00	-3.75	4,552.01	2,090.82	1,903.24	187.58	11.147		
7,900.00	5,650.00	5,651.19	5,650.00	35.26	163.64	90.00	-3.75	4,552.01	1,998.30	1,810.24	188.07	10.626		
8,000.00	5,650.00	5,651.19	5,650.00	36.18	163.64	90.00	-3.75	4,552.01	1,906.54	1,717.92	188.63	10.108		
8,100.00	5,650.00	5,651.19	5,650.00	37.11	163.64	90.00	-3.75	4,552.01	1,815.65	1,626.39	189.26	9.593		
8,200.00	5,650.00	5,651.19	5,650.00	38.05	163.64	90.00	-3.75	4,552.01	1,725.77	1,535.78	189.99	9.083		
8,300.00	5,650.00	5,651.19	5,650.00	39.00	163.64	90.00	-3.75	4,552.01	1,637.06	1,446.23	190.83	8.579		
8,400.00	5,650.00	5,651.19	5,650.00	39.96	163.64	90.00	-3.75	4,552.01	1,549.73	1,357.95	191.78	8.081		
8,500.00	5,650.00	5,651.19	5,650.00	40.93	163.64	90.00	-3.75	4,552.01	1,464.01	1,271.14	192.87	7.591		
8,600.00	5,650.00	5,651.19	5,650.00	41.90	163.64	90.00	-3.75	4,552.01	1,380.23	1,186.10	194.13	7.110		
8,700.00	5,650.00	5,651.19	5,650.00	42.89	163.64	90.00	-3.75	4,552.01	1,298.73	1,103.18	195.56	6.641		
8,800.00	5,650.00	5,651.19	5,650.00	43.88	163.64	90.00	-3.75	4,552.01	1,220.00	1,022.82	197.18	6.187		
8,900.00	5,650.00	5,651.19	5,650.00	44.87	163.64	90.00	-3.75	4,552.01	1,144.59	945.57	199.02	5.751		
9,000.00	5,650.00	5,651.19	5,650.00	45.88	163.64	90.00	-3.75	4,552.01	1,073.21	872.12	201.08	5.337		
9,100.00	5,650.00	5,651.19	5,650.00	46.88	163.64	90.00	-3.75	4,552.01	1,006.71	803.35	203.36	4.950		
9,200.00	5,650.00	5,651.19	5,650.00	47.90	163.64	90.00	-3.75	4,552.01	946.12	740.31	205.81	4.597		
9,300.00	5,650.00	5,651.19	5,650.00	48.92	163.64	90.00	-3.75	4,552.01	892.65	684.29	208.36	4.284		
9,400.00	5,650.00	5,651.19	5,650.00	49.94	163.64	90.00	-3.75	4,552.01	847.65	636.74	210.91	4.019		
9,500.00	5,650.00	5,651.19	5,650.00	50.97	163.64	90.00	-3.75	4,552.01	812.53	599.25	213.28	3.810		
9,600.00	5,650.00	5,651.19	5,650.00	52.00	163.64	90.00	-3.75	4,552.01	788.60	573.34	215.26	3.663		
9,700.00	5,650.00	5,651.19	5,650.00	53.03	163.64	90.00	-3.75	4,552.01	776.90	560.23	216.68	3.586		
9,741.57	5,650.00	5,651.19	5,650.00	53.47	163.64	90.00	-3.75	4,552.01	775.79	558.73	217.06	3.574 CC, ES, SF		
9,800.00	5,650.00	5,651.19	5,650.00	54.07	163.64	90.00	-3.75	4,552.01	777.99	560.61	217.38	3.579		
9,900.00	5,650.00	5,651.19	5,650.00	55.12	163.64	90.00	-3.75	4,552.01	791.80	574.46	217.34	3.643		
10,000.00	5,650.00	5,651.19	5,650.00	56.16	163.64	90.00	-3.75	4,552.01	817.70	601.06	216.64	3.774		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTIRE A #8 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.00 usft
Survey Program: 485-INC-ONLY													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Rule Assigned:		Distance		Minimum	Separation	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)		
10,100.00	5,650.00	5,651.19	5,650.00	57.21	163.64	90.00	-3.75	4,552.01	854.59	639.16	215.43	3.967	
10,200.00	5,650.00	5,651.19	5,650.00	58.26	163.64	90.00	-3.75	4,552.01	901.12	687.24	213.88	4.213	
10,300.00	5,650.00	5,651.19	5,650.00	59.32	163.64	90.00	-3.75	4,552.01	955.88	743.72	212.15	4.506	
10,400.00	5,650.00	5,651.19	5,650.00	60.38	163.64	90.00	-3.75	4,552.01	1,017.54	807.16	210.38	4.837	
10,500.00	5,650.00	5,651.19	5,650.00	61.44	163.64	90.00	-3.75	4,552.01	1,084.93	876.28	208.65	5.200	
10,600.00	5,650.00	5,651.19	5,650.00	62.50	163.64	90.00	-3.75	4,552.01	1,157.05	950.05	207.00	5.590	
10,700.00	5,650.00	5,651.19	5,650.00	63.56	163.64	90.00	-3.75	4,552.01	1,233.06	1,027.59	205.48	6.001	
10,800.00	5,650.00	5,651.19	5,650.00	64.63	163.64	90.00	-3.75	4,552.01	1,312.30	1,108.22	204.08	6.430	
10,900.00	5,650.00	5,651.19	5,650.00	65.70	163.64	90.00	-3.75	4,552.01	1,394.21	1,191.39	202.82	6.874	
11,000.00	5,650.00	5,651.19	5,650.00	66.77	163.64	90.00	-3.75	4,552.01	1,478.35	1,276.67	201.67	7.330	
11,100.00	5,650.00	5,651.19	5,650.00	67.84	163.64	90.00	-3.75	4,552.01	1,564.35	1,363.71	200.64	7.797	
11,200.00	5,650.00	5,651.19	5,650.00	68.92	163.64	90.00	-3.75	4,552.01	1,651.93	1,452.21	199.72	8.271	
11,299.98	5,650.00	5,651.19	5,650.00	69.99	163.64	90.00	-3.75	4,552.01	1,740.83	1,541.94	198.89	8.753	
11,358.47	5,650.00	5,651.19	5,650.00	70.43	163.64	90.00	-3.75	4,552.01	1,793.39	1,593.44	199.95	8.969	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE A #17 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.00 usft	
Survey Program: 202-INC-ONLY		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning	Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.00	0.00	0.00	0.00	0.00	0.00	88.48	121.33	4,576.52	4,578.13					
100.00	100.00	100.00	100.00	0.29	1.00	88.48	121.33	4,576.52	4,578.13	4,576.85	1.28	3,569.809		
200.00	200.00	200.00	200.00	0.65	2.00	88.48	121.33	4,576.52	4,578.13	4,575.49	2.64	1,736.370		
300.00	300.00	300.00	300.00	1.00	4.10	88.48	121.33	4,576.52	4,578.13	4,573.03	5.10	897.540		
400.00	399.98	400.80	400.79	1.36	6.25	81.98	121.53	4,576.52	4,577.89	4,570.29	7.60	602.038		
500.00	499.84	499.85	499.84	1.73	8.35	82.06	121.33	4,576.52	4,577.16	4,567.09	10.07	454.564		
600.00	599.45	599.47	599.46	2.09	10.47	82.18	122.07	4,576.52	4,575.97	4,563.43	12.55	364.701		
700.00	698.70	699.22	699.20	2.45	12.59	82.37	121.81	4,576.52	4,574.32	4,559.29	15.03	304.370		
800.00	797.47	797.49	797.47	2.81	14.74	82.61	121.33	4,576.52	4,572.24	4,554.71	17.53	260.773		
900.00	895.74	895.87	895.84	3.17	17.01	82.85	121.78	4,576.52	4,569.87	4,549.70	20.16	226.627		
1,000.00	993.97	994.01	993.97	3.52	19.29	83.08	121.33	4,576.52	4,567.52	4,544.71	22.81	200.201		
1,100.00	1,092.19	1,092.23	1,092.19	3.89	21.75	83.31	121.33	4,576.52	4,565.26	4,539.62	25.64	178.075		
1,200.00	1,190.42	1,190.53	1,190.47	4.26	24.20	83.53	121.84	4,576.52	4,563.07	4,534.61	28.46	160.323		
1,300.00	1,288.64	1,288.71	1,288.64	4.63	26.66	83.77	121.33	4,576.52	4,560.96	4,529.67	31.29	145.761		
1,400.00	1,386.86	1,386.92	1,386.84	5.00	29.13	83.99	122.27	4,576.52	4,558.92	4,524.80	34.13	133.589		
1,500.00	1,485.09	1,484.72	1,484.63	5.37	31.58	84.22	121.78	4,576.52	4,556.97	4,520.01	36.95	123.319		
1,600.00	1,583.31	1,583.41	1,583.31	5.74	34.06	84.46	121.33	4,576.52	4,555.09	4,515.28	39.81	114.434		
1,700.00	1,681.54	1,681.60	1,681.48	6.11	36.53	84.68	122.32	4,576.52	4,553.26	4,510.62	42.65	106.765		
1,800.00	1,779.76	1,778.95	1,778.82	6.49	38.98	84.91	121.86	4,576.52	4,551.54	4,506.07	45.47	100.101		
1,900.00	1,877.98	1,878.12	1,877.98	6.86	41.59	85.15	121.33	4,576.52	4,549.90	4,501.46	48.44	93.922		
2,000.00	1,976.21	1,976.36	1,976.21	7.23	44.30	85.39	121.33	4,576.52	4,548.33	4,496.80	51.53	88.267		
2,100.00	2,074.43	2,074.25	2,074.08	7.60	47.18	85.61	122.22	4,576.52	4,546.80	4,492.02	54.78	83.002		
2,200.00	2,172.66	2,172.85	2,172.66	7.98	50.08	85.85	121.33	4,576.52	4,545.41	4,487.36	58.05	78.300		
2,300.00	2,270.88	2,271.07	2,270.88	8.35	52.98	86.08	121.33	4,576.52	4,544.07	4,482.74	61.33	74.098		
2,400.00	2,369.11	2,367.10	2,368.87	8.72	55.81	86.30	122.05	4,576.52	4,542.76	4,478.23	64.53	70.394		
2,500.00	2,467.33	2,467.57	2,467.33	9.10	58.78	86.54	121.33	4,576.52	4,541.61	4,473.73	67.88	66.907		
2,600.00	2,565.55	2,564.87	2,564.60	9.47	61.67	86.76	122.33	4,576.52	4,540.44	4,469.30	71.14	63.828		
2,700.00	2,663.78	2,664.07	2,663.78	9.84	64.61	87.01	121.33	4,576.52	4,539.46	4,465.01	74.45	60.975		
2,800.00	2,762.00	2,762.31	2,762.00	10.22	67.50	87.24	121.33	4,576.52	4,538.50	4,460.79	77.71	58.401		
2,900.00	2,860.23	2,860.54	2,860.23	10.59	70.31	87.47	121.33	4,576.52	4,537.62	4,456.73	80.90	56.092		
3,000.00	2,958.45	2,955.38	2,955.04	10.96	73.02	87.69	122.09	4,576.52	4,536.76	4,452.78	83.98	54.021		
3,100.00	3,056.67	3,057.04	3,056.67	11.34	75.82	87.94	121.33	4,576.52	4,536.09	4,448.93	87.16	52.044		
3,200.00	3,154.90	3,154.86	3,154.47	11.71	78.40	88.16	122.36	4,576.52	4,535.36	4,445.25	90.11	50.330		
3,300.00	3,253.12	3,249.00	3,248.60	12.08	80.89	88.39	121.75	4,576.52	4,534.84	4,441.87	92.97	48.777		
3,400.00	3,351.35	3,351.75	3,351.35	12.46	83.60	88.64	121.33	4,576.52	4,534.38	4,438.33	96.05	47.206		
3,500.00	3,449.57	3,448.02	3,447.60	12.83	86.14	88.86	122.04	4,576.52	4,533.90	4,434.93	98.97	45.812		
3,600.00	3,547.80	3,548.23	3,547.80	13.20	88.83	89.10	121.33	4,576.52	4,533.63	4,431.60	102.03	44.434		
3,700.00	3,646.02	3,646.45	3,646.02	13.58	91.64	89.34	121.33	4,576.52	4,533.37	4,428.15	105.22	43.086		
3,800.00	3,744.24	3,739.60	3,739.14	13.95	94.31	89.55	121.82	4,576.52	4,533.14	4,424.88	108.26	41.873		
3,900.00	3,842.47	3,842.94	3,842.47	14.33	97.34	89.80	121.33	4,576.52	4,533.08	4,421.41	111.67	40.594		
3,970.31	3,911.53	3,911.27	3,910.78	14.59	99.38	89.95	122.40	4,576.52	4,532.93	4,418.96	113.97	39.775		
4,000.00	3,940.69	3,938.46	3,937.96	14.70	100.19	90.02	122.31	4,576.52	4,532.94	4,418.05	114.89	39.456		
4,100.00	4,038.92	4,039.44	4,038.92	15.07	103.18	90.27	121.33	4,576.52	4,533.10	4,414.85	118.25	38.334		
4,200.00	4,137.14	4,137.67	4,137.14	15.45	105.99	90.50	121.33	4,576.52	4,533.23	4,411.79	121.44	37.328		
4,300.00	4,235.37	4,235.89	4,235.37	15.82	108.81	90.73	121.33	4,576.52	4,533.44	4,408.80	124.63	36.375		
4,400.00	4,333.59	4,334.11	4,333.59	16.20	111.63	90.97	121.33	4,576.52	4,533.72	4,405.90	127.82	35.469		
4,418.29	4,351.55	4,351.63	4,351.06	16.26	112.13	90.97	124.06	4,576.52	4,533.42	4,405.03	128.39	35.309		
4,500.00	4,431.81	4,429.29	4,428.71	16.57	114.36	91.16	123.83	4,576.52	4,533.74	4,402.82	130.92	34.629		
4,600.00	4,530.04	4,524.19	4,523.58	16.94	117.08	91.39	123.09	4,576.52	4,534.28	4,400.26	134.02	33.833		
4,700.00	4,628.26	4,618.91	4,618.27	17.32	119.79	91.63	121.86	4,576.52	4,534.97	4,397.86	137.11	33.076		
4,800.00	4,726.46	4,727.11	4,726.46	17.69	122.90	91.86	121.33	4,576.52	4,532.29	4,391.71	140.59	32.239		
4,900.00	4,823.98	4,824.63	4,823.98	18.06	125.69	92.09	121.33	4,576.52	4,519.43	4,375.68	143.75	31.440		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE A #17 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.00 usft	
Survey Program: 202-INC-ONLY		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning	Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,000.00	4,919.77	4,916.92	4,916.24	18.41	128.34	31.55	122.68	4,576.52	4,496.15	4,349.40	146.75	30.638		
5,100.00	5,012.77	5,005.18	5,004.48	18.74	130.87	23.76	121.94	4,576.52	4,463.23	4,313.62	149.62	29.831		
5,200.00	5,101.98	5,052.00	5,051.29	19.06	132.22	18.75	121.33	4,576.52	4,420.96	4,269.70	151.26	29.227		
5,300.00	5,186.40	5,052.00	5,051.29	19.36	132.22	15.21	121.33	4,576.52	4,370.96	4,219.46	151.49	28.853		
5,400.00	5,265.12	5,052.00	5,051.29	19.64	132.22	12.59	121.33	4,576.52	4,313.77	4,162.12	151.64	28.447		
5,500.00	5,337.27	5,052.00	5,051.29	19.93	132.22	10.53	121.33	4,576.52	4,249.74	4,098.01	151.73	28.009		
5,600.00	5,402.06	5,052.00	5,051.29	20.23	132.22	8.80	121.33	4,576.52	4,179.28	4,027.54	151.75	27.541		
5,700.00	5,458.78	5,052.00	5,051.29	20.56	132.22	7.22	121.33	4,576.52	4,102.86	3,951.15	151.71	27.044		
5,800.00	5,509.14	5,052.00	5,051.29	20.93	132.22	6.78	121.33	4,576.52	4,022.54	3,870.91	151.63	26.528		
5,900.00	5,559.14	5,052.00	5,051.29	21.35	132.22	6.78	121.33	4,576.52	3,942.86	3,791.35	151.51	26.024		
6,000.00	5,605.15	5,052.00	5,051.29	21.81	132.22	8.13	121.33	4,576.52	3,861.50	3,710.14	151.36	25.512		
6,100.00	5,635.72	5,052.00	5,051.29	22.29	132.22	11.52	121.33	4,576.52	3,772.31	3,621.08	151.22	24.945		
6,200.00	5,649.31	5,052.00	5,051.29	22.76	132.22	20.12	121.33	4,576.52	3,677.07	3,525.95	151.12	24.333		
6,300.00	5,650.00	5,052.00	5,051.29	23.24	132.22	31.93	121.33	4,576.52	3,578.95	3,427.91	151.05	23.694		
6,400.00	5,650.00	5,052.00	5,051.29	23.77	132.22	39.50	121.33	4,576.52	3,481.18	3,330.20	150.98	23.057		
6,500.00	5,650.00	5,052.00	5,051.29	24.33	132.22	45.53	121.33	4,576.52	3,384.04	3,233.12	150.92	22.423		
6,600.00	5,650.00	5,052.00	5,051.29	24.94	132.22	47.39	121.33	4,576.52	3,287.58	3,136.71	150.86	21.792		
6,700.00	5,650.00	5,052.00	5,051.29	25.59	132.22	47.39	121.33	4,576.52	3,191.38	3,040.57	150.81	21.162		
6,800.00	5,650.00	5,052.00	5,051.29	26.26	132.22	47.39	121.33	4,576.52	3,095.41	2,944.67	150.75	20.534		
6,900.00	5,650.00	5,052.00	5,051.29	26.97	132.22	47.39	121.33	4,576.52	2,999.72	2,849.04	150.68	19.908		
7,000.00	5,650.00	5,052.00	5,051.29	27.71	132.22	47.39	121.33	4,576.52	2,904.31	2,753.70	150.61	19.284		
7,100.00	5,650.00	5,052.00	5,051.29	28.47	132.22	47.39	121.33	4,576.52	2,809.22	2,658.69	150.54	18.662		
7,200.00	5,650.00	5,052.00	5,051.29	29.25	132.22	47.39	121.33	4,576.52	2,714.49	2,564.04	150.45	18.042		
7,300.00	5,650.00	5,052.00	5,051.29	30.06	132.22	47.39	121.33	4,576.52	2,620.15	2,469.78	150.36	17.425		
7,400.00	5,650.00	5,052.00	5,051.29	30.88	132.22	47.39	121.33	4,576.52	2,526.24	2,375.97	150.27	16.812		
7,500.00	5,650.00	5,052.00	5,051.29	31.73	132.22	47.39	121.33	4,576.52	2,432.82	2,282.66	150.16	16.202		
7,600.00	5,650.00	5,052.00	5,051.29	32.59	132.22	47.39	121.33	4,576.52	2,339.94	2,189.90	150.04	15.595		
7,700.00	5,650.00	5,052.00	5,051.29	33.47	132.22	47.39	121.33	4,576.52	2,247.68	2,097.77	149.91	14.994		
7,800.00	5,650.00	5,052.00	5,051.29	34.36	132.22	47.39	121.33	4,576.52	2,156.10	2,006.34	149.76	14.397		
7,900.00	5,650.00	5,052.00	5,051.29	35.26	132.22	47.39	121.33	4,576.52	2,065.30	1,915.71	149.59	13.806		
8,000.00	5,650.00	5,052.00	5,051.29	36.18	132.22	47.39	121.33	4,576.52	1,975.40	1,825.99	149.40	13.222		
8,100.00	5,650.00	5,052.00	5,051.29	37.11	132.22	47.39	121.33	4,576.52	1,886.51	1,737.32	149.19	12.645		
8,200.00	5,650.00	5,052.00	5,051.29	38.05	132.22	47.39	121.33	4,576.52	1,798.79	1,649.85	148.94	12.077		
8,300.00	5,650.00	5,052.00	5,051.29	39.00	132.22	47.39	121.33	4,576.52	1,712.41	1,563.76	148.65	11.520		
8,400.00	5,650.00	5,052.00	5,051.29	39.96	132.22	47.39	121.33	4,576.52	1,627.59	1,479.28	148.32	10.974		
8,500.00	5,650.00	5,052.00	5,051.29	40.93	132.22	47.39	121.33	4,576.52	1,544.60	1,396.67	147.92	10.442		
8,600.00	5,650.00	5,052.00	5,051.29	41.90	132.22	47.39	121.33	4,576.52	1,463.73	1,316.27	147.46	9.926		
8,700.00	5,650.00	5,052.00	5,051.29	42.89	132.22	47.39	121.33	4,576.52	1,385.36	1,238.45	146.91	9.430		
8,800.00	5,650.00	5,052.00	5,051.29	43.88	132.22	47.39	121.33	4,576.52	1,309.93	1,163.68	146.25	8.957		
8,900.00	5,650.00	5,052.00	5,051.29	44.87	132.22	47.39	121.33	4,576.52	1,238.00	1,092.52	145.48	8.510		
9,000.00	5,650.00	5,052.00	5,051.29	45.88	132.22	47.39	121.33	4,576.52	1,170.20	1,025.63	144.57	8.095		
9,100.00	5,650.00	5,052.00	5,051.29	46.88	132.22	47.39	121.33	4,576.52	1,107.28	963.77	143.51	7.716		
9,200.00	5,650.00	5,052.00	5,051.29	47.90	132.22	47.39	121.33	4,576.52	1,050.14	907.81	142.33	7.378		
9,300.00	5,650.00	5,052.00	5,051.29	48.92	132.22	47.39	121.33	4,576.52	999.76	858.70	141.06	7.088		
9,400.00	5,650.00	5,052.00	5,051.29	49.94	132.22	47.39	121.33	4,576.52	957.20	817.41	139.79	6.848		
9,500.00	5,650.00	5,052.00	5,051.29	50.97	132.22	47.39	121.33	4,576.52	923.55	784.89	138.66	6.660		
9,600.00	5,650.00	5,052.00	5,051.29	52.00	132.22	47.39	121.33	4,576.52	899.81	761.94	137.87	6.526		
9,700.00	5,650.00	5,052.00	5,051.29	53.03	132.22	47.39	121.33	4,576.52	886.78	749.17	137.61	6.444		
9,766.42	5,650.00	5,052.00	5,051.29	53.72	132.22	47.39	121.33	4,576.52	884.29	746.50	137.79	6.418 CC, ES		
9,800.00	5,650.00	5,052.00	5,051.29	54.07	132.22	47.39	121.33	4,576.52	884.93	746.93	138.00	6.413 SF		
9,900.00	5,650.00	5,052.00	5,051.29	55.12	132.22	47.39	121.33	4,576.52	894.32	755.29	139.04	6.432		
10,000.00	5,650.00	5,052.00	5,051.29	56.16	132.22	47.39	121.33	4,576.52	914.62	774.02	140.60	6.505		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE A #17 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 202-INC-ONLY													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre			Rule Assigned:			Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,100.00	5,650.00	5,052.00	5,051.29	57.21	132.22	47.39	121.33	4,576.52	945.12	802.64	142.47	6.634		
10,200.00	5,650.00	5,052.00	5,051.29	58.26	132.22	47.39	121.33	4,576.52	984.87	840.42	144.44	6.818		
10,300.00	5,650.00	5,052.00	5,051.29	59.32	132.22	47.39	121.33	4,576.52	1,032.80	886.46	146.34	7.057		
10,400.00	5,650.00	5,052.00	5,051.29	60.38	132.22	47.39	121.33	4,576.52	1,087.84	939.78	148.06	7.347		
10,500.00	5,650.00	5,052.00	5,051.29	61.44	132.22	47.39	121.33	4,576.52	1,148.96	999.40	149.57	7.682		
10,600.00	5,650.00	5,052.00	5,051.29	62.50	132.22	47.39	121.33	4,576.52	1,215.25	1,064.41	150.84	8.057		
10,700.00	5,650.00	5,052.00	5,051.29	63.56	132.22	47.39	121.33	4,576.52	1,285.90	1,134.01	151.89	8.466		
10,800.00	5,650.00	5,052.00	5,051.29	64.63	132.22	47.39	121.33	4,576.52	1,360.24	1,207.48	152.76	8.904		
10,900.00	5,650.00	5,052.00	5,051.29	65.70	132.22	47.39	121.33	4,576.52	1,437.70	1,284.22	153.48	9.368		
11,000.00	5,650.00	5,052.00	5,051.29	66.77	132.22	47.39	121.33	4,576.52	1,517.79	1,363.74	154.06	9.852		
11,100.00	5,650.00	5,052.00	5,051.29	67.84	132.22	47.39	121.33	4,576.52	1,600.13	1,445.60	154.53	10.355		
11,200.00	5,650.00	5,052.00	5,051.29	68.92	132.22	47.39	121.33	4,576.52	1,684.38	1,529.46	154.92	10.872		
11,299.98	5,650.00	5,052.00	5,051.29	69.99	132.22	47.39	121.33	4,576.52	1,770.25	1,615.01	155.24	11.403		
11,358.47	5,650.00	5,052.00	5,051.29	70.43	132.22	47.39	121.33	4,576.52	1,821.16	1,664.85	156.31	11.651		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE A EAST FEDERAL #20 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.00 usft	
Survey Program: 220-INC-ONLY		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning	Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
6,000.00	5,605.15	5,614.76	5,614.44	21.81	119.18	10.51	-66.38	5,683.18	4,943.99	4,804.28	139.70	35.390		
6,100.00	5,635.72	5,643.78	5,643.45	22.29	120.12	18.26	-66.47	5,683.18	4,849.17	4,708.44	140.73	34.458		
6,200.00	5,649.31	5,656.72	5,656.39	22.76	120.54	56.29	-66.52	5,683.18	4,750.51	4,609.31	141.20	33.644		
6,300.00	5,650.00	5,657.42	5,657.09	23.24	120.56	89.53	-66.53	5,683.18	4,650.88	4,509.62	141.26	32.925		
6,400.00	5,650.00	5,657.44	5,657.12	23.77	120.56	89.65	-66.53	5,683.18	4,551.61	4,410.31	141.30	32.212		
6,500.00	5,650.00	5,657.46	5,657.13	24.33	120.56	89.72	-66.53	5,683.18	4,452.87	4,311.50	141.36	31.499		
6,600.00	5,650.00	5,657.46	5,657.13	24.94	120.56	89.74	-66.53	5,683.18	4,354.67	4,213.23	141.44	30.788		
6,700.00	5,650.00	5,657.46	5,657.13	25.59	120.56	89.74	-66.53	5,683.18	4,256.60	4,115.08	141.52	30.077		
6,800.00	5,650.00	5,657.45	5,657.13	26.26	120.56	89.74	-66.53	5,683.18	4,158.62	4,017.01	141.62	29.366		
6,900.00	5,650.00	5,657.45	5,657.13	26.97	120.56	89.74	-66.53	5,683.18	4,060.74	3,919.03	141.72	28.654		
7,000.00	5,650.00	5,657.45	5,657.13	27.71	120.56	89.74	-66.53	5,683.18	3,962.97	3,821.14	141.83	27.943		
7,100.00	5,650.00	5,657.45	5,657.13	28.47	120.56	89.74	-66.53	5,683.18	3,865.31	3,723.36	141.95	27.231		
7,200.00	5,650.00	5,657.45	5,657.12	29.25	120.56	89.74	-66.53	5,683.18	3,767.77	3,625.69	142.08	26.519		
7,300.00	5,650.00	5,657.45	5,657.12	30.06	120.56	89.74	-66.53	5,683.18	3,670.36	3,528.14	142.22	25.808		
7,400.00	5,650.00	5,657.45	5,657.12	30.88	120.56	89.74	-66.53	5,683.18	3,573.10	3,430.73	142.38	25.096		
7,500.00	5,650.00	5,657.45	5,657.12	31.73	120.56	89.74	-66.53	5,683.18	3,476.00	3,333.45	142.55	24.385		
7,600.00	5,650.00	5,657.44	5,657.12	32.59	120.56	89.74	-66.53	5,683.18	3,379.06	3,236.32	142.74	23.674		
7,700.00	5,650.00	5,657.44	5,657.12	33.47	120.56	89.74	-66.53	5,683.18	3,282.30	3,139.36	142.94	22.963		
7,800.00	5,650.00	5,657.44	5,657.12	34.36	120.56	89.74	-66.53	5,683.18	3,185.75	3,042.58	143.17	22.252		
7,900.00	5,650.00	5,657.44	5,657.12	35.26	120.56	89.74	-66.53	5,683.18	3,089.42	2,946.00	143.42	21.542		
8,000.00	5,650.00	5,657.44	5,657.11	36.18	120.56	89.74	-66.53	5,683.18	2,993.32	2,849.63	143.69	20.832		
8,100.00	5,650.00	5,657.44	5,657.11	37.11	120.56	89.74	-66.53	5,683.18	2,897.49	2,753.50	143.99	20.123		
8,200.00	5,650.00	5,657.44	5,657.11	38.05	120.56	89.74	-66.53	5,683.18	2,801.96	2,657.63	144.33	19.414		
8,300.00	5,650.00	5,657.44	5,657.11	39.00	120.56	89.74	-66.53	5,683.18	2,706.74	2,562.05	144.69	18.707		
8,400.00	5,650.00	5,657.43	5,657.11	39.96	120.56	89.74	-66.53	5,683.18	2,611.88	2,466.78	145.10	18.001		
8,500.00	5,650.00	5,657.43	5,657.11	40.93	120.56	89.74	-66.53	5,683.18	2,517.42	2,371.87	145.55	17.296		
8,600.00	5,650.00	5,657.43	5,657.11	41.90	120.56	89.74	-66.53	5,683.18	2,423.41	2,277.36	146.05	16.593		
8,700.00	5,650.00	5,657.43	5,657.11	42.89	120.56	89.73	-66.53	5,683.18	2,329.89	2,183.28	146.61	15.892		
8,800.00	5,650.00	5,657.43	5,657.11	43.88	120.56	89.73	-66.53	5,683.18	2,236.94	2,089.71	147.23	15.193		
8,900.00	5,650.00	5,657.43	5,657.10	44.87	120.56	89.73	-66.53	5,683.18	2,144.62	1,996.69	147.92	14.498		
9,000.00	5,650.00	5,657.43	5,657.10	45.88	120.56	89.73	-66.53	5,683.18	2,053.01	1,904.32	148.70	13.807		
9,100.00	5,650.00	5,657.43	5,657.10	46.88	120.56	89.73	-66.53	5,683.18	1,962.23	1,812.67	149.56	13.120		
9,200.00	5,650.00	5,657.43	5,657.10	47.90	120.56	89.73	-66.53	5,683.18	1,872.39	1,721.86	150.53	12.439		
9,300.00	5,650.00	5,657.42	5,657.10	48.92	120.56	89.73	-66.53	5,683.18	1,783.63	1,632.01	151.61	11.764		
9,400.00	5,650.00	5,657.42	5,657.10	49.94	120.56	89.73	-66.53	5,683.18	1,696.12	1,543.28	152.83	11.098		
9,500.00	5,650.00	5,657.42	5,657.10	50.97	120.56	89.73	-66.53	5,683.18	1,610.06	1,455.86	154.20	10.441		
9,600.00	5,650.00	5,657.42	5,657.10	52.00	120.56	89.73	-66.53	5,683.18	1,525.71	1,369.98	155.73	9.797		
9,700.00	5,650.00	5,657.42	5,657.09	53.03	120.56	89.73	-66.53	5,683.18	1,443.36	1,285.91	157.45	9.167		
9,800.00	5,650.00	5,657.42	5,657.09	54.07	120.56	89.73	-66.53	5,683.18	1,363.37	1,203.99	159.37	8.555		
9,900.00	5,650.00	5,657.42	5,657.09	55.12	120.56	89.73	-66.53	5,683.18	1,286.18	1,124.67	161.51	7.964		
10,000.00	5,650.00	5,657.42	5,657.09	56.16	120.56	89.73	-66.53	5,683.18	1,212.33	1,048.46	163.87	7.398		
10,100.00	5,650.00	5,657.41	5,657.09	57.21	120.56	89.73	-66.53	5,683.18	1,142.47	976.01	166.46	6.863		
10,200.00	5,650.00	5,657.41	5,657.09	58.26	120.56	89.73	-66.53	5,683.18	1,077.37	908.11	169.25	6.365		
10,300.00	5,650.00	5,657.41	5,657.09	59.32	120.56	89.73	-66.53	5,683.18	1,017.94	845.73	172.21	5.911		
10,400.00	5,650.00	5,657.41	5,657.09	60.38	120.56	89.73	-66.53	5,683.18	965.24	790.00	175.24	5.508		
10,500.00	5,650.00	5,657.41	5,657.08	61.44	120.56	89.73	-66.53	5,683.18	920.42	742.19	178.23	5.164		
10,600.00	5,650.00	5,657.41	5,657.08	62.50	120.56	89.73	-66.53	5,683.18	884.68	703.68	181.00	4.888		
10,700.00	5,650.00	5,657.41	5,657.08	63.56	120.56	89.73	-66.53	5,683.18	859.16	675.80	183.36	4.686		
10,800.00	5,650.00	5,657.41	5,657.08	64.63	120.56	89.73	-66.53	5,683.18	844.77	659.67	185.11	4.564		
10,872.56	5,650.00	5,657.41	5,657.08	65.40	120.56	89.73	-66.53	5,683.18	841.65	655.74	185.91	4.527 CC, ES		
10,900.00	5,650.00	5,657.40	5,657.08	65.70	120.56	89.73	-66.53	5,683.18	842.10	656.00	186.10	4.525 SF		
11,000.00	5,650.00	5,657.40	5,657.08	66.77	120.56	89.73	-66.53	5,683.18	851.25	664.97	186.27	4.570		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - MCINTYRE A EAST FEDERAL #20 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 220-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
11,100.00	5,650.00	5,657.40	5,657.08	67.84	120.56	89.73	-66.53	5,683.18	871.84	686.16	185.68	4.695		
11,200.00	5,650.00	5,657.40	5,657.08	68.92	120.56	89.73	-66.53	5,683.18	903.10	718.67	184.44	4.897		
11,299.98	5,650.00	5,657.40	5,657.08	69.99	120.56	89.73	-66.53	5,683.18	943.96	761.24	182.73	5.166		
11,358.47	5,650.00	5,657.40	5,657.07	70.43	120.56	89.73	-66.53	5,683.18	971.85	790.22	181.63	5.351		

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE A FEDERAL #14 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
+N/-S (usft)	+E/-W (usft)												
5,500.00	5,337.27	5,141.00	5,141.00	19.93	199.40	-1.99	792.38	5,363.81	4,970.59	4,751.61	218.98	22.699	
5,600.00	5,402.06	5,141.00	5,141.00	20.23	199.40	-5.20	792.38	5,363.81	4,897.80	4,678.78	219.03	22.362	
5,700.00	5,458.78	5,141.00	5,141.00	20.56	199.40	-8.75	792.38	5,363.81	4,819.41	4,600.40	219.01	22.005	
5,800.00	5,509.14	5,141.00	5,141.00	20.93	199.40	-9.86	792.38	5,363.81	4,737.40	4,518.45	218.95	21.637	
5,900.00	5,559.14	5,141.00	5,141.00	21.35	199.40	-9.86	792.38	5,363.81	4,655.86	4,437.02	218.85	21.274	
6,000.00	5,605.15	5,141.00	5,141.00	21.81	199.40	-11.98	792.38	5,363.81	4,572.58	4,353.86	218.73	20.905	
6,100.00	5,635.72	5,141.00	5,141.00	22.29	199.40	-17.50	792.38	5,363.81	4,481.89	4,263.28	218.61	20.502	
6,200.00	5,649.31	5,141.00	5,141.00	22.76	199.40	-32.43	792.38	5,363.81	4,385.74	4,167.23	218.51	20.071	
6,300.00	5,650.00	5,141.00	5,141.00	23.24	199.40	-34.53	792.38	5,363.81	4,287.05	4,068.61	218.44	19.626	
6,400.00	5,650.00	5,141.00	5,141.00	23.77	199.40	-22.15	792.38	5,363.81	4,188.04	3,969.66	218.37	19.178	
6,500.00	5,650.00	5,141.00	5,141.00	24.33	199.40	-7.53	792.38	5,363.81	4,088.90	3,870.59	218.31	18.730	
6,600.00	5,650.00	5,141.00	5,141.00	24.94	199.40	-1.99	792.38	5,363.81	3,989.73	3,771.49	218.24	18.281	
6,700.00	5,650.00	5,141.00	5,141.00	25.59	199.40	-1.99	792.38	5,363.81	3,890.61	3,672.44	218.17	17.833	
6,800.00	5,650.00	5,141.00	5,141.00	26.26	199.40	-1.99	792.38	5,363.81	3,791.54	3,573.44	218.10	17.385	
6,900.00	5,650.00	5,141.00	5,141.00	26.97	199.40	-1.99	792.38	5,363.81	3,692.51	3,474.50	218.02	16.937	
7,000.00	5,650.00	5,141.00	5,141.00	27.71	199.40	-1.99	792.38	5,363.81	3,593.54	3,375.62	217.93	16.490	
7,100.00	5,650.00	5,141.00	5,141.00	28.47	199.40	-1.99	792.38	5,363.81	3,494.63	3,276.80	217.83	16.043	
7,200.00	5,650.00	5,141.00	5,141.00	29.25	199.40	-1.99	792.38	5,363.81	3,395.78	3,178.06	217.72	15.597	
7,300.00	5,650.00	5,141.00	5,141.00	30.06	199.40	-1.99	792.38	5,363.81	3,297.00	3,079.40	217.60	15.152	
7,400.00	5,650.00	5,141.00	5,141.00	30.88	199.40	-1.99	792.38	5,363.81	3,198.30	2,980.83	217.47	14.707	
7,500.00	5,650.00	5,141.00	5,141.00	31.73	199.40	-1.99	792.38	5,363.81	3,099.68	2,882.36	217.32	14.263	
7,600.00	5,650.00	5,141.00	5,141.00	32.59	199.40	-1.99	792.38	5,363.81	3,001.15	2,783.99	217.16	13.820	
7,700.00	5,650.00	5,141.00	5,141.00	33.47	199.40	-1.99	792.38	5,363.81	2,902.73	2,685.74	216.98	13.378	
7,800.00	5,650.00	5,141.00	5,141.00	34.36	199.40	-1.99	792.38	5,363.81	2,804.41	2,587.63	216.78	12.936	
7,900.00	5,650.00	5,141.00	5,141.00	35.26	199.40	-1.99	792.38	5,363.81	2,706.22	2,489.66	216.56	12.496	
8,000.00	5,650.00	5,141.00	5,141.00	36.18	199.40	-1.99	792.38	5,363.81	2,608.16	2,391.85	216.31	12.058	
8,100.00	5,650.00	5,141.00	5,141.00	37.11	199.40	-1.99	792.38	5,363.81	2,510.26	2,294.23	216.02	11.620	
8,200.00	5,650.00	5,141.00	5,141.00	38.05	199.40	-1.99	792.38	5,363.81	2,412.53	2,196.83	215.70	11.185	
8,300.00	5,650.00	5,141.00	5,141.00	39.00	199.40	-1.99	792.38	5,363.81	2,314.99	2,099.66	215.34	10.751	
8,400.00	5,650.00	5,141.00	5,141.00	39.96	199.40	-1.99	792.38	5,363.81	2,217.67	2,002.76	214.92	10.319	
8,500.00	5,650.00	5,141.00	5,141.00	40.93	199.40	-1.99	792.38	5,363.81	2,120.61	1,906.17	214.43	9.889	
8,600.00	5,650.00	5,141.00	5,141.00	41.90	199.40	-1.99	792.38	5,363.81	2,023.82	1,809.94	213.88	9.462	
8,700.00	5,650.00	5,141.00	5,141.00	42.89	199.40	-1.99	792.38	5,363.81	1,927.37	1,714.14	213.23	9.039	
8,800.00	5,650.00	5,141.00	5,141.00	43.88	199.40	-1.99	792.38	5,363.81	1,831.30	1,618.82	212.48	8.619	
8,900.00	5,650.00	5,141.00	5,141.00	44.87	199.40	-1.99	792.38	5,363.81	1,735.67	1,524.08	211.59	8.203	
9,000.00	5,650.00	5,141.00	5,141.00	45.88	199.40	-1.99	792.38	5,363.81	1,640.56	1,430.02	210.54	7.792	
9,100.00	5,650.00	5,141.00	5,141.00	46.88	199.40	-1.99	792.38	5,363.81	1,546.07	1,336.79	209.28	7.388	
9,200.00	5,650.00	5,141.00	5,141.00	47.90	199.40	-1.99	792.38	5,363.81	1,452.32	1,244.56	207.76	6.990	
9,300.00	5,650.00	5,141.00	5,141.00	48.92	199.40	-1.99	792.38	5,363.81	1,359.46	1,153.54	205.91	6.602	
9,400.00	5,650.00	5,141.00	5,141.00	49.94	199.40	-1.99	792.38	5,363.81	1,267.68	1,064.04	203.64	6.225	
9,500.00	5,650.00	5,141.00	5,141.00	50.97	199.40	-1.99	792.38	5,363.81	1,177.25	976.44	200.81	5.863	
9,600.00	5,650.00	5,141.00	5,141.00	52.00	199.40	-1.99	792.38	5,363.81	1,088.49	891.25	197.23	5.519	
9,700.00	5,650.00	5,141.00	5,141.00	53.03	199.40	-1.99	792.38	5,363.81	1,001.85	809.18	192.67	5.200	
9,800.00	5,650.00	5,141.00	5,141.00	54.07	199.40	-1.99	792.38	5,363.81	917.93	731.17	186.76	4.915	
9,900.00	5,650.00	5,141.00	5,141.00	55.12	199.40	-1.99	792.38	5,363.81	837.55	658.55	179.00	4.679	
10,000.00	5,650.00	5,141.00	5,141.00	56.16	199.40	-1.99	792.38	5,363.81	761.83	593.13	168.70	4.516	
10,100.00	5,650.00	5,141.00	5,141.00	57.21	199.40	-1.99	792.38	5,363.81	692.30	537.36	154.94	4.468	
10,200.00	5,650.00	5,141.00	5,141.00	58.26	199.40	-1.99	792.38	5,363.81	631.01	494.40	136.61	4.619	
10,300.00	5,650.00	5,141.00	5,141.00	59.32	199.40	-1.99	792.38	5,363.81	580.57	467.95	112.62	5.155	
10,400.00	5,650.00	5,141.00	5,141.00	60.38	199.40	-1.99	792.38	5,363.81	544.02	461.48	82.54	6.591 ES	
10,500.00	5,650.00	5,141.00	5,141.00	61.44	199.40	-1.99	792.38	5,363.81	524.26	476.42	47.84	10.958	
10,555.53	5,650.00	5,141.00	5,141.00	62.03	199.40	-1.99	792.38	5,363.81	521.32	488.22	33.10	15.750 CC	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - MCINTYRE A FEDERAL #14 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program:		300-UNKNOWN <th colspan="4">Rule Assigned:</th> <th colspan="2">Offset Well Error:</th> <td>0.00 usft</td>				Rule Assigned:				Offset Well Error:		0.00 usft		
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Warning						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,600.00	5,650.00	5,141.00	5,141.00	62.50	199.40	-1.99	792.38	5,363.81	523.21	479.11	44.10	11.864		
10,700.00	5,650.00	5,141.00	5,141.00	63.56	199.40	-1.99	792.38	5,363.81	540.96	461.78	79.18	6.832		
10,800.00	5,650.00	5,141.00	5,141.00	64.63	199.40	-1.99	792.38	5,363.81	575.79	465.70	110.09	5.230		
10,900.00	5,650.00	5,141.00	5,141.00	65.70	199.40	-1.99	792.38	5,363.81	624.84	489.94	134.90	4.632		
11,000.00	5,650.00	5,141.00	5,141.00	66.77	199.40	-1.99	792.38	5,363.81	685.07	531.13	153.94	4.450 SF		
11,100.00	5,650.00	5,141.00	5,141.00	67.84	199.40	-1.99	792.38	5,363.81	753.80	585.54	168.26	4.480		
11,200.00	5,650.00	5,141.00	5,141.00	68.92	199.40	-1.99	792.38	5,363.81	828.92	649.94	178.99	4.631		
11,299.98	5,650.00	5,141.00	5,141.00	69.99	199.40	-1.99	792.38	5,363.81	908.83	721.75	187.08	4.858		
11,358.47	5,650.00	5,141.00	5,141.00	70.43	199.40	-1.99	792.38	5,363.81	957.33	765.83	191.50	4.999		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE B #9 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 532-INC-ONLY		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:				Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	90.29	-10.21	2,022.44	2,022.47					
100.00	100.00	97.00	97.00	0.29	1.01	90.29	-10.21	2,022.44	2,022.47	2,021.17	1.29	1,563.209		
200.00	200.00	197.00	197.00	0.65	2.05	90.29	-10.21	2,022.44	2,022.47	2,019.78	2.69	751.728		
300.00	300.00	297.00	297.00	1.00	3.08	90.29	-10.21	2,022.44	2,022.47	2,018.38	4.09	494.847		
400.00	399.98	396.98	396.98	1.36	4.12	83.81	-10.21	2,022.44	2,022.28	2,016.79	5.48	368.836		
500.00	499.84	496.84	496.84	1.73	5.16	83.97	-10.21	2,022.44	2,021.72	2,014.84	6.88	293.992		
600.00	599.45	596.45	596.45	2.09	6.79	84.23	-10.21	2,022.44	2,020.82	2,011.96	8.86	227.967		
700.00	698.70	695.70	695.70	2.45	8.74	84.60	-10.21	2,022.44	2,019.63	2,008.45	11.17	180.784		
800.00	797.47	794.29	794.28	2.81	10.67	85.05	-9.54	2,022.44	2,018.18	2,004.71	13.47	149.857		
900.00	895.74	892.19	892.18	3.17	12.59	85.59	-10.13	2,022.44	2,016.67	2,000.91	15.75	128.025		
1,000.00	993.97	990.99	990.97	3.52	14.61	86.11	-10.21	2,022.44	2,015.29	1,997.16	18.13	111.157		
1,100.00	1,092.19	1,089.21	1,089.19	3.89	16.62	86.64	-10.21	2,022.44	2,014.08	1,993.58	20.51	98.218		
1,200.00	1,190.42	1,187.43	1,187.42	4.26	18.62	87.16	-10.21	2,022.44	2,013.05	1,990.16	22.88	87.969		
1,300.00	1,288.64	1,285.66	1,285.64	4.63	20.63	87.68	-10.21	2,022.44	2,012.19	1,986.93	25.26	79.654		
1,400.00	1,386.86	1,383.75	1,383.73	5.00	22.64	88.18	-9.36	2,022.44	2,011.44	1,983.80	27.64	72.778		
1,500.00	1,485.09	1,481.77	1,481.75	5.37	24.64	88.71	-9.49	2,022.44	2,010.93	1,980.92	30.01	67.001		
1,600.00	1,583.31	1,579.76	1,579.73	5.74	26.65	89.24	-9.72	2,022.44	2,010.61	1,978.22	32.39	62.078		
1,700.00	1,681.54	1,677.70	1,677.67	6.11	28.65	89.78	-10.06	2,022.44	2,010.49	1,975.72	34.76	57.834		
1,715.68	1,696.94	1,693.05	1,693.03	6.17	28.96	89.86	-10.12	2,022.44	2,010.48	1,975.35	35.14	57.221		
1,800.00	1,779.76	1,776.79	1,776.76	6.49	30.83	90.31	-10.21	2,022.44	2,010.52	1,973.20	37.32	53.879		
1,900.00	1,877.98	1,875.01	1,874.98	6.86	33.08	90.83	-10.21	2,022.44	2,010.71	1,970.77	39.94	50.346		
2,000.00	1,976.21	1,973.10	1,973.05	7.23	35.33	91.32	-8.86	2,022.44	2,010.89	1,968.33	42.56	47.251		
2,100.00	2,074.43	2,070.08	2,070.03	7.60	37.55	91.85	-9.12	2,022.44	2,011.46	1,966.30	45.15	44.549		
2,200.00	2,172.66	2,166.92	2,166.86	7.98	39.77	92.38	-9.79	2,022.44	2,012.27	1,964.52	47.74	42.148		
2,300.00	2,270.88	2,267.95	2,267.88	8.35	42.14	92.93	-10.21	2,022.44	2,013.22	1,962.73	50.49	39.875		
2,400.00	2,369.11	2,366.17	2,366.11	8.72	44.49	93.46	-10.21	2,022.44	2,014.28	1,961.08	53.21	37.856		
2,500.00	2,467.33	2,463.92	2,463.83	9.10	46.82	93.94	-8.99	2,022.44	2,015.30	1,959.38	55.92	36.040		
2,600.00	2,565.55	2,560.36	2,560.26	9.47	49.13	94.47	-9.34	2,022.44	2,016.77	1,958.17	58.60	34.418		
2,700.00	2,663.78	2,656.63	2,656.53	9.84	51.43	95.00	-10.13	2,022.44	2,018.51	1,957.24	61.27	32.944		
2,800.00	2,762.00	2,759.11	2,759.00	10.22	53.89	95.54	-10.21	2,022.44	2,020.28	1,956.18	64.10	31.516		
2,900.00	2,860.23	2,857.33	2,857.23	10.59	56.25	96.06	-10.21	2,022.44	2,022.21	1,955.38	66.83	30.257		
3,000.00	2,958.45	2,953.75	2,953.62	10.96	58.56	96.54	-8.89	2,022.44	2,024.01	1,954.49	69.52	29.114		
3,100.00	3,056.67	3,049.25	3,049.11	11.34	60.85	97.06	-9.53	2,022.44	2,026.43	1,954.25	72.19	28.073		
3,200.00	3,154.90	3,152.05	3,151.90	11.71	63.32	97.62	-10.21	2,022.44	2,029.04	1,954.01	75.03	27.044		
3,300.00	3,253.12	3,250.28	3,250.12	12.08	65.69	98.13	-10.21	2,022.44	2,031.65	1,953.89	77.76	26.126		
3,400.00	3,351.35	3,348.50	3,348.35	12.46	68.05	98.65	-10.21	2,022.44	2,034.44	1,953.94	80.50	25.273		
3,500.00	3,449.57	3,444.59	3,444.42	12.83	70.36	99.12	-9.03	2,022.44	2,037.07	1,953.89	83.18	24.489		
3,600.00	3,547.80	3,540.36	3,540.17	13.20	72.67	99.63	-9.61	2,022.44	2,040.35	1,954.49	85.86	23.764		
3,700.00	3,646.02	3,643.21	3,643.02	13.58	75.22	100.18	-10.21	2,022.44	2,043.81	1,955.02	88.78	23.020		
3,800.00	3,744.24	3,741.44	3,741.24	13.95	77.78	100.69	-10.21	2,022.44	2,047.26	1,955.55	91.71	22.323		
3,900.00	3,842.47	3,839.66	3,839.47	14.33	80.33	101.19	-10.21	2,022.44	2,050.89	1,956.24	94.64	21.670		
4,000.00	3,940.69	3,935.16	3,934.94	14.70	82.82	101.65	-8.75	2,022.44	2,054.21	1,956.71	97.50	21.069		
4,100.00	4,038.92	4,030.04	4,029.81	15.07	85.29	102.15	-9.39	2,022.44	2,058.37	1,958.03	100.34	20.514		
4,200.00	4,137.14	4,134.39	4,134.14	15.45	88.04	102.70	-10.21	2,022.44	2,062.74	1,959.28	103.46	19.937		
4,300.00	4,235.37	4,232.62	4,232.37	15.82	90.70	103.20	-10.21	2,022.44	2,067.02	1,960.52	106.50	19.409		
4,400.00	4,333.59	4,330.84	4,330.59	16.20	93.37	103.70	-10.21	2,022.44	2,071.46	1,961.92	109.53	18.912		
4,500.00	4,431.81	4,425.59	4,425.30	16.57	95.94	104.13	-8.52	2,022.44	2,075.45	1,962.98	112.47	18.453		
4,600.00	4,530.04	4,519.36	4,519.05	16.94	98.48	104.62	-9.23	2,022.44	2,080.47	1,965.08	115.39	18.031		
4,700.00	4,628.26	4,625.59	4,625.26	17.32	101.34	105.18	-10.21	2,022.44	2,085.73	1,967.11	118.61	17.584		
4,800.00	4,726.46	4,723.78	4,723.46	17.69	103.91	81.18	-10.21	2,022.44	2,087.51	1,965.95	121.55	17.173		
4,900.00	4,823.98	4,819.27	4,818.92	18.06	106.41	58.99	-8.78	2,022.44	2,078.82	1,954.40	124.42	16.708		
5,000.00	4,919.77	4,909.20	4,908.83	18.41	108.77	46.44	-9.33	2,022.44	2,060.94	1,933.80	127.13	16.211		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE B #9 - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 532-INC-ONLY													Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	5,012.77	5,010.16	5,009.77	18.74	111.38	39.68	-10.21	2,022.44	2,033.45	1,903.35	130.10	15.630	
5,200.00	5,101.98	5,099.37	5,098.98	19.06	113.63	36.02	-10.21	2,022.44	1,996.26	1,863.59	132.67	15.046	
5,300.00	5,186.40	5,183.79	5,183.40	19.36	115.76	34.33	-10.21	2,022.44	1,950.19	1,815.08	135.11	14.434	
5,400.00	5,265.12	5,262.51	5,262.12	19.64	117.74	34.06	-10.21	2,022.44	1,895.81	1,758.42	137.39	13.799	
5,500.00	5,337.27	5,334.66	5,334.27	19.93	119.56	35.00	-10.21	2,022.44	1,833.79	1,694.31	139.48	13.147	
5,600.00	5,402.06	5,399.45	5,399.06	20.23	121.20	37.14	-10.21	2,022.44	1,764.90	1,623.53	141.37	12.485	
5,700.00	5,458.78	5,456.17	5,455.78	20.56	122.63	40.61	-10.21	2,022.44	1,689.98	1,546.94	143.04	11.815	
5,800.00	5,509.14	5,506.52	5,506.14	20.93	123.90	43.05	-10.21	2,022.44	1,611.34	1,466.81	144.53	11.148	
5,900.00	5,559.14	5,556.52	5,556.14	21.35	125.16	44.80	-10.21	2,022.44	1,533.31	1,387.27	146.04	10.499	
6,000.00	5,605.15	5,602.54	5,602.15	21.81	126.32	53.84	-10.21	2,022.44	1,454.41	1,306.93	147.48	9.862	
6,100.00	5,635.72	5,633.10	5,632.72	22.29	127.09	68.84	-10.21	2,022.44	1,371.16	1,222.61	148.54	9.231	
6,200.00	5,649.31	5,646.69	5,646.31	22.76	127.43	85.50	-10.21	2,022.44	1,286.26	1,137.06	149.20	8.621	
6,300.00	5,650.00	5,647.39	5,647.00	23.24	127.45	90.00	-10.21	2,022.44	1,203.16	1,053.58	149.58	8.044	
6,400.00	5,650.00	5,647.39	5,647.00	23.77	127.45	90.00	-10.21	2,022.44	1,124.92	974.89	150.03	7.498	
6,500.00	5,650.00	5,647.39	5,647.00	24.33	127.45	90.00	-10.21	2,022.44	1,052.84	902.23	150.61	6.991	
6,600.00	5,650.00	5,647.39	5,647.00	24.94	127.45	90.00	-10.21	2,022.44	987.79	836.48	151.31	6.528	
6,700.00	5,650.00	5,647.39	5,647.00	25.59	127.45	90.00	-10.21	2,022.44	929.15	777.03	152.13	6.108	
6,800.00	5,650.00	5,647.39	5,647.00	26.26	127.45	90.00	-10.21	2,022.44	878.03	724.98	153.05	5.737	
6,900.00	5,650.00	5,647.39	5,647.00	26.97	127.45	90.00	-10.21	2,022.44	835.78	681.76	154.03	5.426	
7,000.00	5,650.00	5,647.39	5,647.00	27.71	127.45	90.00	-10.21	2,022.44	803.83	648.82	155.01	5.186	
7,100.00	5,650.00	5,647.39	5,647.00	28.47	127.45	90.00	-10.21	2,022.44	783.41	627.51	155.91	5.025	
7,200.00	5,650.00	5,647.39	5,647.00	29.25	127.45	90.00	-10.21	2,022.44	775.46	618.82	156.64	4.951	
7,211.99	5,650.00	5,647.39	5,647.00	29.35	127.45	90.00	-10.21	2,022.44	775.37	618.65	156.72	4.948 CC, ES, SF	
7,300.00	5,650.00	5,647.39	5,647.00	30.06	127.45	90.00	-10.21	2,022.44	780.35	623.20	157.15	4.966	
7,400.00	5,650.00	5,647.39	5,647.00	30.88	127.45	90.00	-10.21	2,022.44	797.84	640.44	157.40	5.069	
7,500.00	5,650.00	5,647.39	5,647.00	31.73	127.45	90.00	-10.21	2,022.44	827.13	669.73	157.40	5.255	
7,600.00	5,650.00	5,647.39	5,647.00	32.59	127.45	90.00	-10.21	2,022.44	867.04	709.82	157.22	5.515	
7,700.00	5,650.00	5,647.39	5,647.00	33.47	127.45	90.00	-10.21	2,022.44	916.16	759.26	156.90	5.839	
7,800.00	5,650.00	5,647.39	5,647.00	34.36	127.45	90.00	-10.21	2,022.44	973.12	816.62	156.50	6.218	
7,900.00	5,650.00	5,647.39	5,647.00	35.26	127.45	90.00	-10.21	2,022.44	1,036.61	880.55	156.06	6.642	
8,000.00	5,650.00	5,647.39	5,647.00	36.18	127.45	90.00	-10.21	2,022.44	1,105.51	949.89	155.62	7.104	
8,100.00	5,650.00	5,647.39	5,647.00	37.11	127.45	90.00	-10.21	2,022.44	1,178.88	1,023.68	155.20	7.596	
8,200.00	5,650.00	5,647.39	5,647.00	38.05	127.45	90.00	-10.21	2,022.44	1,255.93	1,101.13	154.80	8.113	
8,300.00	5,650.00	5,647.39	5,647.00	39.00	127.45	90.00	-10.21	2,022.44	1,336.03	1,181.59	154.43	8.651	
8,400.00	5,650.00	5,647.39	5,647.00	39.96	127.45	90.00	-10.21	2,022.44	1,418.65	1,264.55	154.10	9.206	
8,500.00	5,650.00	5,647.39	5,647.00	40.93	127.45	90.00	-10.21	2,022.44	1,503.39	1,349.59	153.80	9.775	
8,600.00	5,650.00	5,647.39	5,647.00	41.90	127.45	90.00	-10.21	2,022.44	1,589.90	1,436.37	153.53	10.356	
8,700.00	5,650.00	5,647.39	5,647.00	42.89	127.45	90.00	-10.21	2,022.44	1,677.91	1,524.62	153.29	10.946	
8,800.00	5,650.00	5,647.39	5,647.00	43.88	127.45	90.00	-10.21	2,022.44	1,767.20	1,614.12	153.07	11.545	
8,900.00	5,650.00	5,647.39	5,647.00	44.87	127.45	90.00	-10.21	2,022.44	1,857.57	1,704.69	152.88	12.150	
9,000.00	5,650.00	5,647.39	5,647.00	45.88	127.45	90.00	-10.21	2,022.44	1,948.89	1,796.18	152.71	12.762	
9,100.00	5,650.00	5,647.39	5,647.00	46.88	127.45	90.00	-10.21	2,022.44	2,041.03	1,888.46	152.56	13.378	
9,200.00	5,650.00	5,647.39	5,647.00	47.90	127.45	90.00	-10.21	2,022.44	2,133.87	1,981.44	152.43	13.999	
9,300.00	5,650.00	5,647.39	5,647.00	48.92	127.45	90.00	-10.21	2,022.44	2,227.33	2,075.02	152.31	14.624	
9,400.00	5,650.00	5,647.39	5,647.00	49.94	127.45	90.00	-10.21	2,022.44	2,321.33	2,169.13	152.21	15.251	
9,500.00	5,650.00	5,647.39	5,647.00	50.97	127.45	90.00	-10.21	2,022.44	2,415.82	2,263.71	152.11	15.882	
9,600.00	5,650.00	5,647.39	5,647.00	52.00	127.45	90.00	-10.21	2,022.44	2,510.74	2,358.70	152.03	16.514	
9,700.00	5,650.00	5,647.39	5,647.00	53.03	127.45	90.00	-10.21	2,022.44	2,606.03	2,454.07	151.96	17.149	
9,800.00	5,650.00	5,647.39	5,647.00	54.07	127.45	90.00	-10.21	2,022.44	2,701.67	2,549.77	151.90	17.786	
9,900.00	5,650.00	5,647.39	5,647.00	55.12	127.45	90.00	-10.21	2,022.44	2,797.61	2,645.76	151.85	18.424	
10,000.00	5,650.00	5,647.39	5,647.00	56.16	127.45	90.00	-10.21	2,022.44	2,893.82	2,742.02	151.80	19.063	
10,100.00	5,650.00	5,647.39	5,647.00	57.21	127.45	90.00	-10.21	2,022.44	2,990.29	2,838.52	151.76	19.703	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE B #9 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program:	532-INC-ONLY												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Rule Assigned:		Distance		Minimum	Separation	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)			
10,200.00	5,650.00	5,647.39	5,647.00	58.26	127.45	90.00	-10.21	2,022.44	3,086.98	2,935.24	151.73	20.345		
10,300.00	5,650.00	5,647.39	5,647.00	59.32	127.45	90.00	-10.21	2,022.44	3,183.87	3,032.16	151.71	20.987		
10,400.00	5,650.00	5,647.39	5,647.00	60.38	127.45	90.00	-10.21	2,022.44	3,280.95	3,129.26	151.69	21.630		
10,500.00	5,650.00	5,647.39	5,647.00	61.44	127.45	90.00	-10.21	2,022.44	3,378.20	3,226.53	151.67	22.273		
10,600.00	5,650.00	5,647.39	5,647.00	62.50	127.45	90.00	-10.21	2,022.44	3,475.60	3,323.94	151.66	22.917		
10,700.00	5,650.00	5,647.39	5,647.00	63.56	127.45	90.00	-10.21	2,022.44	3,573.15	3,421.50	151.65	23.561		
10,800.00	5,650.00	5,647.39	5,647.00	64.63	127.45	90.00	-10.21	2,022.44	3,670.84	3,519.18	151.65	24.206		
10,900.00	5,650.00	5,647.39	5,647.00	65.70	127.45	90.00	-10.21	2,022.44	3,768.64	3,616.99	151.65	24.851		
11,000.00	5,650.00	5,647.39	5,647.00	66.77	127.45	90.00	-10.21	2,022.44	3,866.55	3,714.90	151.66	25.496		
11,100.00	5,650.00	5,647.39	5,647.00	67.84	127.45	90.00	-10.21	2,022.44	3,964.57	3,812.91	151.66	26.141		
11,200.00	5,650.00	5,647.39	5,647.00	68.92	127.45	90.00	-10.21	2,022.44	4,062.69	3,911.01	151.67	26.786		
11,299.98	5,650.00	5,647.39	5,647.00	69.99	127.45	90.00	-10.21	2,022.44	4,160.87	4,009.18	151.69	27.430		
11,358.47	5,650.00	5,647.39	5,647.00	70.43	127.45	90.00	-10.21	2,022.44	4,218.36	4,063.96	154.40	27.322		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE E #8 - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 407-INC-ONLY													Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	4.00	4.00	0.00	0.04	90.13	-7.26	3,172.71	3,172.72				
100.00	100.00	104.00	104.00	0.29	1.07	90.13	-7.26	3,172.71	3,172.72	3,171.36	1.36	2,336.048	
200.00	200.00	204.00	204.00	0.65	2.10	90.13	-7.26	3,172.71	3,172.72	3,169.97	2.75	1,155.060	
300.00	300.00	304.00	304.00	1.00	3.13	90.13	-7.26	3,172.71	3,172.72	3,168.58	4.14	767.201	
400.00	399.98	403.98	403.98	1.36	4.17	83.64	-7.26	3,172.71	3,172.52	3,167.00	5.52	574.393	
500.00	499.84	503.84	503.84	1.73	6.26	83.74	-7.26	3,172.71	3,171.95	3,163.98	7.97	397.854	
600.00	599.45	603.44	603.43	2.09	8.38	83.90	-6.47	3,172.71	3,171.00	3,160.55	10.45	303.447	
700.00	698.70	702.54	702.52	2.45	10.48	84.15	-6.78	3,172.71	3,169.73	3,156.81	12.92	245.379	
800.00	797.47	801.48	801.47	2.81	12.59	84.47	-7.26	3,172.71	3,168.16	3,152.78	15.38	205.935	
900.00	895.74	899.73	899.71	3.17	14.68	84.80	-6.72	3,172.71	3,166.40	3,148.56	17.84	177.509	
1,000.00	993.97	997.37	997.34	3.52	16.76	85.14	-7.10	3,172.71	3,164.73	3,144.45	20.28	156.038	
1,100.00	1,092.19	1,096.22	1,096.19	3.89	18.86	85.48	-7.26	3,172.71	3,163.18	3,140.42	22.75	139.022	
1,200.00	1,190.42	1,193.75	1,193.71	4.26	20.94	85.80	-6.99	3,172.71	3,161.71	3,136.52	25.20	125.477	
1,300.00	1,288.64	1,292.68	1,292.64	4.63	23.27	86.14	-7.26	3,172.71	3,160.38	3,132.49	27.90	113.280	
1,400.00	1,386.86	1,390.91	1,390.86	5.00	25.72	86.48	-7.26	3,172.71	3,159.15	3,128.43	30.72	102.836	
1,500.00	1,485.09	1,489.13	1,489.09	5.37	28.17	86.81	-7.26	3,172.71	3,158.04	3,124.49	33.54	94.151	
1,600.00	1,583.31	1,586.72	1,586.66	5.74	30.61	87.12	-6.29	3,172.71	3,156.97	3,120.62	36.35	86.852	
1,700.00	1,681.54	1,684.19	1,684.13	6.11	33.04	87.46	-6.77	3,172.71	3,156.10	3,116.95	39.15	80.610	
1,800.00	1,779.76	1,783.83	1,783.76	6.49	35.64	87.81	-7.26	3,172.71	3,155.35	3,113.22	42.12	74.908	
1,900.00	1,877.98	1,881.52	1,881.43	6.86	38.38	88.13	-6.24	3,172.71	3,154.59	3,109.35	45.24	69.732	
2,000.00	1,976.21	1,976.01	1,975.90	7.23	41.03	88.46	-7.09	3,172.71	3,154.10	3,105.84	48.26	65.350	
2,100.00	2,074.43	2,078.55	2,078.43	7.60	43.93	88.82	-7.26	3,172.71	3,153.66	3,102.13	51.54	61.194	
2,200.00	2,172.66	2,175.18	2,175.04	7.98	46.66	89.13	-6.31	3,172.71	3,153.23	3,098.59	54.64	57.708	
2,300.00	2,270.88	2,275.04	2,274.88	8.35	49.50	89.49	-7.26	3,172.71	3,153.09	3,095.25	57.85	54.508	
2,385.16	2,354.52	2,356.16	2,355.99	8.67	51.89	89.75	-6.82	3,172.71	3,152.94	3,092.39	60.55	52.070	
2,400.00	2,369.11	2,369.44	2,369.26	8.72	52.28	89.80	-6.94	3,172.71	3,152.95	3,091.95	61.00	51.689	
2,490.65	2,458.15	2,462.33	2,462.15	9.06	55.02	90.12	-7.26	3,172.71	3,152.97	3,088.89	64.08	49.206	
2,500.00	2,467.33	2,471.36	2,471.16	9.10	55.28	90.14	-6.58	3,172.71	3,152.90	3,088.52	64.38	48.975	
2,600.00	2,565.55	2,569.77	2,569.55	9.47	58.14	90.49	-7.26	3,172.71	3,153.08	3,085.47	67.61	46.638	
2,700.00	2,663.78	2,668.00	2,667.78	9.84	60.83	90.82	-7.26	3,172.71	3,153.30	3,082.63	70.67	44.617	
2,800.00	2,762.00	2,761.00	2,760.74	10.22	63.38	91.13	-6.74	3,172.71	3,153.57	3,079.97	73.60	42.849	
2,900.00	2,860.23	2,863.85	2,863.57	10.59	66.06	91.49	-6.87	3,172.71	3,154.02	3,077.37	76.64	41.151	
3,000.00	2,958.45	2,962.73	2,962.45	10.96	68.65	91.83	-7.26	3,172.71	3,154.63	3,075.01	79.61	39.624	
3,100.00	3,056.67	3,060.96	3,060.67	11.34	71.35	92.16	-7.26	3,172.71	3,155.29	3,072.61	82.68	38.161	
3,200.00	3,154.90	3,159.18	3,158.90	11.71	74.05	92.50	-7.26	3,172.71	3,156.07	3,070.32	85.75	36.804	
3,300.00	3,253.12	3,254.98	3,254.67	12.08	76.68	92.80	-5.86	3,172.71	3,156.73	3,067.97	88.76	35.566	
3,400.00	3,351.35	3,350.47	3,350.15	12.46	79.30	93.14	-6.56	3,172.71	3,157.84	3,066.09	91.75	34.417	
3,500.00	3,449.57	3,453.91	3,453.57	12.83	82.23	93.50	-7.26	3,172.71	3,159.07	3,064.01	95.06	33.232	
3,600.00	3,547.80	3,550.81	3,550.45	13.20	85.11	93.81	-6.21	3,172.71	3,160.10	3,061.79	98.31	32.144	
3,700.00	3,646.02	3,641.47	3,641.08	13.58	87.80	94.13	-7.01	3,172.71	3,161.59	3,060.21	101.38	31.187	
3,800.00	3,744.24	3,748.63	3,748.24	13.95	90.99	94.50	-7.26	3,172.71	3,163.06	3,058.13	104.94	30.142	
3,900.00	3,842.47	3,846.86	3,846.47	14.33	93.91	94.83	-7.26	3,172.71	3,164.62	3,056.38	108.23	29.239	
4,000.00	3,940.69	3,943.31	3,942.88	14.70	96.78	95.12	-5.16	3,172.71	3,165.85	3,054.38	111.48	28.399	
4,100.00	4,038.92	4,037.16	4,036.71	15.07	99.57	95.45	-5.73	3,172.71	3,167.74	3,053.10	114.64	27.632	
4,200.00	4,137.14	4,130.80	4,130.32	15.45	102.36	95.79	-6.92	3,172.71	3,169.89	3,052.09	117.80	26.909	
4,300.00	4,235.37	4,239.85	4,239.37	15.82	105.51	96.16	-7.26	3,172.71	3,171.93	3,050.61	121.32	26.145	
4,400.00	4,333.59	4,338.08	4,337.59	16.20	108.32	96.49	-7.26	3,172.71	3,174.04	3,049.53	124.51	25.492	
4,500.00	4,431.81	4,434.39	4,433.86	16.57	111.08	96.78	-5.16	3,172.71	3,175.76	3,048.12	127.64	24.880	
4,600.00	4,530.04	4,527.65	4,527.10	16.94	113.76	97.10	-5.71	3,172.71	3,178.21	3,047.52	130.69	24.319	
4,700.00	4,628.26	4,620.70	4,620.12	17.32	116.42	97.43	-6.87	3,172.71	3,180.93	3,047.21	133.73	23.787	
4,800.00	4,726.46	4,731.04	4,730.46	17.69	119.49	97.32	-7.26	3,172.71	3,180.20	3,043.04	137.17	23.185	
4,900.00	4,823.98	4,827.80	4,827.19	18.06	122.15	50.88	-5.94	3,172.71	3,168.95	3,028.75	140.20	22.603	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE E #8 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 407-INC-ONLY													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,000.00	4,919.77	4,917.14	4,916.52	18.41	124.61	37.94	-6.38	3,172.71	3,147.95	3,004.94	143.01	22.012		
5,100.00	5,012.77	5,017.42	5,016.77	18.74	127.37	30.58	-7.26	3,172.71	3,117.09	2,970.97	146.11	21.333		
5,200.00	5,101.98	5,020.00	5,019.35	19.06	127.44	25.79	-7.26	3,172.71	3,077.60	2,931.16	146.44	21.016		
5,300.00	5,186.40	5,020.00	5,019.35	19.36	127.44	22.66	-7.26	3,172.71	3,031.32	2,884.76	146.56	20.683		
5,400.00	5,265.12	5,020.00	5,019.35	19.64	127.44	20.58	-7.26	3,172.71	2,978.46	2,831.90	146.56	20.322		
5,500.00	5,337.27	5,020.00	5,019.35	19.93	127.44	19.21	-7.26	3,172.71	2,919.25	2,772.81	146.44	19.935		
5,600.00	5,402.06	5,020.00	5,019.35	20.23	127.44	18.36	-7.26	3,172.71	2,853.98	2,707.76	146.22	19.518		
5,700.00	5,458.78	5,020.00	5,019.35	20.56	127.44	17.95	-7.26	3,172.71	2,782.95	2,637.04	145.91	19.073		
5,800.00	5,509.14	5,020.00	5,019.35	20.93	127.44	17.90	-7.26	3,172.71	2,708.28	2,562.75	145.52	18.611		
5,900.00	5,559.14	5,020.00	5,019.35	21.35	127.44	17.90	-7.26	3,172.71	2,634.99	2,489.97	145.02	18.170		
6,000.00	5,605.15	5,020.00	5,019.35	21.81	127.44	20.61	-7.26	3,172.71	2,560.62	2,416.17	144.45	17.727		
6,100.00	5,635.72	5,020.00	5,019.35	22.29	127.44	26.46	-7.26	3,172.71	2,478.11	2,334.20	143.91	17.220		
6,200.00	5,649.31	5,020.00	5,019.35	22.76	127.44	36.94	-7.26	3,172.71	2,388.75	2,245.28	143.47	16.650		
6,300.00	5,650.00	5,020.00	5,019.35	23.24	127.44	44.00	-7.26	3,172.71	2,295.92	2,152.78	143.13	16.040		
6,400.00	5,650.00	5,020.00	5,019.35	23.77	127.44	47.18	-7.26	3,172.71	2,204.44	2,061.65	142.78	15.439		
6,500.00	5,650.00	5,020.00	5,019.35	24.33	127.44	49.85	-7.26	3,172.71	2,114.86	1,972.44	142.41	14.850		
6,600.00	5,650.00	5,020.00	5,019.35	24.94	127.44	50.71	-7.26	3,172.71	2,027.27	1,885.25	142.02	14.274		
6,700.00	5,650.00	5,020.00	5,019.35	25.59	127.44	50.71	-7.26	3,172.71	1,940.97	1,799.38	141.59	13.708		
6,800.00	5,650.00	5,020.00	5,019.35	26.26	127.44	50.71	-7.26	3,172.71	1,856.05	1,714.93	141.12	13.152		
6,900.00	5,650.00	5,020.00	5,019.35	26.97	127.44	50.71	-7.26	3,172.71	1,772.70	1,632.11	140.59	12.609		
7,000.00	5,650.00	5,020.00	5,019.35	27.71	127.44	50.71	-7.26	3,172.71	1,691.16	1,551.16	140.00	12.080		
7,100.00	5,650.00	5,020.00	5,019.35	28.47	127.44	50.71	-7.26	3,172.71	1,611.69	1,472.35	139.34	11.566		
7,200.00	5,650.00	5,020.00	5,019.35	29.25	127.44	50.71	-7.26	3,172.71	1,534.63	1,396.02	138.61	11.072		
7,300.00	5,650.00	5,020.00	5,019.35	30.06	127.44	50.71	-7.26	3,172.71	1,460.36	1,322.56	137.80	10.598		
7,400.00	5,650.00	5,020.00	5,019.35	30.88	127.44	50.71	-7.26	3,172.71	1,389.32	1,252.42	136.89	10.149		
7,500.00	5,650.00	5,020.00	5,019.35	31.73	127.44	50.71	-7.26	3,172.71	1,322.02	1,186.12	135.90	9.728		
7,600.00	5,650.00	5,020.00	5,019.35	32.59	127.44	50.71	-7.26	3,172.71	1,259.08	1,124.26	134.83	9.338		
7,700.00	5,650.00	5,020.00	5,019.35	33.47	127.44	50.71	-7.26	3,172.71	1,201.18	1,067.49	133.69	8.985		
7,800.00	5,650.00	5,020.00	5,019.35	34.36	127.44	50.71	-7.26	3,172.71	1,149.08	1,016.56	132.52	8.671		
7,900.00	5,650.00	5,020.00	5,019.35	35.26	127.44	50.71	-7.26	3,172.71	1,103.60	972.23	131.37	8.400		
8,000.00	5,650.00	5,020.00	5,019.35	36.18	127.44	50.71	-7.26	3,172.71	1,065.59	935.25	130.34	8.175		
8,100.00	5,650.00	5,020.00	5,019.35	37.11	127.44	50.71	-7.26	3,172.71	1,035.87	906.35	129.52	7.997		
8,200.00	5,650.00	5,020.00	5,019.35	38.05	127.44	50.71	-7.26	3,172.71	1,015.17	886.13	129.04	7.867		
8,300.00	5,650.00	5,020.00	5,019.35	39.00	127.44	50.71	-7.26	3,172.71	1,004.06	875.06	129.00	7.783		
8,362.26	5,650.00	5,020.00	5,019.35	39.60	127.44	50.71	-7.26	3,172.71	1,002.12	872.90	129.22	7.755 CC, ES		
8,400.00	5,650.00	5,020.00	5,019.35	39.96	127.44	50.71	-7.26	3,172.71	1,002.83	873.39	129.45	7.747 SF		
8,500.00	5,650.00	5,020.00	5,019.35	40.93	127.44	50.71	-7.26	3,172.71	1,011.54	881.17	130.37	7.759		
8,600.00	5,650.00	5,020.00	5,019.35	41.90	127.44	50.71	-7.26	3,172.71	1,029.94	898.24	131.70	7.820		
8,700.00	5,650.00	5,020.00	5,019.35	42.89	127.44	50.71	-7.26	3,172.71	1,057.51	924.20	133.30	7.933		
8,800.00	5,650.00	5,020.00	5,019.35	43.88	127.44	50.71	-7.26	3,172.71	1,093.56	958.51	135.04	8.098		
8,900.00	5,650.00	5,020.00	5,019.35	44.87	127.44	50.71	-7.26	3,172.71	1,137.28	1,000.48	136.80	8.313		
9,000.00	5,650.00	5,020.00	5,019.35	45.88	127.44	50.71	-7.26	3,172.71	1,187.84	1,049.35	138.49	8.577		
9,100.00	5,650.00	5,020.00	5,019.35	46.88	127.44	50.71	-7.26	3,172.71	1,244.39	1,104.34	140.05	8.885		
9,200.00	5,650.00	5,020.00	5,019.35	47.90	127.44	50.71	-7.26	3,172.71	1,306.16	1,164.70	141.46	9.233		
9,300.00	5,650.00	5,020.00	5,019.35	48.92	127.44	50.71	-7.26	3,172.71	1,372.44	1,229.74	142.70	9.618		
9,400.00	5,650.00	5,020.00	5,019.35	49.94	127.44	50.71	-7.26	3,172.71	1,442.62	1,298.83	143.79	10.033		
9,500.00	5,650.00	5,020.00	5,019.35	50.97	127.44	50.71	-7.26	3,172.71	1,516.15	1,371.42	144.73	10.476		
9,600.00	5,650.00	5,020.00	5,019.35	52.00	127.44	50.71	-7.26	3,172.71	1,592.56	1,447.02	145.54	10.942		
9,700.00	5,650.00	5,020.00	5,019.35	53.03	127.44	50.71	-7.26	3,172.71	1,671.47	1,525.22	146.24	11.429		
9,800.00	5,650.00	5,020.00	5,019.35	54.07	127.44	50.71	-7.26	3,172.71	1,752.52	1,605.68	146.85	11.934		
9,900.00	5,650.00	5,020.00	5,019.35	55.12	127.44	50.71	-7.26	3,172.71	1,835.45	1,688.08	147.37	12.455		
10,000.00	5,650.00	5,020.00	5,019.35	56.16	127.44	50.71	-7.26	3,172.71	1,920.01	1,772.19	147.82	12.989		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE E #8 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 407-INC-ONLY													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre			Rule Assigned:			Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,100.00	5,650.00	5,020.00	5,019.35	57.21	127.44	50.71	-7.26	3,172.71	2,005.99	1,857.77	148.22	13.534		
10,200.00	5,650.00	5,020.00	5,019.35	58.26	127.44	50.71	-7.26	3,172.71	2,093.21	1,944.65	148.56	14.090		
10,300.00	5,650.00	5,020.00	5,019.35	59.32	127.44	50.71	-7.26	3,172.71	2,181.53	2,032.67	148.86	14.655		
10,400.00	5,650.00	5,020.00	5,019.35	60.38	127.44	50.71	-7.26	3,172.71	2,270.82	2,121.69	149.13	15.227		
10,500.00	5,650.00	5,020.00	5,019.35	61.44	127.44	50.71	-7.26	3,172.71	2,360.97	2,211.60	149.37	15.807		
10,600.00	5,650.00	5,020.00	5,019.35	62.50	127.44	50.71	-7.26	3,172.71	2,451.88	2,302.30	149.58	16.392		
10,700.00	5,650.00	5,020.00	5,019.35	63.56	127.44	50.71	-7.26	3,172.71	2,543.48	2,393.71	149.77	16.983		
10,800.00	5,650.00	5,020.00	5,019.35	64.63	127.44	50.71	-7.26	3,172.71	2,635.68	2,485.74	149.94	17.578		
10,900.00	5,650.00	5,020.00	5,019.35	65.70	127.44	50.71	-7.26	3,172.71	2,728.44	2,578.34	150.10	18.178		
11,000.00	5,650.00	5,020.00	5,019.35	66.77	127.44	50.71	-7.26	3,172.71	2,821.69	2,671.45	150.24	18.781		
11,100.00	5,650.00	5,020.00	5,019.35	67.84	127.44	50.71	-7.26	3,172.71	2,915.38	2,765.01	150.37	19.388		
11,200.00	5,650.00	5,020.00	5,019.35	68.92	127.44	50.71	-7.26	3,172.71	3,009.49	2,858.99	150.49	19.998		
11,299.98	5,650.00	5,020.00	5,019.35	69.99	127.44	50.71	-7.26	3,172.71	3,103.94	2,953.33	150.61	20.610		
11,358.47	5,650.00	5,020.00	5,019.35	70.43	127.44	50.71	-7.26	3,172.71	3,159.36	3,006.90	152.46	20.723		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE E FEDERAL #5 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 417-INC-ONLY		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	90.20	-8.79	2,572.57	2,572.60					
100.00	100.00	92.00	92.00	0.29	0.83	90.20	-8.79	2,572.57	2,572.59	2,571.47	1.11	2,307.923		
200.00	200.00	192.00	192.00	0.65	1.73	90.20	-8.79	2,572.57	2,572.59	2,570.21	2.37	1,084.090		
300.00	300.00	292.00	292.00	1.00	2.63	90.20	-8.79	2,572.57	2,572.59	2,568.95	3.63	708.429		
400.00	399.98	391.98	391.98	1.36	3.53	83.71	-8.79	2,572.57	2,572.39	2,567.50	4.89	526.163		
500.00	499.84	491.84	491.84	1.73	5.22	83.84	-8.79	2,572.57	2,571.82	2,564.88	6.94	370.585		
600.00	599.45	591.45	591.45	2.09	7.18	84.04	-8.42	2,572.57	2,570.90	2,561.65	9.25	277.873		
700.00	698.70	690.61	690.61	2.45	9.12	84.34	-8.57	2,572.57	2,569.66	2,558.10	11.56	222.357		
800.00	797.47	789.47	789.47	2.81	11.11	84.71	-8.79	2,572.57	2,568.15	2,554.24	13.91	184.646		
900.00	895.74	887.75	887.74	3.17	13.18	85.13	-8.79	2,572.57	2,566.49	2,550.14	16.34	157.046		
1,000.00	993.97	985.61	985.60	3.52	15.25	85.53	-8.26	2,572.57	2,564.92	2,546.14	18.77	136.647		
1,100.00	1,092.19	1,084.21	1,084.19	3.89	17.31	85.95	-8.79	2,572.57	2,563.52	2,542.31	21.20	120.894		
1,200.00	1,190.42	1,182.42	1,182.40	4.26	19.32	86.35	-8.29	2,572.57	2,562.21	2,538.63	23.58	108.661		
1,300.00	1,288.64	1,279.59	1,279.56	4.63	21.31	86.77	-8.66	2,572.57	2,561.09	2,535.15	25.93	98.751		
1,400.00	1,386.86	1,378.90	1,378.86	5.00	23.33	87.19	-8.79	2,572.57	2,560.09	2,531.75	28.33	90.352		
1,500.00	1,485.09	1,476.87	1,476.84	5.37	25.34	87.59	-8.32	2,572.57	2,559.18	2,528.48	30.71	83.339		
1,600.00	1,583.31	1,574.24	1,574.20	5.74	27.33	88.00	-8.66	2,572.57	2,558.48	2,525.41	33.07	77.367		
1,700.00	1,681.54	1,673.58	1,673.54	6.11	29.67	88.42	-8.79	2,572.57	2,557.89	2,522.11	35.79	71.477		
1,800.00	1,779.76	1,771.80	1,771.76	6.49	32.08	88.84	-8.79	2,572.57	2,557.44	2,518.87	38.56	66.316		
1,900.00	1,877.98	1,869.30	1,869.25	6.86	34.47	89.23	-7.99	2,572.57	2,557.04	2,515.71	41.32	61.877		
2,000.00	1,976.21	1,966.36	1,966.30	7.23	36.84	89.65	-8.47	2,572.57	2,556.90	2,512.83	44.07	58.013		
2,081.93	2,056.68	2,048.74	2,048.68	7.54	39.06	90.00	-8.79	2,572.57	2,556.89	2,510.29	46.60	54.868		
2,100.00	2,074.43	2,066.49	2,066.43	7.60	39.58	90.07	-8.79	2,572.57	2,556.89	2,509.70	47.19	54.185		
2,160.66	2,134.02	2,126.07	2,125.99	7.83	41.33	90.30	-7.75	2,572.57	2,556.81	2,507.64	49.16	52.007		
2,200.00	2,172.66	2,163.05	2,162.96	7.98	42.42	90.46	-7.85	2,572.57	2,556.87	2,506.48	50.39	50.738		
2,300.00	2,270.88	2,262.99	2,262.88	8.35	45.36	90.90	-8.79	2,572.57	2,557.22	2,503.51	53.71	47.613		
2,400.00	2,369.11	2,361.22	2,361.11	8.72	48.30	91.31	-8.79	2,572.57	2,557.58	2,500.57	57.02	44.855		
2,500.00	2,467.33	2,456.13	2,455.98	9.10	51.13	91.69	-7.68	2,572.57	2,557.93	2,497.70	60.23	42.470		
2,600.00	2,565.55	2,557.74	2,557.55	9.47	54.13	92.14	-8.79	2,572.57	2,558.74	2,495.14	63.60	40.232		
2,700.00	2,663.78	2,655.96	2,655.78	9.84	56.91	92.55	-8.79	2,572.57	2,559.52	2,492.77	66.75	38.346		
2,800.00	2,762.00	2,754.19	2,754.00	10.22	59.68	92.96	-8.79	2,572.57	2,560.44	2,490.54	69.89	36.633		
2,900.00	2,860.23	2,849.41	2,849.18	10.59	62.37	93.33	-7.13	2,572.57	2,561.21	2,488.25	72.96	35.105		
3,000.00	2,958.45	2,944.24	2,943.98	10.96	65.05	93.74	-8.13	2,572.57	2,562.57	2,486.56	76.01	33.714		
3,100.00	3,056.67	3,048.95	3,048.67	11.34	67.82	94.20	-8.79	2,572.57	2,564.01	2,484.86	79.15	32.394		
3,200.00	3,154.90	3,147.17	3,146.90	11.71	70.30	94.61	-8.79	2,572.57	2,565.48	2,483.48	82.00	31.285		
3,300.00	3,253.12	3,245.03	3,244.73	12.08	72.76	94.98	-6.90	2,572.57	2,566.70	2,481.86	84.84	30.252		
3,400.00	3,351.35	3,340.16	3,339.84	12.46	75.16	95.38	-7.25	2,572.57	2,568.50	2,480.88	87.62	29.315		
3,500.00	3,449.57	3,435.09	3,434.75	12.83	77.56	95.79	-8.15	2,572.57	2,570.57	2,480.18	90.39	28.440		
3,600.00	3,547.80	3,540.15	3,539.80	13.20	80.09	96.24	-8.79	2,572.57	2,572.70	2,479.42	93.29	27.578		
3,700.00	3,646.02	3,638.37	3,638.02	13.58	82.36	96.65	-8.79	2,572.57	2,574.85	2,478.91	95.93	26.840		
3,800.00	3,744.24	3,736.60	3,736.24	13.95	84.63	97.06	-8.79	2,572.57	2,577.13	2,478.55	98.58	26.143		
3,900.00	3,842.47	3,833.51	3,833.14	14.33	86.88	97.43	-7.24	2,572.57	2,579.16	2,477.97	101.19	25.487		
4,000.00	3,940.69	3,929.44	3,929.05	14.70	89.10	97.83	-7.61	2,572.57	2,581.80	2,478.01	103.79	24.876		
4,100.00	4,038.92	4,025.24	4,024.85	15.07	91.31	98.24	-8.32	2,572.57	2,584.66	2,478.28	106.38	24.297		
4,200.00	4,137.14	4,129.54	4,129.14	15.45	93.73	98.68	-8.79	2,572.57	2,587.58	2,478.42	109.16	23.704		
4,300.00	4,235.37	4,227.76	4,227.37	15.82	96.00	99.08	-8.79	2,572.57	2,590.53	2,478.72	111.81	23.169		
4,400.00	4,333.59	4,325.50	4,325.08	16.20	98.26	99.46	-7.49	2,572.57	2,593.25	2,478.81	114.44	22.660		
4,500.00	4,431.81	4,420.52	4,420.10	16.57	100.46	99.85	-7.77	2,572.57	2,596.54	2,479.52	117.01	22.190		
4,600.00	4,530.04	4,515.39	4,514.96	16.94	102.66	100.25	-8.45	2,572.57	2,600.08	2,480.50	119.58	21.743		
4,700.00	4,628.26	4,620.70	4,620.26	17.32	105.17	100.69	-8.79	2,572.57	2,603.64	2,481.18	122.47	21.260		
4,800.00	4,726.46	4,718.89	4,718.46	17.69	107.55	101.10	-8.79	2,572.57	2,603.92	2,478.71	125.21	20.796		
4,900.00	4,823.98	4,814.43	4,813.97	18.06	109.86	101.52	-7.67	2,572.57	2,593.79	2,465.90	127.89	20.281		

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

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Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE E FEDERAL #5 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 417-INC-ONLY													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,000.00	4,919.77	4,906.40	4,905.94	18.41	112.08	41.51	-8.11	2,572.57	2,574.02	2,443.55	130.47	19.729		
5,100.00	5,012.77	5,005.25	5,004.77	18.74	114.47	34.39	-8.79	2,572.57	2,544.42	2,411.21	133.21	19.101		
5,200.00	5,101.98	5,094.45	5,093.98	19.06	116.63	30.30	-8.79	2,572.57	2,505.06	2,369.37	135.69	18.462		
5,300.00	5,186.40	5,175.79	5,175.30	19.36	118.60	28.01	-7.88	2,572.57	2,456.28	2,318.32	137.96	17.805		
5,400.00	5,265.12	5,249.16	5,248.66	19.64	120.37	26.98	-8.38	2,572.57	2,399.44	2,259.43	140.01	17.138		
5,500.00	5,337.27	5,329.77	5,329.27	19.93	122.32	27.11	-8.79	2,572.57	2,334.64	2,192.42	142.21	16.417		
5,600.00	5,402.06	5,394.57	5,394.06	20.23	123.89	28.12	-8.79	2,572.57	2,262.52	2,118.51	144.01	15.711		
5,700.00	5,458.78	5,448.03	5,447.51	20.56	125.18	30.14	-8.22	2,572.57	2,183.80	2,038.30	145.50	15.008		
5,800.00	5,509.14	5,494.90	5,494.38	20.93	126.31	31.67	-8.50	2,572.57	2,101.28	1,954.45	146.82	14.312		
5,900.00	5,559.14	5,542.00	5,541.47	21.35	127.47	32.75	-8.79	2,572.57	2,018.86	1,870.69	148.17	13.625		
6,000.00	5,605.15	5,542.00	5,541.47	21.81	127.47	39.28	-8.79	2,572.57	1,935.47	1,787.15	148.32	13.049		
6,100.00	5,635.72	5,542.00	5,541.47	22.29	127.47	53.00	-8.79	2,572.57	1,846.92	1,698.50	148.43	12.443		
6,200.00	5,649.31	5,542.00	5,541.47	22.76	127.47	73.86	-8.79	2,572.57	1,754.94	1,606.40	148.54	11.815		
6,300.00	5,650.00	5,542.00	5,541.47	23.24	127.47	81.37	-8.79	2,572.57	1,662.41	1,513.70	148.71	11.179		
6,400.00	5,650.00	5,542.00	5,541.47	23.77	127.47	81.98	-8.79	2,572.57	1,572.15	1,423.23	148.92	10.557		
6,500.00	5,650.00	5,542.00	5,541.47	24.33	127.47	82.46	-8.79	2,572.57	1,484.83	1,335.62	149.21	9.951		
6,600.00	5,650.00	5,542.00	5,541.47	24.94	127.47	82.61	-8.79	2,572.57	1,400.69	1,251.13	149.57	9.365		
6,700.00	5,650.00	5,542.00	5,541.47	25.59	127.47	82.61	-8.79	2,572.57	1,318.91	1,168.90	150.01	8.792		
6,800.00	5,650.00	5,542.00	5,541.47	26.26	127.47	82.61	-8.79	2,572.57	1,239.80	1,089.26	150.54	8.236		
6,900.00	5,650.00	5,542.00	5,541.47	26.97	127.47	82.61	-8.79	2,572.57	1,163.90	1,012.73	151.17	7.699		
7,000.00	5,650.00	5,542.00	5,541.47	27.71	127.47	82.61	-8.79	2,572.57	1,091.90	939.98	151.92	7.187		
7,100.00	5,650.00	5,542.00	5,541.47	28.47	127.47	82.61	-8.79	2,572.57	1,024.61	871.81	152.80	6.706		
7,200.00	5,650.00	5,542.00	5,541.47	29.25	127.47	82.61	-8.79	2,572.57	963.02	809.22	153.80	6.262		
7,300.00	5,650.00	5,542.00	5,541.47	30.06	127.47	82.61	-8.79	2,572.57	908.28	753.38	154.90	5.864		
7,400.00	5,650.00	5,542.00	5,541.47	30.88	127.47	82.61	-8.79	2,572.57	861.71	705.63	156.08	5.521		
7,500.00	5,650.00	5,542.00	5,541.47	31.73	127.47	82.61	-8.79	2,572.57	824.70	667.43	157.27	5.244		
7,600.00	5,650.00	5,542.00	5,541.47	32.59	127.47	82.61	-8.79	2,572.57	798.56	640.19	158.37	5.042		
7,700.00	5,650.00	5,542.00	5,541.47	33.47	127.47	82.61	-8.79	2,572.57	784.40	625.09	159.31	4.924		
7,762.12	5,650.00	5,542.00	5,541.47	34.02	127.47	82.61	-8.79	2,572.57	781.93	622.17	159.76	4.894 CC, ES		
7,800.00	5,650.00	5,542.00	5,541.47	34.36	127.47	82.61	-8.79	2,572.57	782.85	622.87	159.98	4.893 SF		
7,900.00	5,650.00	5,542.00	5,541.47	35.26	127.47	82.61	-8.79	2,572.57	794.00	633.65	160.35	4.952		
8,000.00	5,650.00	5,542.00	5,541.47	36.18	127.47	82.61	-8.79	2,572.57	817.32	656.90	160.42	5.095		
8,100.00	5,650.00	5,542.00	5,541.47	37.11	127.47	82.61	-8.79	2,572.57	851.81	691.59	160.23	5.316		
8,200.00	5,650.00	5,542.00	5,541.47	38.05	127.47	82.61	-8.79	2,572.57	896.19	736.35	159.84	5.607		
8,300.00	5,650.00	5,542.00	5,541.47	39.00	127.47	82.61	-8.79	2,572.57	949.07	789.74	159.33	5.956		
8,400.00	5,650.00	5,542.00	5,541.47	39.96	127.47	82.61	-8.79	2,572.57	1,009.11	850.35	158.76	6.356		
8,500.00	5,650.00	5,542.00	5,541.47	40.93	127.47	82.61	-8.79	2,572.57	1,075.12	916.95	158.17	6.797		
8,600.00	5,650.00	5,542.00	5,541.47	41.90	127.47	82.61	-8.79	2,572.57	1,146.07	988.47	157.59	7.272		
8,700.00	5,650.00	5,542.00	5,541.47	42.89	127.47	82.61	-8.79	2,572.57	1,221.08	1,064.04	157.04	7.775		
8,800.00	5,650.00	5,542.00	5,541.47	43.88	127.47	82.61	-8.79	2,572.57	1,299.47	1,142.94	156.53	8.302		
8,900.00	5,650.00	5,542.00	5,541.47	44.87	127.47	82.61	-8.79	2,572.57	1,380.65	1,224.59	156.06	8.847		
9,000.00	5,650.00	5,542.00	5,541.47	45.88	127.47	82.61	-8.79	2,572.57	1,464.16	1,308.52	155.64	9.407		
9,100.00	5,650.00	5,542.00	5,541.47	46.88	127.47	82.61	-8.79	2,572.57	1,549.63	1,394.37	155.26	9.981		
9,200.00	5,650.00	5,542.00	5,541.47	47.90	127.47	82.61	-8.79	2,572.57	1,636.74	1,481.83	154.91	10.566		
9,300.00	5,650.00	5,542.00	5,541.47	48.92	127.47	82.61	-8.79	2,572.57	1,725.25	1,570.65	154.60	11.159		
9,400.00	5,650.00	5,542.00	5,541.47	49.94	127.47	82.61	-8.79	2,572.57	1,814.96	1,660.63	154.33	11.760		
9,500.00	5,650.00	5,542.00	5,541.47	50.97	127.47	82.61	-8.79	2,572.57	1,905.69	1,751.61	154.08	12.368		
9,600.00	5,650.00	5,542.00	5,541.47	52.00	127.47	82.61	-8.79	2,572.57	1,997.30	1,843.44	153.86	12.981		
9,700.00	5,650.00	5,542.00	5,541.47	53.03	127.47	82.61	-8.79	2,572.57	2,089.69	1,936.02	153.67	13.599		
9,800.00	5,650.00	5,542.00	5,541.47	54.07	127.47	82.61	-8.79	2,572.57	2,182.75	2,029.25	153.49	14.221		
9,900.00	5,650.00	5,542.00	5,541.47	55.12	127.47	82.61	-8.79	2,572.57	2,276.39	2,123.05	153.34	14.846		
10,000.00	5,650.00	5,542.00	5,541.47	56.16	127.47	82.61	-8.79	2,572.57	2,370.55	2,217.36	153.20	15.474		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE E FEDERAL #5 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 417-INC-ONLY													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Rule Assigned:		Distance		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,100.00	5,650.00	5,542.00	5,541.47	57.21	127.47	82.61	-8.79	2,572.57	2,465.18	2,312.10	153.08	16.104		
10,200.00	5,650.00	5,542.00	5,541.47	58.26	127.47	82.61	-8.79	2,572.57	2,560.21	2,407.24	152.97	16.737		
10,300.00	5,650.00	5,542.00	5,541.47	59.32	127.47	82.61	-8.79	2,572.57	2,655.61	2,502.74	152.87	17.372		
10,400.00	5,650.00	5,542.00	5,541.47	60.38	127.47	82.61	-8.79	2,572.57	2,751.33	2,598.55	152.79	18.008		
10,500.00	5,650.00	5,542.00	5,541.47	61.44	127.47	82.61	-8.79	2,572.57	2,847.35	2,694.64	152.71	18.645		
10,600.00	5,650.00	5,542.00	5,541.47	62.50	127.47	82.61	-8.79	2,572.57	2,943.64	2,790.99	152.65	19.284		
10,700.00	5,650.00	5,542.00	5,541.47	63.56	127.47	82.61	-8.79	2,572.57	3,040.16	2,887.57	152.59	19.924		
10,800.00	5,650.00	5,542.00	5,541.47	64.63	127.47	82.61	-8.79	2,572.57	3,136.90	2,984.36	152.54	20.564		
10,900.00	5,650.00	5,542.00	5,541.47	65.70	127.47	82.61	-8.79	2,572.57	3,233.84	3,081.34	152.50	21.205		
11,000.00	5,650.00	5,542.00	5,541.47	66.77	127.47	82.61	-8.79	2,572.57	3,330.96	3,178.49	152.47	21.847		
11,100.00	5,650.00	5,542.00	5,541.47	67.84	127.47	82.61	-8.79	2,572.57	3,428.25	3,275.81	152.44	22.489		
11,200.00	5,650.00	5,542.00	5,541.47	68.92	127.47	82.61	-8.79	2,572.57	3,525.68	3,373.27	152.41	23.132		
11,299.98	5,650.00	5,542.00	5,541.47	69.99	127.47	82.61	-8.79	2,572.57	3,623.24	3,470.84	152.40	23.775		
11,358.47	5,650.00	5,542.00	5,541.47	70.43	127.47	82.61	-8.79	2,572.57	3,680.38	3,525.48	154.89	23.761		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE W D `C` #7 - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 1465-MWD+IGRF													Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Rule Assigned: Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,200.00	5,649.31	5,037.00	5,032.34	22.76	15.31	-50.61	1,334.38	5,870.38	4,933.51	4,897.97	35.54	138.816	
6,300.00	5,650.00	5,037.00	5,032.34	23.24	15.31	-55.95	1,334.38	5,870.38	4,836.66	4,801.12	35.54	136.086	
6,400.00	5,650.00	5,037.00	5,032.34	23.77	15.31	-50.73	1,334.38	5,870.38	4,739.18	4,703.63	35.54	133.330	
6,500.00	5,650.00	5,037.00	5,032.34	24.33	15.31	-44.14	1,334.38	5,870.38	4,641.22	4,605.66	35.55	130.542	
6,600.00	5,650.00	5,037.00	5,032.34	24.94	15.31	-41.36	1,334.38	5,870.38	4,542.96	4,507.39	35.57	127.733	
6,700.00	5,650.00	5,037.00	5,032.34	25.59	15.31	-41.36	1,334.38	5,870.38	4,444.74	4,409.16	35.58	124.923	
6,800.00	5,650.00	5,037.00	5,032.34	26.26	15.31	-41.36	1,334.38	5,870.38	4,346.61	4,311.01	35.60	122.108	
6,900.00	5,650.00	5,037.00	5,032.34	26.97	15.31	-41.36	1,334.38	5,870.38	4,248.56	4,212.95	35.62	119.287	
7,000.00	5,650.00	5,037.00	5,032.34	27.71	15.31	-41.36	1,334.38	5,870.38	4,150.61	4,114.97	35.64	116.463	
7,100.00	5,650.00	5,037.00	5,032.34	28.47	15.31	-41.36	1,334.38	5,870.38	4,052.76	4,017.10	35.67	113.633	
7,200.00	5,650.00	5,037.00	5,032.34	29.25	15.31	-41.36	1,334.38	5,870.38	3,955.02	3,919.32	35.70	110.799	
7,300.00	5,650.00	5,037.00	5,032.34	30.06	15.31	-41.36	1,334.38	5,870.38	3,857.39	3,821.66	35.73	107.959	
7,400.00	5,650.00	5,037.00	5,032.34	30.88	15.31	-41.36	1,334.38	5,870.38	3,759.88	3,724.11	35.77	105.115	
7,500.00	5,650.00	5,037.00	5,032.34	31.73	15.31	-41.36	1,334.38	5,870.38	3,662.51	3,626.70	35.81	102.265	
7,600.00	5,650.00	5,037.00	5,032.34	32.59	15.31	-41.36	1,334.38	5,870.38	3,565.29	3,529.43	35.86	99.411	
7,700.00	5,650.00	5,037.00	5,032.34	33.47	15.31	-41.36	1,334.38	5,870.38	3,468.23	3,432.30	35.92	96.551	
7,800.00	5,650.00	5,037.00	5,032.34	34.36	15.31	-41.36	1,334.38	5,870.38	3,371.33	3,335.35	35.99	93.685	
7,900.00	5,650.00	5,037.00	5,032.34	35.26	15.31	-41.36	1,334.38	5,870.38	3,274.62	3,238.57	36.06	90.815	
8,000.00	5,650.00	5,037.00	5,032.34	36.18	15.31	-41.36	1,334.38	5,870.38	3,178.12	3,141.98	36.14	87.938	
8,100.00	5,650.00	5,037.00	5,032.34	37.11	15.31	-41.36	1,334.38	5,870.38	3,081.84	3,045.61	36.23	85.056	
8,200.00	5,650.00	5,037.00	5,032.34	38.05	15.31	-41.36	1,334.38	5,870.38	2,985.80	2,949.47	36.34	82.168	
8,300.00	5,650.00	5,037.00	5,032.34	39.00	15.31	-41.36	1,334.38	5,870.38	2,890.04	2,853.58	36.46	79.275	
8,400.00	5,650.00	5,037.00	5,032.34	39.96	15.31	-41.36	1,334.38	5,870.38	2,794.56	2,757.97	36.59	76.376	
8,500.00	5,650.00	5,037.00	5,032.34	40.93	15.31	-41.36	1,334.38	5,870.38	2,699.42	2,662.68	36.74	73.471	
8,600.00	5,650.00	5,037.00	5,032.34	41.90	15.31	-41.36	1,334.38	5,870.38	2,604.64	2,567.73	36.91	70.561	
8,700.00	5,650.00	5,037.00	5,032.34	42.89	15.31	-41.36	1,334.38	5,870.38	2,510.27	2,473.16	37.11	67.647	
8,800.00	5,650.00	5,037.00	5,032.34	43.88	15.31	-41.36	1,334.38	5,870.38	2,416.35	2,379.02	37.33	64.728	
8,900.00	5,650.00	5,037.00	5,032.34	44.87	15.31	-41.36	1,334.38	5,870.38	2,322.93	2,285.35	37.58	61.807	
9,000.00	5,650.00	5,037.00	5,032.34	45.88	15.31	-41.36	1,334.38	5,870.38	2,230.09	2,192.22	37.87	58.884	
9,100.00	5,650.00	5,037.00	5,032.34	46.88	15.31	-41.36	1,334.38	5,870.38	2,137.89	2,099.69	38.20	55.962	
9,200.00	5,650.00	5,037.00	5,032.34	47.90	15.31	-41.36	1,334.38	5,870.38	2,046.43	2,007.85	38.58	53.044	
9,300.00	5,650.00	5,037.00	5,032.34	48.92	15.31	-41.36	1,334.38	5,870.38	1,955.80	1,916.79	39.01	50.134	
9,400.00	5,650.00	5,037.00	5,032.34	49.94	15.31	-41.36	1,334.38	5,870.38	1,866.13	1,826.63	39.51	47.236	
9,500.00	5,650.00	5,037.00	5,032.34	50.97	15.31	-41.36	1,334.38	5,870.38	1,777.57	1,737.49	40.07	44.357	
9,600.00	5,650.00	5,037.00	5,032.34	52.00	15.31	-41.36	1,334.38	5,870.38	1,690.27	1,649.55	40.73	41.504	
9,700.00	5,650.00	5,037.00	5,032.34	53.03	15.31	-41.36	1,334.38	5,870.38	1,604.47	1,562.99	41.47	38.688	
9,800.00	5,650.00	5,037.00	5,032.34	54.07	15.31	-41.36	1,334.38	5,870.38	1,520.39	1,478.07	42.33	35.921	
9,900.00	5,650.00	5,037.00	5,032.34	55.12	15.31	-41.36	1,334.38	5,870.38	1,438.36	1,395.06	43.30	33.217	
10,000.00	5,650.00	5,037.00	5,032.34	56.16	15.31	-41.36	1,334.38	5,870.38	1,358.74	1,314.33	44.41	30.594	
10,100.00	5,650.00	5,037.00	5,032.34	57.21	15.31	-41.36	1,334.38	5,870.38	1,281.97	1,236.31	45.67	28.072	
10,200.00	5,650.00	5,037.00	5,032.34	58.26	15.31	-41.36	1,334.38	5,870.38	1,208.61	1,161.53	47.08	25.673	
10,300.00	5,650.00	5,037.00	5,032.34	59.32	15.31	-41.36	1,334.38	5,870.38	1,139.31	1,090.67	48.64	23.423	
10,400.00	5,650.00	5,037.00	5,032.34	60.38	15.31	-41.36	1,334.38	5,870.38	1,074.86	1,024.51	50.35	21.349	
10,500.00	5,650.00	5,037.00	5,032.34	61.44	15.31	-41.36	1,334.38	5,870.38	1,016.17	964.00	52.17	19.478	
10,600.00	5,650.00	5,037.00	5,032.34	62.50	15.31	-41.36	1,334.38	5,870.38	964.31	910.24	54.06	17.837	
10,700.00	5,650.00	5,037.00	5,032.34	63.56	15.31	-41.36	1,334.38	5,870.38	920.42	864.47	55.95	16.449	
10,800.00	5,650.00	5,037.00	5,032.34	64.63	15.31	-41.36	1,334.38	5,870.38	885.70	827.95	57.75	15.336	
10,900.00	5,650.00	5,037.00	5,032.34	65.70	15.31	-41.36	1,334.38	5,870.38	861.25	801.90	59.35	14.511	
11,000.00	5,650.00	5,037.00	5,032.34	66.77	15.31	-41.36	1,334.38	5,870.38	847.96	787.31	60.65	13.981	
11,063.57	5,650.00	5,037.00	5,032.34	67.45	15.31	-41.36	1,334.38	5,870.38	845.57	784.29	61.28	13.798 CC, ES	
11,100.00	5,650.00	5,037.00	5,032.34	67.84	15.31	-41.36	1,334.38	5,870.38	846.36	784.79	61.57	13.746 SF	
11,200.00	5,650.00	5,037.00	5,032.34	68.92	15.31	-41.36	1,334.38	5,870.38	856.51	794.43	62.07	13.798	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - MCINTYRE W D `C` #7 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program:		1465-MWD+IGRF						Rule Assigned:					Offset Well Error:	0.00 usft
Measured	Vertical	Measured	Vertical	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
11,299.98	5,650.00	5,037.00	5,032.34	69.99	15.31	-41.36	1,334.38	5,870.38	878.00	815.84	62.16	14.125		
11,358.47	5,650.00	5,037.00	5,032.34	70.43	15.31	-41.36	1,334.38	5,870.38	895.52	833.80	61.72	14.510		

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - MCINTYRE-FEDERAL A #4 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
6,100.00	5,635.72	5,636.72	5,636.72	22.29	219.19	14.35	-3.53	5,798.02	4,951.73	4,711.96	239.77	20.652		
6,200.00	5,649.31	5,650.31	5,650.31	22.76	219.73	49.65	-3.53	5,798.02	4,852.95	4,612.59	240.36	20.190		
6,300.00	5,650.00	5,651.00	5,651.00	23.24	219.76	90.00	-3.53	5,798.02	4,753.19	4,512.77	240.42	19.770		
6,400.00	5,650.00	5,651.00	5,651.00	23.77	219.76	90.00	-3.53	5,798.02	4,653.73	4,413.26	240.46	19.353		
6,500.00	5,650.00	5,651.00	5,651.00	24.33	219.76	90.00	-3.53	5,798.02	4,554.71	4,314.20	240.51	18.937		
6,600.00	5,650.00	5,651.00	5,651.00	24.94	219.76	90.00	-3.53	5,798.02	4,456.18	4,215.60	240.58	18.523		
6,700.00	5,650.00	5,651.00	5,651.00	25.59	219.76	90.00	-3.53	5,798.02	4,357.76	4,117.10	240.65	18.108		
6,800.00	5,650.00	5,651.00	5,651.00	26.26	219.76	90.00	-3.53	5,798.02	4,259.41	4,018.67	240.74	17.693		
6,900.00	5,650.00	5,651.00	5,651.00	26.97	219.76	90.00	-3.53	5,798.02	4,161.13	3,920.31	240.82	17.279		
7,000.00	5,650.00	5,651.00	5,651.00	27.71	219.76	90.00	-3.53	5,798.02	4,062.94	3,822.02	240.92	16.864		
7,100.00	5,650.00	5,651.00	5,651.00	28.47	219.76	90.00	-3.53	5,798.02	3,964.84	3,723.82	241.02	16.450		
7,200.00	5,650.00	5,651.00	5,651.00	29.25	219.76	90.00	-3.53	5,798.02	3,866.84	3,625.70	241.14	16.036		
7,300.00	5,650.00	5,651.00	5,651.00	30.06	219.76	90.00	-3.53	5,798.02	3,768.95	3,527.68	241.26	15.622		
7,400.00	5,650.00	5,651.00	5,651.00	30.88	219.76	90.00	-3.53	5,798.02	3,671.16	3,429.77	241.40	15.208		
7,500.00	5,650.00	5,651.00	5,651.00	31.73	219.76	90.00	-3.53	5,798.02	3,573.50	3,331.96	241.55	14.794		
7,600.00	5,650.00	5,651.00	5,651.00	32.59	219.76	90.00	-3.53	5,798.02	3,475.98	3,234.27	241.71	14.381		
7,700.00	5,650.00	5,651.00	5,651.00	33.47	219.76	90.00	-3.53	5,798.02	3,378.60	3,136.71	241.88	13.968		
7,800.00	5,650.00	5,651.00	5,651.00	34.36	219.76	90.00	-3.53	5,798.02	3,281.37	3,039.29	242.08	13.555		
7,900.00	5,650.00	5,651.00	5,651.00	35.26	219.76	90.00	-3.53	5,798.02	3,184.32	2,942.03	242.29	13.143		
8,000.00	5,650.00	5,651.00	5,651.00	36.18	219.76	90.00	-3.53	5,798.02	3,087.45	2,844.93	242.52	12.731		
8,100.00	5,650.00	5,651.00	5,651.00	37.11	219.76	90.00	-3.53	5,798.02	2,990.79	2,748.02	242.78	12.319		
8,200.00	5,650.00	5,651.00	5,651.00	38.05	219.76	90.00	-3.53	5,798.02	2,894.36	2,651.30	243.06	11.908		
8,300.00	5,650.00	5,651.00	5,651.00	39.00	219.76	90.00	-3.53	5,798.02	2,798.18	2,554.81	243.37	11.498		
8,400.00	5,650.00	5,651.00	5,651.00	39.96	219.76	90.00	-3.53	5,798.02	2,702.28	2,458.56	243.71	11.088		
8,500.00	5,650.00	5,651.00	5,651.00	40.93	219.76	90.00	-3.53	5,798.02	2,606.68	2,362.59	244.09	10.679		
8,600.00	5,650.00	5,651.00	5,651.00	41.90	219.76	90.00	-3.53	5,798.02	2,511.43	2,266.92	244.51	10.271		
8,700.00	5,650.00	5,651.00	5,651.00	42.89	219.76	90.00	-3.53	5,798.02	2,416.56	2,171.58	244.98	9.864		
8,800.00	5,650.00	5,651.00	5,651.00	43.88	219.76	90.00	-3.53	5,798.02	2,322.12	2,076.62	245.50	9.459		
8,900.00	5,650.00	5,651.00	5,651.00	44.87	219.76	90.00	-3.53	5,798.02	2,228.17	1,982.08	246.08	9.055		
9,000.00	5,650.00	5,651.00	5,651.00	45.88	219.76	90.00	-3.53	5,798.02	2,134.76	1,888.03	246.73	8.652		
9,100.00	5,650.00	5,651.00	5,651.00	46.88	219.76	90.00	-3.53	5,798.02	2,041.99	1,794.53	247.46	8.252		
9,200.00	5,650.00	5,651.00	5,651.00	47.90	219.76	90.00	-3.53	5,798.02	1,949.92	1,701.65	248.28	7.854		
9,300.00	5,650.00	5,651.00	5,651.00	48.92	219.76	90.00	-3.53	5,798.02	1,858.68	1,609.48	249.19	7.459		
9,400.00	5,650.00	5,651.00	5,651.00	49.94	219.76	90.00	-3.53	5,798.02	1,768.38	1,518.16	250.22	7.067		
9,500.00	5,650.00	5,651.00	5,651.00	50.97	219.76	90.00	-3.53	5,798.02	1,679.18	1,427.79	251.39	6.680		
9,600.00	5,650.00	5,651.00	5,651.00	52.00	219.76	90.00	-3.53	5,798.02	1,591.27	1,338.57	252.70	6.297		
9,700.00	5,650.00	5,651.00	5,651.00	53.03	219.76	90.00	-3.53	5,798.02	1,504.87	1,250.68	254.18	5.920		
9,800.00	5,650.00	5,651.00	5,651.00	54.07	219.76	90.00	-3.53	5,798.02	1,420.25	1,164.39	255.86	5.551		
9,900.00	5,650.00	5,651.00	5,651.00	55.12	219.76	90.00	-3.53	5,798.02	1,337.76	1,080.01	257.74	5.190		
10,000.00	5,650.00	5,651.00	5,651.00	56.16	219.76	90.00	-3.53	5,798.02	1,257.81	997.94	259.87	4.840		
10,100.00	5,650.00	5,651.00	5,651.00	57.21	219.76	90.00	-3.53	5,798.02	1,180.92	918.67	262.25	4.503		
10,200.00	5,650.00	5,651.00	5,651.00	58.26	219.76	90.00	-3.53	5,798.02	1,107.72	842.84	264.89	4.182		
10,300.00	5,650.00	5,651.00	5,651.00	59.32	219.76	90.00	-3.53	5,798.02	1,039.01	771.22	267.78	3.880		
10,400.00	5,650.00	5,651.00	5,651.00	60.38	219.76	90.00	-3.53	5,798.02	975.71	704.81	270.90	3.602		
10,500.00	5,650.00	5,651.00	5,651.00	61.44	219.76	90.00	-3.53	5,798.02	918.97	644.80	274.17	3.352		
10,600.00	5,650.00	5,651.00	5,651.00	62.50	219.76	90.00	-3.53	5,798.02	870.05	592.60	277.46	3.136		
10,700.00	5,650.00	5,651.00	5,651.00	63.56	219.76	90.00	-3.53	5,798.02	830.35	549.78	280.57	2.960		
10,800.00	5,650.00	5,651.00	5,651.00	64.63	219.76	90.00	-3.53	5,798.02	801.23	517.96	283.27	2.829		
10,900.00	5,650.00	5,651.00	5,651.00	65.70	219.76	90.00	-3.53	5,798.02	783.87	498.57	285.30	2.748		
10,987.57	5,650.00	5,651.00	5,651.00	66.64	219.76	90.00	-3.53	5,798.02	778.96	492.60	286.36	2.720 CC, ES		
11,000.00	5,650.00	5,651.00	5,651.00	66.77	219.76	90.00	-3.53	5,798.02	779.06	492.61	286.45	2.720 SF		
11,100.00	5,650.00	5,651.00	5,651.00	67.84	219.76	90.00	-3.53	5,798.02	787.03	500.41	286.63	2.746		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - MCINTYRE-FEDERAL A #4 - Wellbore #1 - Wellbore #1												Offset Site Error:	0.00 usft
Survey Program: 300-UNKNOWN												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		
11,200.00	5,650.00	5,651.00	5,651.00	68.92	219.76	90.00	-3.53	5,798.02	807.41	521.52	285.88	2.824	
11,299.98	5,650.00	5,651.00	5,651.00	69.99	219.76	90.00	-3.53	5,798.02	839.27	554.88	284.39	2.951	
11,358.47	5,650.00	5,651.00	5,651.00	70.43	219.76	90.00	-3.53	5,798.02	862.75	579.53	283.22	3.046	

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - THUNDER ROAD FEDERAL #7 - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 343-INC-ONLY													Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Rule Assigned: Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,300.00	1,288.64	1,325.16	1,325.13	4.63	22.19	44.81	3,295.16	3,890.26	4,999.25	4,972.46	26.79	186.594	
1,400.00	1,386.86	1,411.89	1,411.86	5.00	23.88	44.95	3,295.07	3,890.26	4,985.77	4,956.92	28.85	172.831	
1,500.00	1,485.09	1,513.47	1,513.44	5.37	25.88	45.10	3,295.53	3,890.26	4,972.68	4,941.47	31.21	159.329	
1,600.00	1,583.31	1,627.95	1,627.91	5.74	28.14	45.28	3,295.10	3,890.26	4,959.10	4,925.28	33.83	146.607	
1,700.00	1,681.54	1,706.57	1,706.54	6.11	29.74	45.40	3,295.07	3,890.26	4,945.74	4,909.95	35.79	138.190	
1,800.00	1,779.76	1,804.80	1,804.76	6.49	31.74	45.56	3,295.07	3,890.26	4,932.46	4,894.31	38.15	129.275	
1,900.00	1,877.98	1,910.86	1,910.82	6.86	33.90	45.72	3,295.62	3,890.26	4,919.57	4,878.89	40.68	120.934	
2,000.00	1,976.21	2,019.89	2,019.84	7.23	36.12	45.90	3,295.15	3,890.26	4,906.10	4,862.84	43.26	113.398	
2,100.00	2,074.43	2,099.48	2,099.43	7.60	37.74	46.02	3,295.07	3,890.26	4,892.85	4,847.60	45.26	108.117	
2,200.00	2,172.66	2,197.70	2,197.66	7.98	39.75	46.18	3,295.07	3,890.26	4,879.72	4,832.10	47.62	102.462	
2,300.00	2,270.88	2,311.85	2,311.79	8.35	42.08	46.36	3,295.54	3,890.26	4,866.95	4,816.63	50.32	96.727	
2,400.00	2,369.11	2,394.17	2,394.11	8.72	43.76	46.50	3,295.07	3,890.26	4,853.58	4,801.21	52.36	92.689	
2,500.00	2,467.33	2,492.39	2,492.33	9.10	45.76	46.66	3,295.07	3,890.26	4,840.56	4,785.82	54.74	88.435	
2,600.00	2,565.55	2,590.62	2,590.55	9.47	47.77	46.82	3,295.07	3,890.26	4,827.58	4,770.47	57.11	84.535	
2,700.00	2,663.78	2,688.84	2,688.78	9.84	49.77	46.98	3,295.07	3,890.26	4,814.63	4,755.15	59.48	80.946	
2,800.00	2,762.00	2,787.65	2,787.57	10.22	51.79	47.13	3,296.37	3,890.26	4,802.51	4,740.64	61.86	77.630	
2,900.00	2,860.23	2,890.75	2,890.67	10.59	53.90	47.30	3,296.26	3,890.26	4,789.58	4,725.24	64.33	74.448	
3,000.00	2,958.45	2,993.78	2,993.70	10.96	56.00	47.48	3,295.97	3,890.26	4,776.59	4,709.78	66.80	71.501	
3,100.00	3,056.67	3,096.75	3,096.67	11.34	58.10	47.65	3,295.52	3,890.26	4,763.54	4,694.27	69.27	68.765	
3,200.00	3,154.90	3,179.99	3,179.90	11.71	59.81	47.80	3,295.07	3,890.26	4,750.51	4,679.16	71.35	66.581	
3,300.00	3,253.12	3,278.21	3,278.12	12.08	61.89	47.96	3,295.07	3,890.26	4,737.80	4,664.00	73.80	64.201	
3,400.00	3,351.35	3,381.16	3,381.06	12.46	64.07	48.13	3,295.80	3,890.26	4,725.57	4,649.22	76.34	61.899	
3,500.00	3,449.57	3,494.98	3,494.87	12.83	66.48	48.33	3,295.29	3,890.26	4,712.68	4,633.56	79.12	59.567	
3,600.00	3,547.80	3,572.90	3,572.80	13.20	68.05	48.47	3,295.07	3,890.26	4,699.92	4,618.86	81.06	57.978	
3,700.00	3,646.02	3,671.13	3,671.02	13.58	69.99	48.64	3,295.07	3,890.26	4,687.38	4,604.01	83.37	56.227	
3,800.00	3,744.24	3,772.42	3,772.31	13.95	71.98	48.80	3,296.02	3,890.26	4,675.42	4,589.70	85.73	54.538	
3,900.00	3,842.47	3,882.22	3,882.10	14.33	74.14	49.00	3,295.66	3,890.26	4,662.78	4,574.52	88.25	52.834	
4,000.00	3,940.69	3,965.82	3,965.69	14.70	75.79	49.15	3,295.07	3,890.26	4,650.00	4,559.73	90.27	51.511	
4,100.00	4,038.92	4,064.04	4,063.92	15.07	77.65	49.33	3,295.07	3,890.26	4,637.62	4,545.12	92.50	50.135	
4,200.00	4,137.14	4,162.27	4,162.14	15.45	79.51	49.50	3,295.07	3,890.26	4,625.29	4,530.56	94.73	48.825	
4,300.00	4,235.37	4,264.45	4,264.32	15.82	81.45	49.68	3,295.50	3,890.26	4,613.24	4,516.21	97.04	47.541	
4,400.00	4,333.59	4,367.91	4,367.77	16.20	83.41	49.87	3,295.23	3,890.26	4,600.86	4,501.49	99.36	46.303	
4,500.00	4,431.81	4,456.95	4,456.81	16.57	85.17	50.03	3,295.07	3,890.26	4,588.56	4,487.06	101.50	45.210	
4,600.00	4,530.04	4,555.17	4,555.04	16.94	87.18	50.21	3,295.07	3,890.26	4,576.40	4,472.53	103.87	44.059	
4,700.00	4,628.26	4,655.11	4,654.97	17.32	89.22	50.38	3,295.79	3,890.26	4,564.69	4,458.41	106.28	42.949	
4,800.00	4,726.46	4,761.11	4,760.96	17.69	91.38	50.54	3,295.56	3,890.26	4,550.17	4,441.36	108.81	41.817	
4,900.00	4,823.98	4,866.28	4,866.13	18.06	93.53	1.86	3,294.99	3,890.26	4,528.46	4,417.15	111.31	40.684	
5,000.00	4,919.77	4,944.92	4,944.77	18.41	95.21	-12.83	3,295.07	3,890.26	4,500.07	4,386.75	113.32	39.712	
5,100.00	5,012.77	5,037.92	5,037.77	18.74	97.18	-22.53	3,295.07	3,890.26	4,465.04	4,349.44	115.60	38.626	
5,200.00	5,101.98	5,132.71	5,132.55	19.06	99.18	-29.88	3,295.97	3,890.26	4,424.31	4,306.43	117.88	37.531	
5,300.00	5,186.40	5,226.23	5,226.07	19.36	101.17	-36.19	3,295.58	3,890.26	4,377.23	4,257.11	120.12	36.441	
5,400.00	5,265.12	5,313.43	5,313.26	19.64	103.01	-42.12	3,294.91	3,890.26	4,324.99	4,202.80	122.19	35.394	
5,500.00	5,337.27	5,362.44	5,362.27	19.93	104.00	-47.77	3,295.07	3,890.26	4,268.84	4,145.43	123.41	34.591	
5,600.00	5,402.06	5,427.23	5,427.06	20.23	105.33	-53.71	3,295.07	3,890.26	4,209.20	4,084.27	124.93	33.693	
5,700.00	5,458.78	5,483.95	5,483.78	20.56	106.48	-59.81	3,295.07	3,890.26	4,146.98	4,020.71	126.28	32.841	
5,800.00	5,509.14	5,537.82	5,537.64	20.93	107.59	-62.11	3,295.95	3,890.26	4,084.16	3,956.59	127.56	32.017	
5,900.00	5,559.14	5,593.67	5,593.48	21.35	108.73	-62.88	3,295.81	3,890.26	4,021.50	3,892.58	128.92	31.194	
6,000.00	5,605.15	5,645.11	5,644.93	21.81	109.78	-69.07	3,295.56	3,890.26	3,958.21	3,828.00	130.21	30.399	
6,100.00	5,635.72	5,679.34	5,679.15	22.29	110.48	-78.27	3,295.33	3,890.26	3,891.48	3,760.33	131.14	29.673	
6,200.00	5,649.31	5,694.62	5,694.43	22.76	110.79	-87.79	3,295.22	3,890.26	3,823.38	3,691.70	131.68	29.034	
6,300.00	5,650.00	5,695.48	5,695.29	23.24	110.81	-90.42	3,295.21	3,890.26	3,755.36	3,623.42	131.94	28.463	
6,400.00	5,650.00	5,695.54	5,695.35	23.77	110.81	-90.44	3,295.21	3,890.26	3,686.31	3,554.08	132.22	27.879	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - THUNDER ROAD FEDERAL #7 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 343-INC-ONLY													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Rule Assigned: Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
6,500.00	5,650.00	5,695.56	5,695.37	24.33	110.81	-90.46	3,295.21	3,890.26	3,616.15	3,483.59	132.55	27.281		
6,600.00	5,650.00	5,695.56	5,695.37	24.94	110.81	-90.46	3,295.21	3,890.26	3,545.41	3,412.48	132.92	26.672		
6,700.00	5,650.00	5,695.56	5,695.37	25.59	110.81	-90.46	3,295.21	3,890.26	3,475.94	3,342.59	133.35	26.067		
6,800.00	5,650.00	5,695.56	5,695.37	26.26	110.81	-90.46	3,295.21	3,890.26	3,407.99	3,274.16	133.83	25.465		
6,900.00	5,650.00	5,695.55	5,695.37	26.97	110.81	-90.46	3,295.21	3,890.26	3,341.65	3,207.28	134.37	24.869		
7,000.00	5,650.00	5,695.55	5,695.36	27.71	110.81	-90.46	3,295.21	3,890.26	3,277.02	3,142.05	134.97	24.280		
7,100.00	5,650.00	5,695.55	5,695.36	28.47	110.81	-90.46	3,295.21	3,890.26	3,214.20	3,078.57	135.63	23.698		
7,200.00	5,650.00	5,695.55	5,695.36	29.25	110.81	-90.46	3,295.21	3,890.26	3,153.31	3,016.95	136.35	23.126		
7,300.00	5,650.00	5,695.54	5,695.36	30.06	110.81	-90.46	3,295.21	3,890.26	3,094.45	2,957.30	137.14	22.564		
7,400.00	5,650.00	5,695.54	5,695.35	30.88	110.81	-90.46	3,295.21	3,890.26	3,037.74	2,899.75	137.99	22.014		
7,500.00	5,650.00	5,695.54	5,695.35	31.73	110.81	-90.46	3,295.21	3,890.26	2,983.30	2,844.40	138.90	21.479		
7,600.00	5,650.00	5,695.54	5,695.35	32.59	110.81	-90.46	3,295.21	3,890.26	2,931.27	2,791.40	139.86	20.958		
7,700.00	5,650.00	5,695.53	5,695.35	33.47	110.81	-90.46	3,295.21	3,890.26	2,881.76	2,740.88	140.88	20.455		
7,800.00	5,650.00	5,695.53	5,695.34	34.36	110.81	-90.46	3,295.21	3,890.26	2,834.93	2,692.97	141.95	19.971		
7,900.00	5,650.00	5,695.53	5,695.34	35.26	110.81	-90.46	3,295.21	3,890.26	2,790.89	2,647.81	143.07	19.507		
8,000.00	5,650.00	5,695.53	5,695.34	36.18	110.81	-90.46	3,295.21	3,890.26	2,749.78	2,605.55	144.23	19.065		
8,100.00	5,650.00	5,695.52	5,695.34	37.11	110.81	-90.46	3,295.21	3,890.26	2,711.74	2,566.31	145.43	18.647		
8,200.00	5,650.00	5,695.52	5,695.33	38.05	110.81	-90.46	3,295.21	3,890.26	2,676.90	2,530.24	146.65	18.254		
8,300.00	5,650.00	5,695.52	5,695.33	39.00	110.81	-90.46	3,295.21	3,890.26	2,645.38	2,497.48	147.90	17.887		
8,400.00	5,650.00	5,695.52	5,695.33	39.96	110.81	-90.46	3,295.21	3,890.26	2,617.30	2,468.14	149.15	17.548		
8,500.00	5,650.00	5,695.51	5,695.33	40.93	110.81	-90.46	3,295.21	3,890.26	2,592.78	2,442.36	150.42	17.237		
8,600.00	5,650.00	5,695.51	5,695.32	41.90	110.81	-90.46	3,295.21	3,890.26	2,571.91	2,420.23	151.68	16.956		
8,700.00	5,650.00	5,695.51	5,695.32	42.89	110.81	-90.46	3,295.21	3,890.26	2,554.79	2,401.87	152.93	16.706		
8,800.00	5,650.00	5,695.51	5,695.32	43.88	110.81	-90.46	3,295.21	3,890.26	2,541.50	2,387.35	154.15	16.487		
8,900.00	5,650.00	5,695.50	5,695.32	44.87	110.81	-90.46	3,295.21	3,890.26	2,532.09	2,376.74	155.35	16.299		
9,000.00	5,650.00	5,695.50	5,695.31	45.88	110.81	-90.46	3,295.21	3,890.26	2,526.60	2,370.09	156.51	16.144		
9,088.79	5,650.00	5,695.50	5,695.31	46.77	110.81	-90.46	3,295.21	3,890.26	2,525.04	2,367.54	157.50	16.032 CC		
9,100.00	5,650.00	5,695.50	5,695.31	46.88	110.81	-90.46	3,295.21	3,890.26	2,525.06	2,367.44	157.62	16.020 ES		
9,200.00	5,650.00	5,695.50	5,695.31	47.90	110.81	-90.46	3,295.21	3,890.26	2,527.49	2,368.81	158.68	15.928		
9,300.00	5,650.00	5,695.49	5,695.31	48.92	110.81	-90.46	3,295.21	3,890.26	2,533.86	2,374.18	159.68	15.868		
9,400.00	5,650.00	5,695.49	5,695.30	49.94	110.81	-90.46	3,295.21	3,890.26	2,544.14	2,383.53	160.62	15.840 SF		
9,500.00	5,650.00	5,695.49	5,695.30	50.97	110.81	-90.46	3,295.21	3,890.26	2,558.30	2,396.82	161.49	15.842		
9,600.00	5,650.00	5,695.49	5,695.30	52.00	110.81	-90.46	3,295.21	3,890.26	2,576.27	2,413.98	162.29	15.875		
9,700.00	5,650.00	5,695.48	5,695.30	53.03	110.81	-90.46	3,295.21	3,890.26	2,597.96	2,434.94	163.02	15.937		
9,800.00	5,650.00	5,695.48	5,695.29	54.07	110.81	-90.46	3,295.21	3,890.26	2,623.29	2,459.61	163.67	16.027		
9,900.00	5,650.00	5,695.48	5,695.29	55.12	110.81	-90.46	3,295.21	3,890.26	2,652.14	2,487.88	164.26	16.146		
10,000.00	5,650.00	5,695.48	5,695.29	56.16	110.81	-90.46	3,295.21	3,890.26	2,684.42	2,519.64	164.78	16.291		
10,100.00	5,650.00	5,695.48	5,695.29	57.21	110.81	-90.46	3,295.21	3,890.26	2,719.99	2,554.76	165.23	16.461		
10,200.00	5,650.00	5,695.47	5,695.28	58.26	110.81	-90.46	3,295.21	3,890.26	2,758.73	2,593.11	165.62	16.657		
10,300.00	5,650.00	5,695.47	5,695.28	59.32	110.81	-90.46	3,295.21	3,890.26	2,800.51	2,634.56	165.95	16.875		
10,400.00	5,650.00	5,695.47	5,695.28	60.38	110.81	-90.46	3,295.21	3,890.26	2,845.19	2,678.96	166.22	17.117		
10,500.00	5,650.00	5,695.47	5,695.28	61.44	110.81	-90.46	3,295.21	3,890.26	2,892.63	2,726.19	166.44	17.379		
10,600.00	5,650.00	5,695.46	5,695.27	62.50	110.81	-90.46	3,295.21	3,890.26	2,942.71	2,776.10	166.61	17.662		
10,700.00	5,650.00	5,695.46	5,695.27	63.56	110.81	-90.46	3,295.21	3,890.26	2,995.30	2,828.56	166.74	17.964		
10,800.00	5,650.00	5,695.46	5,695.27	64.63	110.81	-90.46	3,295.21	3,890.26	3,050.25	2,883.43	166.83	18.284		
10,900.00	5,650.00	5,695.46	5,695.27	65.70	110.81	-90.46	3,295.21	3,890.26	3,107.46	2,940.58	166.88	18.621		
11,000.00	5,650.00	5,695.45	5,695.27	66.77	110.81	-90.46	3,295.21	3,890.26	3,166.79	2,999.89	166.89	18.975		
11,100.00	5,650.00	5,695.45	5,695.26	67.84	110.81	-90.46	3,295.21	3,890.26	3,228.12	3,061.24	166.88	19.344		
11,200.00	5,650.00	5,695.45	5,695.26	68.92	110.81	-90.46	3,295.21	3,890.26	3,291.35	3,124.51	166.85	19.727		
11,299.98	5,650.00	5,695.45	5,695.26	69.99	110.81	-90.46	3,295.21	3,890.26	3,356.36	3,189.57	166.79	20.124		
11,358.47	5,650.00	5,695.44	5,695.26	70.43	110.81	-90.46	3,295.21	3,890.26	3,395.18	3,227.89	167.29	20.295		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - THUNDER ROAD FEDERAL #8 - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 313-INC-ONLY													Offset Well Error:
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Rule Assigned: Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	16.00	16.00	0.00	0.14	63.36	1,948.86	3,884.31	4,345.79				
100.00	100.00	116.00	116.00	0.29	1.03	63.36	1,948.86	3,884.31	4,345.79	4,344.48	1.32	3,297.428	
200.00	200.00	216.00	216.00	0.65	1.92	63.36	1,948.86	3,884.31	4,345.79	4,343.23	2.57	1,694.046	
300.00	300.00	316.00	316.00	1.00	2.84	63.36	1,948.86	3,884.31	4,345.79	4,341.95	3.85	1,129.646	
400.00	399.98	415.98	415.98	1.36	4.88	56.86	1,948.86	3,884.31	4,344.84	4,338.60	6.24	696.579	
500.00	499.84	516.72	516.72	1.73	6.92	56.96	1,949.26	3,884.31	4,342.16	4,333.51	8.64	502.341	
600.00	599.45	621.11	621.11	2.09	9.05	57.15	1,949.08	3,884.31	4,337.33	4,326.20	11.12	389.882	
700.00	698.70	714.71	714.70	2.45	10.98	57.39	1,948.86	3,884.31	4,330.60	4,317.19	13.41	322.820	
800.00	797.47	813.47	813.47	2.81	13.07	57.71	1,948.86	3,884.31	4,322.13	4,306.26	15.87	272.368	
900.00	895.74	922.76	922.74	3.17	15.38	58.00	1,949.47	3,884.31	4,312.46	4,293.92	18.55	232.522	
1,000.00	993.97	1,010.00	1,009.97	3.52	17.21	58.19	1,948.86	3,884.31	4,302.13	4,281.40	20.74	207.480	
1,100.00	1,092.19	1,108.22	1,108.19	3.89	19.15	58.40	1,948.86	3,884.31	4,292.15	4,269.12	23.03	186.365	
1,200.00	1,190.42	1,210.59	1,210.56	4.26	21.16	58.61	1,949.32	3,884.31	4,282.42	4,257.01	25.41	168.537	
1,300.00	1,288.64	1,316.68	1,316.64	4.63	23.25	58.85	1,948.85	3,884.31	4,272.36	4,244.50	27.86	153.342	
1,400.00	1,386.86	1,402.90	1,402.86	5.00	25.08	59.04	1,948.86	3,884.31	4,262.54	4,232.47	30.06	141.795	
1,500.00	1,485.09	1,501.13	1,501.09	5.37	27.17	59.25	1,948.86	3,884.31	4,252.79	4,220.27	32.51	130.802	
1,600.00	1,583.31	1,599.35	1,599.31	5.74	29.25	59.46	1,948.86	3,884.31	4,243.10	4,208.13	34.97	121.350	
1,700.00	1,681.54	1,701.59	1,701.54	6.11	31.42	59.68	1,949.68	3,884.31	4,233.81	4,196.30	37.50	112.890	
1,800.00	1,779.76	1,803.81	1,803.75	6.49	33.59	59.91	1,949.33	3,884.31	4,224.10	4,184.06	40.04	105.493	
1,900.00	1,877.98	1,894.04	1,893.98	6.86	35.51	60.11	1,948.86	3,884.31	4,214.39	4,172.06	42.33	99.555	
2,000.00	1,976.21	1,992.26	1,992.21	7.23	37.68	60.33	1,948.86	3,884.31	4,204.95	4,160.08	44.87	93.717	
2,100.00	2,074.43	2,099.41	2,099.35	7.60	40.05	60.57	1,949.45	3,884.31	4,195.81	4,148.21	47.60	88.144	
2,200.00	2,172.66	2,188.73	2,188.66	7.98	41.99	60.77	1,948.86	3,884.31	4,186.25	4,136.34	49.92	83.866	
2,300.00	2,270.88	2,286.96	2,286.88	8.35	44.00	61.00	1,948.86	3,884.31	4,177.00	4,124.70	52.29	79.876	
2,400.00	2,369.11	2,388.68	2,388.60	8.72	46.08	61.22	1,949.57	3,884.31	4,168.08	4,113.34	54.74	76.139	
2,500.00	2,467.33	2,495.43	2,495.33	9.10	48.26	61.47	1,949.05	3,884.31	4,158.77	4,101.48	57.29	72.586	
2,600.00	2,565.55	2,581.65	2,581.55	9.47	50.02	61.67	1,948.86	3,884.31	4,149.62	4,090.19	59.43	69.825	
2,700.00	2,663.78	2,679.87	2,679.78	9.84	52.03	61.89	1,948.86	3,884.31	4,140.63	4,078.82	61.81	66.992	
2,800.00	2,762.00	2,779.86	2,779.76	10.22	54.08	62.11	1,949.56	3,884.31	4,131.96	4,067.73	64.22	64.338	
2,900.00	2,860.23	2,882.66	2,882.56	10.59	56.18	62.35	1,949.29	3,884.31	4,122.99	4,056.30	66.70	61.819	
3,000.00	2,958.45	2,974.56	2,974.45	10.96	58.06	62.57	1,948.86	3,884.31	4,114.03	4,045.09	68.95	59.670	
3,100.00	3,056.67	3,072.78	3,072.67	11.34	60.07	62.80	1,948.86	3,884.31	4,105.30	4,033.98	71.33	57.557	
3,200.00	3,154.90	3,171.07	3,170.96	11.71	62.08	63.02	1,949.76	3,884.31	4,096.96	4,023.25	73.71	55.585	
3,300.00	3,253.12	3,275.67	3,275.55	12.08	64.21	63.27	1,949.53	3,884.31	4,088.28	4,012.07	76.22	53.641	
3,400.00	3,351.35	3,380.10	3,379.97	12.46	66.35	63.53	1,948.83	3,884.31	4,079.52	4,000.80	78.72	51.822	
3,500.00	3,449.57	3,465.70	3,465.57	12.83	68.10	63.73	1,948.86	3,884.31	4,071.06	3,990.21	80.85	50.356	
3,600.00	3,547.80	3,563.92	3,563.80	13.20	70.11	63.96	1,948.86	3,884.31	4,062.67	3,979.44	83.23	48.814	
3,700.00	3,646.02	3,664.72	3,664.59	13.58	72.17	64.19	1,949.53	3,884.31	4,054.57	3,968.91	85.66	47.334	
3,800.00	3,744.24	3,766.96	3,766.82	13.95	74.26	64.44	1,949.19	3,884.31	4,046.21	3,958.09	88.12	45.916	
3,900.00	3,842.47	3,858.61	3,858.47	14.33	76.16	64.67	1,948.86	3,884.31	4,037.91	3,947.52	90.40	44.669	
4,000.00	3,940.69	3,956.83	3,956.69	14.70	78.25	64.91	1,948.86	3,884.31	4,029.80	3,936.95	92.86	43.398	
4,100.00	4,038.92	4,058.88	4,058.73	15.07	80.42	65.15	1,949.54	3,884.31	4,021.98	3,926.59	95.40	42.160	
4,200.00	4,137.14	4,163.71	4,163.55	15.45	82.65	65.41	1,948.96	3,884.31	4,013.84	3,915.84	98.00	40.958	
4,300.00	4,235.37	4,251.52	4,251.37	15.82	84.58	65.63	1,948.86	3,884.31	4,005.90	3,905.60	100.30	39.938	
4,400.00	4,333.59	4,349.97	4,349.80	16.20	86.75	65.86	1,949.61	3,884.31	3,998.31	3,895.46	102.85	38.875	
4,500.00	4,431.81	4,454.69	4,454.52	16.57	89.07	66.12	1,949.31	3,884.31	3,990.47	3,884.94	105.54	37.812	
4,600.00	4,530.04	4,546.21	4,546.04	16.94	91.11	66.35	1,948.86	3,884.31	3,982.66	3,874.70	107.96	36.891	
4,700.00	4,628.26	4,644.44	4,644.26	17.32	93.36	66.60	1,948.86	3,884.31	3,975.05	3,864.47	110.58	35.947	
4,800.00	4,726.46	4,746.73	4,746.54	17.69	95.71	42.06	1,949.71	3,884.31	3,964.86	3,851.56	113.30	34.995	
4,900.00	4,823.98	4,851.83	4,851.63	18.06	98.12	18.88	1,948.99	3,884.31	3,945.41	3,829.35	116.07	33.993	
5,000.00	4,919.77	4,935.97	4,935.77	18.41	99.99	4.72	1,948.86	3,884.31	3,917.28	3,799.00	118.28	33.119	
5,100.00	5,012.77	5,028.98	5,028.77	18.74	102.05	-4.36	1,948.86	3,884.31	3,880.67	3,760.02	120.65	32.165	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - THUNDER ROAD FEDERAL #8 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 313-INC-ONLY													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,200.00	5,101.98	5,124.18	5,123.96	19.06	104.16	-11.05	1,949.58	3,884.31	3,836.12	3,713.09	123.04	31.178		
5,300.00	5,186.40	5,214.91	5,214.67	19.36	106.16	-16.67	1,948.84	3,884.31	3,783.55	3,658.25	125.30	30.196		
5,400.00	5,265.12	5,281.35	5,281.12	19.64	107.52	-21.94	1,948.86	3,884.31	3,724.15	3,597.27	126.88	29.351		
5,500.00	5,337.27	5,353.50	5,353.27	19.93	108.99	-27.46	1,948.86	3,884.31	3,658.49	3,529.94	128.55	28.460		
5,600.00	5,402.06	5,420.04	5,419.80	20.23	110.35	-33.58	1,949.60	3,884.31	3,587.59	3,457.52	130.06	27.583		
5,700.00	5,458.78	5,480.14	5,479.89	20.56	111.58	-40.61	1,949.42	3,884.31	3,511.84	3,380.42	131.42	26.722		
5,800.00	5,509.14	5,533.54	5,533.29	20.93	112.67	-43.38	1,949.10	3,884.31	3,433.33	3,300.71	132.62	25.889		
5,900.00	5,559.14	5,575.39	5,575.14	21.35	113.52	-44.05	1,948.86	3,884.31	3,355.08	3,221.49	133.59	25.115		
6,000.00	5,605.15	5,621.40	5,621.15	21.81	114.42	-52.11	1,948.86	3,884.31	3,275.47	3,140.85	134.62	24.331		
6,100.00	5,635.72	5,651.97	5,651.72	22.29	115.02	-66.69	1,948.86	3,884.31	3,190.65	3,055.33	135.32	23.578		
6,200.00	5,649.31	5,665.56	5,665.31	22.76	115.28	-84.73	1,948.86	3,884.31	3,103.02	2,967.36	135.66	22.873		
6,300.00	5,650.00	5,666.25	5,666.00	23.24	115.30	-90.00	1,948.86	3,884.31	3,014.75	2,879.01	135.74	22.209		
6,400.00	5,650.00	5,666.25	5,666.00	23.77	115.30	-90.00	1,948.86	3,884.31	2,925.63	2,789.80	135.83	21.539		
6,500.00	5,650.00	5,666.25	5,666.00	24.33	115.30	-90.00	1,948.86	3,884.31	2,835.63	2,699.69	135.94	20.859		
6,600.00	5,650.00	5,666.25	5,666.00	24.94	115.30	-90.00	1,948.86	3,884.31	2,745.09	2,609.01	136.08	20.173		
6,700.00	5,650.00	5,666.25	5,666.00	25.59	115.30	-90.00	1,948.86	3,884.31	2,655.12	2,518.88	136.24	19.488		
6,800.00	5,650.00	5,666.25	5,666.00	26.26	115.30	-90.00	1,948.86	3,884.31	2,565.90	2,429.46	136.44	18.806		
6,900.00	5,650.00	5,666.25	5,666.00	26.97	115.30	-90.00	1,948.86	3,884.31	2,477.50	2,340.82	136.68	18.126		
7,000.00	5,650.00	5,666.25	5,666.00	27.71	115.30	-90.00	1,948.86	3,884.31	2,390.01	2,253.04	136.97	17.450		
7,100.00	5,650.00	5,666.25	5,666.00	28.47	115.30	-90.00	1,948.86	3,884.31	2,303.55	2,166.24	137.31	16.776		
7,200.00	5,650.00	5,666.25	5,666.00	29.25	115.30	-90.00	1,948.86	3,884.31	2,218.22	2,080.50	137.71	16.107		
7,300.00	5,650.00	5,666.25	5,666.00	30.06	115.30	-90.00	1,948.86	3,884.31	2,134.16	1,995.97	138.19	15.444		
7,400.00	5,650.00	5,666.25	5,666.00	30.88	115.30	-90.00	1,948.86	3,884.31	2,051.54	1,912.79	138.74	14.786		
7,500.00	5,650.00	5,666.25	5,666.00	31.73	115.30	-90.00	1,948.86	3,884.31	1,970.53	1,831.14	139.39	14.137		
7,600.00	5,650.00	5,666.25	5,666.00	32.59	115.30	-90.00	1,948.86	3,884.31	1,891.33	1,751.20	140.13	13.497		
7,700.00	5,650.00	5,666.25	5,666.00	33.47	115.30	-90.00	1,948.86	3,884.31	1,814.20	1,673.21	140.98	12.868		
7,800.00	5,650.00	5,666.25	5,666.00	34.36	115.30	-90.00	1,948.86	3,884.31	1,739.39	1,597.44	141.95	12.253		
7,900.00	5,650.00	5,666.25	5,666.00	35.26	115.30	-90.00	1,948.86	3,884.31	1,667.22	1,524.18	143.05	11.655		
8,000.00	5,650.00	5,666.25	5,666.00	36.18	115.30	-90.00	1,948.86	3,884.31	1,598.06	1,453.79	144.27	11.077		
8,100.00	5,650.00	5,666.25	5,666.00	37.11	115.30	-90.00	1,948.86	3,884.31	1,532.31	1,386.67	145.63	10.522		
8,200.00	5,650.00	5,666.25	5,666.00	38.05	115.30	-90.00	1,948.86	3,884.31	1,470.42	1,323.29	147.13	9.994		
8,300.00	5,650.00	5,666.25	5,666.00	39.00	115.30	-90.00	1,948.86	3,884.31	1,412.90	1,264.16	148.74	9.499		
8,400.00	5,650.00	5,666.25	5,666.00	39.96	115.30	-90.00	1,948.86	3,884.31	1,360.31	1,209.85	150.47	9.041		
8,500.00	5,650.00	5,666.25	5,666.00	40.93	115.30	-90.00	1,948.86	3,884.31	1,313.25	1,160.97	152.27	8.624		
8,600.00	5,650.00	5,666.25	5,666.00	41.90	115.30	-90.00	1,948.86	3,884.31	1,272.31	1,118.19	154.12	8.255		
8,700.00	5,650.00	5,666.25	5,666.00	42.89	115.30	-90.00	1,948.86	3,884.31	1,238.12	1,082.16	155.96	7.938		
8,800.00	5,650.00	5,666.25	5,666.00	43.88	115.30	-90.00	1,948.86	3,884.31	1,211.24	1,053.49	157.75	7.678		
8,900.00	5,650.00	5,666.25	5,666.00	44.87	115.30	-90.00	1,948.86	3,884.31	1,192.17	1,032.76	159.41	7.478		
9,000.00	5,650.00	5,666.25	5,666.00	45.88	115.30	-90.00	1,948.86	3,884.31	1,181.29	1,020.39	160.90	7.342		
9,079.18	5,650.00	5,666.25	5,666.00	46.67	115.30	-90.00	1,948.86	3,884.31	1,178.63	1,016.71	161.92	7.279 CC		
9,100.00	5,650.00	5,666.25	5,666.00	46.88	115.30	-90.00	1,948.86	3,884.31	1,178.81	1,016.66	162.16	7.270 ES		
9,200.00	5,650.00	5,666.25	5,666.00	47.90	115.30	-90.00	1,948.86	3,884.31	1,184.81	1,021.66	163.15	7.262 SF		
9,300.00	5,650.00	5,666.25	5,666.00	48.92	115.30	-90.00	1,948.86	3,884.31	1,199.14	1,035.28	163.86	7.318		
9,400.00	5,650.00	5,666.25	5,666.00	49.94	115.30	-90.00	1,948.86	3,884.31	1,221.51	1,057.22	164.29	7.435		
9,500.00	5,650.00	5,666.25	5,666.00	50.97	115.30	-90.00	1,948.86	3,884.31	1,251.50	1,087.03	164.47	7.609		
9,600.00	5,650.00	5,666.25	5,666.00	52.00	115.30	-90.00	1,948.86	3,884.31	1,288.57	1,124.16	164.41	7.837		
9,700.00	5,650.00	5,666.25	5,666.00	53.03	115.30	-90.00	1,948.86	3,884.31	1,332.13	1,167.96	164.17	8.114		
9,800.00	5,650.00	5,666.25	5,666.00	54.07	115.30	-90.00	1,948.86	3,884.31	1,381.57	1,217.80	163.78	8.436		
9,900.00	5,650.00	5,666.25	5,666.00	55.12	115.30	-90.00	1,948.86	3,884.31	1,436.28	1,273.01	163.28	8.797		
10,000.00	5,650.00	5,666.25	5,666.00	56.16	115.30	-90.00	1,948.86	3,884.31	1,495.69	1,332.99	162.69	9.193		
10,100.00	5,650.00	5,666.25	5,666.00	57.21	115.30	-90.00	1,948.86	3,884.31	1,559.24	1,397.18	162.06	9.621		
10,200.00	5,650.00	5,666.25	5,666.00	58.26	115.30	-90.00	1,948.86	3,884.31	1,626.47	1,465.07	161.40	10.077		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - THUNDER ROAD FEDERAL #8 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.00 usft
Survey Program: 313-INC-ONLY													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre			Rule Assigned:			Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,300.00	5,650.00	5,666.25	5,666.00	59.32	115.30	-90.00	1,948.86	3,884.31	1,696.93	1,536.19	160.73	10.557	
10,400.00	5,650.00	5,666.25	5,666.00	60.38	115.30	-90.00	1,948.86	3,884.31	1,770.23	1,610.16	160.07	11.059	
10,500.00	5,650.00	5,666.25	5,666.00	61.44	115.30	-90.00	1,948.86	3,884.31	1,846.05	1,686.63	159.42	11.580	
10,600.00	5,650.00	5,666.25	5,666.00	62.50	115.30	-90.00	1,948.86	3,884.31	1,924.07	1,765.29	158.79	12.117	
10,700.00	5,650.00	5,666.25	5,666.00	63.56	115.30	-90.00	1,948.86	3,884.31	2,004.05	1,845.87	158.18	12.669	
10,800.00	5,650.00	5,666.25	5,666.00	64.63	115.30	-90.00	1,948.86	3,884.31	2,085.76	1,928.16	157.60	13.235	
10,900.00	5,650.00	5,666.25	5,666.00	65.70	115.30	-90.00	1,948.86	3,884.31	2,169.00	2,011.95	157.05	13.811	
11,000.00	5,650.00	5,666.25	5,666.00	66.77	115.30	-90.00	1,948.86	3,884.31	2,253.60	2,097.08	156.52	14.398	
11,100.00	5,650.00	5,666.25	5,666.00	67.84	115.30	-90.00	1,948.86	3,884.31	2,339.42	2,183.39	156.03	14.993	
11,200.00	5,650.00	5,666.25	5,666.00	68.92	115.30	-90.00	1,948.86	3,884.31	2,426.32	2,270.76	155.56	15.597	
11,299.98	5,650.00	5,666.25	5,666.00	69.99	115.30	-90.00	1,948.86	3,884.31	2,514.18	2,359.06	155.12	16.208	
11,358.47	5,650.00	5,666.25	5,666.00	70.43	115.30	-90.00	1,948.86	3,884.31	2,566.00	2,409.63	156.36	16.411	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - W D MCINTYRE A #7 - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 300-UNKNOWN													Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	7.00	7.00	0.00	0.13	90.16	-7.95	2,902.64	2,902.65				
100.00	100.00	107.00	107.00	0.29	2.05	90.16	-7.95	2,902.64	2,902.65	2,900.32	2.33	1,243.614	
200.00	200.00	207.00	207.00	0.65	3.96	90.16	-7.95	2,902.64	2,902.65	2,898.05	4.61	630.210	
300.00	300.00	307.00	307.00	1.00	6.02	90.16	-7.95	2,902.64	2,902.65	2,895.63	7.02	413.264	
400.00	399.98	406.98	406.98	1.36	10.02	83.67	-7.95	2,902.64	2,902.46	2,891.08	11.38	255.032	
500.00	499.84	506.84	506.84	1.73	14.01	83.78	-7.95	2,902.64	2,901.88	2,886.15	15.73	184.453	
600.00	599.45	606.45	606.45	2.09	18.00	83.97	-7.95	2,902.64	2,900.95	2,880.88	20.07	144.510	
700.00	698.70	705.70	705.70	2.45	21.97	84.23	-7.95	2,902.64	2,899.69	2,875.29	24.40	118.825	
800.00	797.47	804.47	804.47	2.81	25.92	84.57	-7.95	2,902.64	2,898.14	2,869.43	28.71	100.931	
900.00	895.74	902.74	902.74	3.17	29.85	84.94	-7.95	2,902.64	2,896.43	2,863.42	33.01	87.749	
1,000.00	993.97	1,000.97	1,000.97	3.52	33.78	85.30	-7.95	2,902.64	2,894.80	2,857.50	37.30	77.603	
1,100.00	1,092.19	1,099.19	1,099.19	3.89	37.71	85.67	-7.95	2,902.64	2,893.30	2,851.70	41.60	69.552	
1,200.00	1,190.42	1,197.42	1,197.42	4.26	41.64	86.03	-7.95	2,902.64	2,891.91	2,846.02	45.90	63.009	
1,300.00	1,288.64	1,295.64	1,295.64	4.63	45.57	86.39	-7.95	2,902.64	2,890.65	2,840.46	50.20	57.588	
1,400.00	1,386.86	1,393.86	1,393.86	5.00	49.49	86.76	-7.95	2,902.64	2,889.51	2,835.02	54.49	53.024	
1,500.00	1,485.09	1,492.09	1,492.09	5.37	53.42	87.12	-7.95	2,902.64	2,888.49	2,829.70	58.79	49.129	
1,600.00	1,583.31	1,590.31	1,590.31	5.74	57.35	87.49	-7.95	2,902.64	2,887.60	2,824.50	63.09	45.766	
1,700.00	1,681.54	1,688.54	1,688.54	6.11	61.28	87.85	-7.95	2,902.64	2,886.82	2,819.42	67.40	42.834	
1,800.00	1,779.76	1,786.76	1,786.76	6.49	65.21	88.22	-7.95	2,902.64	2,886.17	2,814.47	71.70	40.255	
1,900.00	1,877.98	1,884.98	1,884.98	6.86	69.14	88.59	-7.95	2,902.64	2,885.63	2,809.64	76.00	37.970	
2,000.00	1,976.21	1,983.21	1,983.21	7.23	73.07	88.95	-7.95	2,902.64	2,885.22	2,804.92	80.30	35.931	
2,100.00	2,074.43	2,081.43	2,081.43	7.60	77.00	89.32	-7.95	2,902.64	2,884.93	2,800.33	84.60	34.101	
2,200.00	2,172.66	2,179.66	2,179.66	7.98	80.93	89.68	-7.95	2,902.64	2,884.77	2,795.87	88.90	32.449	
2,286.40	2,257.52	2,264.52	2,264.52	8.30	84.32	90.00	-7.95	2,902.64	2,884.72	2,792.10	92.62	31.146	
2,300.00	2,270.88	2,277.88	2,277.88	8.35	84.86	90.05	-7.95	2,902.64	2,884.72	2,791.52	93.20	30.950	
2,400.00	2,369.11	2,376.11	2,376.11	8.72	88.78	90.42	-7.95	2,902.64	2,884.80	2,787.29	97.51	29.586	
2,500.00	2,467.33	2,474.33	2,474.33	9.10	92.71	90.78	-7.95	2,902.64	2,885.00	2,783.19	101.81	28.337	
2,600.00	2,565.55	2,572.55	2,572.55	9.47	96.64	91.15	-7.95	2,902.64	2,885.32	2,779.21	106.11	27.192	
2,700.00	2,663.78	2,670.78	2,670.78	9.84	100.57	91.51	-7.95	2,902.64	2,885.77	2,775.35	110.41	26.136	
2,800.00	2,762.00	2,769.00	2,769.00	10.22	104.50	91.88	-7.95	2,902.64	2,886.33	2,771.62	114.72	25.161	
2,900.00	2,860.23	2,867.23	2,867.23	10.59	108.43	92.24	-7.95	2,902.64	2,887.02	2,768.00	119.02	24.257	
3,000.00	2,958.45	2,965.45	2,965.45	10.96	112.36	92.61	-7.95	2,902.64	2,887.83	2,764.51	123.32	23.417	
3,100.00	3,056.67	3,063.67	3,063.67	11.34	116.29	92.98	-7.95	2,902.64	2,888.76	2,761.14	127.62	22.635	
3,200.00	3,154.90	3,161.90	3,161.90	11.71	120.22	93.34	-7.95	2,902.64	2,889.81	2,757.89	131.92	21.905	
3,300.00	3,253.12	3,260.12	3,260.12	12.08	124.14	93.70	-7.95	2,902.64	2,890.98	2,754.76	136.23	21.222	
3,400.00	3,351.35	3,358.35	3,358.35	12.46	128.07	94.07	-7.95	2,902.64	2,892.28	2,751.75	140.53	20.581	
3,500.00	3,449.57	3,456.57	3,456.57	12.83	132.00	94.43	-7.95	2,902.64	2,893.69	2,748.86	144.83	19.980	
3,600.00	3,547.80	3,554.80	3,554.80	13.20	135.93	94.80	-7.95	2,902.64	2,895.23	2,746.10	149.13	19.414	
3,700.00	3,646.02	3,653.02	3,653.02	13.58	139.86	95.16	-7.95	2,902.64	2,896.89	2,743.45	153.44	18.880	
3,800.00	3,744.24	3,751.24	3,751.24	13.95	143.79	95.52	-7.95	2,902.64	2,898.67	2,740.93	157.74	18.376	
3,900.00	3,842.47	3,849.47	3,849.47	14.33	147.72	95.89	-7.95	2,902.64	2,900.57	2,738.52	162.04	17.900	
4,000.00	3,940.69	3,947.69	3,947.69	14.70	151.65	96.25	-7.95	2,902.64	2,902.58	2,736.24	166.34	17.449	
4,100.00	4,038.92	4,045.92	4,045.92	15.07	155.58	96.61	-7.95	2,902.64	2,904.72	2,734.08	170.64	17.022	
4,200.00	4,137.14	4,144.14	4,144.14	15.45	159.51	96.97	-7.95	2,902.64	2,906.98	2,732.03	174.95	16.616	
4,300.00	4,235.37	4,242.37	4,242.37	15.82	163.43	97.33	-7.95	2,902.64	2,909.36	2,730.11	179.25	16.231	
4,400.00	4,333.59	4,340.59	4,340.59	16.20	167.36	97.69	-7.95	2,902.64	2,911.85	2,728.30	183.55	15.864	
4,500.00	4,431.81	4,438.81	4,438.81	16.57	171.29	98.05	-7.95	2,902.64	2,914.47	2,726.61	187.85	15.515	
4,600.00	4,530.04	4,537.04	4,537.04	16.94	175.22	98.41	-7.95	2,902.64	2,917.20	2,725.05	192.15	15.182	
4,700.00	4,628.26	4,635.26	4,635.26	17.32	179.15	98.77	-7.95	2,902.64	2,920.05	2,723.59	196.45	14.864	
4,800.00	4,726.46	4,733.46	4,733.46	17.69	183.08	99.13	-7.95	2,902.64	2,919.68	2,718.93	200.75	14.544	
4,900.00	4,823.98	4,830.98	4,830.98	18.06	186.98	99.49	-7.95	2,902.64	2,909.22	2,704.19	205.02	14.190	
5,000.00	4,919.77	4,926.77	4,926.77	18.41	190.81	99.85	-7.95	2,902.64	2,888.57	2,679.36	209.21	13.807	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - W D MCINTYRE A #7 - Wellbore #1 - Wellbore #1													Offset Site Error: 0.00 usft
Survey Program: 300-UNKNOWN							Rule Assigned:						Offset Well Error: 0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,012.77	5,019.77	5,019.77	18.74	194.53	32.11	-7.95	2,902.64	2,857.99	2,644.71	213.27	13.401	
5,200.00	5,101.98	5,108.98	5,108.98	19.06	198.10	27.83	-7.95	2,902.64	2,817.79	2,600.63	217.16	12.976	
5,300.00	5,186.40	5,193.40	5,193.40	19.36	201.48	25.34	-7.95	2,902.64	2,768.45	2,547.61	220.84	12.536	
5,400.00	5,265.12	5,272.12	5,272.12	19.64	204.62	24.04	-7.95	2,902.64	2,710.49	2,486.23	224.26	12.087	
5,500.00	5,337.27	5,344.27	5,344.27	19.93	207.51	23.66	-7.95	2,902.64	2,644.56	2,417.17	227.39	11.630	
5,600.00	5,402.06	5,409.06	5,409.06	20.23	210.10	24.13	-7.95	2,902.64	2,571.38	2,341.18	230.20	11.170	
5,700.00	5,458.78	5,465.78	5,465.78	20.56	212.37	25.52	-7.95	2,902.64	2,491.75	2,259.09	232.66	10.710	
5,800.00	5,509.14	5,516.14	5,516.14	20.93	214.39	26.72	-7.95	2,902.64	2,407.89	2,173.05	234.84	10.253	
5,900.00	5,559.14	5,566.14	5,566.14	21.35	216.39	27.60	-7.95	2,902.64	2,324.01	2,086.99	237.01	9.805	
6,000.00	5,605.15	5,612.15	5,612.15	21.81	218.23	35.05	-7.95	2,902.64	2,238.31	1,999.28	239.03	9.364	
6,100.00	5,635.72	5,642.72	5,642.72	22.29	219.45	52.06	-7.95	2,902.64	2,146.71	1,906.30	240.42	8.929	
6,200.00	5,649.31	5,656.31	5,656.31	22.76	219.99	80.65	-7.95	2,902.64	2,051.73	1,810.62	241.11	8.510	
6,300.00	5,650.00	5,657.00	5,657.00	23.24	220.02	90.00	-7.95	2,902.64	1,956.41	1,715.13	241.28	8.108	
6,400.00	5,650.00	5,657.00	5,657.00	23.77	220.02	90.00	-7.95	2,902.64	1,862.73	1,621.26	241.47	7.714	
6,500.00	5,650.00	5,657.00	5,657.00	24.33	220.02	90.00	-7.95	2,902.64	1,771.11	1,529.40	241.71	7.327	
6,600.00	5,650.00	5,657.00	5,657.00	24.94	220.02	90.00	-7.95	2,902.64	1,681.68	1,439.66	242.02	6.949	
6,700.00	5,650.00	5,657.00	5,657.00	25.59	220.02	90.00	-7.95	2,902.64	1,593.61	1,351.23	242.38	6.575	
6,800.00	5,650.00	5,657.00	5,657.00	26.26	220.02	90.00	-7.95	2,902.64	1,507.04	1,264.22	242.82	6.206	
6,900.00	5,650.00	5,657.00	5,657.00	26.97	220.02	90.00	-7.95	2,902.64	1,422.22	1,178.89	243.33	5.845	
7,000.00	5,650.00	5,657.00	5,657.00	27.71	220.02	90.00	-7.95	2,902.64	1,339.51	1,095.56	243.95	5.491	
7,100.00	5,650.00	5,657.00	5,657.00	28.47	220.02	90.00	-7.95	2,902.64	1,259.30	1,014.63	244.68	5.147	
7,200.00	5,650.00	5,657.00	5,657.00	29.25	220.02	90.00	-7.95	2,902.64	1,182.12	936.58	245.54	4.814	
7,300.00	5,650.00	5,657.00	5,657.00	30.06	220.02	90.00	-7.95	2,902.64	1,108.59	862.05	246.54	4.497	
7,400.00	5,650.00	5,657.00	5,657.00	30.88	220.02	90.00	-7.95	2,902.64	1,039.49	791.79	247.70	4.197	
7,500.00	5,650.00	5,657.00	5,657.00	31.73	220.02	90.00	-7.95	2,902.64	975.75	726.74	249.01	3.919	
7,600.00	5,650.00	5,657.00	5,657.00	32.59	220.02	90.00	-7.95	2,902.64	918.51	668.05	250.45	3.667	
7,700.00	5,650.00	5,657.00	5,657.00	33.47	220.02	90.00	-7.95	2,902.64	869.03	617.05	251.99	3.449	
7,800.00	5,650.00	5,657.00	5,657.00	34.36	220.02	90.00	-7.95	2,902.64	828.72	575.19	253.53	3.269	
7,900.00	5,650.00	5,657.00	5,657.00	35.26	220.02	90.00	-7.95	2,902.64	798.96	543.99	254.97	3.134	
8,000.00	5,650.00	5,657.00	5,657.00	36.18	220.02	90.00	-7.95	2,902.64	780.96	524.78	256.18	3.049	
8,092.19	5,650.00	5,657.00	5,657.00	37.04	220.02	90.00	-7.95	2,902.64	775.50	518.51	256.99	3.018 CC	
8,100.00	5,650.00	5,657.00	5,657.00	37.11	220.02	90.00	-7.95	2,902.64	775.54	518.50	257.04	3.017 ES, SF	
8,200.00	5,650.00	5,657.00	5,657.00	38.05	220.02	90.00	-7.95	2,902.64	782.96	525.47	257.49	3.041	
8,300.00	5,650.00	5,657.00	5,657.00	39.00	220.02	90.00	-7.95	2,902.64	802.86	545.34	257.52	3.118	
8,400.00	5,650.00	5,657.00	5,657.00	39.96	220.02	90.00	-7.95	2,902.64	834.36	577.17	257.19	3.244	
8,500.00	5,650.00	5,657.00	5,657.00	40.93	220.02	90.00	-7.95	2,902.64	876.19	619.60	256.59	3.415	
8,600.00	5,650.00	5,657.00	5,657.00	41.90	220.02	90.00	-7.95	2,902.64	926.97	671.15	255.82	3.624	
8,700.00	5,650.00	5,657.00	5,657.00	42.89	220.02	90.00	-7.95	2,902.64	985.31	730.35	254.96	3.865	
8,800.00	5,650.00	5,657.00	5,657.00	43.88	220.02	90.00	-7.95	2,902.64	1,049.95	795.86	254.09	4.132	
8,900.00	5,650.00	5,657.00	5,657.00	44.87	220.02	90.00	-7.95	2,902.64	1,119.80	866.57	253.24	4.422	
9,000.00	5,650.00	5,657.00	5,657.00	45.88	220.02	90.00	-7.95	2,902.64	1,193.95	941.52	252.43	4.730	
9,100.00	5,650.00	5,657.00	5,657.00	46.88	220.02	90.00	-7.95	2,902.64	1,271.65	1,019.95	251.69	5.052	
9,200.00	5,650.00	5,657.00	5,657.00	47.90	220.02	90.00	-7.95	2,902.64	1,352.27	1,101.26	251.02	5.387	
9,300.00	5,650.00	5,657.00	5,657.00	48.92	220.02	90.00	-7.95	2,902.64	1,435.34	1,184.94	250.40	5.732	
9,400.00	5,650.00	5,657.00	5,657.00	49.94	220.02	90.00	-7.95	2,902.64	1,520.45	1,270.60	249.85	6.085	
9,500.00	5,650.00	5,657.00	5,657.00	50.97	220.02	90.00	-7.95	2,902.64	1,607.28	1,357.91	249.36	6.446	
9,600.00	5,650.00	5,657.00	5,657.00	52.00	220.02	90.00	-7.95	2,902.64	1,695.55	1,446.63	248.92	6.812	
9,700.00	5,650.00	5,657.00	5,657.00	53.03	220.02	90.00	-7.95	2,902.64	1,785.06	1,536.54	248.53	7.183	
9,800.00	5,650.00	5,657.00	5,657.00	54.07	220.02	90.00	-7.95	2,902.64	1,875.64	1,627.46	248.18	7.558	
9,900.00	5,650.00	5,657.00	5,657.00	55.12	220.02	90.00	-7.95	2,902.64	1,967.12	1,719.26	247.86	7.936	
10,000.00	5,650.00	5,657.00	5,657.00	56.16	220.02	90.00	-7.95	2,902.64	2,059.40	1,811.82	247.58	8.318	
10,100.00	5,650.00	5,657.00	5,657.00	57.21	220.02	90.00	-7.95	2,902.64	2,152.37	1,905.04	247.33	8.702	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - W D MCINTYRE A #7 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft	
Survey Program:		300-UNKNOWN				Rule Assigned:								Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance			Warning						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
10,200.00	5,650.00	5,657.00	5,657.00	58.26	220.02	90.00	-7.95	2,902.64	2,245.94	1,998.84	247.11	9.089			
10,300.00	5,650.00	5,657.00	5,657.00	59.32	220.02	90.00	-7.95	2,902.64	2,340.05	2,093.14	246.91	9.478			
10,400.00	5,650.00	5,657.00	5,657.00	60.38	220.02	90.00	-7.95	2,902.64	2,434.62	2,187.90	246.73	9.868			
10,500.00	5,650.00	5,657.00	5,657.00	61.44	220.02	90.00	-7.95	2,902.64	2,529.62	2,283.05	246.57	10.259			
10,600.00	5,650.00	5,657.00	5,657.00	62.50	220.02	90.00	-7.95	2,902.64	2,624.98	2,378.56	246.42	10.652			
10,700.00	5,650.00	5,657.00	5,657.00	63.56	220.02	90.00	-7.95	2,902.64	2,720.68	2,474.38	246.30	11.046			
10,800.00	5,650.00	5,657.00	5,657.00	64.63	220.02	90.00	-7.95	2,902.64	2,816.67	2,570.49	246.18	11.441			
10,900.00	5,650.00	5,657.00	5,657.00	65.70	220.02	90.00	-7.95	2,902.64	2,912.94	2,666.85	246.08	11.837			
11,000.00	5,650.00	5,657.00	5,657.00	66.77	220.02	90.00	-7.95	2,902.64	3,009.45	2,763.45	245.99	12.234			
11,100.00	5,650.00	5,657.00	5,657.00	67.84	220.02	90.00	-7.95	2,902.64	3,106.18	2,860.26	245.91	12.631			
11,200.00	5,650.00	5,657.00	5,657.00	68.92	220.02	90.00	-7.95	2,902.64	3,203.11	2,957.26	245.85	13.029			
11,299.98	5,650.00	5,657.00	5,657.00	69.99	220.02	90.00	-7.95	2,902.64	3,300.20	3,054.41	245.79	13.427			
11,358.47	5,650.00	5,657.00	5,657.00	70.43	220.02	90.00	-7.95	2,902.64	3,357.08	3,108.85	248.23	13.524			

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - W.D. MCINTYRE C #8 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 245-INC-ONLY													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance Between Centres (usft)		Minimum Separation (usft)	Separation Factor	Warning	
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
6,500.00	5,650.00	5,696.91	5,696.22	24.33	142.96	-90.45	2,640.64	5,862.09	4,925.51	4,762.01	163.51	30.124		
6,600.00	5,650.00	5,696.91	5,696.22	24.94	142.96	-90.47	2,640.64	5,862.09	4,833.19	4,669.60	163.60	29.543		
6,700.00	5,650.00	5,696.91	5,696.22	25.59	142.96	-90.47	2,640.64	5,862.09	4,741.10	4,577.39	163.71	28.961		
6,800.00	5,650.00	5,696.91	5,696.22	26.26	142.96	-90.47	2,640.64	5,862.09	4,649.33	4,485.49	163.83	28.378		
6,900.00	5,650.00	5,696.90	5,696.21	26.97	142.96	-90.47	2,640.64	5,862.09	4,557.90	4,393.92	163.98	27.795		
7,000.00	5,650.00	5,696.90	5,696.21	27.71	142.96	-90.47	2,640.64	5,862.09	4,466.84	4,302.69	164.15	27.211		
7,100.00	5,650.00	5,696.90	5,696.21	28.47	142.96	-90.47	2,640.64	5,862.09	4,376.18	4,211.83	164.35	26.627		
7,200.00	5,650.00	5,696.90	5,696.21	29.25	142.96	-90.47	2,640.64	5,862.09	4,285.93	4,121.35	164.57	26.043		
7,300.00	5,650.00	5,696.89	5,696.20	30.06	142.96	-90.47	2,640.64	5,862.09	4,196.12	4,031.29	164.82	25.458		
7,400.00	5,650.00	5,696.89	5,696.20	30.88	142.96	-90.47	2,640.64	5,862.09	4,106.78	3,941.67	165.11	24.873		
7,500.00	5,650.00	5,696.89	5,696.20	31.73	142.96	-90.47	2,640.64	5,862.09	4,017.94	3,852.52	165.42	24.289		
7,600.00	5,650.00	5,696.89	5,696.20	32.59	142.96	-90.47	2,640.64	5,862.09	3,929.64	3,763.87	165.78	23.705		
7,700.00	5,650.00	5,696.88	5,696.19	33.47	142.96	-90.47	2,640.64	5,862.09	3,841.92	3,675.75	166.17	23.121		
7,800.00	5,650.00	5,696.88	5,696.19	34.36	142.96	-90.47	2,640.64	5,862.09	3,754.81	3,588.21	166.60	22.538		
7,900.00	5,650.00	5,696.88	5,696.19	35.26	142.96	-90.47	2,640.64	5,862.09	3,668.35	3,501.28	167.07	21.956		
8,000.00	5,650.00	5,696.88	5,696.19	36.18	142.96	-90.47	2,640.64	5,862.09	3,582.60	3,415.00	167.60	21.376		
8,100.00	5,650.00	5,696.87	5,696.18	37.11	142.96	-90.47	2,640.64	5,862.09	3,497.61	3,329.44	168.17	20.798		
8,200.00	5,650.00	5,696.87	5,696.18	38.05	142.96	-90.47	2,640.64	5,862.09	3,413.43	3,244.63	168.80	20.222		
8,300.00	5,650.00	5,696.87	5,696.18	39.00	142.96	-90.47	2,640.64	5,862.09	3,330.12	3,160.65	169.48	19.649		
8,400.00	5,650.00	5,696.87	5,696.18	39.96	142.96	-90.47	2,640.64	5,862.09	3,247.76	3,077.55	170.22	19.080		
8,500.00	5,650.00	5,696.86	5,696.18	40.93	142.96	-90.47	2,640.64	5,862.09	3,166.42	2,995.40	171.02	18.515		
8,600.00	5,650.00	5,696.86	5,696.17	41.90	142.95	-90.47	2,640.64	5,862.09	3,086.17	2,914.28	171.89	17.955		
8,700.00	5,650.00	5,696.86	5,696.17	42.89	142.95	-90.47	2,640.64	5,862.09	3,007.10	2,834.28	172.82	17.400		
8,800.00	5,650.00	5,696.86	5,696.17	43.88	142.95	-90.47	2,640.64	5,862.09	2,929.32	2,755.49	173.83	16.852		
8,900.00	5,650.00	5,696.85	5,696.17	44.87	142.95	-90.47	2,640.64	5,862.09	2,852.92	2,678.01	174.91	16.311		
9,000.00	5,650.00	5,696.85	5,696.16	45.88	142.95	-90.47	2,640.64	5,862.09	2,778.01	2,601.95	176.06	15.778		
9,100.00	5,650.00	5,696.85	5,696.16	46.88	142.95	-90.47	2,640.64	5,862.09	2,704.74	2,527.44	177.30	15.255		
9,200.00	5,650.00	5,696.85	5,696.16	47.90	142.95	-90.47	2,640.64	5,862.09	2,633.22	2,454.61	178.61	14.743		
9,300.00	5,650.00	5,696.85	5,696.16	48.92	142.95	-90.47	2,640.64	5,862.09	2,563.60	2,383.60	180.00	14.242		
9,400.00	5,650.00	5,696.84	5,696.15	49.94	142.95	-90.47	2,640.64	5,862.09	2,496.06	2,314.58	181.48	13.754		
9,500.00	5,650.00	5,696.84	5,696.15	50.97	142.95	-90.47	2,640.64	5,862.09	2,430.75	2,247.72	183.03	13.281		
9,600.00	5,650.00	5,696.84	5,696.15	52.00	142.95	-90.47	2,640.64	5,862.09	2,367.86	2,183.20	184.65	12.823		
9,700.00	5,650.00	5,696.84	5,696.15	53.03	142.95	-90.47	2,640.64	5,862.09	2,307.59	2,121.24	186.36	12.383		
9,800.00	5,650.00	5,696.83	5,696.14	54.07	142.95	-90.47	2,640.64	5,862.09	2,250.16	2,062.04	188.12	11.961		
9,900.00	5,650.00	5,696.83	5,696.14	55.12	142.95	-90.47	2,640.64	5,862.09	2,195.78	2,005.83	189.95	11.560		
10,000.00	5,650.00	5,696.83	5,696.14	56.16	142.95	-90.47	2,640.64	5,862.09	2,144.69	1,952.86	191.83	11.180		
10,100.00	5,650.00	5,696.83	5,696.14	57.21	142.95	-90.46	2,640.64	5,862.09	2,097.12	1,903.38	193.74	10.824		
10,200.00	5,650.00	5,696.82	5,696.13	58.26	142.95	-90.46	2,640.64	5,862.09	2,053.33	1,857.65	195.68	10.493		
10,300.00	5,650.00	5,696.82	5,696.13	59.32	142.95	-90.46	2,640.64	5,862.09	2,013.55	1,815.93	197.62	10.189		
10,400.00	5,650.00	5,696.82	5,696.13	60.38	142.95	-90.46	2,640.64	5,862.09	1,978.04	1,778.48	199.55	9.912		
10,500.00	5,650.00	5,696.82	5,696.13	61.44	142.95	-90.46	2,640.64	5,862.09	1,947.01	1,745.57	201.44	9.665		
10,600.00	5,650.00	5,696.81	5,696.12	62.50	142.95	-90.46	2,640.64	5,862.09	1,920.70	1,717.42	203.28	9.449		
10,700.00	5,650.00	5,696.81	5,696.12	63.56	142.95	-90.46	2,640.64	5,862.09	1,899.30	1,694.27	205.03	9.264		
10,800.00	5,650.00	5,696.81	5,696.12	64.63	142.95	-90.46	2,640.64	5,862.09	1,882.96	1,676.29	206.67	9.111		
10,900.00	5,650.00	5,696.81	5,696.12	65.70	142.95	-90.46	2,640.64	5,862.09	1,871.84	1,663.65	208.19	8.991		
11,000.00	5,650.00	5,696.80	5,696.11	66.77	142.95	-90.46	2,640.64	5,862.09	1,866.02	1,656.46	209.55	8.905		
11,058.84	5,650.00	5,696.80	5,696.11	67.40	142.95	-90.46	2,640.64	5,862.09	1,865.09	1,654.81	210.28	8.869 CC		
11,100.00	5,650.00	5,696.80	5,696.11	67.84	142.95	-90.46	2,640.64	5,862.09	1,865.54	1,654.78	210.76	8.852 ES		
11,200.00	5,650.00	5,696.80	5,696.11	68.92	142.95	-90.46	2,640.64	5,862.09	1,870.42	1,658.63	211.79	8.831 SF		
11,299.98	5,650.00	5,696.80	5,696.11	69.99	142.95	-90.46	2,640.64	5,862.09	1,880.61	1,667.97	212.64	8.844		
11,358.47	5,650.00	5,696.80	5,696.11	70.43	142.95	-90.46	2,640.64	5,862.09	1,889.01	1,676.10	212.91	8.872		

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design: OCHO_TESORO OFFSETS - W.D. MCINTYRE C #9 - Wellbore #1 - Wellbore #1													Offset Site Error:
Survey Program: 236-INC-ONLY													0.00 usft
Rule Assigned:													Offset Well Error:
0.00 usft													
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,100.00	5,635.72	5,720.16	5,719.80	22.29	123.04	-74.08	3,297.66	5,199.39	4,967.16	4,823.72	143.44	34.629	
6,200.00	5,649.31	5,738.48	5,738.11	22.76	123.58	-87.34	3,297.27	5,199.39	4,887.62	4,743.51	144.11	33.917	
6,300.00	5,650.00	5,739.68	5,739.31	23.24	123.61	-91.13	3,297.24	5,199.39	4,807.57	4,663.30	144.27	33.323	
6,400.00	5,650.00	5,739.87	5,739.49	23.77	123.62	-91.20	3,297.24	5,199.39	4,726.26	4,581.83	144.43	32.723	
6,500.00	5,650.00	5,739.95	5,739.57	24.33	123.62	-91.26	3,297.24	5,199.39	4,643.65	4,499.03	144.62	32.110	
6,600.00	5,650.00	5,739.95	5,739.57	24.94	123.62	-91.28	3,297.24	5,199.39	4,560.16	4,415.34	144.83	31.487	
6,700.00	5,650.00	5,739.94	5,739.56	25.59	123.62	-91.28	3,297.24	5,199.39	4,477.22	4,332.15	145.07	30.863	
6,800.00	5,650.00	5,739.93	5,739.56	26.26	123.62	-91.28	3,297.24	5,199.39	4,394.99	4,249.64	145.34	30.239	
6,900.00	5,650.00	5,739.92	5,739.55	26.97	123.62	-91.28	3,297.24	5,199.39	4,313.51	4,167.85	145.66	29.614	
7,000.00	5,650.00	5,739.92	5,739.54	27.71	123.62	-91.28	3,297.24	5,199.39	4,232.82	4,086.81	146.01	28.990	
7,100.00	5,650.00	5,739.91	5,739.53	28.47	123.62	-91.28	3,297.24	5,199.39	4,152.97	4,006.56	146.41	28.365	
7,200.00	5,650.00	5,739.90	5,739.52	29.25	123.62	-91.28	3,297.24	5,199.39	4,074.01	3,927.16	146.85	27.742	
7,300.00	5,650.00	5,739.89	5,739.52	30.06	123.62	-91.28	3,297.24	5,199.39	3,996.00	3,848.65	147.34	27.120	
7,400.00	5,650.00	5,739.88	5,739.51	30.88	123.62	-91.28	3,297.24	5,199.39	3,918.98	3,771.10	147.88	26.501	
7,500.00	5,650.00	5,739.88	5,739.50	31.73	123.62	-91.28	3,297.24	5,199.39	3,843.02	3,694.55	148.47	25.884	
7,600.00	5,650.00	5,739.87	5,739.49	32.59	123.62	-91.28	3,297.24	5,199.39	3,768.19	3,619.07	149.11	25.271	
7,700.00	5,650.00	5,739.86	5,739.48	33.47	123.62	-91.28	3,297.24	5,199.39	3,694.54	3,544.73	149.81	24.662	
7,800.00	5,650.00	5,739.85	5,739.48	34.36	123.62	-91.28	3,297.24	5,199.39	3,622.16	3,471.60	150.56	24.058	
7,900.00	5,650.00	5,739.84	5,739.47	35.26	123.62	-91.28	3,297.24	5,199.39	3,551.12	3,399.76	151.37	23.460	
8,000.00	5,650.00	5,739.83	5,739.46	36.18	123.62	-91.28	3,297.24	5,199.39	3,481.51	3,329.28	152.23	22.870	
8,100.00	5,650.00	5,739.83	5,739.45	37.11	123.62	-91.28	3,297.24	5,199.39	3,413.40	3,260.25	153.15	22.288	
8,200.00	5,650.00	5,739.82	5,739.44	38.05	123.62	-91.28	3,297.24	5,199.39	3,346.90	3,192.77	154.13	21.714	
8,300.00	5,650.00	5,739.81	5,739.44	39.00	123.62	-91.28	3,297.24	5,199.39	3,282.09	3,126.93	155.17	21.152	
8,400.00	5,650.00	5,739.80	5,739.43	39.96	123.62	-91.28	3,297.24	5,199.39	3,219.09	3,062.83	156.26	20.601	
8,500.00	5,650.00	5,739.79	5,739.42	40.93	123.62	-91.28	3,297.24	5,199.39	3,158.00	3,000.59	157.41	20.062	
8,600.00	5,650.00	5,739.79	5,739.41	41.90	123.62	-91.28	3,297.24	5,199.39	3,098.93	2,940.32	158.61	19.538	
8,700.00	5,650.00	5,739.78	5,739.40	42.89	123.62	-91.28	3,297.24	5,199.39	3,042.01	2,882.14	159.87	19.028	
8,800.00	5,650.00	5,739.77	5,739.40	43.88	123.62	-91.28	3,297.24	5,199.39	2,987.34	2,826.17	161.17	18.535	
8,900.00	5,650.00	5,739.76	5,739.39	44.87	123.62	-91.28	3,297.24	5,199.39	2,935.07	2,772.54	162.53	18.059	
9,000.00	5,650.00	5,739.75	5,739.38	45.88	123.61	-91.28	3,297.24	5,199.39	2,885.32	2,721.40	163.92	17.602	
9,100.00	5,650.00	5,739.75	5,739.37	46.88	123.61	-91.28	3,297.24	5,199.39	2,838.22	2,672.87	165.35	17.165	
9,200.00	5,650.00	5,739.74	5,739.36	47.90	123.61	-91.28	3,297.24	5,199.39	2,793.90	2,627.09	166.81	16.749	
9,300.00	5,650.00	5,739.73	5,739.36	48.92	123.61	-91.28	3,297.24	5,199.39	2,752.51	2,584.21	168.30	16.355	
9,400.00	5,650.00	5,739.72	5,739.35	49.94	123.61	-91.28	3,297.24	5,199.39	2,714.17	2,544.37	169.80	15.985	
9,500.00	5,650.00	5,739.71	5,739.34	50.97	123.61	-91.28	3,297.24	5,199.39	2,679.02	2,507.70	171.31	15.638	
9,600.00	5,650.00	5,739.71	5,739.33	52.00	123.61	-91.28	3,297.24	5,199.39	2,647.18	2,474.35	172.83	15.317	
9,700.00	5,650.00	5,739.70	5,739.32	53.03	123.61	-91.28	3,297.24	5,199.39	2,618.77	2,444.44	174.33	15.022	
9,800.00	5,650.00	5,739.69	5,739.32	54.07	123.61	-91.28	3,297.24	5,199.39	2,593.91	2,418.09	175.82	14.753	
9,900.00	5,650.00	5,739.68	5,739.31	55.12	123.61	-91.28	3,297.24	5,199.39	2,572.70	2,395.42	177.28	14.512	
10,000.00	5,650.00	5,739.67	5,739.30	56.16	123.61	-91.28	3,297.24	5,199.39	2,555.23	2,376.52	178.71	14.298	
10,100.00	5,650.00	5,739.67	5,739.29	57.21	123.61	-91.28	3,297.24	5,199.39	2,541.58	2,361.49	180.08	14.113	
10,200.00	5,650.00	5,739.66	5,739.28	58.26	123.61	-91.28	3,297.24	5,199.39	2,531.80	2,350.40	181.40	13.957	
10,300.00	5,650.00	5,739.65	5,739.27	59.32	123.61	-91.28	3,297.24	5,199.39	2,525.96	2,343.30	182.66	13.829	
10,397.92	5,650.00	5,739.64	5,739.27	60.35	123.61	-91.28	3,297.24	5,199.39	2,524.06	2,340.24	183.82	13.731 CC	
10,400.00	5,650.00	5,739.64	5,739.27	60.38	123.61	-91.28	3,297.24	5,199.39	2,524.06	2,340.22	183.84	13.730 ES	
10,500.00	5,650.00	5,739.63	5,739.26	61.44	123.61	-91.28	3,297.24	5,199.39	2,526.12	2,341.18	184.94	13.659	
10,600.00	5,650.00	5,739.63	5,739.25	62.50	123.61	-91.28	3,297.24	5,199.39	2,532.13	2,346.17	185.96	13.616	
10,700.00	5,650.00	5,739.62	5,739.24	63.56	123.61	-91.28	3,297.24	5,199.39	2,542.07	2,355.18	186.89	13.602 SF	
10,800.00	5,650.00	5,739.61	5,739.23	64.63	123.61	-91.28	3,297.24	5,199.39	2,555.88	2,368.15	187.73	13.615	
10,900.00	5,650.00	5,739.60	5,739.23	65.70	123.61	-91.28	3,297.24	5,199.39	2,573.51	2,385.03	188.47	13.654	
11,000.00	5,650.00	5,739.59	5,739.22	66.77	123.61	-91.28	3,297.24	5,199.39	2,594.87	2,405.75	189.13	13.720	
11,100.00	5,650.00	5,739.59	5,739.21	67.84	123.61	-91.28	3,297.24	5,199.39	2,619.88	2,430.19	189.69	13.812	

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

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Offset Design:OCHO_TESORO OFFSETS - W.D. MCINTYRE C #9 - Wellbore #1 - Wellbore #1													Offset Site Error:	0.00 usft
Survey Program: 236-INC-ONLY													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
11,200.00	5,650.00	5,739.58	5,739.20	68.92	123.61	-91.28	3,297.24	5,199.39	2,648.43	2,458.27	190.16	13.928		
11,299.98	5,650.00	5,739.57	5,739.19	69.99	123.61	-91.28	3,297.24	5,199.39	2,680.40	2,489.86	190.54	14.067		
11,358.47	5,650.00	5,739.56	5,739.19	70.43	123.61	-91.28	3,297.24	5,199.39	2,700.65	2,509.90	190.75	14.158		

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	Local Co-ordinate Reference:	Well 70H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Reference Site:	OCHO 20 FEDERAL COM	MD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	70H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM 5000.17 Single User Db
Reference Design:	PERMIT	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB = 20' @ 3643.00usft (AKITA 57) Coordinates are relative to: 70H

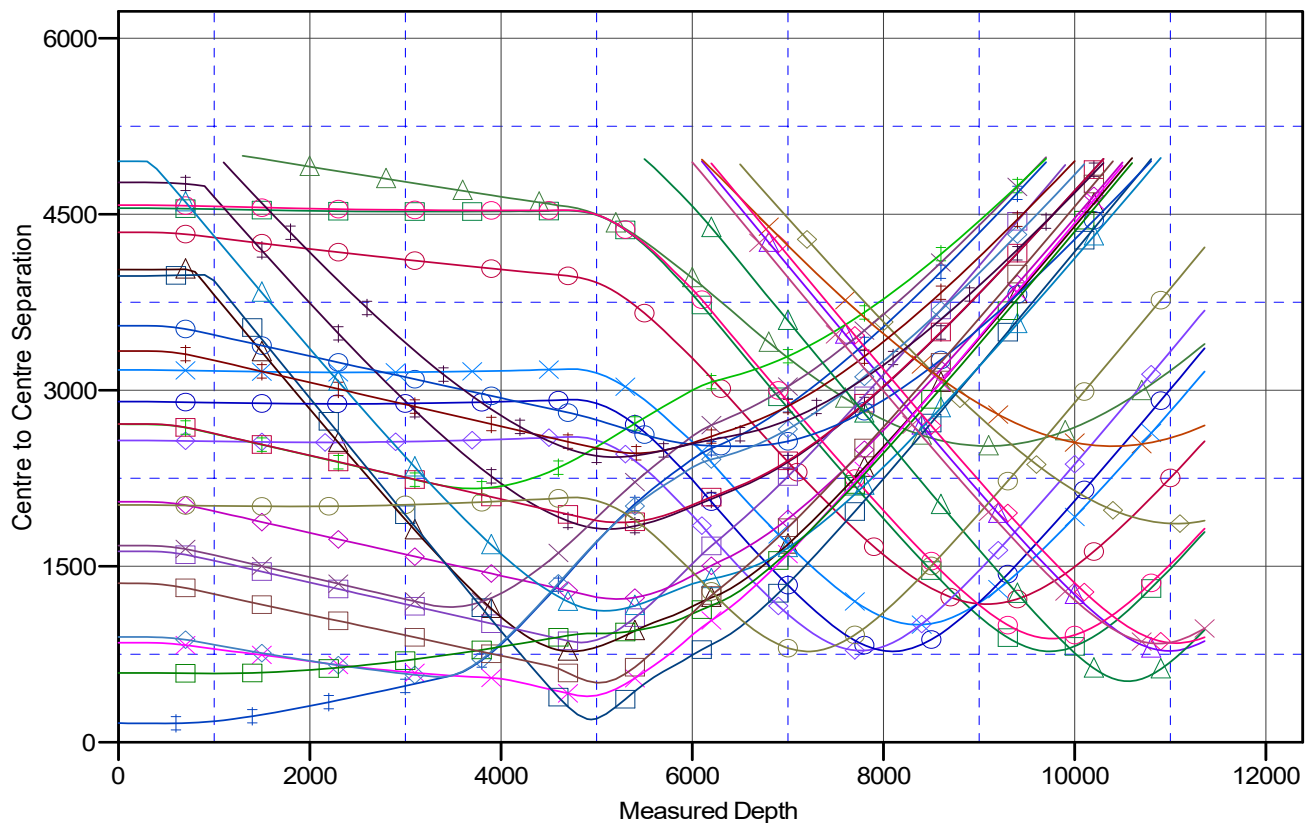
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Central Meridian is -104.33334

Grid Convergence at Surface is: 0.18°

Ladder Plot



LEGEND

MCINTIRE A#8, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #242, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #964H, Wellbore #1, Wellbore #1 V0
THUNDER ROAD FEDERAL #8, Wellbore #1, Wellbore #1 V0	BURCH-FEDERAL A #6, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #225, Wellbore #1, Wellbore #1 V0
MCINTYRE E#8, Wellbore #1, Wellbore #1 V0	BURCH-FEDERAL A #10, Wellbore #1, Wellbore #1 V0	MCINTYRE AFEDERAL #14, Wellbore #1, Wellbore #1 V0
MCINTYRE EFEDERAL #5, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #361, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #270, Wellbore #1, Wellbore #1 V0
BURCH KEELY UNIT #192H, Wellbore #1, Wellbore #1 V0	MCINTYRE A#17, Wellbore #1, Wellbore #1 V0	MCINTYRE B#9, Wellbore #1, Wellbore #1 V0
THUNDER ROAD FEDERAL #7, Wellbore #1, Wellbore #1 V0	W.D. MCINTYRE C #8, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #962H, Wellbore #1, Wellbore #1 V0
BURCH KEELY UNIT 19 FEDERAL #196H, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #788, Wellbore #1, Wellbore #1 V0	MCINTYRE WD C #7, Wellbore #1, Wellbore #1 V0
MCINTYRE-FEDERAL A #4, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #968H, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #958H, Wellbore #1, Wellbore #1 V0
BURCH A #1, Wellbore #1, Wellbore #1 V0	JENKINS FEDERAL #18, Wellbore #1, Wellbore #1 V0	MCINTYRE AEAST FEDERAL #20, Wellbore #1, Wellbore #1 V0
W.D. MCINTYRE A #7, Wellbore #1, Wellbore #1 V0	BURCH-FEDERAL A #11, Wellbore #1, Wellbore #1 V0	
BURCH KEELY UNIT #656, Wellbore #1, Wellbore #1 V0	W.D. MCINTYRE C #9, Wellbore #1, Wellbore #1 V0	

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

Anticollision Report

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Project:	EDDY COUNTY, NM (NAD 83 - NME)	TVD Reference:	RKB = 20' @ 3643.00usft (AKITA 57)
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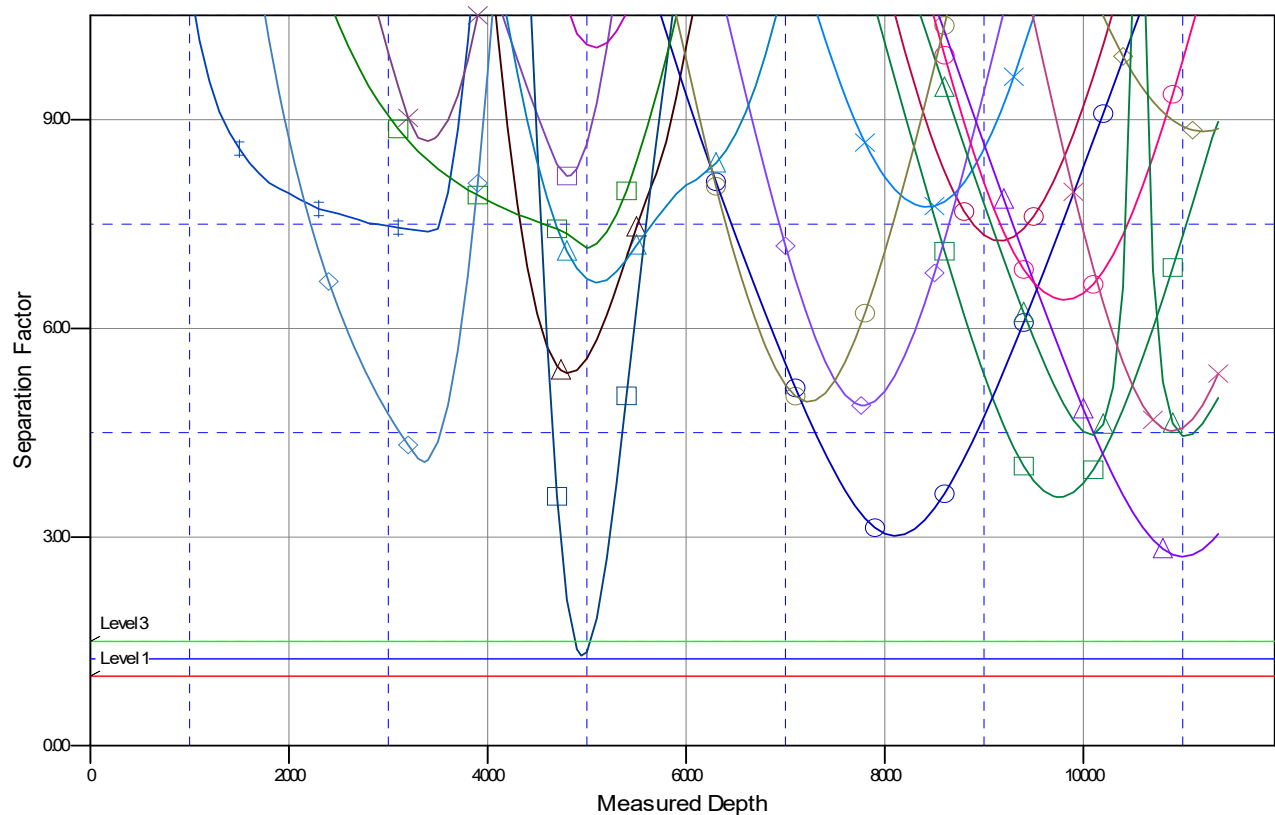
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Central Meridian is -104.33334

Grid Convergence at Surface is: 0.18°

Separation Factor Plot



LEGEND

MCINTYRE A#8, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #242, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #664H, Wellbore #1, Wellbore #1 V0
THUNDER ROAD FEDERAL #8, Wellbore #1, Wellbore #1 V0	BURCH-FEDERAL A #6, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #225, Wellbore #1, Wellbore #1 V0
MCINTYRE E#8, Wellbore #1, Wellbore #1 V0	BURCH-FEDERAL A #10, Wellbore #1, Wellbore #1 V0	MCINTYRE A#FEDERAL #14, Wellbore #1, Wellbore #1 V0
MCINTYRE E#FEDERAL #5, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #361, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #270, Wellbore #1, Wellbore #1 V0
BURCH KEELY UNIT #192H, Wellbore #1, Wellbore #1 V0	MCINTYRE A#17, Wellbore #1, Wellbore #1 V0	MCINTYRE B#9, Wellbore #1, Wellbore #1 V0
THUNDER ROAD FEDERAL #7, Wellbore #1, Wellbore #1 V0	W.D. MCINTYRE C #8, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #662H, Wellbore #1, Wellbore #1 V0
BURCH KEELY UNIT 19 FEDERAL #196H, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #788, Wellbore #1, Wellbore #1 V0	MCINTYRE WD C #7, Wellbore #1, Wellbore #1 V0
MCINTYRE-FEDERAL A #4, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #989H, Wellbore #1, Wellbore #1 V0	BURCH KEELY UNIT #955H, Wellbore #1, Wellbore #1 V0
BURCH A #81, Wellbore #1, Wellbore #1 V0	JENKINS FEDERAL #18, Wellbore #1, Wellbore #1 V0	MCINTYRE AEAST FEDERAL #20, Wellbore #1, Wellbore #1 V0
W.D. MCINTYRE A #7, Wellbore #1, Wellbore #1 V0	BURCH-FEDERAL A #11, Wellbore #1, Wellbore #1 V0	
BURCH KEELY UNIT #656, Wellbore #1, Wellbore #1 V0	W.D. MCINTYRE C #9, Wellbore #1, Wellbore #1 V0	

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

Pecos District

Application for Permit to Drill

Conditions of Approval

Geology Concerns

Potash	☒ None	☐ Secretary	☐ R-111-P
Cave/Karst	☐ Medium	☐ High	☐ Critical
H2S	☐ None	☐ Below 100 PPM	☒ Above 100 PPM
Other	☐ 4 String Area	☐ Capitan Reef	☐ SWD Well

Note: The geology of the area where the well is being drilled determines the COAs that apply, not the above table.

Additional Engineering Requirements

Surface casing must be set at: 370 feet

Intermediate casing must be set at: 1,485 feet

General Requirements

1. Changes to the approved APD casing program need prior approval.
2. The Bureau of Land Management (BLM) will be notified in advance for a representative to witness:
 - a. Well spudding (minimum of 24 hours notice)
 - b. Setting and/or cementing of all casing strings (minimum of 4 hours notice)
 - c. BOPE tests (minimum of 4 hours notice)

Eddy County

620 East Greene Street, Carlsbad, NM 88220

(575) 361-2822

BLM_NM_CFO_DrillingNotifications@BLM.GOV

Lea County

414 West Taylor, Hobbs, NM 88240

(575) 689-5981

3. The initial wellhead installed on the well will remain on the well with spools used as needed.
4. 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:
 - i. 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 a Spudder Rig:
 - i. Notify the BLM when moving in and removing the Spudder Rig.
 - ii. 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.
 - iii. BOP/BOPE test to be conducted per 43 CFR 3172.6 as soon as 2nd Rig is rigged up on well.
5. Floor controls are required for 3M or greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller, and will always be operational during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table or the area immediately above the substructure on which the draw works are located (this does not include the doghouse or stairway area).
6. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

Pressure Control

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR 3172.6 and API STD 53 Sec. 5.3.
2. 5M or higher systems require 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.
3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. 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.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. 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.

- d. 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.
 - e. 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 43 CFR 3172.6(b)(9).
 - f. 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).
 - g. 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.
 - h. The tests shall be done by an independent service company utilizing a test plug, not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to 43 CFR 3172 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).
4. If the operator has proposed using a 5,000 (5M) Annular on a 10M BOP:
- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi.
5. 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. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.
 - 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.
6. If a variance is approved for break testing the BOPE, the following requirements apply:
- a. BOPE break testing is only approved for a BOP rated at 5M or less.
 - b. Approval is only for the intermediate hole sections, so long as those sections do not go deeper than the Bone Springs formation.
 - c. The Annular Preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.
 - d. A full BOP test shall be performed every 21 days (at a minimum).
 - e. A full BOP test is required prior to drilling the first intermediate hole section (if applicable). If any subsequent intermediate hole interval is deeper than the first, a full BOP test shall be required (a maximum 200 foot difference in true vertical depth (TVD) is allowed).
 - f. BOPE break testing is not permitted for drilling the production hole section.
 - g. While in transfer, the BOP shall be secured by the hydraulic carrier or cradle.
 - h. If any repairs or replacements of the BOPE is required, the BOPE shall be tested as required by 43 CFR 3172.
 - i. Pressure tests shall be performed on any BOPE components that have been disconnected. A low pressure (250-300 psi) and a high pressure (BOP max pressure rating) test are required.
 - j. If a testing plug is used, pressure shall be maintained for at least 10 minutes. If there is any bleed off in pressure, the test shall be considered to have failed.
 - k. If no testing plug is used, pressure shall be maintained for at least 30 minutes. If there is a decline in pressure of more than 10 percent, the test shall be considered to have failed.
 - l. The appropriate Bureau of Land Management (BLM) office shall be notified a minimum of 4 hours before testing occurs.
 - m. Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
 - n. If break testing is not used, then a full BOPE test shall be conducted.
7. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply:
- a. The flex line must meet the requirements of API 16C.

- b. Check condition of flexible line from BOP to choke manifold (replace if exterior is damaged or if line fails test).
- c. Line is to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements.
- d. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating.
- e. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, shall be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

Casing and Cement

1. 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.).
2. On any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. The 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.
3. 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.
4. The surface casing shall be set at a minimum of 25 feet into the Rustler Anhydrite and 80 feet above the salt and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of 8 hours (or 24 hours in the Potash Area) 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.

5. Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.
6. Intermediate casing must be cemented to surface. For medium/high cave/karst, potash, and Capitan Reef, wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
7. The production cement should tie-back at least 200 feet (500 feet in Secretary Potash, surface in R-111-P potash) into previous casing string. Operator shall provide method of verification.
8. Production liner cement should tie-back at least 100 feet into previous casing string. Operator shall provide verification of cement top.
9. In WIPP Areas, cement must come to surface on the first three casing strings.
10. If cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
11. No pea gravel permitted for remedial cement or fall back remedial cement without prior authorization from a BLM petroleum engineer.
12. 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.
13. DV tools:
 - a. First stage to DV tool (The DV tool may be cancelled if cement circulates to surface on the first stage):
 - i. 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:
 - i. For intermediate casing, cement to surface.
 - ii. For production casing, cement should tie-back at least 200 feet (500 feet in Secretary Potash, surface in R-111-P potash) into previous casing string. Operator shall provide method of verification.
 - iii. If cement does not circulate, contact the appropriate BLM office.

14. Potash Areas:

- a. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
- b. After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met:
 - i. Cement reaches a minimum compressive strength of 500 psi for all cement blends
 - ii. Until cement has been in place at least 24 hours.
- c. WOC time will be recorded in the driller's log.
- d. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.
- e. In R111 Potash Areas, if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing salt string must come to surface.
- f. In Secretary Potash Areas, if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

15. Wait on cement (WOC) for Water Basin:

- a. After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met:
 - i. Cement reaches a minimum compressive strength of 500 psi at the shoe
 - ii. Until cement has been in place at least 8 hours.
- b. WOC time will be recorded in the driller's log.

16. Medium/High/Critical Cave/Karst Areas:

- a. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
- b. In Critical Cave/Karst Areas cement must come to surface on the first three casing strings.
- c. In Medium and High Cave/Karst Areas, if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- d. In Critical Cave/Karst Areas, if cement does not circulate to surface on the first three casing strings, the cement on the 4th casing string must come to surface.

Drilling Mud

1. 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.

Waste Material and Fluids

1. 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.

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

Special Requirements

1. Communitization Agreement
 - a. The operator will submit a Communitization Agreement to the Santa Fe Office (301 Dinosaur Trail, Santa Fe, NM 87508), 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.
 - b. 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.
 - i. The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
 - ii. 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.
 - c. In addition, the well sign shall include the surface and bottom hole lease numbers.
 - i. When the Communitization Agreement number is known, it shall also be on the sign.
2. Unit Wells
 - a. The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers.
 - i. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.
 - b. Commercial Well Determination
 - i. A commercial well determination shall be submitted after production has been established for at least six months (this is not necessary for secondary recovery unit wells).
3. Hydrogen Sulfide (H₂S)
 - a. If H₂S is encountered, provide measured values and formations to the BLM.
 - b. An H₂S area must meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items.

- c. An H2S Drilling Plan shall be activated 500 feet prior to drilling into any formation designated as having H2S.
 - d. Hydrogen Sulfide 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 43 CFR 3176 requirements, which includes equipment and personnel/public protection items.
- 4. Capitan Reef
 - a. If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following (Use this for 3 string wells in the Capitan Reef, if it is a 4 string well ensure fresh water based mud is used across the Capitan interval):
 - i. Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
 - ii. Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports.
 - iii. The daily drilling report should show mud volume per shift/tour.
 - iv. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval.
 - v. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.
- 5. Salt Water Disposal Wells
 - a. The operator shall supply the BLM with a copy of a mudlog over the permitted disposal interval and estimated in situ water salinity based on open-hole logs.
 - b. If hydrocarbons are encountered while drilling, the operator shall notify the BLM.
 - c. The operator shall provide to the BLM a summary of formation depth picks based on mudlog and geophysical logs along with a copy of the mudlog and open-hole logs from total depth to top of Devonian.
 - d. An NOI sundry with the completion procedure for this well shall be submitted and approved prior to commencing completion work. The procedure will be reviewed to verify that the completion proposal will allow the operator to:
 - i. Properly evaluate the injection zone utilizing open-hole logs, swab testing and/or any other method to confirm that hydrocarbons cannot be produced in paying quantities. This evaluation shall be reviewed by the BLM prior to injection commencing.
 - ii. Restrict the injection fluid to the approved formation.
 - iii. If a step rate test will be run, an NOI sundry shall be submitted to the BLM for approval.

- e. If off-lease water will be disposed in this well, the operator shall provide proof of right-of-way approval.

6. WIPP Requirements

- a. If the proposed surface well or bottom hole is located within 330 feet of the WIPP Land Withdrawal Area boundary:
 - i. Daily drilling reports, logs, and deviation survey information are required to be submitted to the Bureau of Land Management Engineering Department and the U.S. Department of Energy (per requirements of the Joint Powers Agreement) until a total vertical depth of 7,000 feet is reached. These reports will have at a minimum the rate of penetration and a clearly marked section showing the deviation for each 500-foot interval. Operator may be required to do more frequent deviation surveys based on the daily information submitted and may be required to take other corrective measures.
 - ii. Information will also be provided to the New Mexico Oil Conservation Division after drilling activities have been completed.
 - iii. Upon completion of the well, the operator shall submit a complete directional survey.
 - iv. Any future entry into the well for purposes of completing additional drilling will require supplemental information.
- b. Required information shall be emailed to OilGasReports@wipp.ws.
 - i. Attached files must not be greater than 20 MB.
 - ii. Call WIPP Tech Support at 575-234-7422, during the hours of 7:00am to 4:30pm, if there are any issues sending to this address.



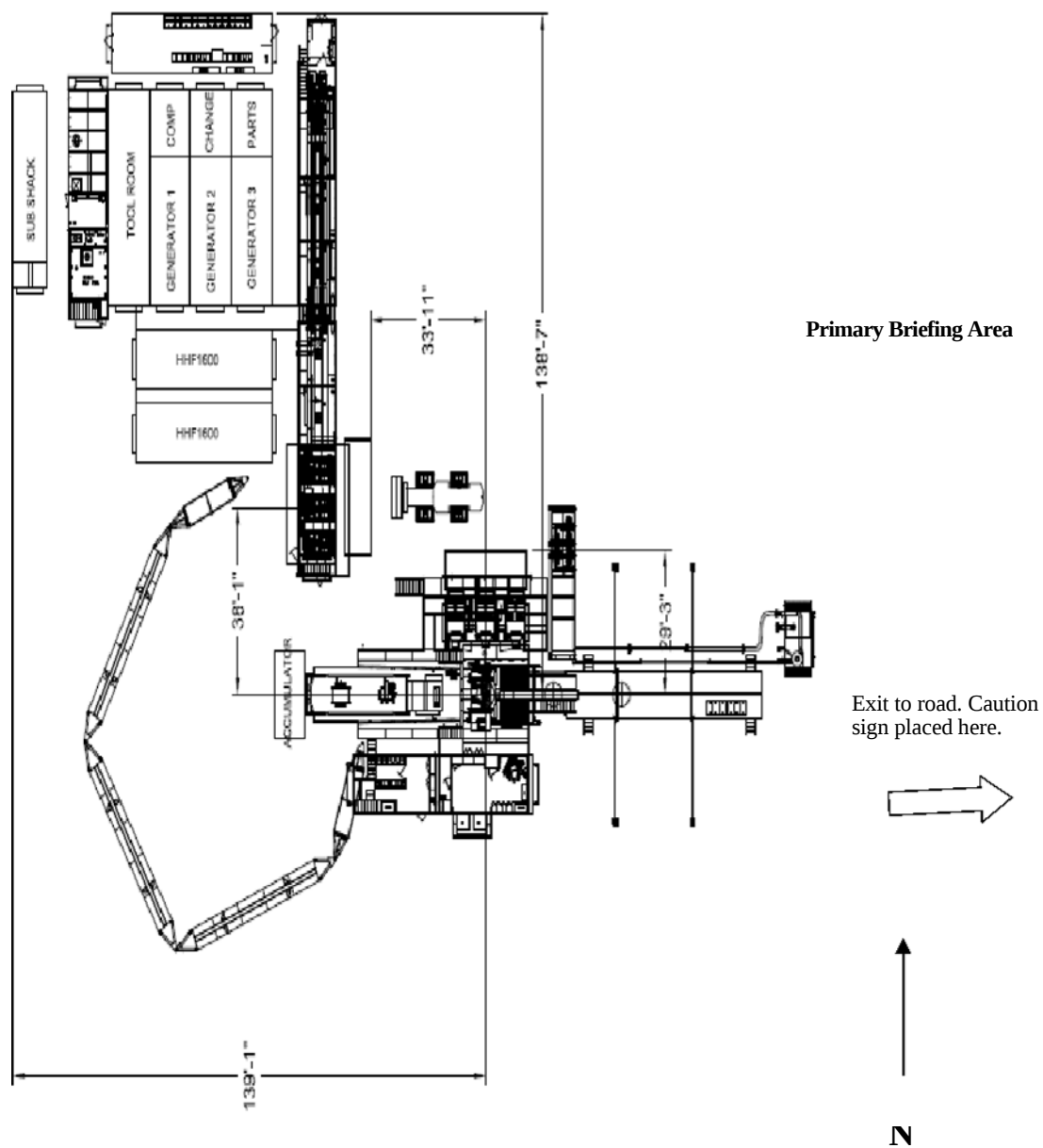
Permian Drilling Hydrogen Sulfide Drilling Operations Plan Ocho 20 Federal Com 70H Development

Open drill site. No homes or buildings are near the proposed location.

1. Escape

Personnel shall escape upwind of wellbore in the event of an emergency gas release. Escape can take place through the lease road on the Southeast side of the location. Personnel need to move to a safe distance and block the entrance to location. If the primary route is not an option due to the wind direction, then a secondary egress route should be taken.

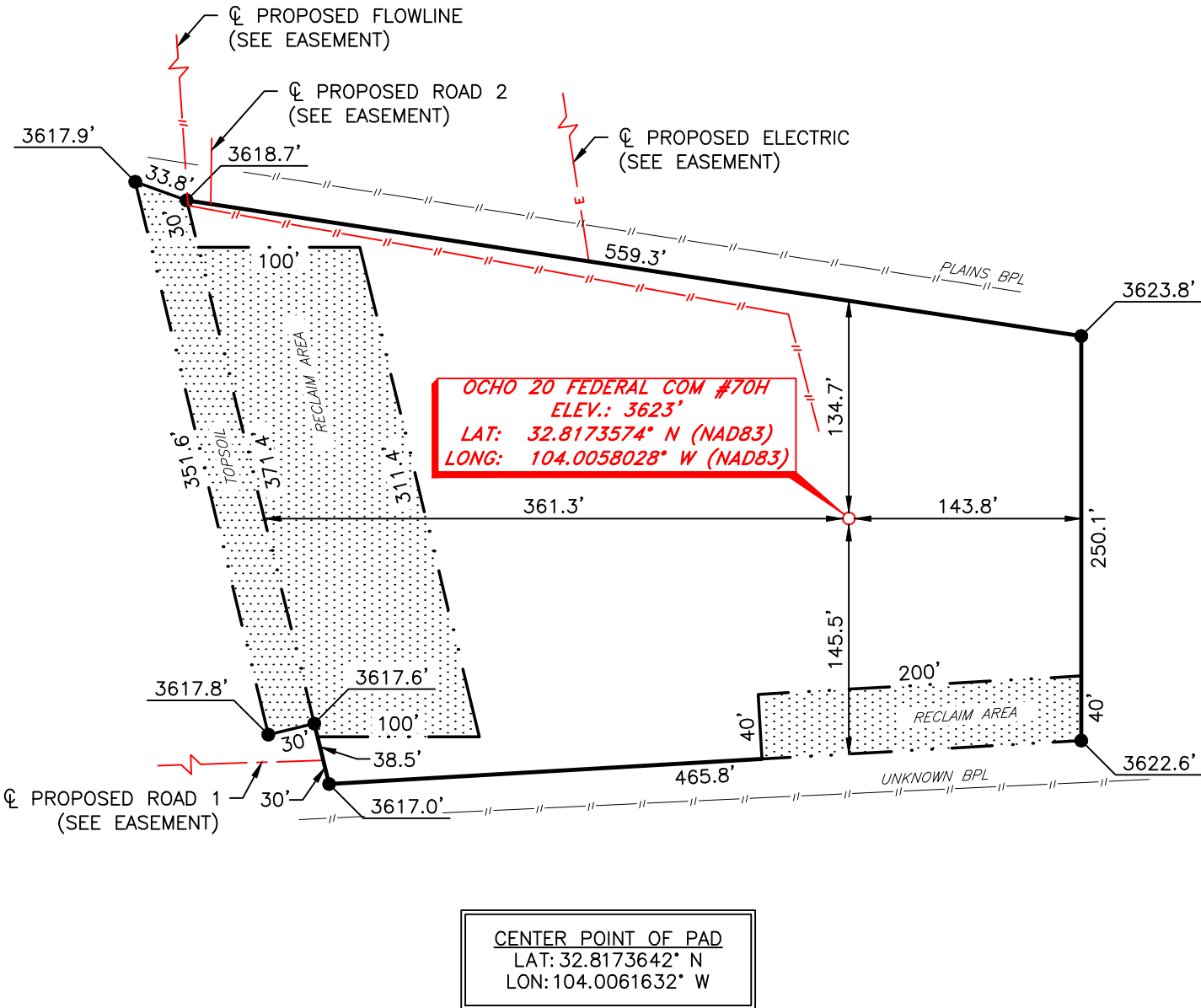
Secondary Briefing Area



WIND: Prevailing winds are from the Southwest

Secondary Egress

SPUR ENERGY PARTNERS LLC.
OCHO 20 FEDERAL COM #70H
(1665' FSL & 940' FEL)
SECTION 19, T17S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of CR #216 (General American Rd.) & U.S. Hwy 82;
Go East on U.S. Hwy 82 approx. 0.3 miles to a lease road on the right;
Turn right and go South approx. 320 feet to a "T";
Turn left at "T" go East approx. 0.4 miles to a lease road on the right;
Turn right and go South approx. 0.2 miles to a proposed road on the left;
Turn left and go East approx. 0.2 miles to location on the left.

I, Thomas Aaron Fitzhugh, New Mexico Professional Surveyor No. 26382, do hereby certify that this Unclassified Well Location Plat and the actual survey on the ground upon which it is based were performed by me or under my direct supervision; that I am responsible for this survey; that this survey meets the Minimum standards for Surveying in New Mexico; and that it is true and correct to the best of my knowledge and belief.

Thomas Aaron Fitzhugh
Aaron Fitzhugh N.M. P.S. 26382



SCALE: 1" = 100'
0 50 100
BEARINGS ARE
NAD 83 GRID - NM EAST
DISTANCES ARE GROUND

NO.	REVISION	DATE
JOB NO.: LS24050461		
DWG. NO.: 24050461-4		

RRC

ENERGY SERVICES, LLC.

701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 100'
DATE: 05/28/2024
SURVEYED BY: RG/AM/EU
DRAWN BY: AR
APPROVED BY: TAF
SHEET: 1 OF 1



RIG # 57_{1,150 HP Double Mast Drilling Rig}

SUBSTRUCTURE

One Piece Step Down
Floor Height: 18' 9" (on 4' pony sub moving system)
Clear Height (beneath rotary beams): 15' 5"
Rotary Capacity: 400,000 lbf
Max Pipe Setback: 400,000 lbf

Note: All floor heights above are based on the substructure sitting on 6" mats & 4' pony sub moving system

MAST

106' telescoping, Drill Line: 1-1/8"
Static Hook Load: 440,000 lbf
Racking Capacity: 18,000' of 4" DP, 12,500' of 5" DP

DRAWWORKS

TSM 850 425,000lbs w/ 10 Lines
Input Power: 1,150 hp AC traction motor
Main Brake: 1,150 hp AC traction motor (Dynamic)
Aux Parking Brake: Eaton brake & drum / band brake system

TOP DRIVE

Tesco EXI 600 AC 350 Ton: Max speed 220 rpm,
Continuous Drill Torque: 30,000 ft-lbs
Max Torque (Make / Break): 45,000 ft-lbs
600 hp AC induction motor & drive system with PLC
250 Ton 5 x 36" Becket Block Assembly

IRON ROUGHNECK

NOV ST-90C Conn Range: 4 1/4" to 8 1/2"
Spin Speed: 75 rpm nominal on 5" drill pipe
Spin Torque: 1,750 ft-lbs
Maximum Make-up torque: 60,000 ft-lbs
Maximum Break-out torque: 80,000 ft-lbs

ROTARY TABLE

National 27 1/2" 500 Ton with hydraulic drive to position tools only
27 1/2" Diameter opening

POWER SYSTEM

VFD, MCC, Eaton Drives, Current Power Systems Controls, three Caterpillar C32 gen sets, 1220 BHP.

MUD PUMP #1

HHF1600 Triplex Rated Power: 1600 hp
Stroke: 12"
Input Power: 1500 hp AC traction motor
Pressure Rating: 5000 psi

MUD PUMP #2

HHF1600 Triplex Rated Power: 1600 hp
Stroke: 12"
Input Power: 1500 hp AC traction motor
Pressure Rating: 5000 psi

MUD TANKS

Two Tank system w/ 1200 bbls total capacity
Shakers: Three MI Swaco Mongoose 4 panel dual motion
Mud Gas Separator: MI Swaco 4' OD x 12' tall
Pill Tank: 54 bbls

MUD SYSTEM

5000 psi Max Pressure
5" Main plumbing and standpipe

SCALPING TANK

Main Tank: 186 bbls capacity
Trip Tank: 24 bbls capacity
Shakers: Three NOV Venom shakers dual motion

BOP (NACE)

11" x 5000 psi WP Spherical Annular
11" x 5000 psi WP Double Ram
11" x 5000 psi WP Single Ram (Optional)

MANIFOLD

3-1/8" 5,000 psi c/w two 3 1/8" manual chokes

ACCUMULATOR

CTI: 160 gal 6 station 3000 psi, c/w N2 Backup & electric triplex pump

CATWALK

Ja-co Power Catwalk, tubular max length 47' 6", max OD 13 5/8", max weight 10,000lbs

TUBULARS

Drill Pipe: Supplied as needed, per availability
Drill Collars & heavywate: Supplied as needed, per availability

MISC.

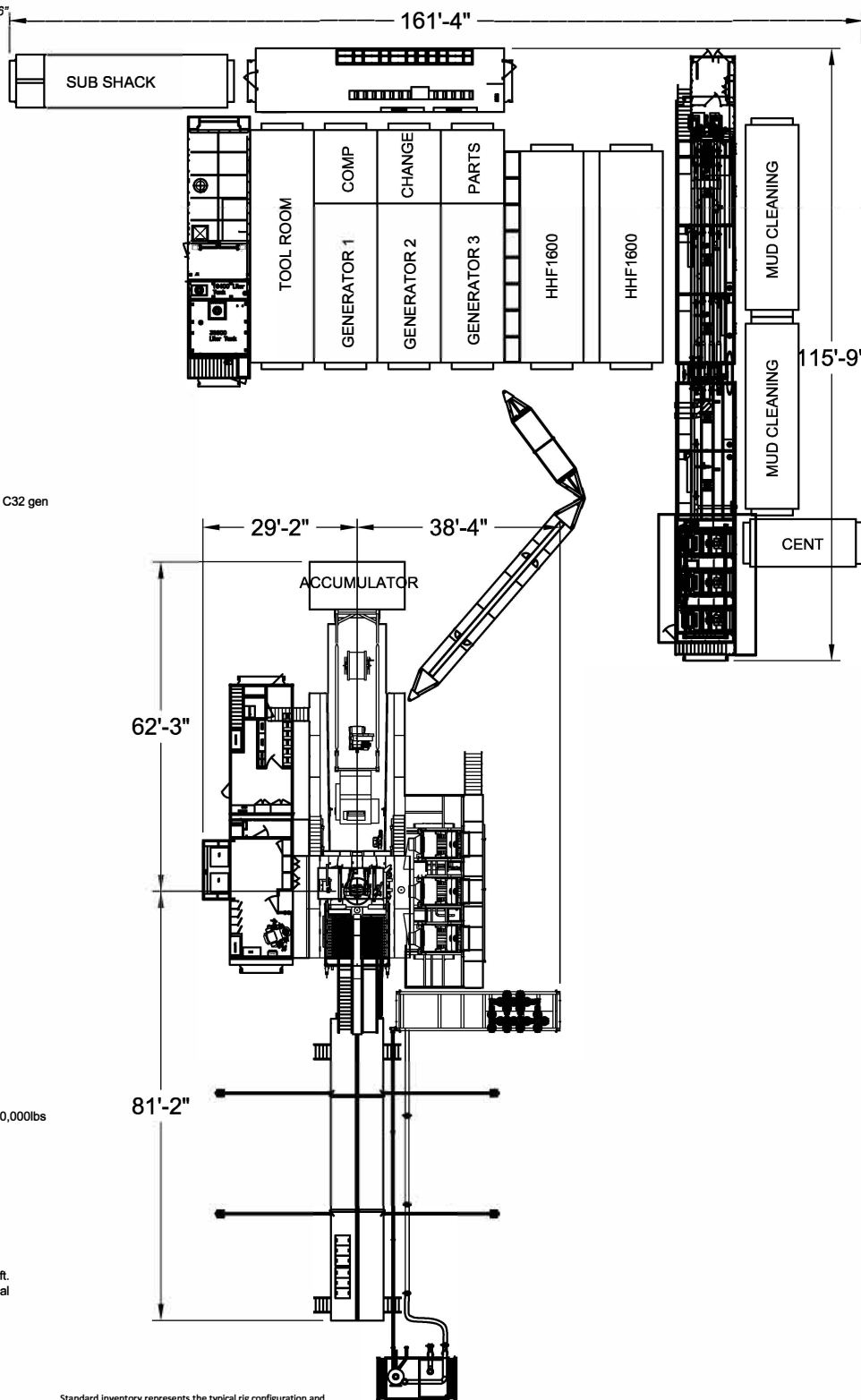
Water Tank: 409 bbls; Fuel Tank 189 bbls; Screw Compressor
Boiler: 125 hp with Full Winterization

MOVING SYSTEM:

Walking beam hydraulic pony sub moving system for linear motion & side shift.
350' of Utility Suitcase style [50' lengths] connection for hydraulic and electrical supply.

TOOL/ STORAGE/ CAMP

Parts Storage Room and Tool House Room
Rig Manage Trailer: 14' x 44' skid mounted

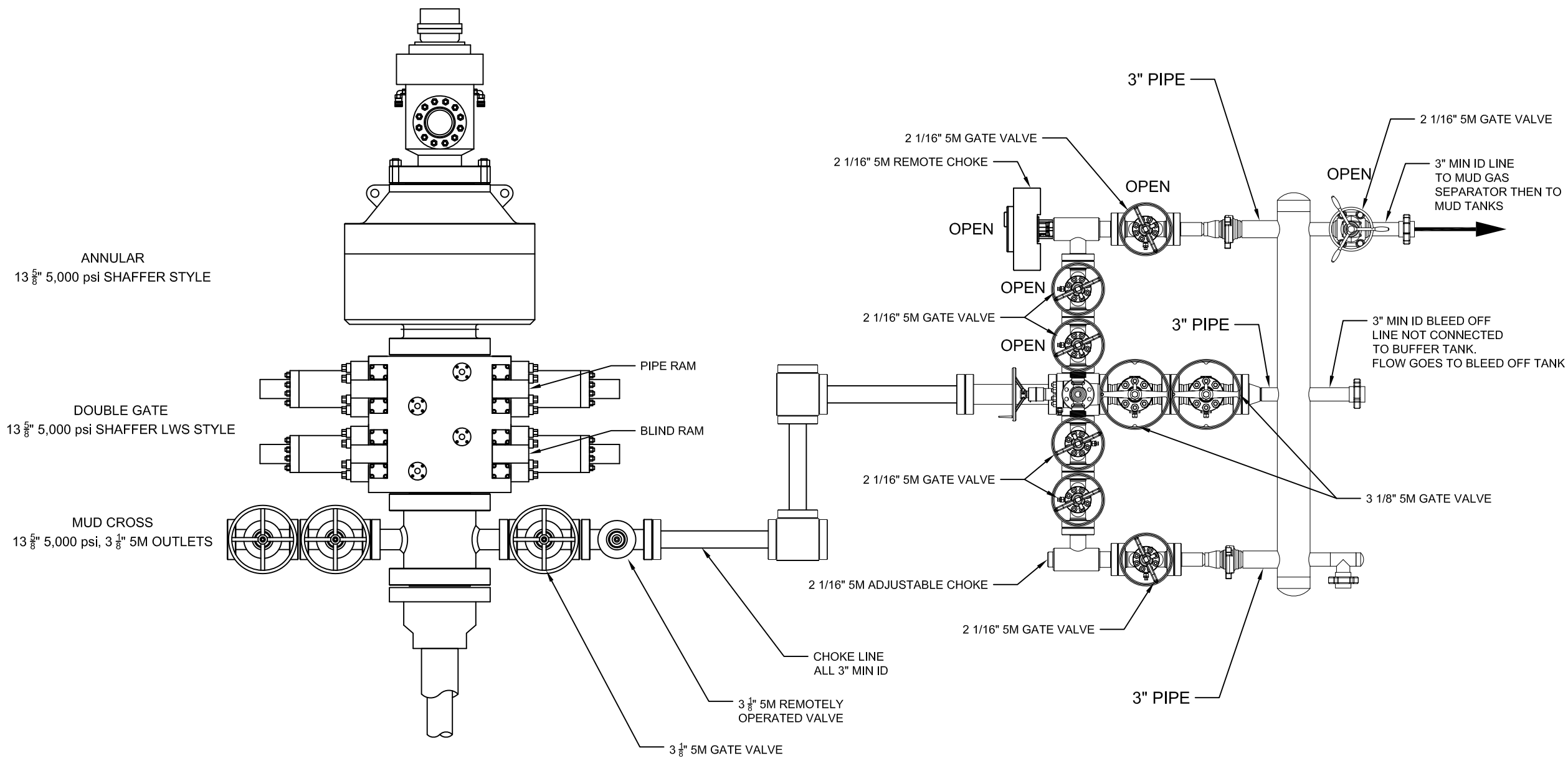


Standard inventory represents the typical rig configuration and inventory available, but specifications are subject to slight modifications from time to time due to customer requirements.

All ratings quoted herein are manufacturer specifications. AKITA's normal operating parameters are 90% of manufacturer mast ratings and 80% of mud pump manufacturer pressure rating. Operation of rig equipment beyond these parameters requires approval from AKITA field office management.

© AKITA DRILLING August, 2020

TRANSCEND RIG 4	Contractor Specification
Make	Schram
Model	TXD 130
Year of Manufacture	2006
Truck Mounted	YES
Rated Drilling Depth	130,000# hook load
Rated Depth with Tubing	
Derrick Height	69' 9"
Derrick Type	Telescoping Hydraulic
Derrick Capacity	130,000#
Elevators	N/A
Drawworks	760 HP Detroit
Wire Diameter	Hydraulic
Workfloor Max Height	8'
Tongs	Hydraulic Iron Roughneck
Slips	Manual Slips
Included Tubing Handling Tools	• 13 3/8" handling tools
Included Rod Handling Tools	85jts of 4.5" drill pipe
BOP Class Compatibility	
Weight Indicator	Hydraulic
Rig Safety Equipment	Eye wash station, fire extengushers, wind sock
Pad Size Requirements/Limitations	60' x 60'
Guy Line Spacing	N/A
Other Supplied Rig Equipment	Standard Rig Hand Tools: • (2) 36" pipe wrenches • (2) 24" pipe wrenches • (2) 18" pipe wrenches • (1) 24" crescent wrench • (2) 12" crescent wrenches • (1) 4 lb shop hammer • (1) 12 lb sledge hammer • (1) 4 foot pry bar • Vehicles for Contractor personnel • Air Impact Wrench with Sockets • Mud Scales (as needed) 1- F800 pump 1- Pill pit 80bbl 1- 400 bbl mud mix 1- Shaker 150mesh 1- 500 bbl fresh water frac tank



Notes
-
-
-

No.	Revision	Date
-----	----------	------

AKITA DRILLING LTD.
2302 8th Street, Nisku Alberta
T9E 7Z2 Tel: (780) 955-6700

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Date	5-6-2021	Scale	NTS
Des / Chk'd By	BG	File Name	R57 13 5M dou..
Project	R57		

RIG 57 BOP SCHEMATIC



POWERING PROGRESS™

MTR DATA BOOK

CL2013

CUSTOMER: GATES CANADA INC**DATE:** 12/19/2017**Purchase Order:** D235455 (PO 45750)**Sales Order #:** 509128**Product Description:** 5K 3 1/2 in. 17 FT. Fire Rated Choke & Kill Gates Hose Assembly c/w 3 1/8
5K Flange with Safety Clamps & Slings Attached**Hose S/N:** H-121917-14**PART NUMBER:** FR5K3.517.0CK31/85KFLG S/C**CONTENTS INCLUDED****GMCO FITTINGS**

17-309-1

INSERT STEM

15-095-1A

FERRULE

3 1/8 in. 5K FIXED FLANGE X 3 1/8 in. 5K FLOAT FLANGE

V4131

FIXED FLANGE

V5054

FLOAT FLANGE

WELDING SPECIFICATIONS

Certification and Procedure for welding

NDE RESULTS

1622371-03/1622371-01 Ultrasonic Test Results and Imaging

Safety Clamps

34145/34144

TEST CHART

Chart Recording of Hydrostatic Test

TEST CERTIFICATE

Document Product Details & Positive Results of Hydrostatic Testing

CERTIFICATE OF CONFORMANCE

A Declaration of the conformity with the type approval

IMAGES

Images of the product prior to shipping.

PACKING LIST

Details of Shipping Contents, Dimensions and Weights



GATES ENGINEERING & SERVICES NORTH AMERICA
7603 Prairie Oak Dr. Suite 190
Houston, TX. 77086

PHONE: +1 (281) 602-4100
FAX: +1 (281) 602-4147
EMAIL: gesna.quality@gates.com
WEB: www.gates.com/ollandgas

PRESSURE TEST CERTIFICATE

Customer:	GATES CANADA INC	Test Date:	12/19/2017
Customer Ref.:	D235455 (PO 45750)	Hose Serial No.:	H-121917-14
Invoice No.:	509128	Created By:	Cristian Rivera

Product Description: 5K 3 1/2 in. 17 FT. Fire Rated Choke & Kill c/w 3 1/8 5K Flange with Safety Clamps & Slings Attached

End Fitting 1:	3 1/8 in. 5K FIXED FLG	End Fitting 2:	3 1/8 in. 5K FLOAT FLG
Oracle Star No.:	68903550-9725917	Assembly Code:	15M5019042016H-121917-14
CUSTOMER P/N:	FR5K3.517.0CK31/85KFLG S/C	Test Pressure:	7,500 psi.
		Working Pressure:	5,000 psi.

Gates Engineering & Services North America certifies that:

The following hose assembly has successfully passed all pressure testing requirements set forth in Gates specifications: GTS-04-052 (for 5K assemblies) or GTS-04-053 (10K assemblies) or GTS-04-048 (15K assemblies), which include reference to Specification API 16C (2nd Edition); sections 7.5.4, 7.5.9, and 10.8.7. A test graph will accompany this test certificate to illustrate conformity to test requirements. This hose assembly was pressure tested using equipment and instrumentation that has been calibrated in accordance with the requirements set-forth in the GESNA management system.

Quality:	QUALITY
Date :	8/5/2021
Signature :	

F-PRD-005B

Production:	PRODUCTION
Date :	8/5/2021
Signature :	

Revision 6_05032021

**BLACK GOLD®**

GATES ENGINEERING & SERVICES NORTH AMERICA
7603 Prairie Oak Dr.
Houston, TX. 77086

PHONE: +1 (281) 602-4100
FAX: +1 (281) 602-4147
EMAIL: gesna.quality@gates.com
WEB: www.gates.com/ollandgas

CERTIFICATE OF CONFORMANCE

This is to certify that all parts and materials included in this shipment have manufactured and/or processed in accordance with various Gates and API assembly and test specifications. Records of required tests are on-file and subject to examination. Test reports and subsequent test graphs have been made available with this shipment. Additional supporting documentation related to materials, welding, weld inspections, and heat-treatment activities are available upon request.

CUSTOMER: GATES CANADA INC
CUSTOMER P.O.#: D235455 (PO 45750)
PART DESCRIPTION: FR5K3.517.0CK31/85KFLG S/C

PART DESCRIPTION: 5K 3 1/2 in. 17 FT. Fire Rated Choke & Kill c/w 3 1/8 5K Flange with Safety Clamps & Slings Attached

SALES ORDER #: 509128
QUANTITY: 1
SERIAL #: H-121917-14

SIGNATURE: _____

A handwritten signature in black ink, appearing to read "J. Rivera", written over a horizontal line.

TITLE: _____

QUALITY ASSURANCE

DATE: _____

8/5/2021

Gates E&S

North America

7603 Prairie Oak dr.

Houston, TX

Hydrostatic Test

Customer= **GATES CANADA**

Date of test= **12/19/17**

Serial # = **H-121917-13,-14**

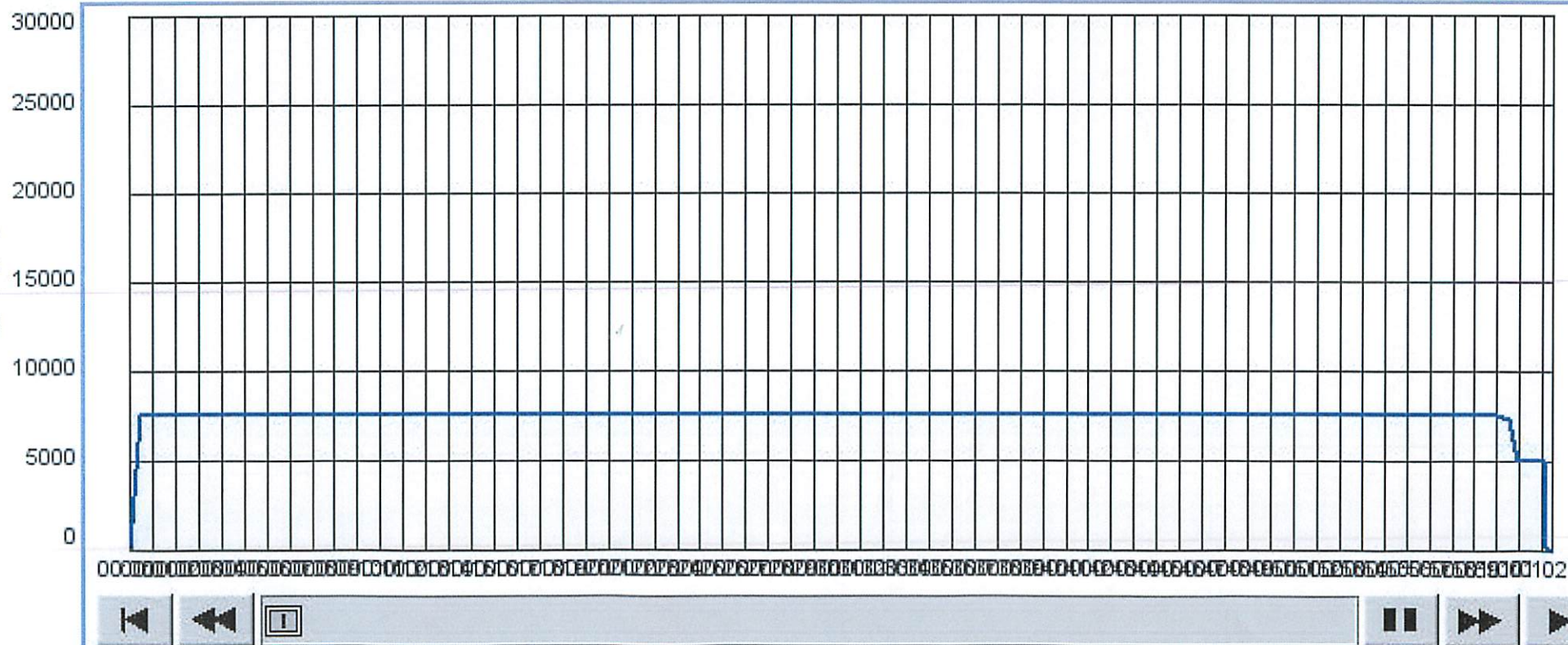
Description = **3.5 5K 3 1/8 FLG 5K**

Technician= **CHRIS OLIVO**

12/19/2017 16:53:26

17:55:52

P
S
I
G





Edwards Fabrication, L.L.C.

1385 Hwy. 35 Bypass S. O: (361) 790-7910
 P.O. Box 2350 F: (361) 790-7927
 Rockport, TX 78381

tedwards@edwardsfabrication.com
 www.edwardsfabrication.com

CERTIFICATE OF TEST

Client:
 Gates E & S North America
 134 44th Street
 Corpus Christi, TX 78405

Purchase Order: 1592198/0

Certificate Number			Date of Examination	
34145			04/27/17	
ID#	Part Number	Description	SWL*	Proofload
34145	E3.5S	3.5" E Safety Clamp	6016 lbs.	12031 lbs.

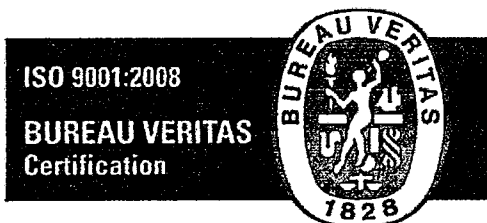
The Safety Clamp unit identified on this certificate has been load tested completely assembled; including the clamp body, (2) 3/4" shackles, 5/8" x 48" wire rope sling and anchor tab. Thus, all components are tested at the "Proof" load. Do not disassemble. Do not interchange any part or parts of this tested unit with parts of other Safety Clamp units. DO NOT WELD, CUT, ADD-TO, TAKE AWAY ANY COMPONENTS OR MAKE ANY MODIFICATION TO THIS CLAMP UNIT. Doing so voids this test certificate.

Cutting/Removing either one or both stainless steel Tamper-proof hardware cables renders this Test Certificate VOID.

* Safe Work Load

THIS PRODUCT IS MANUFACTURED IN THE U.S.A.

We hereby verify that the above information is correct
 as contained in the records of Edwards Fabrication L.L.C.



Edwards Fabrication L.L.C. is certified as
 having a Quality Management System.

Thomas F. Edwards
 President
 Edwards Fabrication L.L.C.



1385 Hwy. 35 Bypass S. O: (361) 790-7910
 P.O. Box 2350 F: (361) 790-7927
 Rockport, TX 78381

tedwards@edwardsfabrication.com
 www.edwardsfabrication.com

CERTIFICATE OF TEST

Client:
 Gates E & S North America
 134 44th Street
 Corpus Christi, TX 78405

Purchase Order: 1592198/0

Certificate Number				Date of Examination	
34144				04/27/17	
ID#	Part Number	Description	SWL*	Proofload	
34144	E3.5S	3.5" E Safety Clamp	6014 lbs.	12027 lbs.	

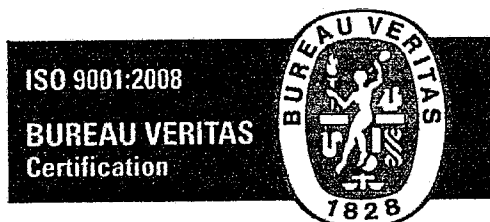
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Thomas F. Edwards
 President
 Edwards Fabrication L.L.C.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/oecd/contact-us>

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 445727

CONDITIONS

Operator: Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	OGRID: 328947
	Action Number: 445727
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
schapman01	Cement is required to circulate on both surface and intermediate1 strings of casing.	3/26/2025
schapman01	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	3/26/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	4/11/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	4/11/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	4/11/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	4/11/2025