District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101
August 1, 2011

Permit 346980

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
Spur Energy Partners LLC 9655 Katy Freeway Houston, TX 77024	328947
	3. API Number 30-015-54074

4. Property Code	5. Property Name	6. Well No.
334602	AID NORTH 14 13 STATE COM	021H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
B	14	17S	28E		1268	N	2383	E	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
H	13	17S	28E	H	2155	N	50	E	Eddy

9. Pool Information

EMPIRE; GLORIETA-YESO	96210

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3600
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	11125	Paddock		10/20/2023
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	12.25	9.625	36	1275	378	0
Prod	8.75	7	32	4250	1850	0
Prod	8.75	5.5	20	11125	1850	0

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5	5000	SHAFFER

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.** Signature:			**OIL CONSERVATION DIVISION**		
Printed Name:	Electronically filed by Sarah Chapman		Approved By:	Ward Rikala	
Title:	Regulatory Director		Title:		
Email Address:	schapman@spurenergy.com		Approved Date:	8/17/2023	Expiration Date: 8/17/2025
Date:	8/8/2023	Phone: 832-930-8613	Conditions of Approval Attached		

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-015-54074	96210	EMPIRE; GLORIETA-YESO

4 Property Code	5 Property Name	6 Well Number
334602	AID NORTH 14-13 STATE COM	21H

7 OGRID NO.	8 Operator Name	9 Elevation
328947	SPUR ENERGY PARTNERS LLC.	3600'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
B	14	17S	28E		1268	NORTH	2383	EAST	EDDY

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	13	17S	28E		2155	NORTH	50	EAST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
480			

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

16

GEODETIC DATA
NAD 83 GRID – NM EAST

SURFACE LOCATION (SL)
N: 669030.1 – E: 598768.3
LAT: 32.8390495° N
LONG: 104.1463429° W

FIRST TAKE POINT (FTP)
2149' FNL & 1404' FEL – SEC 14
N: 668242.4 – E: 599763.5
LAT: 32.8368795° N
LONG: 104.1431072° W

LAST TAKE POINT (LTP)
2157' FNL & 100' FEL – SEC 13
N: 668384.9 – E: 606336.5
LAT: 32.8372369° N
LONG: 104.1217056° W

BOTTOM HOLE (BH)
N: 668386.6 – E: 606386.5
LAT: 32.8372414° N
LONG: 104.1215429° W

CORNER DATA
NAD 83 GRID – NM EAST

A: FOUND BRASS CAP "1941"
N: 664715.7 – E: 596062.5

B: FOUND BRASS CAP "1941"
N: 667371.0 – E: 595986.7

C: FOUND BRASS CAP "1941"
N: 670028.0 – E: 595911.3

D: FOUND BRASS CAP "1941"
N: 670275.9 – E: 598509.8

E: FOUND BRASS CAP "1941"
N: 670523.4 – E: 601110.0

F: FOUND 1/2" REBAR
N: 670530.5 – E: 603773.2

G: FOUND BRASS CAP "1941"
N: 670541.3 – E: 606438.4

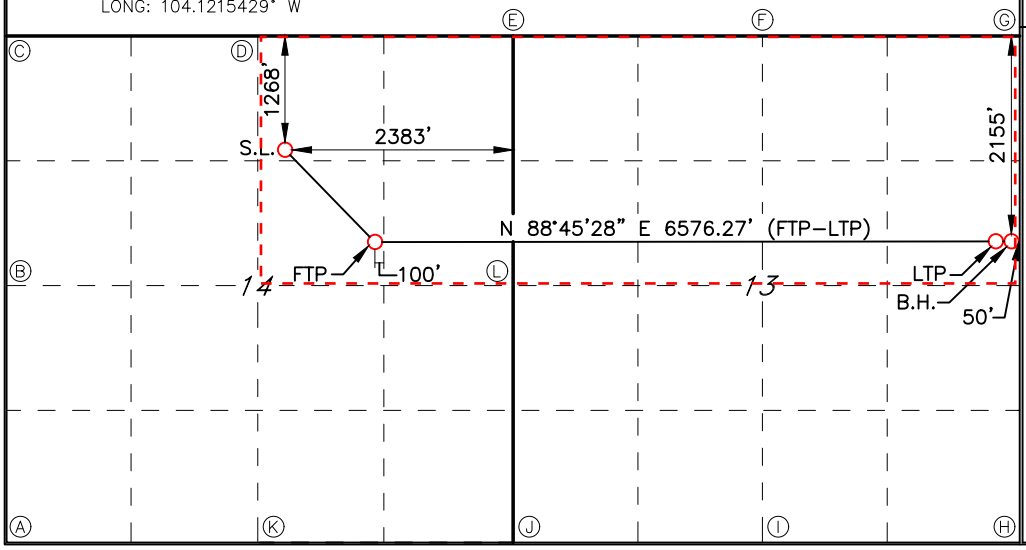
H: FOUND BRASS CAP "1941"
N: 665238.8 – E: 606433.6

I: FOUND BRASS CAP "1941"
N: 665220.7 – E: 603835.2

J: FOUND BRASS CAP "1941"
N: 665202.5 – E: 601236.8

K: FOUND BRASS CAP "1941"
N: 664959.0 – E: 598649.4

L: FOUND BRASS CAP "1941"
N: 667862.4 – E: 601172.4



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and 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 such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Sarah Chapman 08/07/2023
Signature Date

SARAH CHAPMAN
Printed Name

SCHAPMAN@SPURENERGY.COM
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

06/14/2023
Date of Survey

Signature and Seal of Professional Surveyor:

DALE E. BELL
NEW MEXICO
14400
07/03/2023
PROFESSIONAL SURVEYOR

14400
Certificate Number

Job No: LS23060536

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

Form APD Conditions

Permit 346980

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
Spur Energy Partners LLC [328947] 9655 Katy Freeway Houston, TX 77024	30-015-54074
	Well: AID NORTH 14 13 STATE COM #021H

OCD Reviewer	Condition
ward.rikala	Notify OCD 24 hours prior to casing & cement
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104
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
ward.rikala	Cement is required to circulate on both surface and production strings of casing
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
ward.rikala	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

SPUR ENERGY PARTNERS, LLC

EDDY COUNTY, NM (NAD 83 - NME)
AID NORTH 14-13 STATE COM
21H

Wellbore #1
PERMIT

Anticollision Report

01 August, 2023

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Reference PERMIT

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 50.00usft	**Error Model:**	ISCWSA
Depth Range:	0.00 to 11,124.98usft	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum separation factor of 55.00	**Error Surface:**	Elliptical Conic
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 08/01/23

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	11,124.98	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
AID NORTH 14-13 STATE COM						
10H - Wellbore #1 - PERMIT	300.00	300.00	39.90	38.18	23.190	CC, ES
10H - Wellbore #1 - PERMIT	11,124.98	10,890.29	907.71	738.06	5.351	SF
20H - Wellbore #1 - PERMIT	300.00	300.00	79.90	78.18	46.437	CC, ES
20H - Wellbore #1 - PERMIT	11,124.98	11,139.68	1,804.32	1,633.93	10.589	SF
60H - Wellbore #1 - PERMIT	300.00	300.00	59.90	58.18	34.814	CC, ES
60H - Wellbore #1 - PERMIT	11,124.98	11,343.77	1,382.94	1,216.71	8.320	SF
61H - Wellbore #1 - PERMIT	300.00	300.00	20.00	18.28	11.624	CC
61H - Wellbore #1 - PERMIT	650.00	652.34	20.18	15.98	4.800	ES
61H - Wellbore #1 - PERMIT	11,124.98	11,329.57	546.70	403.21	3.810	SF
OFFSET: AID STATE #10 - Wellbore #1 - Wellbore #1	8,878.22	4,079.22	549.02	408.27	3.901	CC, ES
OFFSET: AID STATE #10 - Wellbore #1 - Wellbore #1	8,900.00	4,079.55	549.45	408.45	3.897	SF
OFFSET: AID STATE #6 - Wellbore #1 - Wellbore #1	10,843.37	4,090.85	148.73	-8.63	0.945	Level 1, CC, ES, SF
OFFSET: AID STATE #8 - Wellbore #1 - Wellbore #1	10,873.83	4,104.40	1,171.24	1,005.15	7.052	CC
OFFSET: AID STATE #8 - Wellbore #1 - Wellbore #1	10,900.00	4,104.79	1,171.54	1,005.14	7.041	ES
OFFSET: AID STATE #8 - Wellbore #1 - Wellbore #1	10,950.00	4,105.55	1,173.72	1,006.75	7.030	SF
OFFSET: AID STATE #9 - Wellbore #1 - Wellbore #1	8,908.67	4,067.65	1,868.94	1,737.09	14.174	CC
OFFSET: AID STATE #9 - Wellbore #1 - Wellbore #1	8,950.00	4,068.27	1,869.40	1,737.08	14.128	ES
OFFSET: AID STATE #9 - Wellbore #1 - Wellbore #1	9,200.00	4,072.05	1,891.51	1,756.37	13.997	SF
OFFSET: PUMA #1 - Wellbore #1 - Wellbore #1	700.00	687.71	775.49	761.26	54.473	CC, ES
OFFSET: PUMA #1 - Wellbore #1 - Wellbore #1	4,300.00	3,851.76	1,497.98	1,406.07	16.298	SF

Offset Design AID NORTH 14-13 STATE COM - 10H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
200.00	200.00	200.00	200.00	0.50	0.50	-0.574	39.90	-0.40	39.90	38.90	1.00	39.754	
250.00	250.00	250.00	250.00	0.68	0.68	-0.574	39.90	-0.40	39.90	38.54	1.36	29.292	
300.00	300.00	300.00	300.00	0.86	0.86	-0.574	39.90	-0.40	39.90	38.18	1.72	23.190	CC, ES
350.00	350.00	349.52	349.52	1.03	1.04	-175.754	40.19	-0.09	40.63	38.56	2.07	19.589	
400.00	399.98	399.17	399.15	1.20	1.22	-174.686	41.03	0.80	42.79	40.35	2.44	17.568	
450.00	449.93	449.06	449.03	1.38	1.39	-173.693	41.99	1.80	45.93	43.14	2.80	16.427	
500.00	499.84	498.90	498.84	1.55	1.57	-172.948	42.94	2.81	49.96	46.80	3.16	15.831	
550.00	549.68	548.65	548.58	1.72	1.75	-172.432	43.89	3.81	54.85	51.33	3.52	15.585	

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

SPUR ENERGY PARTNERS

Anticollision Report

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Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 10H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
600.00	599.45	598.32	598.22	1.90	1.92	-172.111	44.83	4.81	60.60	56.72	3.88	15.617	
650.00	649.13	647.88	647.77	2.07	2.10	-171.946	45.78	5.81	67.21	62.97	4.24	15.843	
700.00	698.70	697.32	697.19	2.25	2.28	-171.900	46.72	6.81	74.68	70.08	4.60	16.230	
750.00	748.15	746.62	746.47	2.43	2.45	-171.943	47.66	7.81	83.00	78.04	4.96	16.737	
800.00	797.47	795.77	795.60	2.61	2.63	-172.048	48.60	8.80	92.17	86.86	5.31	17.347	
850.00	846.63	844.75	844.56	2.79	2.80	-172.195	49.53	9.78	102.19	96.53	5.67	18.036	
900.00	895.62	893.56	893.35	2.98	2.98	-172.370	50.47	10.77	113.06	107.05	6.01	18.804	
950.00	944.44	942.16	941.94	3.17	3.15	-172.560	51.39	11.75	124.77	118.41	6.36	19.624	
1,000.00	993.06	990.56	990.31	3.36	3.33	-172.758	52.32	12.73	137.33	130.63	6.70	20.507	
1,050.00	1,041.46	1,038.73	1,038.46	3.55	3.50	-172.959	53.23	13.70	150.72	143.69	7.03	21.437	
1,100.00	1,089.64	1,086.66	1,086.37	3.75	3.67	-173.157	54.15	14.66	164.94	157.58	7.36	22.403	
1,127.09	1,115.65	1,112.52	1,112.23	3.85	3.76	-173.263	54.64	15.19	173.00	165.46	7.54	22.945	
1,150.00	1,137.61	1,134.36	1,134.06	3.95	3.84	-173.364	55.06	15.63	179.91	172.22	7.69	23.400	
1,200.00	1,185.54	1,182.02	1,181.70	4.14	4.01	-173.561	55.97	16.59	195.01	186.99	8.02	24.323	
1,250.00	1,233.47	1,229.69	1,229.35	4.35	4.18	-173.729	56.88	17.55	210.10	201.76	8.35	25.173	
1,300.00	1,281.40	1,277.35	1,276.99	4.55	4.35	-173.875	57.79	18.51	225.20	216.52	8.68	25.950	
1,350.00	1,329.33	1,325.01	1,324.64	4.75	4.52	-174.003	58.70	19.47	240.30	231.29	9.01	26.670	
1,400.00	1,377.26	1,372.68	1,372.28	4.96	4.70	-174.115	59.61	20.43	255.40	246.05	9.34	27.333	
1,450.00	1,425.19	1,420.34	1,419.93	5.16	4.87	-174.215	60.52	21.39	270.50	260.82	9.68	27.949	
1,500.00	1,473.12	1,468.00	1,467.57	5.37	5.04	-174.304	61.42	22.36	285.60	275.58	10.01	28.520	
1,550.00	1,521.05	1,515.67	1,515.22	5.57	5.21	-174.385	62.33	23.32	300.70	290.35	10.35	29.052	
1,600.00	1,568.99	1,563.33	1,562.86	5.78	5.38	-174.457	63.24	24.28	315.80	305.11	10.69	29.549	
1,650.00	1,616.92	1,610.99	1,610.51	5.98	5.55	-174.523	64.15	25.24	330.90	319.88	11.03	30.013	
1,700.00	1,664.85	1,658.66	1,658.15	6.19	5.72	-174.584	65.06	26.20	346.00	334.64	11.36	30.448	
1,750.00	1,712.78	1,706.32	1,705.80	6.40	5.89	-174.639	65.97	27.16	361.11	349.40	11.70	30.857	
1,800.00	1,760.71	1,753.98	1,753.44	6.61	6.06	-174.690	66.88	28.12	376.21	364.17	12.04	31.241	
1,850.00	1,808.64	1,801.65	1,801.09	6.81	6.23	-174.737	67.79	29.08	391.31	378.93	12.38	31.603	
1,900.00	1,856.57	1,849.31	1,848.73	7.02	6.40	-174.780	68.70	30.05	406.41	393.69	12.72	31.945	
1,950.00	1,904.50	1,896.97	1,896.38	7.23	6.57	-174.820	69.61	31.01	421.52	408.45	13.06	32.267	
2,000.00	1,952.43	1,944.64	1,944.02	7.44	6.75	-174.858	70.52	31.97	436.62	423.22	13.40	32.573	
2,050.00	2,000.36	1,992.30	1,991.67	7.65	6.92	-174.893	71.43	32.93	451.73	437.98	13.75	32.862	
2,100.00	2,048.29	2,039.96	2,039.31	7.86	7.09	-174.926	72.34	33.89	466.83	452.74	14.09	33.137	
2,150.00	2,096.22	2,087.63	2,086.96	8.06	7.26	-174.956	73.25	34.85	481.93	467.50	14.43	33.398	
2,200.00	2,144.15	2,135.29	2,134.60	8.27	7.43	-174.985	74.16	35.81	497.04	482.27	14.77	33.646	
2,250.00	2,192.08	2,182.95	2,182.25	8.48	7.60	-175.012	75.06	36.77	512.14	497.03	15.12	33.882	
2,300.00	2,240.01	2,230.62	2,229.89	8.69	7.77	-175.038	75.97	37.74	527.25	511.79	15.46	34.107	
2,350.00	2,287.94	2,278.28	2,277.54	8.90	7.94	-175.062	76.88	38.70	542.35	526.55	15.80	34.322	
2,400.00	2,335.87	2,325.95	2,325.18	9.11	8.11	-175.085	77.79	39.66	557.46	541.31	16.15	34.528	
2,450.00	2,383.81	2,373.61	2,372.83	9.32	8.28	-175.106	78.70	40.62	572.56	556.07	16.49	34.724	
2,500.00	2,431.74	2,421.27	2,420.47	9.53	8.45	-175.127	79.61	41.58	587.67	570.83	16.83	34.912	
2,550.00	2,479.67	2,468.94	2,468.12	9.74	8.63	-175.146	80.52	42.54	602.77	585.59	17.18	35.093	
2,600.00	2,527.60	2,516.60	2,515.77	9.95	8.80	-175.165	81.43	43.50	617.88	600.35	17.52	35.265	
2,650.00	2,575.53	2,564.26	2,563.41	10.16	8.97	-175.182	82.34	44.47	632.98	615.12	17.87	35.431	
2,700.00	2,623.46	2,611.93	2,611.06	10.37	9.14	-175.199	83.25	45.43	648.09	629.88	18.21	35.590	
2,750.00	2,671.39	2,659.59	2,658.70	10.58	9.31	-175.215	84.16	46.39	663.19	644.64	18.55	35.743	
2,800.00	2,719.32	2,707.25	2,706.35	10.79	9.48	-175.231	85.07	47.35	678.30	659.40	18.90	35.891	
2,850.00	2,767.25	2,754.92	2,753.99	11.00	9.65	-175.245	85.98	48.31	693.40	674.16	19.24	36.032	
2,900.00	2,815.18	2,802.48	2,801.54	11.22	9.82	-175.254	86.88	49.33	708.51	688.92	19.59	36.170	
2,950.00	2,863.11	2,849.63	2,848.60	11.43	9.99	-175.128	87.80	51.96	723.64	703.70	19.93	36.305	
3,000.00	2,911.04	2,896.50	2,895.19	11.64	10.16	-174.820	88.73	56.87	738.81	718.54	20.27	36.440	
3,000.54	2,911.56	2,897.01	2,895.70	11.64	10.16	-174.816	88.74	56.94	738.98	718.70	20.28	36.441	
3,050.00	2,958.99	2,943.11	2,941.23	11.85	10.32	-163.505	89.68	64.02	753.81	733.15	20.66	36.486	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 10H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
3,100.00	3,006.89	2,989.64	2,986.80	12.06	10.49	-152.371	90.64	73.39	768.34	747.28	21.05	36.497	
3,150.00	3,054.62	3,036.12	3,031.81	12.26	10.66	-142.093	91.62	84.96	782.36	760.91	21.45	36.479	
3,200.00	3,102.03	3,082.56	3,076.15	12.46	10.82	-132.991	92.60	98.69	795.83	773.99	21.84	36.436	
3,250.00	3,149.01	3,128.96	3,119.74	12.66	10.99	-125.146	93.60	114.54	808.71	786.47	22.23	36.372	
3,300.00	3,195.41	3,175.33	3,162.49	12.85	11.16	-118.475	94.60	132.48	820.96	798.34	22.62	36.290	
3,350.00	3,241.12	3,221.68	3,204.29	13.04	11.33	-112.827	95.60	152.47	832.55	809.55	23.00	36.192	
3,400.00	3,286.01	3,268.01	3,245.05	13.22	11.49	-108.039	96.61	174.45	843.44	820.07	23.38	36.079	
3,450.00	3,329.96	3,314.31	3,284.68	13.40	11.67	-103.962	97.62	198.37	853.61	829.87	23.74	35.951	
3,500.00	3,372.84	3,360.60	3,323.09	13.57	11.84	-100.470	98.62	224.17	863.03	838.93	24.10	35.809	
3,550.00	3,414.54	3,406.86	3,360.19	13.74	12.02	-97.465	99.62	251.78	871.67	847.22	24.45	35.650	
3,600.00	3,454.95	3,453.09	3,395.88	13.91	12.20	-94.863	100.61	281.15	879.51	854.72	24.79	35.473	
3,650.00	3,493.95	3,500.00	3,430.60	14.06	12.39	-92.601	101.61	312.67	886.53	861.40	25.13	35.272	
3,700.00	3,531.43	3,545.43	3,462.70	14.22	12.58	-90.634	102.56	344.79	892.71	867.25	25.47	35.054	
3,750.00	3,567.30	3,591.52	3,493.68	14.37	12.78	-88.916	103.52	378.90	898.04	872.24	25.80	34.808	
3,800.00	3,601.45	3,637.54	3,522.93	14.52	12.98	-87.416	104.45	414.41	902.49	876.36	26.13	34.532	
3,850.00	3,633.80	3,683.49	3,550.40	14.67	13.20	-86.109	105.37	451.23	906.07	879.59	26.47	34.226	
3,900.00	3,664.25	3,729.36	3,576.02	14.82	13.42	-84.975	106.27	489.25	908.75	881.94	26.82	33.887	
3,950.00	3,692.71	3,775.37	3,599.85	14.98	13.65	-83.996	107.14	528.59	910.54	883.38	27.17	33.514	
4,000.00	3,719.12	3,825.33	3,624.84	15.13	13.91	-83.234	108.09	571.85	911.30	883.74	27.57	33.059	
4,008.31	3,723.30	3,833.63	3,628.99	15.17	13.96	-83.136	108.24	579.04	911.32	883.69	27.63	32.977	
4,050.00	3,744.15	3,875.33	3,649.84	15.30	14.19	-83.136	109.03	615.14	911.32	883.24	28.08	32.459	
4,100.00	3,769.15	3,925.33	3,674.84	15.48	14.47	-83.136	109.97	658.43	911.32	882.70	28.61	31.849	
4,138.73	3,788.51	3,964.06	3,694.20	15.63	14.70	-83.136	110.70	691.97	911.32	882.26	29.05	31.366	
4,150.00	3,794.15	3,974.87	3,699.60	15.68	14.76	-83.135	110.90	701.33	911.32	882.14	29.18	31.230	
4,200.00	3,819.15	4,016.79	3,719.06	15.89	15.02	-83.029	111.71	738.44	911.56	881.86	29.71	30.686	
4,208.31	3,823.30	4,023.72	3,722.01	15.92	15.06	-82.992	111.84	744.71	911.65	881.85	29.79	30.600	
4,250.00	3,842.82	4,058.40	3,735.64	16.12	15.28	-82.770	112.54	776.59	912.08	881.88	30.19	30.208	
4,300.00	3,862.61	4,100.00	3,749.40	16.36	15.54	-82.545	113.39	815.83	912.52	881.84	30.69	29.737	
4,350.00	3,878.33	4,141.10	3,760.16	16.62	15.80	-82.369	114.25	855.48	912.88	881.69	31.19	29.268	
4,400.00	3,889.86	4,182.27	3,768.07	16.89	16.06	-82.242	115.13	895.86	913.14	881.44	31.70	28.802	
4,450.00	3,897.10	4,223.36	3,773.05	17.17	16.33	-82.165	116.02	936.63	913.30	881.08	32.23	28.341	
4,499.66	3,900.00	4,265.15	3,775.13	17.45	16.59	-82.140	116.92	978.35	913.36	880.60	32.76	27.884	
4,500.00	3,900.01	4,265.49	3,775.14	17.45	16.59	-82.140	116.93	978.69	913.36	880.60	32.76	27.880	
4,550.00	3,900.76	4,315.49	3,776.26	17.74	16.92	-82.164	118.02	1,028.67	913.30	879.89	33.41	27.335	
4,600.00	3,901.51	4,365.49	3,777.39	18.05	17.26	-82.187	119.10	1,078.64	913.25	879.17	34.08	26.800	
4,650.00	3,902.27	4,415.49	3,778.52	18.37	17.60	-82.210	120.19	1,128.62	913.20	878.43	34.77	26.263	
4,700.00	3,903.02	4,465.49	3,779.65	18.70	17.96	-82.233	121.28	1,178.59	913.15	877.66	35.48	25.735	
4,750.00	3,903.78	4,515.49	3,780.77	19.05	18.33	-82.256	122.36	1,228.56	913.09	876.87	36.22	25.210	
4,800.00	3,904.53	4,565.49	3,781.90	19.40	18.71	-82.279	123.45	1,278.54	913.04	876.07	36.97	24.696	
4,850.00	3,905.29	4,615.48	3,783.03	19.77	19.10	-82.303	124.54	1,328.51	912.99	875.25	37.75	24.188	
4,900.00	3,906.04	4,665.48	3,784.16	20.14	19.50	-82.326	125.62	1,378.49	912.94	874.41	38.53	23.693	
4,950.00	3,906.80	4,715.48	3,785.29	20.53	19.90	-82.349	126.71	1,428.46	912.89	873.55	39.34	23.205	
5,000.00	3,907.55	4,765.48	3,786.41	20.92	20.32	-82.372	127.80	1,478.43	912.84	872.68	40.16	22.731	
5,050.00	3,908.31	4,815.48	3,787.54	21.32	20.73	-82.396	128.88	1,528.41	912.79	871.79	41.00	22.265	
5,100.00	3,909.06	4,865.48	3,788.67	21.73	21.16	-82.419	129.97	1,578.38	912.74	870.89	41.84	21.814	
5,150.00	3,909.82	4,915.48	3,789.80	22.14	21.59	-82.442	131.05	1,628.36	912.68	869.98	42.71	21.372	
5,200.00	3,910.57	4,965.47	3,790.93	22.56	22.03	-82.465	132.14	1,678.33	912.63	869.06	43.58	20.943	
5,250.00	3,911.33	5,015.47	3,792.05	22.99	22.47	-82.488	133.23	1,728.30	912.58	868.12	44.46	20.525	
5,300.00	3,912.08	5,065.47	3,793.18	23.43	22.92	-82.512	134.31	1,778.28	912.53	867.18	45.36	20.120	
5,350.00	3,912.83	5,115.47	3,794.31	23.87	23.38	-82.535	135.40	1,828.25	912.48	866.22	46.26	19.725	
5,400.00	3,913.59	5,165.47	3,795.44	24.31	23.84	-82.558	136.49	1,878.23	912.43	865.26	47.17	19.342	
5,450.00	3,914.34	5,215.47	3,796.56	24.77	24.30	-82.581	137.57	1,928.20	912.38	864.29	48.10	18.969	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 10H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,500.00	3,915.10	5,265.47	3,797.69	25.22	24.77	-82.605	138.66	1,978.17	912.33	863.31	49.03	18.609	
5,550.00	3,915.85	5,315.47	3,798.82	25.68	25.24	-82.628	139.75	2,028.15	912.28	862.32	49.97	18.257	
5,600.00	3,916.61	5,365.46	3,799.95	26.14	25.71	-82.651	140.83	2,078.12	912.24	861.32	50.91	17.917	
5,650.00	3,917.36	5,415.46	3,801.08	26.61	26.19	-82.674	141.92	2,128.10	912.19	860.32	51.87	17.587	
5,700.00	3,918.12	5,465.46	3,802.20	27.08	26.67	-82.697	143.01	2,178.07	912.14	859.31	52.83	17.266	
5,750.00	3,918.87	5,515.46	3,803.33	27.56	27.16	-82.721	144.09	2,228.04	912.09	858.29	53.79	16.955	
5,800.00	3,919.63	5,565.46	3,804.46	28.03	27.64	-82.744	145.18	2,278.02	912.04	857.27	54.77	16.653	
5,850.00	3,920.38	5,615.46	3,805.59	28.52	28.13	-82.767	146.27	2,327.99	911.99	856.24	55.75	16.360	
5,900.00	3,921.14	5,665.46	3,806.72	29.00	28.63	-82.790	147.35	2,377.97	911.94	855.21	56.73	16.076	
5,950.00	3,921.89	5,715.45	3,807.84	29.49	29.12	-82.814	148.44	2,427.94	911.89	854.18	57.72	15.799	
6,000.00	3,922.65	5,765.45	3,808.97	29.98	29.62	-82.837	149.53	2,477.92	911.85	853.13	58.71	15.531	
6,050.00	3,923.40	5,815.45	3,810.10	30.47	30.12	-82.860	150.61	2,527.89	911.80	852.09	59.71	15.270	
6,100.00	3,924.16	5,865.45	3,811.23	30.97	30.62	-82.883	151.70	2,577.86	911.75	851.04	60.71	15.018	
6,150.00	3,924.91	5,915.45	3,812.35	31.46	31.13	-82.907	152.79	2,627.84	911.70	849.98	61.72	14.772	
6,200.00	3,925.66	5,965.45	3,813.48	31.96	31.64	-82.930	153.87	2,677.81	911.65	848.92	62.73	14.533	
6,250.00	3,926.42	6,015.45	3,814.61	32.47	32.14	-82.953	154.96	2,727.79	911.61	847.86	63.75	14.301	
6,300.00	3,927.17	6,065.44	3,815.74	32.97	32.65	-82.977	156.04	2,777.76	911.56	846.80	64.76	14.075	
6,350.00	3,927.93	6,115.44	3,816.87	33.47	33.17	-83.000	157.13	2,827.73	911.51	845.73	65.79	13.856	
6,400.00	3,928.68	6,165.44	3,817.99	33.98	33.68	-83.023	158.22	2,877.71	911.47	844.66	66.81	13.643	
6,450.00	3,929.44	6,215.44	3,819.12	34.49	34.19	-83.046	159.30	2,927.68	911.42	843.58	67.84	13.435	
6,500.00	3,930.19	6,265.44	3,820.25	35.00	34.71	-83.070	160.39	2,977.66	911.37	842.50	68.87	13.233	
6,550.00	3,930.95	6,315.44	3,821.38	35.51	35.23	-83.093	161.48	3,027.63	911.33	841.42	69.90	13.037	
6,600.00	3,931.70	6,365.44	3,822.51	36.03	35.75	-83.116	162.56	3,077.60	911.28	840.34	70.94	12.846	
6,650.00	3,932.46	6,415.43	3,823.63	36.54	36.27	-83.140	163.65	3,127.58	911.23	839.25	71.98	12.659	
6,700.00	3,933.21	6,465.43	3,824.76	37.06	36.79	-83.163	164.74	3,177.55	911.19	838.16	73.02	12.478	
6,750.00	3,933.97	6,515.43	3,825.89	37.58	37.31	-83.186	165.82	3,227.53	911.14	837.07	74.07	12.302	
6,800.00	3,934.72	6,565.43	3,827.02	38.10	37.84	-83.209	166.91	3,277.50	911.10	835.98	75.11	12.129	
6,850.00	3,935.48	6,615.43	3,828.14	38.62	38.36	-83.233	168.00	3,327.47	911.05	834.89	76.16	11.962	
6,900.00	3,936.23	6,665.43	3,829.27	39.14	38.89	-83.256	169.08	3,377.45	911.00	833.79	77.21	11.798	
6,950.00	3,936.98	6,715.43	3,830.40	39.66	39.42	-83.279	170.17	3,427.42	910.96	832.69	78.27	11.639	
7,000.00	3,937.74	6,765.42	3,831.53	40.19	39.95	-83.303	171.26	3,477.40	910.91	831.59	79.32	11.484	
7,050.00	3,938.49	6,815.42	3,832.66	40.71	40.48	-83.326	172.34	3,527.37	910.87	830.49	80.38	11.332	
7,100.00	3,939.25	6,865.42	3,833.78	41.24	41.01	-83.349	173.43	3,577.35	910.82	829.38	81.44	11.184	
7,150.00	3,940.00	6,915.42	3,834.91	41.77	41.54	-83.373	174.52	3,627.32	910.78	828.28	82.50	11.040	
7,200.00	3,940.76	6,965.42	3,836.04	42.29	42.07	-83.396	175.60	3,677.29	910.73	827.17	83.56	10.899	
7,250.00	3,941.51	7,015.42	3,837.17	42.82	42.60	-83.419	176.69	3,727.27	910.69	826.06	84.63	10.761	
7,300.00	3,942.27	7,065.42	3,838.30	43.35	43.14	-83.443	177.77	3,777.24	910.65	824.95	85.69	10.627	
7,350.00	3,943.02	7,115.41	3,839.42	43.88	43.67	-83.466	178.86	3,827.22	910.60	823.84	86.76	10.495	
7,400.00	3,943.78	7,165.41	3,840.55	44.41	44.20	-83.489	179.95	3,877.19	910.56	822.73	87.83	10.367	
7,450.00	3,944.53	7,215.41	3,841.68	44.95	44.74	-83.512	181.03	3,927.16	910.51	821.61	88.90	10.242	
7,500.00	3,945.29	7,265.41	3,842.81	45.48	45.28	-83.536	182.12	3,977.14	910.47	820.50	89.97	10.119	
7,550.00	3,946.04	7,315.41	3,843.93	46.01	45.81	-83.559	183.21	4,027.11	910.43	819.38	91.05	10.000	
7,600.00	3,946.80	7,365.41	3,845.06	46.55	46.35	-83.582	184.29	4,077.09	910.38	818.26	92.12	9.883	
7,650.00	3,947.55	7,415.41	3,846.19	47.08	46.89	-83.606	185.38	4,127.06	910.34	817.14	93.20	9.768	
7,700.00	3,948.30	7,465.41	3,847.32	47.62	47.43	-83.629	186.47	4,177.03	910.30	816.02	94.27	9.656	
7,750.00	3,949.06	7,515.40	3,848.45	48.16	47.97	-83.652	187.55	4,227.01	910.25	814.90	95.35	9.546	
7,800.00	3,949.81	7,565.40	3,849.57	48.69	48.51	-83.676	188.64	4,276.98	910.21	813.78	96.43	9.439	
7,850.00	3,950.57	7,615.40	3,850.70	49.23	49.05	-83.699	189.73	4,326.96	910.17	812.66	97.51	9.334	
7,900.00	3,951.32	7,665.40	3,851.83	49.77	49.59	-83.723	190.81	4,376.93	910.13	811.54	98.59	9.231	
7,950.00	3,952.08	7,715.40	3,852.96	50.31	50.13	-83.746	191.90	4,426.90	910.08	810.41	99.67	9.131	
8,000.00	3,952.83	7,765.40	3,854.09	50.85	50.67	-83.769	192.99	4,476.88	910.04	809.28	100.76	9.032	
8,050.00	3,953.59	7,815.40	3,855.21	51.39	51.21	-83.793	194.07	4,526.85	910.00	808.16	101.84	8.935	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 10H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,100.00	3,954.34	7,865.39	3,856.34	51.93	51.76	-83.816	195.16	4,576.83	909.96	807.03	102.93	8.841	
8,150.00	3,955.10	7,915.39	3,857.47	52.47	52.30	-83.839	196.25	4,626.80	909.92	805.90	104.01	8.748	
8,200.00	3,955.85	7,965.39	3,858.60	53.01	52.84	-83.863	197.33	4,676.77	909.88	804.78	105.10	8.657	
8,250.00	3,956.61	8,015.39	3,859.73	53.55	53.39	-83.886	198.42	4,726.75	909.83	803.65	106.19	8.568	
8,300.00	3,957.36	8,065.39	3,860.85	54.09	53.93	-83.909	199.50	4,776.72	909.79	802.52	107.28	8.481	
8,350.00	3,958.12	8,115.39	3,861.98	54.63	54.47	-83.933	200.59	4,826.70	909.75	801.39	108.37	8.395	
8,400.00	3,958.87	8,165.39	3,863.11	55.18	55.02	-83.956	201.68	4,876.67	909.71	800.25	109.46	8.311	
8,450.00	3,959.62	8,215.38	3,864.24	55.72	55.57	-83.979	202.76	4,926.65	909.67	799.12	110.55	8.229	
8,500.00	3,960.38	8,265.38	3,865.36	56.26	56.11	-84.003	203.85	4,976.62	909.63	797.99	111.64	8.148	
8,550.00	3,961.13	8,315.38	3,866.49	56.81	56.66	-84.026	204.94	5,026.59	909.59	796.86	112.73	8.069	
8,600.00	3,961.89	8,365.38	3,867.62	57.35	57.20	-84.050	206.02	5,076.57	909.55	795.72	113.83	7.991	
8,650.00	3,962.64	8,415.38	3,868.75	57.90	57.75	-84.073	207.11	5,126.54	909.51	794.59	114.92	7.914	
8,700.00	3,963.40	8,465.38	3,869.88	58.44	58.30	-84.096	208.20	5,176.52	909.47	793.45	116.01	7.839	
8,750.00	3,964.15	8,515.38	3,871.00	58.99	58.84	-84.120	209.28	5,226.49	909.43	792.32	117.11	7.766	
8,800.00	3,964.91	8,565.37	3,872.13	59.53	59.39	-84.143	210.37	5,276.46	909.39	791.18	118.20	7.693	
8,850.00	3,965.66	8,615.37	3,873.26	60.08	59.94	-84.166	211.46	5,326.44	909.35	790.05	119.30	7.622	
8,900.00	3,966.42	8,665.37	3,874.39	60.63	60.49	-84.190	212.54	5,376.41	909.31	788.91	120.40	7.553	
8,950.00	3,967.17	8,715.37	3,875.52	61.17	61.04	-84.213	213.63	5,426.39	909.27	787.77	121.50	7.484	
9,000.00	3,967.93	8,765.37	3,876.64	61.72	61.59	-84.237	214.72	5,476.36	909.23	786.64	122.59	7.417	
9,050.00	3,968.68	8,815.37	3,877.77	62.27	62.13	-84.260	215.80	5,526.33	909.19	785.50	123.69	7.350	
9,100.00	3,969.44	8,865.37	3,878.90	62.81	62.68	-84.283	216.89	5,576.31	909.15	784.36	124.79	7.285	
9,150.00	3,970.19	8,915.36	3,880.03	63.36	63.23	-84.307	217.98	5,626.28	909.11	783.22	125.89	7.221	
9,200.00	3,970.95	8,965.36	3,881.15	63.91	63.78	-84.330	219.06	5,676.26	909.08	782.08	126.99	7.158	
9,250.00	3,971.70	9,015.36	3,882.28	64.46	64.33	-84.354	220.15	5,726.23	909.04	780.94	128.09	7.097	
9,300.00	3,972.45	9,065.36	3,883.41	65.01	64.88	-84.377	221.24	5,776.20	909.00	779.80	129.19	7.036	
9,350.00	3,973.21	9,115.36	3,884.54	65.56	65.43	-84.400	222.32	5,826.18	908.96	778.66	130.30	6.976	
9,400.00	3,973.96	9,165.36	3,885.67	66.11	65.98	-84.424	223.41	5,876.15	908.92	777.52	131.40	6.917	
9,450.00	3,974.72	9,215.36	3,886.79	66.65	66.53	-84.447	224.49	5,926.13	908.89	776.38	132.50	6.859	
9,500.00	3,975.47	9,265.36	3,887.92	67.20	67.09	-84.471	225.58	5,976.10	908.85	775.24	133.61	6.803	
9,550.00	3,976.23	9,315.35	3,889.05	67.75	67.64	-84.494	226.67	6,026.07	908.81	774.10	134.71	6.746	
9,600.00	3,976.98	9,365.35	3,890.18	68.30	68.19	-84.518	227.75	6,076.05	908.77	772.96	135.81	6.691	
9,650.00	3,977.74	9,415.35	3,891.31	68.85	68.74	-84.541	228.84	6,126.02	908.74	771.82	136.92	6.637	
9,700.00	3,978.49	9,465.35	3,892.43	69.40	69.29	-84.564	229.93	6,176.00	908.70	770.68	138.02	6.584	
9,750.00	3,979.25	9,515.35	3,893.56	69.96	69.84	-84.588	231.01	6,225.97	908.66	769.54	139.13	6.531	
9,800.00	3,980.00	9,565.35	3,894.69	70.51	70.40	-84.611	232.10	6,275.95	908.63	768.39	140.23	6.479	
9,850.00	3,980.76	9,615.35	3,895.82	71.06	70.95	-84.635	233.19	6,325.92	908.59	767.25	141.34	6.428	
9,900.00	3,981.51	9,665.34	3,896.94	71.61	71.50	-84.658	234.27	6,375.89	908.55	766.11	142.45	6.378	
9,950.00	3,982.27	9,715.34	3,898.07	72.16	72.05	-84.681	235.36	6,425.87	908.52	764.96	143.55	6.329	
10,000.00	3,983.02	9,765.34	3,899.20	72.71	72.61	-84.705	236.45	6,475.84	908.48	763.82	144.66	6.280	
10,050.00	3,983.77	9,815.34	3,900.33	73.26	73.16	-84.728	237.53	6,525.82	908.45	762.68	145.77	6.232	
10,100.00	3,984.53	9,865.34	3,901.46	73.81	73.71	-84.752	238.62	6,575.79	908.41	761.53	146.88	6.185	
10,150.00	3,985.28	9,915.34	3,902.58	74.37	74.27	-84.775	239.71	6,625.76	908.37	760.39	147.98	6.138	
10,200.00	3,986.04	9,965.34	3,903.71	74.92	74.82	-84.799	240.79	6,675.74	908.34	759.25	149.09	6.092	
10,250.00	3,986.79	10,015.33	3,904.84	75.47	75.37	-84.822	241.88	6,725.71	908.30	758.10	150.20	6.047	
10,300.00	3,987.55	10,065.33	3,905.97	76.02	75.93	-84.846	242.97	6,775.69	908.27	756.96	151.31	6.003	
10,350.00	3,988.30	10,115.33	3,907.10	76.58	76.48	-84.869	244.05	6,825.66	908.23	755.81	152.42	5.959	
10,400.00	3,989.06	10,165.33	3,908.22	77.13	77.03	-84.892	245.14	6,875.63	908.20	754.67	153.53	5.915	
10,450.00	3,989.81	10,215.33	3,909.35	77.68	77.59	-84.916	246.22	6,925.61	908.16	753.52	154.64	5.873	
10,500.00	3,990.57	10,265.33	3,910.48	78.24	78.14	-84.939	247.31	6,975.58	908.13	752.38	155.75	5.831	
10,550.00	3,991.32	10,315.33	3,911.61	78.79	78.70	-84.963	248.40	7,025.56	908.09	751.23	156.86	5.789	
10,600.00	3,992.08	10,365.32	3,912.73	79.34	79.25	-84.986	249.48	7,075.53	908.06	750.09	157.97	5.748	
10,650.00	3,992.83	10,415.32	3,913.86	79.90	79.80	-85.010	250.57	7,125.50	908.03	748.94	159.08	5.708	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 10H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,700.00	3,993.59	10,465.32	3,914.99	80.45	80.36	-85.033	251.66	7,175.48	907.99	747.80	160.19	5.668	
10,750.00	3,994.34	10,515.32	3,916.12	81.00	80.91	-85.057	252.74	7,225.45	907.96	746.65	161.31	5.629	
10,800.00	3,995.09	10,565.32	3,917.25	81.56	81.47	-85.080	253.83	7,275.43	907.92	745.51	162.42	5.590	
10,850.00	3,995.85	10,615.32	3,918.37	82.11	82.02	-85.104	254.92	7,325.40	907.89	744.36	163.53	5.552	
10,900.00	3,996.60	10,665.32	3,919.50	82.67	82.58	-85.127	256.00	7,375.37	907.86	743.22	164.64	5.514	
10,950.00	3,997.36	10,715.31	3,920.63	83.22	83.13	-85.150	257.09	7,425.35	907.82	742.07	165.76	5.477	
11,000.00	3,998.11	10,765.31	3,921.76	83.77	83.69	-85.174	258.18	7,475.32	907.79	740.92	166.87	5.440	
11,050.00	3,998.87	10,815.31	3,922.89	84.33	84.24	-85.197	259.26	7,525.30	907.76	739.78	167.98	5.404	
11,074.95	3,999.24	10,840.26	3,923.45	84.60	84.52	-85.209	259.80	7,550.23	907.74	739.21	168.54	5.386	
11,100.00	3,999.62	10,865.31	3,924.01	84.88	84.80	-85.221	260.35	7,575.27	907.73	738.63	169.09	5.368	
11,124.98	4,000.00	10,890.29	3,924.58	85.16	85.08	-85.233	260.89	7,600.24	907.71	738.06	169.65	5.351	SF

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 20H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
300.00	300.00	300.00	300.00	0.86	0.86	-0.502	79.90	-0.70	79.90	78.18	1.72	46.437	CC, ES
350.00	350.00	348.63	348.63	1.03	1.03	-176.097	80.31	-0.69	80.76	78.69	2.07	38.968	
400.00	399.98	397.17	397.15	1.20	1.21	-176.135	81.55	-0.68	83.34	80.91	2.43	34.288	
450.00	449.93	445.55	445.48	1.38	1.39	-176.193	83.60	-0.65	87.63	84.84	2.79	31.386	
500.00	499.84	493.66	493.52	1.55	1.56	-176.265	86.44	-0.62	93.62	90.47	3.15	29.691	
550.00	549.68	541.44	541.16	1.72	1.73	-176.344	90.07	-0.58	101.31	97.79	3.52	28.805	
600.00	599.45	588.81	588.32	1.90	1.91	-176.425	94.44	-0.52	110.67	106.79	3.88	28.542	
650.00	649.13	635.68	634.91	2.07	2.08	-176.503	99.54	-0.46	121.68	117.45	4.24	28.728	
700.00	698.70	681.98	680.85	2.25	2.24	-176.576	105.33	-0.39	134.34	129.75	4.59	29.275	
750.00	748.15	727.65	726.06	2.43	2.41	-176.642	111.76	-0.31	148.61	143.67	4.94	30.095	
800.00	797.47	772.61	770.47	2.61	2.57	-176.700	118.79	-0.22	164.46	159.18	5.28	31.150	
850.00	846.63	816.82	814.02	2.79	2.73	-176.750	126.39	-0.13	181.86	176.25	5.62	32.380	
900.00	895.62	860.20	856.63	2.98	2.89	-176.792	134.49	-0.03	200.79	194.85	5.94	33.784	
950.00	944.44	900.00	895.62	3.17	3.03	-176.823	142.50	0.07	221.23	214.97	6.26	35.347	
1,000.00	993.06	944.30	938.88	3.36	3.19	-176.855	152.04	0.18	243.08	236.51	6.58	36.952	
1,050.00	1,041.46	984.93	978.43	3.55	3.34	-176.878	161.38	0.30	266.38	259.49	6.88	38.692	
1,100.00	1,089.64	1,024.57	1,016.87	3.75	3.48	-176.894	171.04	0.42	291.05	283.86	7.18	40.530	
1,127.09	1,115.65	1,045.62	1,037.23	3.85	3.56	-176.901	176.38	0.48	304.97	297.64	7.34	41.561	
1,150.00	1,137.61	1,063.22	1,054.23	3.95	3.62	-176.920	180.96	0.54	316.98	309.51	7.47	42.442	
1,200.00	1,185.54	1,100.00	1,089.64	4.14	3.76	-176.953	190.87	0.66	343.59	335.84	7.75	44.334	
1,250.00	1,233.47	1,138.51	1,126.59	4.35	3.91	-176.980	201.73	0.79	370.75	362.71	8.04	46.133	
1,300.00	1,281.40	1,175.21	1,161.66	4.55	4.05	-176.998	212.55	0.93	398.45	390.13	8.32	47.895	
1,350.00	1,329.33	1,211.29	1,196.00	4.75	4.18	-177.011	223.61	1.06	426.68	418.08	8.60	49.612	
1,400.00	1,377.26	1,246.75	1,229.61	4.96	4.32	-177.020	234.91	1.20	455.42	446.54	8.88	51.275	
1,450.00	1,425.19	1,285.33	1,266.06	5.16	4.47	-177.025	247.56	1.36	484.56	475.39	9.17	52.845	
1,500.00	1,473.12	1,325.94	1,304.41	5.37	4.62	-177.031	260.91	1.52	513.73	504.28	9.46	54.312	
4,450.00	3,897.10	4,466.50	3,872.84	17.17	17.24	-89.227	1,015.29	908.60	1,804.61	1,771.28	33.34	54.130	
4,499.66	3,900.00	4,514.35	3,875.09	17.45	17.53	-89.209	1,016.33	956.38	1,804.62	1,770.67	33.95	53.161	
4,500.00	3,900.01	4,514.69	3,875.09	17.45	17.53	-89.209	1,016.34	956.72	1,804.62	1,770.67	33.95	53.154	
4,550.00	3,900.76	4,564.69	3,875.84	17.74	17.85	-89.209	1,017.42	1,006.70	1,804.62	1,770.02	34.60	52.160	
4,600.00	3,901.51	4,614.69	3,876.59	18.05	18.17	-89.209	1,018.51	1,056.69	1,804.62	1,769.36	35.25	51.192	
4,650.00	3,902.27	4,664.69	3,877.34	18.37	18.51	-89.208	1,019.60	1,106.67	1,804.61	1,768.67	35.94	50.205	
4,700.00	3,903.02	4,714.69	3,878.09	18.70	18.85	-89.208	1,020.68	1,156.65	1,804.61	1,767.97	36.64	49.247	
4,750.00	3,903.78	4,764.69	3,878.84	19.05	19.21	-89.208	1,021.77	1,206.63	1,804.61	1,767.23	37.38	48.279	
4,800.00	3,904.53	4,814.69	3,879.59	19.40	19.57	-89.208	1,022.85	1,256.62	1,804.61	1,766.49	38.12	47.342	
4,850.00	3,905.29	4,864.69	3,880.34	19.77	19.95	-89.208	1,023.94	1,306.60	1,804.60	1,765.71	38.89	46.403	
4,900.00	3,906.04	4,914.69	3,881.09	20.14	20.33	-89.208	1,025.02	1,356.58	1,804.60	1,764.94	39.67	45.495	
4,950.00	3,906.80	4,964.69	3,881.84	20.53	20.73	-89.207	1,026.11	1,406.56	1,804.60	1,764.13	40.47	44.591	
5,000.00	3,907.55	5,014.69	3,882.59	20.92	21.13	-89.207	1,027.20	1,456.55	1,804.60	1,763.32	41.28	43.718	
5,050.00	3,908.31	5,064.69	3,883.34	21.32	21.53	-89.207	1,028.28	1,506.53	1,804.59	1,762.48	42.11	42.853	
5,100.00	3,909.06	5,114.69	3,884.09	21.73	21.95	-89.207	1,029.37	1,556.51	1,804.59	1,761.64	42.95	42.018	
5,150.00	3,909.82	5,164.69	3,884.84	22.14	22.37	-89.207	1,030.45	1,606.50	1,804.59	1,760.78	43.81	41.194	
5,200.00	3,910.57	5,214.69	3,885.59	22.56	22.79	-89.207	1,031.54	1,656.48	1,804.59	1,759.92	44.67	40.398	
5,250.00	3,911.33	5,264.69	3,886.34	22.99	23.23	-89.206	1,032.63	1,706.46	1,804.59	1,759.03	45.55	39.616	
5,300.00	3,912.08	5,314.69	3,887.09	23.43	23.66	-89.206	1,033.71	1,756.44	1,804.58	1,758.15	46.44	38.861	
5,350.00	3,912.83	5,364.69	3,887.84	23.87	24.11	-89.206	1,034.80	1,806.43	1,804.58	1,757.24	47.34	38.121	
5,400.00	3,913.59	5,414.69	3,888.58	24.31	24.56	-89.206	1,035.88	1,856.41	1,804.58	1,756.34	48.24	37.406	
5,450.00	3,914.34	5,464.69	3,889.33	24.77	25.01	-89.206	1,036.97	1,906.39	1,804.58	1,755.41	49.16	36.705	
5,500.00	3,915.10	5,514.69	3,890.08	25.22	25.47	-89.206	1,038.06	1,956.37	1,804.57	1,754.49	50.09	36.029	
5,550.00	3,915.85	5,564.69	3,890.83	25.68	25.93	-89.205	1,039.14	2,006.36	1,804.57	1,753.55	51.02	35.368	
5,600.00	3,916.61	5,614.69	3,891.58	26.14	26.39	-89.205	1,040.23	2,056.34	1,804.57	1,752.61	51.96	34.729	
5,650.00	3,917.36	5,664.69	3,892.33	26.61	26.86	-89.205	1,041.31	2,106.32	1,804.57	1,751.65	52.91	34.104	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 20H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,700.00	3,918.12	5,714.69	3,893.08	27.08	27.33	-89.205	1,042.40	2,156.30	1,804.57	1,750.70	53.87	33.501	
5,750.00	3,918.87	5,764.69	3,893.83	27.56	27.81	-89.205	1,043.49	2,206.29	1,804.56	1,749.73	54.83	32.912	
5,800.00	3,919.63	5,814.69	3,894.58	28.03	28.29	-89.205	1,044.57	2,256.27	1,804.56	1,748.76	55.80	32.342	
5,850.00	3,920.38	5,864.69	3,895.33	28.52	28.77	-89.204	1,045.66	2,306.25	1,804.56	1,747.79	56.77	31.786	
5,900.00	3,921.14	5,914.69	3,896.08	29.00	29.26	-89.204	1,046.74	2,356.23	1,804.56	1,746.81	57.75	31.248	
5,950.00	3,921.89	5,964.69	3,896.83	29.49	29.74	-89.204	1,047.83	2,406.22	1,804.55	1,745.82	58.74	30.723	
6,000.00	3,922.65	6,014.69	3,897.58	29.98	30.23	-89.204	1,048.92	2,456.20	1,804.55	1,744.83	59.72	30.215	
6,050.00	3,923.40	6,064.69	3,898.33	30.47	30.73	-89.204	1,050.00	2,506.18	1,804.55	1,743.83	60.72	29.719	
6,100.00	3,924.16	6,114.69	3,899.08	30.97	31.22	-89.204	1,051.09	2,556.16	1,804.55	1,742.83	61.72	29.239	
6,150.00	3,924.91	6,164.69	3,899.83	31.46	31.72	-89.203	1,052.17	2,606.15	1,804.55	1,741.82	62.72	28.770	
6,200.00	3,925.66	6,214.69	3,900.58	31.96	32.22	-89.203	1,053.26	2,656.13	1,804.54	1,740.81	63.73	28.316	
6,250.00	3,926.42	6,264.69	3,901.32	32.47	32.72	-89.203	1,054.34	2,706.11	1,804.54	1,739.80	64.74	27.873	
6,300.00	3,927.17	6,314.69	3,902.07	32.97	33.22	-89.203	1,055.43	2,756.09	1,804.54	1,738.78	65.75	27.443	
6,350.00	3,927.93	6,364.69	3,902.82	33.47	33.73	-89.203	1,056.52	2,806.08	1,804.54	1,737.76	66.77	27.024	
6,400.00	3,928.68	6,414.69	3,903.57	33.98	34.24	-89.203	1,057.60	2,856.06	1,804.53	1,736.74	67.80	26.617	
6,450.00	3,929.44	6,464.69	3,904.32	34.49	34.75	-89.202	1,058.69	2,906.04	1,804.53	1,735.71	68.82	26.220	
6,500.00	3,930.19	6,514.69	3,905.07	35.00	35.26	-89.202	1,059.77	2,956.03	1,804.53	1,734.68	69.85	25.835	
6,550.00	3,930.95	6,564.69	3,905.82	35.51	35.77	-89.202	1,060.86	3,006.01	1,804.53	1,733.65	70.88	25.458	
6,600.00	3,931.70	6,614.69	3,906.57	36.03	36.28	-89.202	1,061.95	3,055.99	1,804.52	1,732.61	71.91	25.093	
6,650.00	3,932.46	6,664.69	3,907.32	36.54	36.80	-89.202	1,063.03	3,105.97	1,804.52	1,731.57	72.95	24.736	
6,700.00	3,933.21	6,714.69	3,908.07	37.06	37.31	-89.202	1,064.12	3,155.96	1,804.52	1,730.53	73.99	24.388	
6,750.00	3,933.97	6,764.69	3,908.82	37.58	37.83	-89.201	1,065.20	3,205.94	1,804.52	1,729.48	75.03	24.049	
6,800.00	3,934.72	6,814.69	3,909.57	38.10	38.35	-89.201	1,066.29	3,255.92	1,804.52	1,728.44	76.08	23.720	
6,850.00	3,935.48	6,864.69	3,910.32	38.62	38.87	-89.201	1,067.38	3,305.90	1,804.51	1,727.39	77.12	23.397	
6,900.00	3,936.23	6,914.69	3,911.07	39.14	39.39	-89.201	1,068.46	3,355.89	1,804.51	1,726.34	78.17	23.084	
6,950.00	3,936.98	6,964.69	3,911.82	39.66	39.92	-89.201	1,069.55	3,405.87	1,804.51	1,725.28	79.22	22.777	
7,000.00	3,937.74	7,014.69	3,912.57	40.19	40.44	-89.201	1,070.63	3,455.85	1,804.51	1,724.23	80.28	22.479	
7,050.00	3,938.49	7,064.69	3,913.32	40.71	40.96	-89.200	1,071.72	3,505.83	1,804.50	1,723.17	81.33	22.187	
7,100.00	3,939.25	7,114.69	3,914.07	41.24	41.49	-89.200	1,072.81	3,555.82	1,804.50	1,722.11	82.39	21.902	
7,150.00	3,940.00	7,164.69	3,914.81	41.77	42.02	-89.200	1,073.89	3,605.80	1,804.50	1,721.05	83.45	21.624	
7,200.00	3,940.76	7,214.69	3,915.56	42.29	42.55	-89.200	1,074.98	3,655.78	1,804.50	1,719.99	84.51	21.353	
7,250.00	3,941.51	7,264.69	3,916.31	42.82	43.07	-89.200	1,076.06	3,705.76	1,804.50	1,718.93	85.57	21.088	
7,300.00	3,942.27	7,314.69	3,917.06	43.35	43.60	-89.200	1,077.15	3,755.75	1,804.49	1,717.86	86.63	20.829	
7,350.00	3,943.02	7,364.69	3,917.81	43.88	44.13	-89.199	1,078.24	3,805.73	1,804.49	1,716.79	87.70	20.576	
7,400.00	3,943.78	7,414.69	3,918.56	44.41	44.66	-89.199	1,079.32	3,855.71	1,804.49	1,715.72	88.77	20.329	
7,450.00	3,944.53	7,464.69	3,919.31	44.95	45.20	-89.199	1,080.41	3,905.69	1,804.49	1,714.65	89.83	20.087	
7,500.00	3,945.29	7,514.69	3,920.06	45.48	45.73	-89.199	1,081.49	3,955.68	1,804.48	1,713.58	90.90	19.851	
7,550.00	3,946.04	7,564.69	3,920.81	46.01	46.26	-89.199	1,082.58	4,005.66	1,804.48	1,712.51	91.97	19.619	
7,600.00	3,946.80	7,614.69	3,921.56	46.55	46.80	-89.199	1,083.66	4,055.64	1,804.48	1,711.43	93.05	19.393	
7,650.00	3,947.55	7,664.69	3,922.31	47.08	47.33	-89.198	1,084.75	4,105.62	1,804.48	1,710.36	94.12	19.172	
7,700.00	3,948.30	7,714.69	3,923.06	47.62	47.87	-89.198	1,085.84	4,155.61	1,804.48	1,709.28	95.19	18.956	
7,750.00	3,949.06	7,764.69	3,923.81	48.16	48.40	-89.198	1,086.92	4,205.59	1,804.47	1,708.20	96.27	18.744	
7,800.00	3,949.81	7,814.69	3,924.56	48.69	48.94	-89.198	1,088.01	4,255.57	1,804.47	1,707.12	97.35	18.536	
7,850.00	3,950.57	7,864.69	3,925.31	49.23	49.48	-89.198	1,089.09	4,305.56	1,804.47	1,706.04	98.43	18.333	
7,900.00	3,951.32	7,914.69	3,926.06	49.77	50.01	-89.198	1,090.18	4,355.54	1,804.47	1,704.96	99.50	18.135	
7,950.00	3,952.08	7,964.69	3,926.81	50.31	50.55	-89.197	1,091.27	4,405.52	1,804.46	1,703.88	100.58	17.940	
8,000.00	3,952.83	8,014.69	3,927.56	50.85	51.09	-89.197	1,092.35	4,455.50	1,804.46	1,702.80	101.67	17.749	
8,050.00	3,953.59	8,064.69	3,928.30	51.39	51.63	-89.197	1,093.44	4,505.49	1,804.46	1,701.71	102.75	17.562	
8,100.00	3,954.34	8,114.69	3,929.05	51.93	52.17	-89.197	1,094.52	4,555.47	1,804.46	1,700.63	103.83	17.379	
8,150.00	3,955.10	8,164.69	3,929.80	52.47	52.71	-89.197	1,095.61	4,605.45	1,804.46	1,699.54	104.92	17.199	
8,200.00	3,955.85	8,214.69	3,930.55	53.01	53.25	-89.197	1,096.70	4,655.43	1,804.45	1,698.45	106.00	17.023	
8,250.00	3,956.61	8,264.69	3,931.30	53.55	53.79	-89.196	1,097.78	4,705.42	1,804.45	1,697.37	107.09	16.851	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 20H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,300.00	3,957.36	8,314.69	3,932.05	54.09	54.33	-89.196	1,098.87	4,755.40	1,804.45	1,696.28	108.17	16.681	
8,350.00	3,958.12	8,364.69	3,932.80	54.63	54.88	-89.196	1,099.95	4,805.38	1,804.45	1,695.19	109.26	16.515	
8,400.00	3,958.87	8,414.69	3,933.55	55.18	55.42	-89.196	1,101.04	4,855.36	1,804.44	1,694.10	110.35	16.352	
8,450.00	3,959.62	8,464.69	3,934.30	55.72	55.96	-89.196	1,102.13	4,905.35	1,804.44	1,693.01	111.44	16.193	
8,500.00	3,960.38	8,514.69	3,935.05	56.26	56.50	-89.196	1,103.21	4,955.33	1,804.44	1,691.91	112.53	16.036	
8,550.00	3,961.13	8,564.69	3,935.80	56.81	57.05	-89.195	1,104.30	5,005.31	1,804.44	1,690.82	113.62	15.882	
8,600.00	3,961.89	8,614.69	3,936.55	57.35	57.59	-89.195	1,105.38	5,055.29	1,804.43	1,689.73	114.71	15.731	
8,650.00	3,962.64	8,664.69	3,937.30	57.90	58.14	-89.195	1,106.47	5,105.28	1,804.43	1,688.63	115.80	15.583	
8,700.00	3,963.40	8,714.69	3,938.05	58.44	58.68	-89.195	1,107.56	5,155.26	1,804.43	1,687.54	116.89	15.437	
8,750.00	3,964.15	8,764.69	3,938.80	58.99	59.23	-89.195	1,108.64	5,205.24	1,804.43	1,686.44	117.98	15.294	
8,800.00	3,964.91	8,814.69	3,939.55	59.53	59.77	-89.195	1,109.73	5,255.22	1,804.43	1,685.35	119.08	15.153	
8,850.00	3,965.66	8,864.69	3,940.30	60.08	60.32	-89.194	1,110.81	5,305.21	1,804.42	1,684.25	120.17	15.015	
8,900.00	3,966.42	8,914.69	3,941.04	60.63	60.86	-89.194	1,111.90	5,355.19	1,804.42	1,683.16	121.27	14.880	
8,950.00	3,967.17	8,964.69	3,941.79	61.17	61.41	-89.194	1,112.98	5,405.17	1,804.42	1,682.06	122.36	14.747	
9,000.00	3,967.93	9,014.69	3,942.54	61.72	61.96	-89.194	1,114.07	5,455.15	1,804.42	1,680.96	123.46	14.616	
9,050.00	3,968.68	9,064.69	3,943.29	62.27	62.50	-89.194	1,115.16	5,505.14	1,804.41	1,679.86	124.55	14.487	
9,100.00	3,969.44	9,114.69	3,944.04	62.81	63.05	-89.194	1,116.24	5,555.12	1,804.41	1,678.76	125.65	14.361	
9,150.00	3,970.19	9,164.69	3,944.79	63.36	63.60	-89.193	1,117.33	5,605.10	1,804.41	1,677.66	126.75	14.236	
9,200.00	3,970.95	9,214.69	3,945.54	63.91	64.15	-89.193	1,118.41	5,655.09	1,804.41	1,676.56	127.85	14.114	
9,250.00	3,971.70	9,264.69	3,946.29	64.46	64.69	-89.193	1,119.50	5,705.07	1,804.41	1,675.46	128.94	13.994	
9,300.00	3,972.45	9,314.69	3,947.04	65.01	65.24	-89.193	1,120.59	5,755.05	1,804.40	1,674.36	130.04	13.875	
9,350.00	3,973.21	9,364.69	3,947.79	65.56	65.79	-89.193	1,121.67	5,805.03	1,804.40	1,673.26	131.14	13.759	
9,400.00	3,973.96	9,414.69	3,948.54	66.11	66.34	-89.193	1,122.76	5,855.02	1,804.40	1,672.16	132.24	13.645	
9,450.00	3,974.72	9,464.69	3,949.29	66.65	66.89	-89.192	1,123.84	5,905.00	1,804.40	1,671.05	133.34	13.532	
9,500.00	3,975.47	9,514.69	3,950.04	67.20	67.44	-89.192	1,124.93	5,954.98	1,804.39	1,669.95	134.44	13.421	
9,550.00	3,976.23	9,564.69	3,950.79	67.75	67.99	-89.192	1,126.02	6,004.96	1,804.39	1,668.85	135.54	13.312	
9,600.00	3,976.98	9,614.69	3,951.54	68.30	68.54	-89.192	1,127.10	6,054.95	1,804.39	1,667.74	136.65	13.205	
9,650.00	3,977.74	9,664.69	3,952.29	68.85	69.09	-89.192	1,128.19	6,104.93	1,804.39	1,666.64	137.75	13.099	
9,700.00	3,978.49	9,714.69	3,953.04	69.40	69.64	-89.192	1,129.27	6,154.91	1,804.39	1,665.54	138.85	12.995	
9,750.00	3,979.25	9,764.69	3,953.79	69.96	70.19	-89.191	1,130.36	6,204.89	1,804.38	1,664.43	139.95	12.893	
9,800.00	3,980.00	9,814.69	3,954.53	70.51	70.74	-89.191	1,131.45	6,254.88	1,804.38	1,663.33	141.05	12.792	
9,850.00	3,980.76	9,864.69	3,955.28	71.06	71.29	-89.191	1,132.53	6,304.86	1,804.38	1,662.22	142.16	12.693	
9,900.00	3,981.51	9,914.69	3,956.03	71.61	71.84	-89.191	1,133.62	6,354.84	1,804.38	1,661.11	143.26	12.595	
9,950.00	3,982.27	9,964.69	3,956.78	72.16	72.39	-89.191	1,134.70	6,404.82	1,804.37	1,660.01	144.37	12.499	
10,000.00	3,983.02	10,014.69	3,957.53	72.71	72.94	-89.191	1,135.79	6,454.81	1,804.37	1,658.90	145.47	12.404	
10,050.00	3,983.77	10,064.69	3,958.28	73.26	73.49	-89.190	1,136.88	6,504.79	1,804.37	1,657.79	146.58	12.310	
10,100.00	3,984.53	10,114.69	3,959.03	73.81	74.04	-89.190	1,137.96	6,554.77	1,804.37	1,656.69	147.68	12.218	
10,150.00	3,985.28	10,164.69	3,959.78	74.37	74.60	-89.190	1,139.05	6,604.75	1,804.37	1,655.58	148.79	12.127	
10,200.00	3,986.04	10,214.69	3,960.53	74.92	75.15	-89.190	1,140.13	6,654.74	1,804.36	1,654.47	149.89	12.038	
10,250.00	3,986.79	10,264.69	3,961.28	75.47	75.70	-89.190	1,141.22	6,704.72	1,804.36	1,653.36	151.00	11.950	
10,300.00	3,987.55	10,314.69	3,962.03	76.02	76.25	-89.189	1,142.30	6,754.70	1,804.36	1,652.26	152.10	11.863	
10,350.00	3,988.30	10,364.69	3,962.78	76.58	76.81	-89.189	1,143.39	6,804.68	1,804.36	1,651.15	153.21	11.777	
10,400.00	3,989.06	10,414.69	3,963.53	77.13	77.36	-89.189	1,144.48	6,854.67	1,804.35	1,650.04	154.32	11.693	
10,450.00	3,989.81	10,464.69	3,964.28	77.68	77.91	-89.189	1,145.56	6,904.65	1,804.35	1,648.93	155.42	11.609	
10,500.00	3,990.57	10,514.69	3,965.03	78.24	78.46	-89.189	1,146.65	6,954.63	1,804.35	1,647.82	156.53	11.527	
10,550.00	3,991.32	10,564.69	3,965.78	78.79	79.02	-89.189	1,147.73	7,004.61	1,804.35	1,646.71	157.64	11.446	
10,600.00	3,992.08	10,614.69	3,966.53	79.34	79.57	-89.188	1,148.82	7,054.60	1,804.34	1,645.60	158.75	11.366	
10,650.00	3,992.83	10,664.69	3,967.27	79.90	80.12	-89.188	1,149.91	7,104.58	1,804.34	1,644.49	159.85	11.287	
10,700.00	3,993.59	10,714.69	3,968.02	80.45	80.68	-89.188	1,150.99	7,154.56	1,804.34	1,643.38	160.96	11.210	
10,750.00	3,994.34	10,764.69	3,968.77	81.00	81.23	-89.188	1,152.08	7,204.55	1,804.34	1,642.27	162.07	11.133	
10,800.00	3,995.09	10,814.69	3,969.52	81.56	81.78	-89.188	1,153.16	7,254.53	1,804.34	1,641.16	163.18	11.057	
10,850.00	3,995.85	10,864.69	3,970.27	82.11	82.34	-89.188	1,154.25	7,304.51	1,804.33	1,640.04	164.29	10.983	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 20H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,900.00	3,996.60	10,914.69	3,971.02	82.67	82.89	-89.187	1,155.34	7,354.49	1,804.33	1,638.93	165.40	10.909	
10,950.00	3,997.36	10,964.69	3,971.77	83.22	83.45	-89.187	1,156.42	7,404.48	1,804.33	1,637.82	166.51	10.836	
11,000.00	3,998.11	11,014.69	3,972.52	83.77	84.00	-89.187	1,157.51	7,454.46	1,804.33	1,636.71	167.62	10.765	
11,050.00	3,998.87	11,064.69	3,973.27	84.33	84.55	-89.187	1,158.59	7,504.44	1,804.32	1,635.60	168.73	10.694	
11,074.95	3,999.24	11,089.64	3,973.64	84.60	84.83	-89.187	1,159.14	7,529.38	1,804.32	1,635.04	169.28	10.659	
11,100.00	3,999.62	11,114.69	3,974.02	84.88	85.11	-89.187	1,159.68	7,554.42	1,804.32	1,634.49	169.84	10.624	
11,124.98	4,000.00	11,139.68	3,974.39	85.16	85.38	-89.187	1,160.22	7,579.40	1,804.32	1,633.93	170.39	10.589	SF

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 60H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
250.00	250.00	250.00	250.00	0.68	0.68	-0.574	59.90	-0.60	59.90	58.54	1.36	43.975	
300.00	300.00	300.00	300.00	0.86	0.86	-0.574	59.90	-0.60	59.90	58.18	1.72	34.814	CC, ES
350.00	350.00	348.97	348.96	1.03	1.04	-176.144	60.32	-0.56	60.76	58.69	2.07	29.302	
400.00	399.98	397.85	397.83	1.20	1.21	-176.108	61.56	-0.45	63.34	60.91	2.43	26.036	
450.00	449.93	446.55	446.49	1.38	1.39	-176.055	63.63	-0.27	67.64	64.84	2.80	24.195	
500.00	499.84	495.00	494.85	1.55	1.57	-175.991	66.51	-0.02	73.64	70.48	3.16	23.319	
550.00	549.68	543.11	542.82	1.72	1.74	-175.921	70.17	0.30	81.33	77.81	3.52	23.089	
600.00	599.45	590.80	590.30	1.90	1.91	-175.851	74.59	0.68	90.70	86.82	3.88	23.353	
650.00	649.13	637.99	637.21	2.07	2.08	-175.782	79.74	1.13	101.73	97.49	4.24	23.974	
700.00	698.70	684.61	683.45	2.25	2.25	-175.718	85.58	1.64	114.40	109.80	4.60	24.883	
750.00	748.15	731.06	729.44	2.43	2.43	-175.658	92.13	2.21	128.66	123.70	4.96	25.962	
800.00	797.47	778.65	776.52	2.61	2.59	-175.621	99.05	2.81	143.98	138.68	5.30	27.177	
850.00	846.63	825.98	823.34	2.79	2.76	-175.611	105.94	3.41	160.12	154.48	5.63	28.425	
900.00	895.62	873.01	869.87	2.98	2.93	-175.619	112.78	4.01	177.08	171.11	5.97	29.674	
950.00	944.44	919.74	916.10	3.17	3.09	-175.640	119.58	4.60	194.86	188.56	6.30	30.926	
1,000.00	993.06	966.16	962.01	3.36	3.26	-175.670	126.33	5.19	213.45	206.83	6.62	32.225	
1,050.00	1,041.46	1,012.24	1,007.60	3.55	3.42	-175.707	133.04	5.78	232.84	225.90	6.94	33.555	
1,100.00	1,089.64	1,057.98	1,052.85	3.75	3.59	-175.748	139.69	6.36	253.04	245.78	7.25	34.883	
1,127.09	1,115.65	1,082.61	1,077.22	3.85	3.68	-175.771	143.28	6.67	264.31	256.89	7.42	35.618	
1,150.00	1,137.61	1,103.40	1,097.78	3.95	3.76	-175.805	146.30	6.93	273.94	266.38	7.56	36.229	
1,200.00	1,185.54	1,148.76	1,142.66	4.14	3.92	-175.873	152.90	7.51	294.96	287.09	7.87	37.466	
1,250.00	1,233.47	1,194.13	1,187.54	4.35	4.09	-175.931	159.50	8.08	315.98	307.80	8.18	38.609	
1,300.00	1,281.40	1,239.49	1,232.42	4.55	4.25	-175.982	166.10	8.66	337.01	328.51	8.50	39.652	
1,350.00	1,329.33	1,284.86	1,277.30	4.75	4.42	-176.027	172.70	9.23	358.03	349.21	8.81	40.619	
1,400.00	1,377.26	1,330.23	1,322.18	4.96	4.58	-176.067	179.30	9.81	379.05	369.92	9.13	41.510	
1,450.00	1,425.19	1,375.59	1,367.06	5.16	4.75	-176.103	185.90	10.38	400.07	390.62	9.45	42.338	
1,500.00	1,473.12	1,420.96	1,411.94	5.37	4.92	-176.135	192.50	10.96	421.09	411.33	9.77	43.106	
1,550.00	1,521.05	1,466.32	1,456.82	5.57	5.08	-176.164	199.10	11.53	442.12	432.03	10.09	43.822	
1,600.00	1,568.99	1,511.69	1,501.70	5.78	5.25	-176.190	205.71	12.11	463.14	452.73	10.41	44.490	
1,650.00	1,616.92	1,557.05	1,546.57	5.98	5.41	-176.215	212.31	12.68	484.16	473.43	10.73	45.114	
1,700.00	1,664.85	1,602.42	1,591.45	6.19	5.58	-176.237	218.91	13.26	505.18	494.13	11.05	45.699	
1,750.00	1,712.78	1,647.78	1,636.33	6.40	5.75	-176.257	225.51	13.84	526.21	514.83	11.38	46.248	
1,800.00	1,760.71	1,693.15	1,681.21	6.61	5.91	-176.276	232.11	14.41	547.23	535.53	11.70	46.764	
1,850.00	1,808.64	1,738.51	1,726.09	6.81	6.08	-176.294	238.71	14.99	568.25	556.23	12.03	47.250	
1,900.00	1,856.57	1,783.88	1,770.97	7.02	6.24	-176.310	245.31	15.56	589.27	576.92	12.35	47.709	
1,950.00	1,904.50	1,829.25	1,815.85	7.23	6.41	-176.325	251.91	16.14	610.30	597.62	12.68	48.142	
2,000.00	1,952.43	1,874.61	1,860.73	7.44	6.58	-176.339	258.51	16.71	631.32	618.32	13.00	48.551	
2,050.00	2,000.36	1,919.98	1,905.61	7.65	6.74	-176.352	265.11	17.29	652.34	639.01	13.33	48.940	
2,100.00	2,048.29	1,965.34	1,950.48	7.86	6.91	-176.364	271.71	17.86	673.37	659.71	13.66	49.308	
2,150.00	2,096.22	2,010.71	1,995.36	8.06	7.08	-176.376	278.31	18.44	694.39	680.41	13.98	49.658	
2,200.00	2,144.15	2,056.07	2,040.24	8.27	7.24	-176.387	284.91	19.01	715.41	701.10	14.31	49.990	
2,250.00	2,192.08	2,101.44	2,085.12	8.48	7.41	-176.397	291.51	19.59	736.43	721.80	14.64	50.307	
2,300.00	2,240.01	2,146.80	2,130.00	8.69	7.57	-176.407	298.11	20.16	757.46	742.49	14.97	50.608	
2,350.00	2,287.94	2,192.17	2,174.88	8.90	7.74	-176.416	304.71	20.74	778.48	763.19	15.30	50.896	
2,400.00	2,335.87	2,237.53	2,219.76	9.11	7.91	-176.425	311.32	21.32	799.50	783.88	15.62	51.171	
2,450.00	2,383.81	2,282.90	2,264.64	9.32	8.07	-176.433	317.92	21.89	820.53	804.57	15.95	51.433	
2,500.00	2,431.74	2,328.26	2,309.52	9.53	8.24	-176.441	324.52	22.47	841.55	825.27	16.28	51.685	
2,550.00	2,479.67	2,373.63	2,354.40	9.74	8.41	-176.449	331.12	23.04	862.57	845.96	16.61	51.926	
2,600.00	2,527.60	2,419.00	2,399.27	9.95	8.57	-176.456	337.72	23.62	883.60	866.65	16.94	52.156	
2,650.00	2,575.53	2,464.36	2,444.15	10.16	8.74	-176.462	344.32	24.19	904.62	887.35	17.27	52.378	
2,700.00	2,623.46	2,509.73	2,489.03	10.37	8.91	-176.469	350.92	24.77	925.64	908.04	17.60	52.590	
2,750.00	2,671.39	2,555.09	2,533.91	10.58	9.07	-176.475	357.52	25.34	946.66	928.73	17.93	52.794	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 60H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,800.00	2,719.32	2,600.46	2,578.79	10.79	9.24	-176.481	364.12	25.92	967.69	949.43	18.26	52.991	
2,850.00	2,767.25	2,645.82	2,623.67	11.00	9.40	-176.487	370.72	26.49	988.71	970.12	18.59	53.179	
2,900.00	2,815.18	2,691.19	2,668.55	11.22	9.57	-176.492	377.32	27.07	1,009.73	990.81	18.92	53.361	
2,950.00	2,863.11	2,736.55	2,713.43	11.43	9.74	-176.497	383.92	27.64	1,030.76	1,011.50	19.25	53.537	
3,000.00	2,911.04	2,781.92	2,758.31	11.64	9.90	-176.502	390.52	28.22	1,051.78	1,032.20	19.58	53.706	
3,000.54	2,911.56	2,782.41	2,758.79	11.64	9.91	-176.502	390.59	28.23	1,052.01	1,032.42	19.59	53.707	
3,050.00	2,958.99	2,827.35	2,803.25	11.85	10.07	-165.220	397.13	28.80	1,072.60	1,052.64	19.96	53.735	
3,100.00	3,006.89	2,872.85	2,848.26	12.06	10.24	-154.229	403.75	29.37	1,092.96	1,072.61	20.35	53.718	
3,150.00	3,054.62	2,918.28	2,893.21	12.26	10.40	-144.200	410.36	29.95	1,112.84	1,092.11	20.74	53.669	
3,200.00	3,102.03	2,963.53	2,937.97	12.46	10.57	-135.445	416.95	30.52	1,132.23	1,111.11	21.12	53.599	
3,250.00	3,149.01	3,008.46	2,982.41	12.66	10.74	-128.030	423.48	31.09	1,151.13	1,129.62	21.51	53.518	
3,300.00	3,195.41	3,052.95	3,026.43	12.85	10.90	-121.862	429.96	31.66	1,169.55	1,147.66	21.89	53.432	
3,350.00	3,241.12	3,096.89	3,069.90	13.04	11.06	-116.776	436.35	32.21	1,187.52	1,165.26	22.26	53.348	
3,400.00	3,286.01	3,140.15	3,112.69	13.22	11.22	-112.595	442.64	32.76	1,205.09	1,182.47	22.62	53.270	
3,450.00	3,329.96	3,182.61	3,154.70	13.40	11.37	-109.157	448.82	33.30	1,222.30	1,199.33	22.98	53.199	
3,500.00	3,372.84	3,224.16	3,195.81	13.57	11.53	-106.324	454.87	33.83	1,239.21	1,215.89	23.32	53.137	
3,550.00	3,414.54	3,273.74	3,244.85	13.74	11.71	-104.189	462.04	35.05	1,255.79	1,232.11	23.68	53.025	
3,600.00	3,454.95	3,331.09	3,301.44	13.91	11.92	-102.595	470.13	39.52	1,271.69	1,247.63	24.06	52.846	
3,650.00	3,493.95	3,391.51	3,360.70	14.06	12.14	-101.352	478.36	47.92	1,286.80	1,262.35	24.45	52.625	
3,700.00	3,531.43	3,455.32	3,422.60	14.22	12.37	-100.412	486.69	60.88	1,301.03	1,276.17	24.85	52.354	
3,750.00	3,567.30	3,522.82	3,487.05	14.37	12.60	-99.735	495.06	79.07	1,314.25	1,288.99	25.26	52.028	
3,800.00	3,601.45	3,594.31	3,553.78	14.52	12.85	-99.286	503.39	103.29	1,326.36	1,300.68	25.69	51.637	
3,850.00	3,633.80	3,670.06	3,622.36	14.67	13.10	-99.036	511.55	134.35	1,337.23	1,311.10	26.13	51.174	
3,900.00	3,664.25	3,750.27	3,692.13	14.82	13.37	-98.957	519.40	173.08	1,346.72	1,320.12	26.60	50.632	
3,950.00	3,692.71	3,835.04	3,762.16	14.98	13.65	-99.020	526.76	220.24	1,354.68	1,327.58	27.09	50.001	
4,000.00	3,719.12	3,924.34	3,831.19	15.13	13.97	-99.198	533.39	276.44	1,360.95	1,333.33	27.62	49.271	
4,008.31	3,723.30	3,939.60	3,842.46	15.17	14.02	-99.237	534.40	286.68	1,361.82	1,334.11	27.71	49.140	
4,050.00	3,744.15	4,018.33	3,897.96	15.30	14.32	-100.053	539.07	342.29	1,365.54	1,337.35	28.19	48.442	
4,100.00	3,769.15	4,116.66	3,960.65	15.48	14.72	-100.712	543.53	417.85	1,368.51	1,339.70	28.81	47.501	
4,150.00	3,794.15	4,217.47	4,016.65	15.68	15.17	-100.975	546.48	501.57	1,369.68	1,340.16	29.51	46.407	
4,200.00	3,819.15	4,274.17	4,045.08	15.89	15.45	-100.979	547.56	550.62	1,369.69	1,339.64	30.05	45.576	
4,208.31	3,823.30	4,282.47	4,049.23	15.92	15.49	-100.979	547.72	557.81	1,369.69	1,339.56	30.14	45.449	
4,208.40	3,823.35	4,282.57	4,049.28	15.92	15.49	-100.979	547.72	557.89	1,369.69	1,339.55	30.14	45.447	
4,250.00	3,842.82	4,324.13	4,070.06	16.12	15.70	-101.013	548.50	593.88	1,369.98	1,339.41	30.57	44.817	
4,300.00	3,862.61	4,373.78	4,094.88	16.36	15.96	-101.139	549.44	636.86	1,371.10	1,340.00	31.10	44.090	
4,350.00	3,878.33	4,422.73	4,119.36	16.62	16.22	-101.347	550.36	679.24	1,373.11	1,341.48	31.63	43.408	
4,400.00	3,889.86	4,511.74	4,158.77	16.89	16.73	-101.944	552.09	758.94	1,375.49	1,343.11	32.38	42.477	
4,450.00	3,897.10	4,613.24	4,188.11	17.17	17.33	-102.400	554.20	855.95	1,377.07	1,343.83	33.23	41.435	
4,499.66	3,900.00	4,716.90	4,199.94	17.45	17.95	-102.578	556.43	958.76	1,377.67	1,343.55	34.13	40.370	
4,500.00	3,900.01	4,717.62	4,199.95	17.45	17.96	-102.578	556.45	959.48	1,377.67	1,343.54	34.13	40.362	
4,550.00	3,900.76	4,768.83	4,200.92	17.74	18.27	-102.586	557.56	1,010.67	1,377.71	1,342.96	34.75	39.643	
4,600.00	3,901.51	4,818.83	4,201.86	18.05	18.58	-102.593	558.65	1,060.65	1,377.75	1,342.38	35.38	38.946	
4,650.00	3,902.27	4,868.83	4,202.79	18.37	18.91	-102.601	559.73	1,110.63	1,377.79	1,341.76	36.03	38.236	
4,700.00	3,903.02	4,918.83	4,203.73	18.70	19.24	-102.608	560.82	1,160.61	1,377.83	1,341.13	36.70	37.543	
4,750.00	3,903.78	4,968.83	4,204.67	19.05	19.59	-102.616	561.91	1,210.59	1,377.87	1,340.47	37.40	36.842	
4,800.00	3,904.53	5,018.83	4,205.61	19.40	19.94	-102.623	562.99	1,260.57	1,377.90	1,339.80	38.11	36.160	
4,850.00	3,905.29	5,068.83	4,206.55	19.77	20.31	-102.631	564.08	1,310.55	1,377.94	1,339.10	38.84	35.476	
4,900.00	3,906.04	5,118.83	4,207.49	20.14	20.68	-102.638	565.17	1,360.53	1,377.98	1,338.40	39.58	34.812	
4,950.00	3,906.80	5,168.83	4,208.42	20.53	21.06	-102.646	566.25	1,410.51	1,378.02	1,337.67	40.35	34.150	
5,000.00	3,907.55	5,218.83	4,209.36	20.92	21.45	-102.653	567.34	1,460.49	1,378.06	1,336.93	41.13	33.509	
5,050.00	3,908.31	5,268.83	4,210.30	21.32	21.85	-102.661	568.43	1,510.47	1,378.10	1,336.17	41.92	32.872	
5,100.00	3,909.06	5,318.83	4,211.24	21.73	22.25	-102.668	569.51	1,560.44	1,378.13	1,335.41	42.73	32.256	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 60H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,150.00	3,909.82	5,368.83	4,212.18	22.14	22.67	-102.676	570.60	1,610.42	1,378.17	1,334.62	43.55	31.647	
5,200.00	3,910.57	5,418.83	4,213.12	22.56	23.08	-102.683	571.68	1,660.40	1,378.21	1,333.83	44.38	31.057	
5,250.00	3,911.33	5,468.83	4,214.06	22.99	23.51	-102.691	572.77	1,710.38	1,378.25	1,333.03	45.22	30.477	
5,300.00	3,912.08	5,518.83	4,214.99	23.43	23.94	-102.698	573.86	1,760.36	1,378.29	1,332.22	46.07	29.915	
5,350.00	3,912.83	5,568.83	4,215.93	23.87	24.37	-102.705	574.94	1,810.34	1,378.33	1,331.39	46.94	29.363	
5,400.00	3,913.59	5,618.83	4,216.87	24.31	24.81	-102.713	576.03	1,860.32	1,378.37	1,330.55	47.81	28.829	
5,450.00	3,914.34	5,668.82	4,217.81	24.77	25.26	-102.720	577.12	1,910.30	1,378.40	1,329.71	48.70	28.306	
5,500.00	3,915.10	5,718.82	4,218.75	25.22	25.71	-102.728	578.20	1,960.28	1,378.44	1,328.86	49.59	27.800	
5,550.00	3,915.85	5,768.82	4,219.69	25.68	26.16	-102.735	579.29	2,010.26	1,378.48	1,327.99	50.49	27.304	
5,600.00	3,916.61	5,818.82	4,220.62	26.14	26.62	-102.743	580.37	2,060.23	1,378.52	1,327.13	51.39	26.824	
5,650.00	3,917.36	5,868.82	4,221.56	26.61	27.08	-102.750	581.46	2,110.21	1,378.56	1,326.25	52.31	26.354	
5,700.00	3,918.12	5,918.82	4,222.50	27.08	27.55	-102.758	582.55	2,160.19	1,378.60	1,325.37	53.23	25.900	
5,750.00	3,918.87	5,968.82	4,223.44	27.56	28.01	-102.765	583.63	2,210.17	1,378.64	1,324.48	54.16	25.456	
5,800.00	3,919.63	6,018.82	4,224.38	28.03	28.49	-102.773	584.72	2,260.15	1,378.67	1,323.58	55.09	25.026	
5,850.00	3,920.38	6,068.82	4,225.32	28.52	28.96	-102.780	585.81	2,310.13	1,378.71	1,322.68	56.03	24.605	
5,900.00	3,921.14	6,118.82	4,226.25	29.00	29.44	-102.788	586.89	2,360.11	1,378.75	1,321.78	56.98	24.198	
5,950.00	3,921.89	6,168.82	4,227.19	29.49	29.92	-102.795	587.98	2,410.09	1,378.79	1,320.86	57.93	23.801	
6,000.00	3,922.65	6,218.82	4,228.13	29.98	30.41	-102.802	589.06	2,460.07	1,378.83	1,319.95	58.88	23.416	
6,050.00	3,923.40	6,268.82	4,229.07	30.47	30.90	-102.810	590.15	2,510.05	1,378.87	1,319.02	59.85	23.040	
6,100.00	3,924.16	6,318.82	4,230.01	30.97	31.39	-102.817	591.24	2,560.03	1,378.91	1,318.10	60.81	22.675	
6,150.00	3,924.91	6,368.82	4,230.95	31.46	31.88	-102.825	592.32	2,610.00	1,378.95	1,317.16	61.78	22.319	
6,200.00	3,925.66	6,418.82	4,231.88	31.96	32.37	-102.832	593.41	2,659.98	1,378.99	1,316.23	62.76	21.973	
6,250.00	3,926.42	6,468.82	4,232.82	32.47	32.87	-102.840	594.50	2,709.96	1,379.02	1,315.29	63.74	21.636	
6,300.00	3,927.17	6,518.82	4,233.76	32.97	33.37	-102.847	595.58	2,759.94	1,379.06	1,314.35	64.72	21.309	
6,350.00	3,927.93	6,568.82	4,234.70	33.47	33.87	-102.855	596.67	2,809.92	1,379.10	1,313.40	65.70	20.989	
6,400.00	3,928.68	6,618.82	4,235.64	33.98	34.37	-102.862	597.75	2,859.90	1,379.14	1,312.45	66.69	20.679	
6,450.00	3,929.44	6,668.82	4,236.58	34.49	34.88	-102.870	598.84	2,909.88	1,379.18	1,311.49	67.69	20.376	
6,500.00	3,930.19	6,718.82	4,237.51	35.00	35.38	-102.877	599.93	2,959.86	1,379.22	1,310.54	68.68	20.081	
6,550.00	3,930.95	6,768.82	4,238.45	35.51	35.89	-102.885	601.01	3,009.84	1,379.26	1,309.58	69.68	19.794	
6,600.00	3,931.70	6,818.82	4,239.39	36.03	36.40	-102.892	602.10	3,059.82	1,379.30	1,308.62	70.68	19.514	
6,650.00	3,932.46	6,868.82	4,240.33	36.54	36.91	-102.899	603.19	3,109.79	1,379.34	1,307.65	71.69	19.241	
6,700.00	3,933.21	6,918.82	4,241.27	37.06	37.42	-102.907	604.27	3,159.77	1,379.38	1,306.68	72.69	18.975	
6,750.00	3,933.97	6,968.82	4,242.21	37.58	37.94	-102.914	605.36	3,209.75	1,379.42	1,305.71	73.70	18.715	
6,800.00	3,934.72	7,018.82	4,243.14	38.10	38.45	-102.922	606.44	3,259.73	1,379.45	1,304.74	74.72	18.463	
6,850.00	3,935.48	7,068.82	4,244.08	38.62	38.97	-102.929	607.53	3,309.71	1,379.49	1,303.76	75.73	18.216	
6,900.00	3,936.23	7,118.82	4,245.02	39.14	39.49	-102.937	608.62	3,359.69	1,379.53	1,302.79	76.75	17.975	
6,950.00	3,936.98	7,168.81	4,245.96	39.66	40.01	-102.944	609.70	3,409.67	1,379.57	1,301.81	77.77	17.740	
7,000.00	3,937.74	7,218.81	4,246.90	40.19	40.53	-102.952	610.79	3,459.65	1,379.61	1,300.82	78.79	17.511	
7,050.00	3,938.49	7,268.81	4,247.84	40.71	41.05	-102.959	611.88	3,509.63	1,379.65	1,299.84	79.81	17.286	
7,100.00	3,939.25	7,318.81	4,248.78	41.24	41.57	-102.967	612.96	3,559.61	1,379.69	1,298.86	80.84	17.068	
7,150.00	3,940.00	7,368.81	4,249.71	41.77	42.10	-102.974	614.05	3,609.59	1,379.73	1,297.87	81.86	16.854	
7,200.00	3,940.76	7,418.81	4,250.65	42.29	42.62	-102.981	615.13	3,659.56	1,379.77	1,296.88	82.89	16.646	
7,250.00	3,941.51	7,468.81	4,251.59	42.82	43.15	-102.989	616.22	3,709.54	1,379.81	1,295.89	83.92	16.442	
7,300.00	3,942.27	7,518.81	4,252.53	43.35	43.67	-102.996	617.31	3,759.52	1,379.85	1,294.90	84.95	16.243	
7,350.00	3,943.02	7,568.81	4,253.47	43.88	44.20	-103.004	618.39	3,809.50	1,379.89	1,293.90	85.99	16.048	
7,400.00	3,943.78	7,618.81	4,254.41	44.41	44.73	-103.011	619.48	3,859.48	1,379.93	1,292.91	87.02	15.857	
7,450.00	3,944.53	7,668.81	4,255.34	44.95	45.26	-103.019	620.57	3,909.46	1,379.97	1,291.91	88.06	15.671	
7,500.00	3,945.29	7,718.81	4,256.28	45.48	45.79	-103.026	621.65	3,959.44	1,380.01	1,290.91	89.10	15.489	
7,550.00	3,946.04	7,768.81	4,257.22	46.01	46.32	-103.034	622.74	4,009.42	1,380.05	1,289.91	90.13	15.311	
7,600.00	3,946.80	7,818.81	4,258.16	46.55	46.85	-103.041	623.82	4,059.40	1,380.09	1,288.91	91.17	15.137	
7,650.00	3,947.55	7,868.81	4,259.10	47.08	47.38	-103.049	624.91	4,109.38	1,380.13	1,287.91	92.22	14.966	
7,700.00	3,948.30	7,918.81	4,260.04	47.62	47.92	-103.056	626.00	4,159.36	1,380.16	1,286.91	93.26	14.799	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 60H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,750.00	3,949.06	7,968.81	4,260.97	48.16	48.45	-103.063	627.08	4,209.33	1,380.20	1,285.90	94.30	14.636	
7,800.00	3,949.81	8,018.81	4,261.91	48.69	48.98	-103.071	628.17	4,259.31	1,380.24	1,284.90	95.35	14.476	
7,850.00	3,950.57	8,068.81	4,262.85	49.23	49.52	-103.078	629.26	4,309.29	1,380.28	1,283.89	96.40	14.319	
7,900.00	3,951.32	8,118.81	4,263.79	49.77	50.05	-103.086	630.34	4,359.27	1,380.32	1,282.88	97.44	14.166	
7,950.00	3,952.08	8,168.81	4,264.73	50.31	50.59	-103.093	631.43	4,409.25	1,380.36	1,281.87	98.49	14.015	
8,000.00	3,952.83	8,218.81	4,265.67	50.85	51.13	-103.101	632.52	4,459.23	1,380.40	1,280.86	99.54	13.868	
8,050.00	3,953.59	8,268.81	4,266.60	51.39	51.66	-103.108	633.60	4,509.21	1,380.44	1,279.85	100.59	13.723	
8,100.00	3,954.34	8,318.81	4,267.54	51.93	52.20	-103.116	634.69	4,559.19	1,380.48	1,278.84	101.64	13.582	
8,150.00	3,955.10	8,368.81	4,268.48	52.47	52.74	-103.123	635.77	4,609.17	1,380.52	1,277.83	102.69	13.443	
8,200.00	3,955.85	8,418.81	4,269.42	53.01	53.28	-103.130	636.86	4,659.15	1,380.56	1,276.82	103.75	13.307	
8,250.00	3,956.61	8,468.81	4,270.36	53.55	53.82	-103.138	637.95	4,709.12	1,380.60	1,275.80	104.80	13.174	
8,300.00	3,957.36	8,518.81	4,271.30	54.09	54.36	-103.145	639.03	4,759.10	1,380.64	1,274.79	105.86	13.043	
8,350.00	3,958.12	8,568.81	4,272.23	54.63	54.90	-103.153	640.12	4,809.08	1,380.68	1,273.77	106.91	12.914	
8,400.00	3,958.87	8,618.80	4,273.17	55.18	55.44	-103.160	641.21	4,859.06	1,380.72	1,272.76	107.97	12.788	
8,450.00	3,959.62	8,668.80	4,274.11	55.72	55.98	-103.168	642.29	4,909.04	1,380.76	1,271.74	109.02	12.665	
8,500.00	3,960.38	8,718.80	4,275.05	56.26	56.52	-103.175	643.38	4,959.02	1,380.80	1,270.72	110.08	12.543	
8,550.00	3,961.13	8,768.80	4,275.99	56.81	57.06	-103.183	644.46	5,009.00	1,380.84	1,269.70	111.14	12.424	
8,600.00	3,961.89	8,818.80	4,276.93	57.35	57.61	-103.190	645.55	5,058.98	1,380.88	1,268.68	112.20	12.307	
8,650.00	3,962.64	8,868.80	4,277.87	57.90	58.15	-103.197	646.64	5,108.96	1,380.92	1,267.66	113.26	12.193	
8,700.00	3,963.40	8,918.80	4,278.80	58.44	58.69	-103.205	647.72	5,158.94	1,380.96	1,266.64	114.32	12.080	
8,750.00	3,964.15	8,968.80	4,279.74	58.99	59.24	-103.212	648.81	5,208.92	1,381.00	1,265.62	115.38	11.969	
8,800.00	3,964.91	9,018.80	4,280.68	59.53	59.78	-103.220	649.90	5,258.89	1,381.04	1,264.60	116.44	11.860	
8,850.00	3,965.66	9,068.80	4,281.62	60.08	60.32	-103.227	650.98	5,308.87	1,381.08	1,263.58	117.50	11.754	
8,900.00	3,966.42	9,118.80	4,282.56	60.63	60.87	-103.235	652.07	5,358.85	1,381.12	1,262.56	118.57	11.649	
8,950.00	3,967.17	9,168.80	4,283.50	61.17	61.41	-103.242	653.15	5,408.83	1,381.16	1,261.53	119.63	11.545	
9,000.00	3,967.93	9,218.80	4,284.43	61.72	61.96	-103.249	654.24	5,458.81	1,381.20	1,260.51	120.69	11.444	
9,050.00	3,968.68	9,268.80	4,285.37	62.27	62.50	-103.257	655.33	5,508.79	1,381.24	1,259.49	121.76	11.344	
9,100.00	3,969.44	9,318.80	4,286.31	62.81	63.05	-103.264	656.41	5,558.77	1,381.28	1,258.46	122.82	11.246	
9,150.00	3,970.19	9,368.80	4,287.25	63.36	63.60	-103.272	657.50	5,608.75	1,381.32	1,257.44	123.89	11.150	
9,200.00	3,970.95	9,418.80	4,288.19	63.91	64.14	-103.279	658.59	5,658.73	1,381.36	1,256.41	124.95	11.055	
9,250.00	3,971.70	9,468.80	4,289.13	64.46	64.69	-103.287	659.67	5,708.71	1,381.41	1,255.39	126.02	10.962	
9,300.00	3,972.45	9,518.80	4,290.06	65.01	65.24	-103.294	660.76	5,758.68	1,381.45	1,254.36	127.08	10.870	
9,350.00	3,973.21	9,568.80	4,291.00	65.56	65.78	-103.302	661.84	5,808.66	1,381.49	1,253.33	128.15	10.780	
9,400.00	3,973.96	9,618.80	4,291.94	66.11	66.33	-103.309	662.93	5,858.64	1,381.53	1,252.31	129.22	10.691	
9,450.00	3,974.72	9,668.80	4,292.88	66.65	66.88	-103.316	664.02	5,908.62	1,381.57	1,251.28	130.29	10.604	
9,500.00	3,975.47	9,718.80	4,293.82	67.20	67.43	-103.324	665.10	5,958.60	1,381.61	1,250.25	131.35	10.518	
9,550.00	3,976.23	9,768.80	4,294.76	67.75	67.98	-103.331	666.19	6,008.58	1,381.65	1,249.22	132.42	10.434	
9,600.00	3,976.98	9,818.80	4,295.69	68.30	68.52	-103.339	667.28	6,058.56	1,381.69	1,248.20	133.49	10.350	
9,650.00	3,977.74	9,868.80	4,296.63	68.85	69.07	-103.346	668.36	6,108.54	1,381.73	1,247.17	134.56	10.268	
9,700.00	3,978.49	9,918.80	4,297.57	69.40	69.62	-103.354	669.45	6,158.52	1,381.77	1,246.14	135.63	10.188	
9,750.00	3,979.25	9,968.80	4,298.51	69.96	70.17	-103.361	670.53	6,208.50	1,381.81	1,245.11	136.70	10.108	
9,800.00	3,980.00	10,018.80	4,299.45	70.51	70.72	-103.368	671.62	6,258.48	1,381.85	1,244.08	137.77	10.030	
9,850.00	3,980.76	10,068.80	4,300.39	71.06	71.27	-103.376	672.71	6,308.45	1,381.89	1,243.05	138.84	9.953	
9,900.00	3,981.51	10,118.79	4,301.32	71.61	71.82	-103.383	673.79	6,358.43	1,381.93	1,242.02	139.91	9.877	
9,950.00	3,982.27	10,168.79	4,302.26	72.16	72.37	-103.391	674.88	6,408.41	1,381.97	1,240.99	140.98	9.802	
10,000.00	3,983.02	10,218.79	4,303.20	72.71	72.92	-103.398	675.97	6,458.39	1,382.01	1,239.96	142.06	9.729	
10,050.00	3,983.77	10,268.79	4,304.14	73.26	73.47	-103.406	677.05	6,508.37	1,382.05	1,238.93	143.13	9.656	
10,100.00	3,984.53	10,318.79	4,305.08	73.81	74.02	-103.413	678.14	6,558.35	1,382.10	1,237.90	144.20	9.585	
10,150.00	3,985.28	10,368.79	4,306.02	74.37	74.57	-103.420	679.22	6,608.33	1,382.14	1,236.86	145.27	9.514	
10,200.00	3,986.04	10,418.79	4,306.96	74.92	75.12	-103.428	680.31	6,658.31	1,382.18	1,235.83	146.34	9.445	
10,250.00	3,986.79	10,468.79	4,307.89	75.47	75.67	-103.435	681.40	6,708.29	1,382.22	1,234.80	147.42	9.376	
10,300.00	3,987.55	10,518.79	4,308.83	76.02	76.23	-103.443	682.48	6,758.27	1,382.26	1,233.77	148.49	9.309	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 60H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,350.00	3,988.30	10,568.79	4,309.77	76.58	76.78	-103.450	683.57	6,808.24	1,382.30	1,232.74	149.56	9.242	
10,400.00	3,989.06	10,618.79	4,310.71	77.13	77.33	-103.458	684.66	6,858.22	1,382.34	1,231.70	150.64	9.177	
10,450.00	3,989.81	10,668.79	4,311.65	77.68	77.88	-103.465	685.74	6,908.20	1,382.38	1,230.67	151.71	9.112	
10,500.00	3,990.57	10,718.79	4,312.59	78.24	78.43	-103.472	686.83	6,958.18	1,382.42	1,229.64	152.78	9.048	
10,550.00	3,991.32	10,768.79	4,313.52	78.79	78.98	-103.480	687.92	7,008.16	1,382.46	1,228.60	153.86	8.985	
10,600.00	3,992.08	10,818.79	4,314.46	79.34	79.54	-103.487	689.00	7,058.14	1,382.50	1,227.57	154.93	8.923	
10,650.00	3,992.83	10,868.79	4,315.40	79.90	80.09	-103.495	690.09	7,108.12	1,382.54	1,226.54	156.01	8.862	
10,700.00	3,993.59	10,918.79	4,316.34	80.45	80.64	-103.502	691.17	7,158.10	1,382.59	1,225.50	157.08	8.802	
10,750.00	3,994.34	10,968.79	4,317.28	81.00	81.19	-103.510	692.26	7,208.08	1,382.63	1,224.47	158.16	8.742	
10,800.00	3,995.09	11,018.79	4,318.22	81.56	81.75	-103.517	693.35	7,258.06	1,382.67	1,223.44	159.23	8.683	
10,850.00	3,995.85	11,068.79	4,319.15	82.11	82.30	-103.524	694.43	7,308.04	1,382.71	1,222.40	160.31	8.625	
10,900.00	3,996.60	11,118.79	4,320.09	82.67	82.85	-103.532	695.52	7,358.01	1,382.75	1,221.37	161.38	8.568	
10,950.00	3,997.36	11,168.79	4,321.03	83.22	83.41	-103.539	696.61	7,407.99	1,382.79	1,220.33	162.46	8.512	
11,000.00	3,998.11	11,218.79	4,321.97	83.77	83.96	-103.547	697.69	7,457.97	1,382.83	1,219.30	163.54	8.456	
11,050.00	3,998.87	11,268.79	4,322.91	84.33	84.51	-103.554	698.78	7,507.95	1,382.87	1,218.26	164.61	8.401	
11,074.95	3,999.24	11,293.74	4,323.38	84.60	84.79	-103.558	699.32	7,532.89	1,382.89	1,217.75	165.15	8.374	
11,100.00	3,999.62	11,318.79	4,323.85	84.88	85.07	-103.561	699.86	7,557.93	1,382.92	1,217.23	165.69	8.347	
11,124.98	4,000.00	11,343.77	4,324.31	85.16	85.34	-103.565	700.41	7,582.90	1,382.94	1,216.71	166.22	8.320	SF

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 61H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
150.00	150.00	150.00	150.00	0.32	0.32	-0.573	20.00	-0.20	20.00	19.36	0.65	30.997	
200.00	200.00	200.00	200.00	0.50	0.50	-0.573	20.00	-0.20	20.00	19.00	1.00	19.927	
250.00	250.00	250.00	250.00	0.68	0.68	-0.573	20.00	-0.20	20.00	18.64	1.36	14.683	
300.00	300.00	300.00	300.00	0.86	0.86	-0.573	20.00	-0.20	20.00	18.28	1.72	11.624	CC
350.00	350.00	350.35	350.34	1.03	1.03	-176.040	19.56	-0.13	20.00	17.93	2.07	9.662	
400.00	399.98	400.69	400.67	1.20	1.21	-175.697	18.26	0.10	20.01	17.58	2.42	8.257	
450.00	449.93	451.04	450.97	1.38	1.38	-175.126	16.08	0.46	20.02	17.24	2.78	7.212	
500.00	499.84	501.39	501.22	1.55	1.55	-174.327	13.02	0.98	20.03	16.91	3.13	6.408	
550.00	549.68	551.73	551.41	1.72	1.73	-173.302	9.10	1.64	20.06	16.58	3.49	5.755	
600.00	599.45	602.07	601.51	1.90	1.91	-172.055	4.31	2.45	20.10	16.26	3.84	5.230	
650.00	649.13	652.34	651.46	2.07	2.08	-170.605	-1.32	3.41	20.18	15.98	4.20	4.800	ES
700.00	698.70	702.33	701.09	2.25	2.26	-169.415	-7.19	4.40	20.87	16.30	4.56	4.573	
750.00	748.15	752.31	750.71	2.43	2.43	-168.749	-13.06	5.39	22.42	17.49	4.92	4.551	
800.00	797.47	802.25	800.30	2.61	2.61	-168.578	-18.92	6.38	24.82	19.54	5.28	4.698	
850.00	846.63	852.14	849.84	2.79	2.79	-168.789	-24.78	7.38	28.08	22.44	5.64	4.975	
900.00	895.62	901.97	899.31	2.98	2.97	-169.249	-30.63	8.37	32.19	26.20	6.00	5.368	
950.00	944.44	951.72	948.71	3.17	3.16	-169.842	-36.47	9.35	37.16	30.81	6.35	5.850	
1,000.00	993.06	1,001.38	998.01	3.36	3.34	-170.486	-42.30	10.34	42.99	36.29	6.70	6.413	
1,050.00	1,041.46	1,050.93	1,047.20	3.55	3.52	-171.129	-48.12	11.32	49.68	42.63	7.05	7.046	
1,100.00	1,089.64	1,100.35	1,096.28	3.75	3.70	-171.742	-53.93	12.31	57.23	49.83	7.40	7.736	
1,127.09	1,115.65	1,127.07	1,122.81	3.85	3.80	-172.056	-57.06	12.84	61.68	54.10	7.58	8.134	
1,150.00	1,137.61	1,149.65	1,145.22	3.95	3.88	-172.310	-59.72	13.28	65.55	57.81	7.74	8.471	
1,200.00	1,185.54	1,198.93	1,194.15	4.14	4.06	-172.772	-65.50	14.26	74.00	65.92	8.08	9.159	
1,250.00	1,233.47	1,248.20	1,243.08	4.35	4.24	-173.140	-71.29	15.24	82.45	74.03	8.42	9.791	
1,300.00	1,281.40	1,297.48	1,292.01	4.55	4.43	-173.440	-77.08	16.22	90.90	82.14	8.77	10.371	
1,350.00	1,329.33	1,346.76	1,340.93	4.75	4.61	-173.688	-82.86	17.20	99.36	90.25	9.11	10.907	
1,400.00	1,377.26	1,396.04	1,389.86	4.96	4.79	-173.898	-88.65	18.18	107.82	98.36	9.46	11.402	
1,450.00	1,425.19	1,445.32	1,438.79	5.16	4.97	-174.077	-94.43	19.16	116.28	106.48	9.80	11.862	
1,500.00	1,473.12	1,494.59	1,487.71	5.37	5.15	-174.231	-100.22	20.14	124.74	114.59	10.15	12.289	
1,550.00	1,521.05	1,543.87	1,536.64	5.57	5.34	-174.366	-106.01	21.12	133.20	122.70	10.50	12.687	
1,600.00	1,568.99	1,593.15	1,585.57	5.78	5.52	-174.485	-111.79	22.09	141.66	130.81	10.85	13.058	
1,650.00	1,616.92	1,642.43	1,634.50	5.98	5.70	-174.591	-117.58	23.07	150.13	138.93	11.20	13.406	
1,700.00	1,664.85	1,691.71	1,683.42	6.19	5.88	-174.685	-123.37	24.05	158.59	147.04	11.55	13.732	
1,750.00	1,712.78	1,740.98	1,732.35	6.40	6.06	-174.770	-129.15	25.03	167.05	155.15	11.90	14.038	
1,800.00	1,760.71	1,790.26	1,781.28	6.61	6.25	-174.846	-134.94	26.01	175.52	163.26	12.25	14.326	
1,850.00	1,808.64	1,839.54	1,830.21	6.81	6.43	-174.916	-140.73	26.99	183.98	171.38	12.60	14.597	
1,900.00	1,856.57	1,888.82	1,879.13	7.02	6.61	-174.979	-146.51	27.97	192.44	179.49	12.96	14.853	
1,950.00	1,904.50	1,938.10	1,928.06	7.23	6.79	-175.037	-152.30	28.95	200.91	187.60	13.31	15.095	
2,000.00	1,952.43	1,987.37	1,976.99	7.44	6.98	-175.091	-158.09	29.93	209.37	195.71	13.66	15.324	
2,050.00	2,000.36	2,036.65	2,025.91	7.65	7.16	-175.140	-163.87	30.90	217.84	203.82	14.02	15.542	
2,100.00	2,048.29	2,085.93	2,074.84	7.86	7.34	-175.185	-169.66	31.88	226.30	211.93	14.37	15.748	
2,150.00	2,096.22	2,135.21	2,123.77	8.06	7.53	-175.228	-175.45	32.86	234.77	220.04	14.72	15.944	
2,200.00	2,144.15	2,184.49	2,172.70	8.27	7.71	-175.267	-181.23	33.84	243.23	228.15	15.08	16.131	
2,250.00	2,192.08	2,233.76	2,221.62	8.48	7.89	-175.304	-187.02	34.82	251.70	236.26	15.43	16.308	
2,300.00	2,240.01	2,283.04	2,270.55	8.69	8.07	-175.338	-192.81	35.80	260.16	244.37	15.79	16.478	
2,350.00	2,287.94	2,332.32	2,319.48	8.90	8.26	-175.370	-198.59	36.78	268.63	252.48	16.14	16.640	
2,400.00	2,335.87	2,381.60	2,368.41	9.11	8.44	-175.400	-204.38	37.76	277.09	260.59	16.50	16.795	
2,450.00	2,383.81	2,430.88	2,417.33	9.32	8.62	-175.429	-210.17	38.74	285.56	268.70	16.85	16.943	
2,500.00	2,431.74	2,480.15	2,466.26	9.53	8.81	-175.455	-215.95	39.71	294.02	276.81	17.21	17.084	
2,550.00	2,479.67	2,529.43	2,515.19	9.74	8.99	-175.481	-221.74	40.69	302.49	284.92	17.57	17.220	
2,600.00	2,527.60	2,578.71	2,564.11	9.95	9.17	-175.504	-227.53	41.67	310.96	293.03	17.92	17.350	
2,650.00	2,575.53	2,627.99	2,613.04	10.16	9.35	-175.527	-233.31	42.65	319.42	301.14	18.28	17.475	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 61H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,700.00	2,623.46	2,677.27	2,661.97	10.37	9.54	-175.548	-239.10	43.63	327.89	309.25	18.63	17.596	
2,750.00	2,671.39	2,726.54	2,710.90	10.58	9.72	-175.569	-244.88	44.61	336.35	317.36	18.99	17.711	
2,800.00	2,719.32	2,775.82	2,759.82	10.79	9.90	-175.588	-250.67	45.59	344.82	325.47	19.35	17.822	
2,850.00	2,767.25	2,825.10	2,808.75	11.00	10.09	-175.607	-256.46	46.57	353.28	333.58	19.70	17.929	
2,900.00	2,815.18	2,874.38	2,857.68	11.22	10.27	-175.624	-262.24	47.55	361.75	341.69	20.06	18.032	
2,950.00	2,863.11	2,923.66	2,906.60	11.43	10.45	-175.641	-268.03	48.52	370.22	349.80	20.42	18.132	
3,000.00	2,911.04	2,972.93	2,955.53	11.64	10.64	-175.657	-273.82	49.50	378.68	357.91	20.78	18.228	
3,000.54	2,911.56	2,973.47	2,956.06	11.64	10.64	-175.657	-273.88	49.51	378.77	358.00	20.78	18.229	
3,050.00	2,958.99	3,022.23	3,004.47	11.85	10.82	-165.349	-279.61	50.48	386.91	365.76	21.16	18.288	
3,100.00	3,006.89	3,071.46	3,053.36	12.06	11.00	-155.555	-285.39	51.46	394.67	373.14	21.53	18.328	
3,150.00	3,054.62	3,120.51	3,102.06	12.26	11.18	-146.915	-291.15	52.43	402.01	380.11	21.90	18.354	
3,200.00	3,102.03	3,169.23	3,150.43	12.46	11.37	-139.721	-296.87	53.40	409.03	386.77	22.26	18.371	
3,250.00	3,149.01	3,217.49	3,198.35	12.66	11.54	-134.020	-302.53	54.36	415.86	393.25	22.62	18.388	
3,300.00	3,195.41	3,265.46	3,245.97	12.85	11.72	-129.630	-308.11	55.90	422.66	399.71	22.96	18.410	
3,350.00	3,241.12	3,314.06	3,294.10	13.04	11.90	-126.195	-313.54	59.78	429.49	406.19	23.29	18.437	
3,400.00	3,286.01	3,363.38	3,342.71	13.22	12.08	-123.540	-318.79	66.23	436.30	412.68	23.63	18.467	
3,450.00	3,329.96	3,413.46	3,391.69	13.40	12.27	-121.517	-323.84	75.34	443.08	419.13	23.95	18.499	
3,500.00	3,372.84	3,464.34	3,440.92	13.57	12.45	-120.004	-328.67	87.21	449.79	425.52	24.27	18.532	
3,550.00	3,414.54	3,516.03	3,490.25	13.74	12.63	-118.900	-333.25	101.94	456.39	431.81	24.58	18.565	
3,600.00	3,454.95	3,568.58	3,539.53	13.91	12.81	-118.128	-337.56	119.63	462.85	437.96	24.89	18.597	
3,650.00	3,493.95	3,622.01	3,588.60	14.06	12.99	-117.624	-341.56	140.37	469.13	443.94	25.19	18.625	
3,700.00	3,531.43	3,676.34	3,637.27	14.22	13.17	-117.339	-345.23	164.23	475.18	449.70	25.48	18.649	
3,750.00	3,567.30	3,731.59	3,685.32	14.37	13.35	-117.236	-348.54	191.28	480.98	455.21	25.77	18.666	
3,800.00	3,601.45	3,787.77	3,732.53	14.52	13.53	-117.282	-351.45	221.59	486.47	460.42	26.05	18.675	
3,850.00	3,633.80	3,844.91	3,778.66	14.67	13.70	-117.453	-353.93	255.19	491.61	465.28	26.33	18.673	
3,900.00	3,664.25	3,902.99	3,823.45	14.82	13.89	-117.729	-355.94	292.11	496.36	469.76	26.60	18.658	
3,950.00	3,692.71	3,962.02	3,866.62	14.98	14.08	-118.093	-357.46	332.32	500.68	473.80	26.88	18.627	
4,000.00	3,719.12	4,021.98	3,907.89	15.13	14.28	-118.531	-358.46	375.80	504.53	477.37	27.16	18.578	
4,008.31	3,723.30	4,032.03	3,914.53	15.17	14.32	-118.610	-358.57	383.34	505.12	477.92	27.20	18.568	
4,050.00	3,744.15	4,083.04	3,947.05	15.30	14.50	-119.520	-358.89	422.62	507.69	480.23	27.46	18.486	
4,100.00	3,769.15	4,145.22	3,983.81	15.48	14.74	-120.235	-358.74	472.76	509.77	481.95	27.82	18.323	
4,150.00	3,794.15	4,208.04	4,017.60	15.68	15.00	-120.527	-357.97	525.70	510.63	482.37	28.26	18.071	
4,200.00	3,819.15	4,260.38	4,043.83	15.89	15.23	-120.534	-357.00	570.99	510.65	481.95	28.70	17.793	
4,208.31	3,823.30	4,268.69	4,047.98	15.92	15.27	-120.534	-356.84	578.18	510.65	481.87	28.77	17.748	
4,208.31	3,823.31	4,268.69	4,047.98	15.92	15.27	-120.534	-356.84	578.18	510.65	481.87	28.77	17.748	
4,250.00	3,842.82	4,310.34	4,068.81	16.12	15.46	-120.613	-356.05	614.25	511.42	482.38	29.04	17.611	
4,300.00	3,862.61	4,359.99	4,093.63	16.36	15.71	-120.910	-355.12	657.23	514.40	485.04	29.37	17.517	
4,350.00	3,878.33	4,408.94	4,118.11	16.62	15.96	-121.397	-354.20	699.61	519.72	490.04	29.68	17.511	
4,400.00	3,889.86	4,495.05	4,156.73	16.89	16.44	-122.742	-352.52	776.47	526.13	496.10	30.03	17.519	
4,450.00	3,897.10	4,596.09	4,186.88	17.17	17.02	-123.825	-350.43	872.75	530.51	499.98	30.53	17.378	
4,499.66	3,900.00	4,699.55	4,199.76	17.45	17.63	-124.286	-348.20	975.24	532.37	501.16	31.21	17.059	
4,500.00	3,900.01	4,700.27	4,199.78	17.45	17.63	-124.288	-348.18	975.96	532.37	501.16	31.21	17.056	
4,550.00	3,900.76	4,754.64	4,200.87	17.74	17.96	-124.311	-347.00	1,030.30	532.49	500.72	31.77	16.761	
4,600.00	3,901.51	4,804.64	4,201.81	18.05	18.27	-124.328	-345.91	1,080.28	532.60	500.29	32.31	16.485	
4,650.00	3,902.27	4,854.64	4,202.75	18.37	18.60	-124.344	-344.82	1,130.26	532.70	499.82	32.88	16.201	
4,700.00	3,903.02	4,904.64	4,203.69	18.70	18.93	-124.361	-343.74	1,180.24	532.81	499.35	33.46	15.925	
4,750.00	3,903.78	4,954.64	4,204.63	19.05	19.28	-124.378	-342.65	1,230.22	532.91	498.85	34.06	15.645	
4,800.00	3,904.53	5,004.64	4,205.58	19.40	19.64	-124.394	-341.56	1,280.20	533.02	498.35	34.67	15.373	
4,850.00	3,905.29	5,054.64	4,206.52	19.77	20.00	-124.411	-340.47	1,330.18	533.12	497.82	35.31	15.099	
4,900.00	3,906.04	5,104.64	4,207.46	20.14	20.38	-124.427	-339.38	1,380.15	533.23	497.28	35.95	14.833	
4,950.00	3,906.80	5,154.64	4,208.40	20.53	20.76	-124.444	-338.30	1,430.13	533.34	496.72	36.61	14.567	
5,000.00	3,907.55	5,204.63	4,209.34	20.92	21.15	-124.461	-337.21	1,480.11	533.44	496.16	37.28	14.310	

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

SPUR ENERGY PARTNERS

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Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 61H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,050.00	3,908.31	5,254.63	4,210.28	21.32	21.55	-124.477	-336.12	1,530.09	533.55	495.58	37.96	14.054	
5,100.00	3,909.06	5,304.63	4,211.23	21.73	21.96	-124.494	-335.03	1,580.07	533.65	495.00	38.65	13.806	
5,150.00	3,909.82	5,354.63	4,212.17	22.14	22.37	-124.510	-333.94	1,630.05	533.76	494.40	39.36	13.560	
5,200.00	3,910.57	5,404.63	4,213.11	22.56	22.79	-124.527	-332.86	1,680.03	533.86	493.79	40.07	13.322	
5,250.00	3,911.33	5,454.63	4,214.05	22.99	23.22	-124.543	-331.77	1,730.01	533.97	493.17	40.80	13.087	
5,300.00	3,912.08	5,504.63	4,214.99	23.43	23.65	-124.560	-330.68	1,779.99	534.08	492.55	41.53	12.860	
5,350.00	3,912.83	5,554.63	4,215.93	23.87	24.09	-124.577	-329.59	1,829.97	534.18	491.91	42.28	12.636	
5,400.00	3,913.59	5,604.63	4,216.88	24.31	24.53	-124.593	-328.51	1,879.94	534.29	491.27	43.02	12.419	
5,450.00	3,914.34	5,654.63	4,217.82	24.77	24.97	-124.610	-327.42	1,929.92	534.39	490.61	43.78	12.206	
5,500.00	3,915.10	5,704.63	4,218.76	25.22	25.42	-124.626	-326.33	1,979.90	534.50	489.96	44.54	12.000	
5,550.00	3,915.85	5,754.63	4,219.70	25.68	25.88	-124.643	-325.24	2,029.88	534.60	489.29	45.32	11.797	
5,600.00	3,916.61	5,804.63	4,220.64	26.14	26.34	-124.659	-324.15	2,079.86	534.71	488.62	46.09	11.601	
5,650.00	3,917.36	5,854.63	4,221.58	26.61	26.81	-124.676	-323.07	2,129.84	534.82	487.94	46.88	11.408	
5,700.00	3,918.12	5,904.63	4,222.53	27.08	27.27	-124.692	-321.98	2,179.82	534.92	487.26	47.67	11.222	
5,750.00	3,918.87	5,954.63	4,223.47	27.56	27.75	-124.709	-320.89	2,229.80	535.03	486.57	48.46	11.040	
5,800.00	3,919.63	6,004.63	4,224.41	28.03	28.22	-124.725	-319.80	2,279.78	535.14	485.87	49.26	10.863	
5,850.00	3,920.38	6,054.63	4,225.35	28.52	28.70	-124.742	-318.72	2,329.75	535.24	485.17	50.07	10.690	
5,900.00	3,921.14	6,104.63	4,226.29	29.00	29.18	-124.758	-317.63	2,379.73	535.35	484.47	50.88	10.522	
5,950.00	3,921.89	6,154.63	4,227.23	29.49	29.66	-124.774	-316.54	2,429.71	535.45	483.76	51.69	10.358	
6,000.00	3,922.65	6,204.63	4,228.18	29.98	30.15	-124.791	-315.45	2,479.69	535.56	483.05	52.51	10.199	
6,050.00	3,923.40	6,254.63	4,229.12	30.47	30.64	-124.807	-314.36	2,529.67	535.67	482.33	53.34	10.043	
6,100.00	3,924.16	6,304.63	4,230.06	30.97	31.13	-124.824	-313.28	2,579.65	535.77	481.61	54.16	9.892	
6,150.00	3,924.91	6,354.63	4,231.00	31.46	31.62	-124.840	-312.19	2,629.63	535.88	480.89	54.99	9.745	
6,200.00	3,925.66	6,404.63	4,231.94	31.96	32.12	-124.857	-311.10	2,679.61	535.99	480.16	55.82	9.601	
6,250.00	3,926.42	6,454.63	4,232.88	32.47	32.62	-124.873	-310.01	2,729.59	536.09	479.43	56.66	9.461	
6,300.00	3,927.17	6,504.63	4,233.83	32.97	33.12	-124.890	-308.92	2,779.57	536.20	478.70	57.50	9.325	
6,350.00	3,927.93	6,554.63	4,234.77	33.47	33.62	-124.906	-307.84	2,829.54	536.31	477.96	58.35	9.192	
6,400.00	3,928.68	6,604.63	4,235.71	33.98	34.13	-124.922	-306.75	2,879.52	536.41	477.22	59.19	9.062	
6,450.00	3,929.44	6,654.62	4,236.65	34.49	34.63	-124.939	-305.66	2,929.50	536.52	476.48	60.04	8.936	
6,500.00	3,930.19	6,704.62	4,237.59	35.00	35.14	-124.955	-304.57	2,979.48	536.63	475.74	60.89	8.813	
6,550.00	3,930.95	6,754.62	4,238.53	35.51	35.65	-124.972	-303.49	3,029.46	536.73	474.99	61.75	8.693	
6,600.00	3,931.70	6,804.62	4,239.48	36.03	36.16	-124.988	-302.40	3,079.44	536.84	474.24	62.60	8.576	
6,650.00	3,932.46	6,854.62	4,240.42	36.54	36.67	-125.004	-301.31	3,129.42	536.95	473.49	63.46	8.461	
6,700.00	3,933.21	6,904.62	4,241.36	37.06	37.19	-125.021	-300.22	3,179.40	537.06	472.74	64.32	8.350	
6,750.00	3,933.97	6,954.62	4,242.30	37.58	37.70	-125.037	-299.13	3,229.38	537.16	471.98	65.18	8.241	
6,800.00	3,934.72	7,004.62	4,243.24	38.10	38.22	-125.053	-298.05	3,279.35	537.27	471.22	66.05	8.135	
6,850.00	3,935.48	7,054.62	4,244.18	38.62	38.74	-125.070	-296.96	3,329.33	537.38	470.46	66.91	8.031	
6,900.00	3,936.23	7,104.62	4,245.13	39.14	39.26	-125.086	-295.87	3,379.31	537.48	469.70	67.78	7.930	
6,950.00	3,936.98	7,154.62	4,246.07	39.66	39.78	-125.102	-294.78	3,429.29	537.59	468.94	68.65	7.831	
7,000.00	3,937.74	7,204.62	4,247.01	40.19	40.30	-125.119	-293.70	3,479.27	537.70	468.18	69.52	7.734	
7,050.00	3,938.49	7,254.62	4,247.95	40.71	40.82	-125.135	-292.61	3,529.25	537.81	467.41	70.40	7.640	
7,100.00	3,939.25	7,304.62	4,248.89	41.24	41.35	-125.151	-291.52	3,579.23	537.91	466.64	71.27	7.548	
7,150.00	3,940.00	7,354.62	4,249.83	41.77	41.87	-125.168	-290.43	3,629.21	538.02	465.87	72.15	7.457	
7,200.00	3,940.76	7,404.62	4,250.78	42.29	42.40	-125.184	-289.34	3,679.19	538.13	465.11	73.02	7.369	
7,250.00	3,941.51	7,454.62	4,251.72	42.82	42.93	-125.200	-288.26	3,729.17	538.24	464.33	73.90	7.283	
7,300.00	3,942.27	7,504.62	4,252.66	43.35	43.45	-125.217	-287.17	3,779.14	538.34	463.56	74.78	7.199	
7,350.00	3,943.02	7,554.62	4,253.60	43.88	43.98	-125.233	-286.08	3,829.12	538.45	462.79	75.66	7.117	
7,400.00	3,943.78	7,604.62	4,254.54	44.41	44.51	-125.249	-284.99	3,879.10	538.56	462.01	76.54	7.036	
7,450.00	3,944.53	7,654.62	4,255.48	44.95	45.04	-125.265	-283.90	3,929.08	538.67	461.24	77.43	6.957	
7,500.00	3,945.29	7,704.62	4,256.43	45.48	45.57	-125.282	-282.82	3,979.06	538.77	460.46	78.31	6.880	
7,550.00	3,946.04	7,754.62	4,257.37	46.01	46.10	-125.298	-281.73	4,029.04	538.88	459.69	79.20	6.804	
7,600.00	3,946.80	7,804.62	4,258.31	46.55	46.64	-125.314	-280.64	4,079.02	538.99	458.91	80.08	6.730	

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

SPUR ENERGY PARTNERS

Anticollision Report

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Offset Design AID NORTH 14-13 STATE COM - 61H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,650.00	3,947.55	7,854.62	4,259.25	47.08	47.17	-125.330	-279.55	4,129.00	539.10	458.13	80.97	6.658	
7,700.00	3,948.30	7,904.62	4,260.19	47.62	47.70	-125.347	-278.47	4,178.98	539.21	457.35	81.86	6.587	
7,750.00	3,949.06	7,954.62	4,261.13	48.16	48.24	-125.363	-277.38	4,228.95	539.31	456.57	82.75	6.518	
7,800.00	3,949.81	8,004.62	4,262.08	48.69	48.77	-125.379	-276.29	4,278.93	539.42	455.79	83.63	6.450	
7,850.00	3,950.57	8,054.62	4,263.02	49.23	49.31	-125.395	-275.20	4,328.91	539.53	455.00	84.53	6.383	
7,900.00	3,951.32	8,104.61	4,263.96	49.77	49.85	-125.411	-274.11	4,378.89	539.64	454.22	85.42	6.318	
7,950.00	3,952.08	8,154.61	4,264.90	50.31	50.38	-125.428	-273.03	4,428.87	539.75	453.44	86.31	6.254	
8,000.00	3,952.83	8,204.61	4,265.84	50.85	50.92	-125.444	-271.94	4,478.85	539.85	452.65	87.20	6.191	
8,050.00	3,953.59	8,254.61	4,266.78	51.39	51.46	-125.460	-270.85	4,528.83	539.96	451.87	88.09	6.129	
8,100.00	3,954.34	8,304.61	4,267.73	51.93	52.00	-125.476	-269.76	4,578.81	540.07	451.08	88.99	6.069	
8,150.00	3,955.10	8,354.61	4,268.67	52.47	52.54	-125.492	-268.68	4,628.79	540.18	450.30	89.88	6.010	
8,200.00	3,955.85	8,404.61	4,269.61	53.01	53.08	-125.509	-267.59	4,678.77	540.29	449.51	90.77	5.952	
8,250.00	3,956.61	8,454.61	4,270.55	53.55	53.62	-125.525	-266.50	4,728.74	540.39	448.73	91.67	5.895	
8,300.00	3,957.36	8,504.61	4,271.49	54.09	54.16	-125.541	-265.41	4,778.72	540.50	447.94	92.56	5.839	
8,350.00	3,958.12	8,554.61	4,272.43	54.63	54.70	-125.557	-264.32	4,828.70	540.61	447.15	93.46	5.784	
8,400.00	3,958.87	8,604.61	4,273.38	55.18	55.24	-125.573	-263.24	4,878.68	540.72	446.36	94.36	5.731	
8,450.00	3,959.62	8,654.61	4,274.32	55.72	55.78	-125.589	-262.15	4,928.66	540.83	445.57	95.25	5.678	
8,500.00	3,960.38	8,704.61	4,275.26	56.26	56.32	-125.605	-261.06	4,978.64	540.94	444.79	96.15	5.626	
8,550.00	3,961.13	8,754.61	4,276.20	56.81	56.87	-125.622	-259.97	5,028.62	541.05	444.00	97.05	5.575	
8,600.00	3,961.89	8,804.61	4,277.14	57.35	57.41	-125.638	-258.88	5,078.60	541.15	443.21	97.95	5.525	
8,650.00	3,962.64	8,854.61	4,278.08	57.90	57.95	-125.654	-257.80	5,128.58	541.26	442.42	98.85	5.476	
8,700.00	3,963.40	8,904.61	4,279.03	58.44	58.50	-125.670	-256.71	5,178.55	541.37	441.63	99.74	5.428	
8,750.00	3,964.15	8,954.61	4,279.97	58.99	59.04	-125.686	-255.62	5,228.53	541.48	440.84	100.64	5.380	
8,800.00	3,964.91	9,004.61	4,280.91	59.53	59.59	-125.702	-254.53	5,278.51	541.59	440.05	101.54	5.334	
8,850.00	3,965.66	9,054.61	4,281.85	60.08	60.13	-125.718	-253.45	5,328.49	541.70	439.26	102.44	5.288	
8,900.00	3,966.42	9,104.61	4,282.79	60.63	60.68	-125.734	-252.36	5,378.47	541.81	438.47	103.34	5.243	
8,950.00	3,967.17	9,154.61	4,283.73	61.17	61.22	-125.750	-251.27	5,428.45	541.92	437.67	104.24	5.199	
9,000.00	3,967.93	9,204.61	4,284.68	61.72	61.77	-125.766	-250.18	5,478.43	542.03	436.88	105.14	5.155	
9,050.00	3,968.68	9,254.61	4,285.62	62.27	62.31	-125.782	-249.09	5,528.41	542.13	436.09	106.04	5.112	
9,100.00	3,969.44	9,304.61	4,286.56	62.81	62.86	-125.799	-248.01	5,578.39	542.24	435.30	106.94	5.070	
9,150.00	3,970.19	9,354.61	4,287.50	63.36	63.41	-125.815	-246.92	5,628.37	542.35	434.51	107.85	5.029	
9,200.00	3,970.95	9,404.61	4,288.44	63.91	63.96	-125.831	-245.83	5,678.34	542.46	433.72	108.75	4.988	
9,250.00	3,971.70	9,454.61	4,289.38	64.46	64.50	-125.847	-244.74	5,728.32	542.57	432.92	109.65	4.948	
9,300.00	3,972.45	9,504.60	4,290.33	65.01	65.05	-125.863	-243.66	5,778.30	542.68	432.13	110.55	4.909	
9,350.00	3,973.21	9,554.60	4,291.27	65.56	65.60	-125.879	-242.57	5,828.28	542.79	431.34	111.45	4.870	
9,400.00	3,973.96	9,604.60	4,292.21	66.11	66.15	-125.895	-241.48	5,878.26	542.90	430.55	112.35	4.832	
9,450.00	3,974.72	9,654.60	4,293.15	66.65	66.69	-125.911	-240.39	5,928.24	543.01	429.75	113.26	4.795	
9,500.00	3,975.47	9,704.60	4,294.09	67.20	67.24	-125.927	-239.30	5,978.22	543.12	428.96	114.16	4.758	
9,550.00	3,976.23	9,754.60	4,295.03	67.75	67.79	-125.943	-238.22	6,028.20	543.23	428.17	115.06	4.721	
9,600.00	3,976.98	9,804.60	4,295.98	68.30	68.34	-125.959	-237.13	6,078.18	543.34	427.38	115.96	4.685	
9,650.00	3,977.74	9,854.60	4,296.92	68.85	68.89	-125.975	-236.04	6,128.15	543.45	426.58	116.86	4.650	
9,700.00	3,978.49	9,904.60	4,297.86	69.40	69.44	-125.991	-234.95	6,178.13	543.56	425.79	117.77	4.616	
9,750.00	3,979.25	9,954.60	4,298.80	69.96	69.99	-126.007	-233.86	6,228.11	543.67	425.00	118.67	4.581	
9,800.00	3,980.00	10,004.60	4,299.74	70.51	70.54	-126.023	-232.78	6,278.09	543.78	424.20	119.57	4.548	
9,850.00	3,980.76	10,054.60	4,300.68	71.06	71.09	-126.039	-231.69	6,328.07	543.89	423.41	120.47	4.515	
9,900.00	3,981.51	10,104.60	4,301.63	71.61	71.64	-126.055	-230.60	6,378.05	543.99	422.62	121.38	4.482	
9,950.00	3,982.27	10,154.60	4,302.57	72.16	72.19	-126.070	-229.51	6,428.03	544.10	421.83	122.28	4.450	
10,000.00	3,983.02	10,204.60	4,303.51	72.71	72.74	-126.086	-228.43	6,478.01	544.21	421.03	123.18	4.418	
10,050.00	3,983.77	10,254.60	4,304.45	73.26	73.29	-126.102	-227.34	6,527.99	544.32	420.24	124.09	4.387	
10,100.00	3,984.53	10,304.60	4,305.39	73.81	73.84	-126.118	-226.25	6,577.97	544.43	419.45	124.99	4.356	
10,150.00	3,985.28	10,354.60	4,306.33	74.37	74.39	-126.134	-225.16	6,627.94	544.54	418.65	125.89	4.326	
10,200.00	3,986.04	10,404.60	4,307.28	74.92	74.95	-126.150	-224.07	6,677.92	544.65	417.86	126.79	4.296	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - 61H - Wellbore #1 - PERMIT — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+SAG+FDIR — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,250.00	3,986.79	10,454.60	4,308.22	75.47	75.50	-126.166	-222.99	6,727.90	544.76	417.07	127.70	4.266	
10,300.00	3,987.55	10,504.60	4,309.16	76.02	76.05	-126.182	-221.90	6,777.88	544.87	416.28	128.60	4.237	
10,350.00	3,988.30	10,554.60	4,310.10	76.58	76.60	-126.198	-220.81	6,827.86	544.98	415.48	129.50	4.208	
10,400.00	3,989.06	10,604.60	4,311.04	77.13	77.15	-126.214	-219.72	6,877.84	545.10	414.69	130.40	4.180	
10,450.00	3,989.81	10,654.60	4,311.98	77.68	77.71	-126.230	-218.64	6,927.82	545.21	413.90	131.31	4.152	
10,500.00	3,990.57	10,704.60	4,312.93	78.24	78.26	-126.245	-217.55	6,977.80	545.32	413.11	132.21	4.125	
10,550.00	3,991.32	10,754.60	4,313.87	78.79	78.81	-126.261	-216.46	7,027.78	545.43	412.31	133.11	4.097	
10,600.00	3,992.08	10,804.60	4,314.81	79.34	79.36	-126.277	-215.37	7,077.75	545.54	411.52	134.02	4.071	
10,650.00	3,992.83	10,854.60	4,315.75	79.90	79.92	-126.293	-214.28	7,127.73	545.65	410.73	134.92	4.044	
10,700.00	3,993.59	10,904.60	4,316.69	80.45	80.47	-126.309	-213.20	7,177.71	545.76	409.94	135.82	4.018	
10,750.00	3,994.34	10,954.59	4,317.63	81.00	81.02	-126.325	-212.11	7,227.69	545.87	409.14	136.72	3.993	
10,800.00	3,995.09	11,004.59	4,318.58	81.56	81.58	-126.341	-211.02	7,277.67	545.98	408.35	137.63	3.967	
10,850.00	3,995.85	11,054.59	4,319.52	82.11	82.13	-126.356	-209.93	7,327.65	546.09	407.56	138.53	3.942	
10,900.00	3,996.60	11,104.59	4,320.46	82.67	82.68	-126.372	-208.84	7,377.63	546.20	406.77	139.43	3.917	
10,950.00	3,997.36	11,154.59	4,321.40	83.22	83.24	-126.388	-207.76	7,427.61	546.31	405.98	140.33	3.893	
11,000.00	3,998.11	11,204.59	4,322.34	83.77	83.79	-126.404	-206.67	7,477.59	546.42	405.19	141.23	3.869	
11,050.00	3,998.87	11,254.59	4,323.28	84.33	84.34	-126.420	-205.58	7,527.57	546.53	404.40	142.14	3.845	
11,074.95	3,999.24	11,279.54	4,323.75	84.60	84.62	-126.427	-205.04	7,552.51	546.59	404.00	142.59	3.833	
11,100.00	3,999.62	11,304.59	4,324.23	84.88	84.90	-126.435	-204.49	7,577.54	546.64	403.61	143.04	3.822	
11,124.98	4,000.00	11,329.57	4,324.70	85.16	85.17	-126.443	-203.95	7,602.52	546.70	403.21	143.49	3.810 SF	

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: AID STATE #10 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 304-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,499.66	3,900.00	4,013.14	3,900.00	17.45	79.19	-83.137	-143.51	5,360.28	4,412.36	4,317.39	94.97	46.460	
4,500.00	3,900.01	4,013.14	3,900.01	17.45	79.19	-83.137	-143.51	5,360.28	4,412.02	4,317.04	94.97	46.455	
4,550.00	3,900.76	4,013.90	3,900.76	17.74	79.20	-83.215	-143.51	5,360.28	4,362.42	4,267.08	95.33	45.759	
4,600.00	3,901.51	4,014.65	3,901.51	18.05	79.22	-83.293	-143.51	5,360.28	4,312.82	4,217.13	95.69	45.070	
4,650.00	3,902.27	4,015.41	3,902.27	18.37	79.23	-83.370	-143.51	5,360.28	4,263.24	4,167.17	96.08	44.374	
4,700.00	3,903.02	4,016.16	3,903.02	18.70	79.25	-83.448	-143.51	5,360.28	4,213.67	4,117.21	96.46	43.684	
4,750.00	3,903.78	4,016.91	3,903.78	19.05	79.26	-83.526	-143.51	5,360.28	4,164.11	4,067.25	96.86	42.991	
4,800.00	3,904.53	4,017.67	3,904.53	19.40	79.28	-83.604	-143.51	5,360.28	4,114.55	4,017.29	97.26	42.303	
4,850.00	3,905.29	4,018.42	3,905.29	19.77	79.29	-83.681	-143.51	5,360.28	4,065.01	3,967.33	97.68	41.614	
4,900.00	3,906.04	4,019.18	3,906.04	20.14	79.31	-83.759	-143.51	5,360.28	4,015.48	3,917.38	98.11	40.930	
4,950.00	3,906.80	4,019.93	3,906.80	20.53	79.32	-83.837	-143.51	5,360.28	3,965.96	3,867.42	98.54	40.246	
5,000.00	3,907.55	4,020.69	3,907.55	20.92	79.33	-83.915	-143.51	5,360.28	3,916.46	3,817.48	98.98	39.568	
5,050.00	3,908.31	4,021.44	3,908.31	21.32	79.35	-83.993	-143.51	5,360.28	3,866.96	3,767.53	99.43	38.891	
5,100.00	3,909.06	4,022.20	3,909.06	21.73	79.36	-84.071	-143.51	5,360.28	3,817.48	3,717.60	99.88	38.220	
5,150.00	3,909.82	4,022.95	3,909.82	22.14	79.38	-84.149	-143.51	5,360.28	3,768.01	3,667.67	100.35	37.550	
5,200.00	3,910.57	4,023.71	3,910.57	22.56	79.39	-84.226	-143.51	5,360.28	3,718.56	3,617.75	100.81	36.887	
5,250.00	3,911.33	4,024.46	3,911.33	22.99	79.41	-84.304	-143.51	5,360.28	3,669.12	3,567.83	101.28	36.226	
5,300.00	3,912.08	4,025.22	3,912.08	23.43	79.42	-84.382	-143.51	5,360.28	3,619.70	3,517.94	101.76	35.571	
5,350.00	3,912.83	4,025.97	3,912.83	23.87	79.44	-84.460	-143.51	5,360.28	3,570.29	3,468.04	102.24	34.919	
5,400.00	3,913.59	4,026.73	3,913.59	24.31	79.45	-84.538	-143.51	5,360.28	3,520.90	3,418.17	102.73	34.274	
5,450.00	3,914.34	4,027.48	3,914.34	24.77	79.47	-84.616	-143.51	5,360.28	3,471.52	3,368.30	103.22	33.632	
5,500.00	3,915.10	4,028.23	3,915.10	25.22	79.48	-84.695	-143.51	5,360.28	3,422.17	3,318.45	103.71	32.996	
5,550.00	3,915.85	4,028.99	3,915.85	25.68	79.50	-84.773	-143.51	5,360.28	3,372.83	3,268.61	104.22	32.364	
5,600.00	3,916.61	4,029.74	3,916.61	26.14	79.51	-84.851	-143.51	5,360.28	3,323.51	3,218.80	104.72	31.738	
5,650.00	3,917.36	4,030.50	3,917.36	26.61	79.53	-84.929	-143.51	5,360.28	3,274.21	3,168.99	105.22	31.117	
5,700.00	3,918.12	4,031.25	3,918.12	27.08	79.54	-85.007	-143.51	5,360.28	3,224.94	3,119.21	105.73	30.501	
5,750.00	3,918.87	4,032.01	3,918.87	27.56	79.56	-85.085	-143.51	5,360.28	3,175.69	3,069.44	106.25	29.890	
5,800.00	3,919.63	4,032.76	3,919.63	28.03	79.57	-85.163	-143.51	5,360.28	3,126.46	3,019.70	106.76	29.285	
5,850.00	3,920.38	4,033.52	3,920.38	28.52	79.59	-85.242	-143.51	5,360.28	3,077.25	2,969.97	107.28	28.685	
5,900.00	3,921.14	4,034.27	3,921.14	29.00	79.60	-85.320	-143.51	5,360.28	3,028.07	2,920.28	107.80	28.091	
5,950.00	3,921.89	4,035.03	3,921.89	29.49	79.62	-85.398	-143.51	5,360.28	2,978.92	2,870.60	108.32	27.501	
6,000.00	3,922.65	4,035.78	3,922.65	29.98	79.63	-85.476	-143.51	5,360.28	2,929.80	2,820.95	108.84	26.917	
6,050.00	3,923.40	4,036.54	3,923.40	30.47	79.65	-85.555	-143.51	5,360.28	2,880.70	2,771.33	109.37	26.338	
6,100.00	3,924.16	4,037.29	3,924.16	30.97	79.66	-85.633	-143.51	5,360.28	2,831.64	2,721.74	109.90	25.765	
6,150.00	3,924.91	4,038.05	3,924.91	31.46	79.68	-85.711	-143.51	5,360.28	2,782.61	2,672.18	110.43	25.197	
6,200.00	3,925.66	4,038.80	3,925.66	31.96	79.69	-85.789	-143.51	5,360.28	2,733.62	2,622.65	110.97	24.635	
6,250.00	3,926.42	4,039.55	3,926.42	32.47	79.71	-85.868	-143.51	5,360.28	2,684.66	2,573.16	111.50	24.077	
6,300.00	3,927.17	4,040.31	3,927.17	32.97	79.72	-85.946	-143.51	5,360.28	2,635.74	2,523.71	112.04	23.526	
6,350.00	3,927.93	4,041.06	3,927.93	33.47	79.74	-86.024	-143.51	5,360.28	2,586.87	2,474.29	112.58	22.979	
6,400.00	3,928.68	4,041.82	3,928.68	33.98	79.75	-86.103	-143.51	5,360.28	2,538.03	2,424.92	113.12	22.438	
6,450.00	3,929.44	4,042.57	3,929.44	34.49	79.76	-86.181	-143.51	5,360.28	2,489.25	2,375.59	113.66	21.901	
6,500.00	3,930.19	4,043.33	3,930.19	35.00	79.78	-86.260	-143.51	5,360.28	2,440.51	2,326.31	114.20	21.371	
6,550.00	3,930.95	4,044.08	3,930.95	35.51	79.79	-86.338	-143.51	5,360.28	2,391.82	2,277.08	114.74	20.845	
6,600.00	3,931.70	4,044.84	3,931.70	36.03	79.81	-86.416	-143.51	5,360.28	2,343.19	2,227.90	115.29	20.325	
6,650.00	3,932.46	4,045.59	3,932.46	36.54	79.82	-86.495	-143.51	5,360.28	2,294.62	2,178.79	115.83	19.810	
6,700.00	3,933.21	4,046.35	3,933.21	37.06	79.84	-86.573	-143.51	5,360.28	2,246.11	2,129.73	116.38	19.300	
6,750.00	3,933.97	4,047.10	3,933.97	37.58	79.85	-86.652	-143.51	5,360.28	2,197.66	2,080.74	116.93	18.795	
6,800.00	3,934.72	4,047.86	3,934.72	38.10	79.87	-86.730	-143.51	5,360.28	2,149.29	2,031.81	117.48	18.295	
6,850.00	3,935.48	4,048.61	3,935.48	38.62	79.88	-86.809	-143.51	5,360.28	2,100.99	1,982.97	118.03	17.801	
6,900.00	3,936.23	4,049.37	3,936.23	39.14	79.90	-86.887	-143.51	5,360.28	2,052.78	1,934.20	118.58	17.312	
6,950.00	3,936.98	4,050.12	3,936.98	39.66	79.91	-86.966	-143.51	5,360.28	2,004.65	1,885.52	119.13	16.827	
7,000.00	3,937.74	4,050.87	3,937.74	40.19	79.93	-87.044	-143.51	5,360.28	1,956.62	1,836.93	119.68	16.348	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: AID STATE #10 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 304-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,050.00	3,938.49	4,051.63	3,938.49	40.71	79.94	-87.123	-143.51	5,360.28	1,908.68	1,788.44	120.24	15.874	
7,100.00	3,939.25	4,052.38	3,939.25	41.24	79.96	-87.202	-143.51	5,360.28	1,860.86	1,740.07	120.79	15.406	
7,150.00	3,940.00	4,053.14	3,940.00	41.77	79.97	-87.280	-143.51	5,360.28	1,813.15	1,691.80	121.35	14.942	
7,200.00	3,940.76	4,053.89	3,940.76	42.29	79.99	-87.359	-143.51	5,360.28	1,765.56	1,643.66	121.90	14.484	
7,250.00	3,941.51	4,054.65	3,941.51	42.82	80.00	-87.437	-143.51	5,360.28	1,718.12	1,595.66	122.46	14.030	
7,300.00	3,942.27	4,055.40	3,942.27	43.35	80.02	-87.516	-143.51	5,360.28	1,670.82	1,547.81	123.01	13.582	
7,350.00	3,943.02	4,056.16	3,943.02	43.88	80.03	-87.594	-143.51	5,360.28	1,623.69	1,500.12	123.57	13.140	
7,400.00	3,943.78	4,056.91	3,943.78	44.41	80.05	-87.673	-143.51	5,360.28	1,576.73	1,452.60	124.13	12.702	
7,450.00	3,944.53	4,057.67	3,944.53	44.95	80.06	-87.752	-143.51	5,360.28	1,529.96	1,405.27	124.69	12.270	
7,500.00	3,945.29	4,058.42	3,945.29	45.48	80.08	-87.830	-143.51	5,360.28	1,483.41	1,358.16	125.25	11.844	
7,550.00	3,946.04	4,059.18	3,946.04	46.01	80.09	-87.909	-143.51	5,360.28	1,437.08	1,311.28	125.81	11.423	
7,600.00	3,946.80	4,059.93	3,946.80	46.55	80.11	-87.988	-143.51	5,360.28	1,391.01	1,264.65	126.36	11.008	
7,650.00	3,947.55	4,060.69	3,947.55	47.08	80.12	-88.066	-143.51	5,360.28	1,345.22	1,218.29	126.92	10.599	
7,700.00	3,948.30	4,061.44	3,948.30	47.62	80.14	-88.145	-143.51	5,360.28	1,299.74	1,172.25	127.49	10.195	
7,750.00	3,949.06	4,062.20	3,949.06	48.16	80.15	-88.224	-143.51	5,360.28	1,254.60	1,126.55	128.05	9.798	
7,800.00	3,949.81	4,062.95	3,949.81	48.69	80.17	-88.302	-143.51	5,360.28	1,209.85	1,081.24	128.61	9.407	
7,850.00	3,950.57	4,063.70	3,950.57	49.23	80.18	-88.381	-143.51	5,360.28	1,165.52	1,036.35	129.17	9.023	
7,900.00	3,951.32	4,064.46	3,951.32	49.77	80.19	-88.460	-143.51	5,360.28	1,121.66	991.93	129.73	8.646	
7,950.00	3,952.08	4,065.21	3,952.08	50.31	80.21	-88.538	-143.51	5,360.28	1,078.34	948.05	130.29	8.276	
8,000.00	3,952.83	4,065.97	3,952.83	50.85	80.22	-88.617	-143.51	5,360.28	1,035.63	904.77	130.85	7.914	
8,050.00	3,953.59	4,066.72	3,953.59	51.39	80.24	-88.696	-143.51	5,360.28	993.59	862.17	131.42	7.561	
8,100.00	3,954.34	4,067.48	3,954.34	51.93	80.25	-88.774	-143.51	5,360.28	952.32	820.34	131.98	7.216	
8,150.00	3,955.10	4,068.23	3,955.10	52.47	80.27	-88.853	-143.51	5,360.28	911.93	779.39	132.54	6.880	
8,200.00	3,955.85	4,068.99	3,955.85	53.01	80.28	-88.932	-143.51	5,360.28	872.53	739.42	133.11	6.555	
8,250.00	3,956.61	4,069.74	3,956.61	53.55	80.30	-89.011	-143.51	5,360.28	834.27	700.60	133.67	6.241	
8,300.00	3,957.36	4,070.50	3,957.36	54.09	80.31	-89.089	-143.51	5,360.28	797.30	663.07	134.23	5.940	
8,350.00	3,958.12	4,071.25	3,958.12	54.63	80.33	-89.168	-143.51	5,360.28	761.83	627.03	134.80	5.652	
8,400.00	3,958.87	4,072.01	3,958.87	55.18	80.34	-89.247	-143.51	5,360.28	728.06	592.70	135.36	5.379	
8,450.00	3,959.62	4,072.76	3,959.62	55.72	80.36	-89.326	-143.51	5,360.28	696.25	560.32	135.92	5.122	
8,500.00	3,960.38	4,073.52	3,960.38	56.26	80.37	-89.404	-143.51	5,360.28	666.67	530.18	136.49	4.884	
8,550.00	3,961.13	4,074.27	3,961.13	56.81	80.39	-89.483	-143.51	5,360.28	639.63	502.58	137.05	4.667	
8,600.00	3,961.89	4,075.02	3,961.89	57.35	80.40	-89.562	-143.51	5,360.28	615.48	477.86	137.62	4.472	
8,650.00	3,962.64	4,075.78	3,962.64	57.90	80.42	-89.641	-143.51	5,360.28	594.56	456.38	138.18	4.303	
8,700.00	3,963.40	4,076.53	3,963.40	58.44	80.43	-89.719	-143.51	5,360.28	577.22	438.47	138.74	4.160	
8,750.00	3,964.15	4,077.29	3,964.15	58.99	80.45	-89.798	-143.51	5,360.28	563.79	424.48	139.31	4.047	
8,800.00	3,964.91	4,078.04	3,964.91	59.53	80.46	-89.877	-143.51	5,360.28	554.56	414.69	139.87	3.965	
8,850.00	3,965.66	4,078.80	3,965.66	60.08	80.48	-89.956	-143.51	5,360.28	549.75	409.31	140.44	3.915	
8,878.22	3,966.09	4,079.22	3,966.09	60.39	80.48	-90.000	-143.51	5,360.28	549.02	408.27	140.76	3.901	CC, ES
8,900.00	3,966.42	4,079.55	3,966.42	60.63	80.49	-90.034	-143.51	5,360.28	549.45	408.45	141.00	3.897	SF
8,950.00	3,967.17	4,080.31	3,967.17	61.17	80.51	-90.113	-143.51	5,360.28	553.69	412.13	141.57	3.911	
9,000.00	3,967.93	4,081.06	3,967.93	61.72	80.52	-90.192	-143.51	5,360.28	562.36	420.23	142.13	3.957	
9,050.00	3,968.68	4,081.82	3,968.68	62.27	80.54	-90.271	-143.51	5,360.28	575.26	432.57	142.69	4.031	
9,100.00	3,969.44	4,082.57	3,969.44	62.81	80.55	-90.349	-143.51	5,360.28	592.11	448.85	143.26	4.133	
9,150.00	3,970.19	4,083.33	3,970.19	63.36	80.57	-90.428	-143.51	5,360.28	612.59	468.77	143.82	4.259	
9,200.00	3,970.95	4,084.08	3,970.95	63.91	80.58	-90.507	-143.51	5,360.28	636.35	491.96	144.39	4.407	
9,250.00	3,971.70	4,084.84	3,971.70	64.46	80.60	-90.586	-143.51	5,360.28	663.03	518.08	144.95	4.574	
9,300.00	3,972.45	4,085.59	3,972.45	65.01	80.61	-90.664	-143.51	5,360.28	692.30	546.78	145.52	4.758	
9,350.00	3,973.21	4,086.34	3,973.21	65.56	80.62	-90.743	-143.51	5,360.28	723.84	577.76	146.08	4.955	
9,400.00	3,973.96	4,087.10	3,973.96	66.11	80.64	-90.822	-143.51	5,360.28	757.37	610.73	146.64	5.165	
9,450.00	3,974.72	4,087.85	3,974.72	66.65	80.65	-90.900	-143.51	5,360.28	792.64	645.43	147.21	5.385	
9,500.00	3,975.47	4,088.61	3,975.47	67.20	80.67	-90.979	-143.51	5,360.28	829.42	681.65	147.77	5.613	
9,550.00	3,976.23	4,089.36	3,976.23	67.75	80.68	-91.058	-143.51	5,360.28	867.53	719.19	148.33	5.848	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: AID STATE #10 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 304-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,600.00	3,976.98	4,090.12	3,976.98	68.30	80.70	-91.137	-143.51	5,360.28	906.79	757.89	148.90	6.090	
9,650.00	3,977.74	4,090.87	3,977.74	68.85	80.71	-91.215	-143.51	5,360.28	947.06	797.60	149.46	6.336	
9,700.00	3,978.49	4,091.63	3,978.49	69.40	80.73	-91.294	-143.51	5,360.28	988.22	838.20	150.03	6.587	
9,750.00	3,979.25	4,092.38	3,979.25	69.96	80.74	-91.373	-143.51	5,360.28	1,030.17	879.58	150.59	6.841	
9,800.00	3,980.00	4,093.14	3,980.00	70.51	80.76	-91.451	-143.51	5,360.28	1,072.80	921.65	151.15	7.098	
9,850.00	3,980.76	4,093.89	3,980.76	71.06	80.77	-91.530	-143.51	5,360.28	1,116.05	964.33	151.71	7.356	
9,900.00	3,981.51	4,094.65	3,981.51	71.61	80.79	-91.609	-143.51	5,360.28	1,159.83	1,007.56	152.28	7.617	
9,950.00	3,982.27	4,095.40	3,982.27	72.16	80.80	-91.688	-143.51	5,360.28	1,204.10	1,051.26	152.84	7.878	
10,000.00	3,983.02	4,096.16	3,983.02	72.71	80.82	-91.766	-143.51	5,360.28	1,248.81	1,095.40	153.40	8.141	
10,050.00	3,983.77	4,096.91	3,983.77	73.26	80.83	-91.845	-143.51	5,360.28	1,293.90	1,139.93	153.96	8.404	
10,100.00	3,984.53	4,097.67	3,984.53	73.81	80.85	-91.924	-143.51	5,360.28	1,339.34	1,184.81	154.53	8.667	
10,150.00	3,985.28	4,098.42	3,985.28	74.37	80.86	-92.002	-143.51	5,360.28	1,385.09	1,230.00	155.09	8.931	
10,200.00	3,986.04	4,099.17	3,986.04	74.92	80.88	-92.081	-143.51	5,360.28	1,431.12	1,275.47	155.65	9.194	
10,250.00	3,986.79	4,099.93	3,986.79	75.47	80.89	-92.160	-143.51	5,360.28	1,477.42	1,321.21	156.21	9.458	
10,300.00	3,987.55	4,100.68	3,987.55	76.02	80.91	-92.238	-143.51	5,360.28	1,523.95	1,367.17	156.77	9.721	
10,350.00	3,988.30	4,101.44	3,988.30	76.58	80.92	-92.317	-143.51	5,360.28	1,570.69	1,413.35	157.33	9.983	
10,400.00	3,989.06	4,102.19	3,989.06	77.13	80.94	-92.395	-143.51	5,360.28	1,617.62	1,459.73	157.90	10.245	
10,450.00	3,989.81	4,102.95	3,989.81	77.68	80.95	-92.474	-143.51	5,360.28	1,664.73	1,506.28	158.46	10.506	
10,500.00	3,990.57	4,103.70	3,990.57	78.24	80.97	-92.553	-143.51	5,360.28	1,712.01	1,552.99	159.02	10.766	
10,550.00	3,991.32	4,104.46	3,991.32	78.79	80.98	-92.631	-143.51	5,360.28	1,759.44	1,599.86	159.58	11.026	
10,600.00	3,992.08	4,105.21	3,992.08	79.34	81.00	-92.710	-143.51	5,360.28	1,807.00	1,646.87	160.14	11.284	
10,650.00	3,992.83	4,105.97	3,992.83	79.90	81.01	-92.788	-143.51	5,360.28	1,854.70	1,694.00	160.70	11.542	
10,700.00	3,993.59	4,106.72	3,993.59	80.45	81.03	-92.867	-143.51	5,360.28	1,902.51	1,741.25	161.26	11.798	
10,750.00	3,994.34	4,107.48	3,994.34	81.00	81.04	-92.945	-143.51	5,360.28	1,950.43	1,788.61	161.82	12.053	
10,800.00	3,995.09	4,108.23	3,995.09	81.56	81.05	-93.024	-143.51	5,360.28	1,998.45	1,836.08	162.38	12.308	
10,850.00	3,995.85	4,108.99	3,995.85	82.11	81.07	-93.102	-143.51	5,360.28	2,046.57	1,883.63	162.93	12.561	
10,900.00	3,996.60	4,109.74	3,996.60	82.67	81.08	-93.181	-143.51	5,360.28	2,094.77	1,931.28	163.49	12.813	
10,950.00	3,997.36	4,110.49	3,997.36	83.22	81.10	-93.259	-143.51	5,360.28	2,143.06	1,979.01	164.05	13.063	
11,000.00	3,998.11	4,111.25	3,998.11	83.77	81.11	-93.338	-143.51	5,360.28	2,191.42	2,026.81	164.61	13.313	
11,050.00	3,998.87	4,112.00	3,998.87	84.33	81.13	-93.416	-143.51	5,360.28	2,239.86	2,074.69	165.17	13.561	
11,074.95	3,999.24	4,112.38	3,999.24	84.60	81.14	-93.456	-143.51	5,360.28	2,264.05	2,098.61	165.45	13.685	
11,100.00	3,999.62	4,112.76	3,999.62	84.88	81.14	-93.495	-143.51	5,360.28	2,288.36	2,122.63	165.72	13.808	
11,124.98	4,000.00	4,113.14	4,000.00	85.16	81.15	-93.534	-143.51	5,360.28	2,312.62	2,146.61	166.00	13.931	

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: AID STATE #6 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 166-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,800.00	3,919.63	4,014.73	3,919.63	28.03	73.99	62.898	-798.32	7,339.92	5,044.98	4,952.90	92.09	54.786	
5,850.00	3,920.38	4,015.48	3,920.38	28.52	74.01	63.129	-798.32	7,339.92	4,995.01	4,902.31	92.71	53.881	
5,900.00	3,921.14	4,016.24	3,921.14	29.00	74.02	63.360	-798.32	7,339.92	4,945.04	4,851.71	93.33	52.987	
5,950.00	3,921.89	4,016.99	3,921.89	29.49	74.03	63.593	-798.32	7,339.92	4,895.07	4,801.12	93.95	52.101	
6,000.00	3,922.65	4,017.75	3,922.65	29.98	74.05	63.827	-798.32	7,339.92	4,845.10	4,750.52	94.58	51.227	
6,050.00	3,923.40	4,018.50	3,923.40	30.47	74.06	64.062	-798.32	7,339.92	4,795.13	4,699.91	95.21	50.362	
6,100.00	3,924.16	4,019.26	3,924.16	30.97	74.08	64.297	-798.32	7,339.92	4,745.16	4,649.31	95.85	49.508	
6,150.00	3,924.91	4,020.01	3,924.91	31.46	74.09	64.534	-798.32	7,339.92	4,695.19	4,598.70	96.48	48.663	
6,200.00	3,925.66	4,020.76	3,925.66	31.96	74.10	64.771	-798.32	7,339.92	4,645.22	4,548.09	97.12	47.828	
6,250.00	3,926.42	4,021.52	3,926.42	32.47	74.12	65.009	-798.32	7,339.92	4,595.25	4,497.48	97.77	47.002	
6,300.00	3,927.17	4,022.27	3,927.17	32.97	74.13	65.249	-798.32	7,339.92	4,545.28	4,446.87	98.41	46.187	
6,350.00	3,927.93	4,023.03	3,927.93	33.47	74.15	65.489	-798.32	7,339.92	4,495.31	4,396.26	99.06	45.380	
6,400.00	3,928.68	4,023.78	3,928.68	33.98	74.16	65.730	-798.32	7,339.92	4,445.35	4,345.64	99.71	44.583	
6,450.00	3,929.44	4,024.54	3,929.44	34.49	74.17	65.972	-798.32	7,339.92	4,395.38	4,295.02	100.36	43.796	
6,500.00	3,930.19	4,025.29	3,930.19	35.00	74.19	66.215	-798.32	7,339.92	4,345.42	4,244.40	101.01	43.018	
6,550.00	3,930.95	4,026.05	3,930.95	35.51	74.20	66.459	-798.32	7,339.92	4,295.45	4,193.78	101.67	42.249	
6,600.00	3,931.70	4,026.80	3,931.70	36.03	74.22	66.704	-798.32	7,339.92	4,245.49	4,143.16	102.33	41.489	
6,650.00	3,932.46	4,027.56	3,932.46	36.54	74.23	66.949	-798.32	7,339.92	4,195.52	4,092.54	102.99	40.738	
6,700.00	3,933.21	4,028.31	3,933.21	37.06	74.24	67.196	-798.32	7,339.92	4,145.56	4,041.91	103.65	39.997	
6,750.00	3,933.97	4,029.07	3,933.97	37.58	74.26	67.443	-798.32	7,339.92	4,095.60	3,991.29	104.31	39.263	
6,800.00	3,934.72	4,029.82	3,934.72	38.10	74.27	67.692	-798.32	7,339.92	4,045.64	3,940.66	104.97	38.539	
6,850.00	3,935.48	4,030.58	3,935.48	38.62	74.28	67.941	-798.32	7,339.92	3,995.68	3,890.04	105.64	37.823	
6,900.00	3,936.23	4,031.33	3,936.23	39.14	74.30	68.191	-798.32	7,339.92	3,945.72	3,839.41	106.31	37.116	
6,950.00	3,936.98	4,032.08	3,936.98	39.66	74.31	68.442	-798.32	7,339.92	3,895.76	3,788.79	106.98	36.417	
7,000.00	3,937.74	4,032.84	3,937.74	40.19	74.33	68.694	-798.32	7,339.92	3,845.80	3,738.16	107.65	35.727	
7,050.00	3,938.49	4,033.59	3,938.49	40.71	74.34	68.947	-798.32	7,339.92	3,795.85	3,687.53	108.32	35.044	
7,100.00	3,939.25	4,034.35	3,939.25	41.24	74.35	69.200	-798.32	7,339.92	3,745.89	3,636.90	108.99	34.370	
7,150.00	3,940.00	4,035.10	3,940.00	41.77	74.37	69.455	-798.32	7,339.92	3,695.94	3,586.28	109.66	33.703	
7,200.00	3,940.76	4,035.86	3,940.76	42.29	74.38	69.710	-798.32	7,339.92	3,645.99	3,535.65	110.33	33.045	
7,250.00	3,941.51	4,036.61	3,941.51	42.82	74.40	69.966	-798.32	7,339.92	3,596.03	3,485.02	111.01	32.394	
7,300.00	3,942.27	4,037.37	3,942.27	43.35	74.41	70.223	-798.32	7,339.92	3,546.08	3,434.40	111.68	31.751	
7,350.00	3,943.02	4,038.12	3,943.02	43.88	74.42	70.481	-798.32	7,339.92	3,496.13	3,383.77	112.36	31.116	
7,400.00	3,943.78	4,038.88	3,943.78	44.41	74.44	70.740	-798.32	7,339.92	3,446.18	3,333.15	113.04	30.488	
7,450.00	3,944.53	4,039.63	3,944.53	44.95	74.45	70.999	-798.32	7,339.92	3,396.24	3,282.52	113.71	29.867	
7,500.00	3,945.29	4,040.39	3,945.29	45.48	74.47	71.260	-798.32	7,339.92	3,346.29	3,231.90	114.39	29.253	
7,550.00	3,946.04	4,041.14	3,946.04	46.01	74.48	71.521	-798.32	7,339.92	3,296.35	3,181.28	115.07	28.647	
7,600.00	3,946.80	4,041.90	3,946.80	46.55	74.49	71.783	-798.32	7,339.92	3,246.40	3,130.66	115.75	28.048	
7,650.00	3,947.55	4,042.65	3,947.55	47.08	74.51	72.045	-798.32	7,339.92	3,196.46	3,080.04	116.42	27.455	
7,700.00	3,948.30	4,043.40	3,948.30	47.62	74.52	72.309	-798.32	7,339.92	3,146.52	3,029.42	117.10	26.870	
7,750.00	3,949.06	4,044.16	3,949.06	48.16	74.54	72.573	-798.32	7,339.92	3,096.59	2,978.80	117.78	26.291	
7,800.00	3,949.81	4,044.91	3,949.81	48.69	74.55	72.838	-798.32	7,339.92	3,046.65	2,928.19	118.46	25.719	
7,850.00	3,950.57	4,045.67	3,950.57	49.23	74.56	73.104	-798.32	7,339.92	2,996.72	2,877.58	119.14	25.153	
7,900.00	3,951.32	4,046.42	3,951.32	49.77	74.58	73.370	-798.32	7,339.92	2,946.79	2,826.97	119.82	24.594	
7,950.00	3,952.08	4,047.18	3,952.08	50.31	74.59	73.638	-798.32	7,339.92	2,896.86	2,776.36	120.50	24.041	
8,000.00	3,952.83	4,047.93	3,952.83	50.85	74.61	73.906	-798.32	7,339.92	2,846.93	2,725.75	121.17	23.494	
8,050.00	3,953.59	4,048.69	3,953.59	51.39	74.62	74.174	-798.32	7,339.92	2,797.00	2,675.15	121.85	22.954	
8,100.00	3,954.34	4,049.44	3,954.34	51.93	74.63	74.444	-798.32	7,339.92	2,747.08	2,624.55	122.53	22.420	
8,150.00	3,955.10	4,050.20	3,955.10	52.47	74.65	74.714	-798.32	7,339.92	2,697.16	2,573.95	123.21	21.891	
8,200.00	3,955.85	4,050.95	3,955.85	53.01	74.66	74.985	-798.32	7,339.92	2,647.25	2,523.36	123.88	21.369	
8,250.00	3,956.61	4,051.71	3,956.61	53.55	74.68	75.256	-798.32	7,339.92	2,597.33	2,472.77	124.56	20.852	
8,300.00	3,957.36	4,052.46	3,957.36	54.09	74.69	75.529	-798.32	7,339.92	2,547.42	2,422.19	125.24	20.341	
8,350.00	3,958.12	4,053.22	3,958.12	54.63	74.70	75.801	-798.32	7,339.92	2,497.51	2,371.60	125.91	19.836	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: AID STATE #6 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 166-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,400.00	3,958.87	4,053.97	3,958.87	55.18	74.72	76.075	-798.32	7,339.92	2,447.61	2,321.02	126.58	19.336	
8,450.00	3,959.62	4,054.73	3,959.62	55.72	74.73	76.349	-798.32	7,339.92	2,397.71	2,270.45	127.26	18.841	
8,500.00	3,960.38	4,055.48	3,960.38	56.26	74.74	76.624	-798.32	7,339.92	2,347.81	2,219.88	127.93	18.352	
8,550.00	3,961.13	4,056.23	3,961.13	56.81	74.76	76.899	-798.32	7,339.92	2,297.92	2,169.32	128.60	17.868	
8,600.00	3,961.89	4,056.99	3,961.89	57.35	74.77	77.175	-798.32	7,339.92	2,248.03	2,118.76	129.27	17.390	
8,650.00	3,962.64	4,057.74	3,962.64	57.90	74.79	77.452	-798.32	7,339.92	2,198.15	2,068.21	129.94	16.916	
8,700.00	3,963.40	4,058.50	3,963.40	58.44	74.80	77.729	-798.32	7,339.92	2,148.28	2,017.67	130.61	16.448	
8,750.00	3,964.15	4,059.25	3,964.15	58.99	74.81	78.007	-798.32	7,339.92	2,098.40	1,967.13	131.28	15.984	
8,800.00	3,964.91	4,060.01	3,964.91	59.53	74.83	78.286	-798.32	7,339.92	2,048.54	1,916.60	131.94	15.526	
8,850.00	3,965.66	4,060.76	3,965.66	60.08	74.84	78.565	-798.32	7,339.92	1,998.68	1,866.07	132.61	15.072	
8,900.00	3,966.42	4,061.52	3,966.42	60.63	74.86	78.844	-798.32	7,339.92	1,948.83	1,815.56	133.27	14.623	
8,950.00	3,967.17	4,062.27	3,967.17	61.17	74.87	79.124	-798.32	7,339.92	1,898.98	1,765.05	133.93	14.179	
9,000.00	3,967.93	4,063.03	3,967.93	61.72	74.88	79.405	-798.32	7,339.92	1,849.15	1,714.55	134.59	13.739	
9,050.00	3,968.68	4,063.78	3,968.68	62.27	74.90	79.686	-798.32	7,339.92	1,799.32	1,664.07	135.25	13.303	
9,100.00	3,969.44	4,064.54	3,969.44	62.81	74.91	79.968	-798.32	7,339.92	1,749.50	1,613.59	135.91	12.873	
9,150.00	3,970.19	4,065.29	3,970.19	63.36	74.93	80.250	-798.32	7,339.92	1,699.69	1,563.13	136.56	12.446	
9,200.00	3,970.95	4,066.05	3,970.95	63.91	74.94	80.532	-798.32	7,339.92	1,649.90	1,512.68	137.22	12.024	
9,250.00	3,971.70	4,066.80	3,971.70	64.46	74.95	80.816	-798.32	7,339.92	1,600.11	1,462.24	137.87	11.606	
9,300.00	3,972.45	4,067.55	3,972.45	65.01	74.97	81.099	-798.32	7,339.92	1,550.34	1,411.82	138.52	11.192	
9,350.00	3,973.21	4,068.31	3,973.21	65.56	74.98	81.383	-798.32	7,339.92	1,500.58	1,361.42	139.17	10.783	
9,400.00	3,973.96	4,069.06	3,973.96	66.11	75.00	81.667	-798.32	7,339.92	1,450.84	1,311.03	139.81	10.377	
9,450.00	3,974.72	4,069.82	3,974.72	66.65	75.01	81.952	-798.32	7,339.92	1,401.12	1,260.67	140.46	9.975	
9,500.00	3,975.47	4,070.57	3,975.47	67.20	75.02	82.237	-798.32	7,339.92	1,351.42	1,210.32	141.10	9.578	
9,550.00	3,976.23	4,071.33	3,976.23	67.75	75.04	82.523	-798.32	7,339.92	1,301.74	1,160.00	141.74	9.184	
9,600.00	3,976.98	4,072.08	3,976.98	68.30	75.05	82.809	-798.32	7,339.92	1,252.09	1,109.71	142.37	8.794	
9,650.00	3,977.74	4,072.84	3,977.74	68.85	75.07	83.095	-798.32	7,339.92	1,202.46	1,059.45	143.01	8.408	
9,700.00	3,978.49	4,073.59	3,978.49	69.40	75.08	83.382	-798.32	7,339.92	1,152.87	1,009.23	143.64	8.026	
9,750.00	3,979.25	4,074.35	3,979.25	69.96	75.09	83.669	-798.32	7,339.92	1,103.31	959.04	144.27	7.647	
9,800.00	3,980.00	4,075.10	3,980.00	70.51	75.11	83.956	-798.32	7,339.92	1,053.79	908.89	144.90	7.273	
9,850.00	3,980.76	4,075.86	3,980.76	71.06	75.12	84.244	-798.32	7,339.92	1,004.33	858.80	145.53	6.901	
9,900.00	3,981.51	4,076.61	3,981.51	71.61	75.14	84.532	-798.32	7,339.92	954.91	808.76	146.15	6.534	
9,950.00	3,982.27	4,077.37	3,982.27	72.16	75.15	84.820	-798.32	7,339.92	905.56	758.79	146.77	6.170	
10,000.00	3,983.02	4,078.12	3,983.02	72.71	75.16	85.109	-798.32	7,339.92	856.28	708.90	147.39	5.810	
10,050.00	3,983.77	4,078.87	3,983.77	73.26	75.18	85.397	-798.32	7,339.92	807.10	659.10	148.00	5.453	
10,100.00	3,984.53	4,079.63	3,984.53	73.81	75.19	85.686	-798.32	7,339.92	758.01	609.40	148.61	5.101	
10,150.00	3,985.28	4,080.38	3,985.28	74.37	75.20	85.975	-798.32	7,339.92	709.06	559.84	149.22	4.752	
10,200.00	3,986.04	4,081.14	3,986.04	74.92	75.22	86.265	-798.32	7,339.92	660.26	510.43	149.83	4.407	
10,250.00	3,986.79	4,081.89	3,986.79	75.47	75.23	86.554	-798.32	7,339.92	611.65	461.22	150.43	4.066	
10,300.00	3,987.55	4,082.65	3,987.55	76.02	75.25	86.844	-798.32	7,339.92	563.29	412.26	151.03	3.730	
10,350.00	3,988.30	4,083.40	3,988.30	76.58	75.26	87.134	-798.32	7,339.92	515.24	363.61	151.63	3.398	
10,400.00	3,989.06	4,084.16	3,989.06	77.13	75.27	87.424	-798.32	7,339.92	467.60	315.37	152.22	3.072	
10,450.00	3,989.81	4,084.91	3,989.81	77.68	75.29	87.714	-798.32	7,339.92	420.50	267.69	152.81	2.752	
10,500.00	3,990.57	4,085.67	3,990.57	78.24	75.30	88.004	-798.32	7,339.92	374.16	220.75	153.40	2.439	
10,550.00	3,991.32	4,086.42	3,991.32	78.79	75.32	88.295	-798.32	7,339.92	328.88	174.89	153.99	2.136	
10,600.00	3,992.08	4,087.18	3,992.08	79.34	75.33	88.585	-798.32	7,339.92	285.19	130.62	154.57	1.845	
10,650.00	3,992.83	4,087.93	3,992.83	79.90	75.34	88.876	-798.32	7,339.92	243.93	88.78	155.15	1.572	
10,700.00	3,993.59	4,088.69	3,993.59	80.45	75.36	89.167	-798.32	7,339.92	206.56	50.84	155.72	1.326	Level 3
10,750.00	3,994.34	4,089.44	3,994.34	81.00	75.37	89.457	-798.32	7,339.92	175.60	19.30	156.29	1.124	Level 2
10,800.00	3,995.09	4,090.20	3,995.09	81.56	75.39	89.748	-798.32	7,339.92	154.92	-1.94	156.86	0.988	Level 1
10,843.37	3,995.75	4,090.85	3,995.75	82.04	75.40	90.000	-798.32	7,339.92	148.73	-8.63	157.35	0.945	Level 1, CC, ES, SF
10,850.00	3,995.85	4,090.95	3,995.85	82.11	75.40	90.039	-798.32	7,339.92	148.87	-8.55	157.43	0.946	Level 1
10,900.00	3,996.60	4,091.70	3,996.60	82.67	75.41	90.329	-798.32	7,339.92	159.14	1.16	157.99	1.007	Level 2

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: AID STATE #6 - Wellbore #1 - Wellbore #1

Offset Site Error: 0.00 usft

Survey Program: 166-INC-ONLY

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,950.00	3,997.36	4,092.46	3,997.36	83.22	75.43	90.620	-798.32	7,339.92	183.00	24.45	158.54	1.154	Level 2
11,000.00	3,998.11	4,093.21	3,998.11	83.77	75.44	90.911	-798.32	7,339.92	215.98	56.88	159.10	1.358	Level 3
11,050.00	3,998.87	4,093.97	3,998.87	84.33	75.46	91.201	-798.32	7,339.92	254.57	94.93	159.65	1.595	
11,074.95	3,999.24	4,094.35	3,999.24	84.60	75.46	91.346	-798.32	7,339.92	275.21	115.29	159.92	1.721	
11,100.00	3,999.62	4,094.72	3,999.62	84.88	75.47	91.492	-798.32	7,339.92	296.59	136.40	160.19	1.851	
11,124.98	4,000.00	4,095.10	4,000.00	85.16	75.48	91.637	-798.32	7,339.92	318.45	157.98	160.47	1.985	

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: AID STATE #8 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 335-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,300.00	3,912.08	4,020.27	3,912.08	23.43	81.94	-85.892	522.00	7,341.64	5,694.94	5,590.38	104.56	54.466	
5,350.00	3,912.83	4,021.02	3,912.83	23.87	81.96	-85.929	522.00	7,341.64	5,646.02	5,540.98	105.04	53.753	
5,400.00	3,913.59	4,021.78	3,913.59	24.31	81.97	-85.965	522.00	7,341.64	5,597.12	5,491.61	105.51	53.047	
5,450.00	3,914.34	4,022.53	3,914.34	24.77	81.99	-86.002	522.00	7,341.64	5,548.25	5,442.25	106.00	52.343	
5,500.00	3,915.10	4,023.28	3,915.10	25.22	82.01	-86.039	522.00	7,341.64	5,499.39	5,392.91	106.48	51.646	
5,550.00	3,915.85	4,024.04	3,915.85	25.68	82.03	-86.076	522.00	7,341.64	5,450.55	5,343.58	106.98	50.951	
5,600.00	3,916.61	4,024.79	3,916.61	26.14	82.04	-86.112	522.00	7,341.64	5,401.74	5,294.27	107.47	50.264	
5,650.00	3,917.36	4,025.55	3,917.36	26.61	82.06	-86.149	522.00	7,341.64	5,352.94	5,244.97	107.97	49.579	
5,700.00	3,918.12	4,026.30	3,918.12	27.08	82.08	-86.186	522.00	7,341.64	5,304.17	5,195.70	108.47	48.900	
5,750.00	3,918.87	4,027.06	3,918.87	27.56	82.09	-86.223	522.00	7,341.64	5,255.42	5,146.45	108.98	48.226	
5,800.00	3,919.63	4,027.81	3,919.63	28.03	82.11	-86.259	522.00	7,341.64	5,206.70	5,097.21	109.48	47.558	
5,850.00	3,920.38	4,028.57	3,920.38	28.52	82.13	-86.296	522.00	7,341.64	5,158.00	5,048.00	109.99	46.893	
5,900.00	3,921.14	4,029.32	3,921.14	29.00	82.14	-86.333	522.00	7,341.64	5,109.32	4,998.81	110.51	46.236	
5,950.00	3,921.89	4,030.08	3,921.89	29.49	82.16	-86.370	522.00	7,341.64	5,060.67	4,949.65	111.02	45.582	
6,000.00	3,922.65	4,030.83	3,922.65	29.98	82.18	-86.406	522.00	7,341.64	5,012.05	4,900.51	111.54	44.935	
6,050.00	3,923.40	4,031.59	3,923.40	30.47	82.19	-86.443	522.00	7,341.64	4,963.45	4,851.39	112.06	44.292	
6,100.00	3,924.16	4,032.34	3,924.16	30.97	82.21	-86.480	522.00	7,341.64	4,914.88	4,802.30	112.58	43.655	
6,150.00	3,924.91	4,033.10	3,924.91	31.46	82.23	-86.517	522.00	7,341.64	4,866.34	4,753.23	113.11	43.023	
6,200.00	3,925.66	4,033.85	3,925.66	31.96	82.24	-86.554	522.00	7,341.64	4,817.83	4,704.20	113.64	42.397	
6,250.00	3,926.42	4,034.61	3,926.42	32.47	82.26	-86.590	522.00	7,341.64	4,769.35	4,655.19	114.17	41.776	
6,300.00	3,927.17	4,035.36	3,927.17	32.97	82.28	-86.627	522.00	7,341.64	4,720.91	4,606.21	114.70	41.160	
6,350.00	3,927.93	4,036.11	3,927.93	33.47	82.29	-86.664	522.00	7,341.64	4,672.49	4,557.26	115.23	40.550	
6,400.00	3,928.68	4,036.87	3,928.68	33.98	82.31	-86.701	522.00	7,341.64	4,624.11	4,508.35	115.76	39.945	
6,450.00	3,929.44	4,037.62	3,929.44	34.49	82.33	-86.738	522.00	7,341.64	4,575.76	4,459.46	116.30	39.345	
6,500.00	3,930.19	4,038.38	3,930.19	35.00	82.34	-86.774	522.00	7,341.64	4,527.45	4,410.62	116.84	38.751	
6,550.00	3,930.95	4,039.13	3,930.95	35.51	82.36	-86.811	522.00	7,341.64	4,479.18	4,361.80	117.37	38.161	
6,600.00	3,931.70	4,039.89	3,931.70	36.03	82.38	-86.848	522.00	7,341.64	4,430.94	4,313.03	117.91	37.578	
6,650.00	3,932.46	4,040.64	3,932.46	36.54	82.39	-86.885	522.00	7,341.64	4,382.75	4,264.29	118.46	36.999	
6,700.00	3,933.21	4,041.40	3,933.21	37.06	82.41	-86.922	522.00	7,341.64	4,334.59	4,215.59	119.00	36.426	
6,750.00	3,933.97	4,042.15	3,933.97	37.58	82.43	-86.958	522.00	7,341.64	4,286.48	4,166.94	119.54	35.858	
6,800.00	3,934.72	4,042.91	3,934.72	38.10	82.44	-86.995	522.00	7,341.64	4,238.41	4,118.32	120.09	35.295	
6,850.00	3,935.48	4,043.66	3,935.48	38.62	82.46	-87.032	522.00	7,341.64	4,190.38	4,069.75	120.63	34.737	
6,900.00	3,936.23	4,044.42	3,936.23	39.14	82.48	-87.069	522.00	7,341.64	4,142.41	4,021.23	121.18	34.184	
6,950.00	3,936.98	4,045.17	3,936.98	39.66	82.49	-87.106	522.00	7,341.64	4,094.48	3,972.75	121.73	33.637	
7,000.00	3,937.74	4,045.93	3,937.74	40.19	82.51	-87.142	522.00	7,341.64	4,046.60	3,924.32	122.27	33.094	
7,050.00	3,938.49	4,046.68	3,938.49	40.71	82.53	-87.179	522.00	7,341.64	3,998.77	3,875.94	122.82	32.557	
7,100.00	3,939.25	4,047.43	3,939.25	41.24	82.54	-87.216	522.00	7,341.64	3,950.99	3,827.62	123.38	32.024	
7,150.00	3,940.00	4,048.19	3,940.00	41.77	82.56	-87.253	522.00	7,341.64	3,903.27	3,779.35	123.93	31.497	
7,200.00	3,940.76	4,048.94	3,940.76	42.29	82.58	-87.290	522.00	7,341.64	3,855.61	3,731.13	124.48	30.974	
7,250.00	3,941.51	4,049.70	3,941.51	42.82	82.59	-87.327	522.00	7,341.64	3,808.01	3,682.98	125.03	30.456	
7,300.00	3,942.27	4,050.45	3,942.27	43.35	82.61	-87.363	522.00	7,341.64	3,760.47	3,634.89	125.59	29.944	
7,350.00	3,943.02	4,051.21	3,943.02	43.88	82.63	-87.400	522.00	7,341.64	3,713.00	3,586.86	126.14	29.435	
7,400.00	3,943.78	4,051.96	3,943.78	44.41	82.64	-87.437	522.00	7,341.64	3,665.59	3,538.89	126.70	28.932	
7,450.00	3,944.53	4,052.72	3,944.53	44.95	82.66	-87.474	522.00	7,341.64	3,618.25	3,491.00	127.25	28.434	
7,500.00	3,945.29	4,053.47	3,945.29	45.48	82.68	-87.511	522.00	7,341.64	3,570.99	3,443.18	127.81	27.940	
7,550.00	3,946.04	4,054.23	3,946.04	46.01	82.69	-87.548	522.00	7,341.64	3,523.80	3,395.43	128.37	27.451	
7,600.00	3,946.80	4,054.98	3,946.80	46.55	82.71	-87.584	522.00	7,341.64	3,476.68	3,347.76	128.92	26.967	
7,650.00	3,947.55	4,055.74	3,947.55	47.08	82.73	-87.621	522.00	7,341.64	3,429.65	3,300.17	129.48	26.488	
7,700.00	3,948.30	4,056.49	3,948.30	47.62	82.74	-87.658	522.00	7,341.64	3,382.71	3,252.67	130.04	26.013	
7,750.00	3,949.06	4,057.25	3,949.06	48.16	82.76	-87.695	522.00	7,341.64	3,335.85	3,205.25	130.60	25.543	
7,800.00	3,949.81	4,058.00	3,949.81	48.69	82.78	-87.732	522.00	7,341.64	3,289.09	3,157.93	131.16	25.077	
7,850.00	3,950.57	4,058.75	3,950.57	49.23	82.79	-87.769	522.00	7,341.64	3,242.42	3,110.70	131.72	24.616	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: AID STATE #8 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 335-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,900.00	3,951.32	4,059.51	3,951.32	49.77	82.81	-87.806	522.00	7,341.64	3,195.85	3,063.57	132.28	24.160	
7,950.00	3,952.08	4,060.26	3,952.08	50.31	82.83	-87.842	522.00	7,341.64	3,149.39	3,016.55	132.84	23.708	
8,000.00	3,952.83	4,061.02	3,952.83	50.85	82.84	-87.879	522.00	7,341.64	3,103.03	2,969.63	133.40	23.261	
8,050.00	3,953.59	4,061.77	3,953.59	51.39	82.86	-87.916	522.00	7,341.64	3,056.80	2,922.83	133.97	22.818	
8,100.00	3,954.34	4,062.53	3,954.34	51.93	82.88	-87.953	522.00	7,341.64	3,010.68	2,876.15	134.53	22.380	
8,150.00	3,955.10	4,063.28	3,955.10	52.47	82.89	-87.990	522.00	7,341.64	2,964.69	2,829.59	135.09	21.946	
8,200.00	3,955.85	4,064.04	3,955.85	53.01	82.91	-88.027	522.00	7,341.64	2,918.83	2,783.17	135.65	21.517	
8,250.00	3,956.61	4,064.79	3,956.61	53.55	82.93	-88.064	522.00	7,341.64	2,873.10	2,736.88	136.22	21.092	
8,300.00	3,957.36	4,065.55	3,957.36	54.09	82.94	-88.100	522.00	7,341.64	2,827.52	2,690.74	136.78	20.672	
8,350.00	3,958.12	4,066.30	3,958.12	54.63	82.96	-88.137	522.00	7,341.64	2,782.10	2,644.75	137.35	20.256	
8,400.00	3,958.87	4,067.06	3,958.87	55.18	82.98	-88.174	522.00	7,341.64	2,736.83	2,598.92	137.91	19.845	
8,450.00	3,959.62	4,067.81	3,959.62	55.72	82.99	-88.211	522.00	7,341.64	2,691.73	2,553.25	138.48	19.438	
8,500.00	3,960.38	4,068.57	3,960.38	56.26	83.01	-88.248	522.00	7,341.64	2,646.81	2,507.77	139.04	19.036	
8,550.00	3,961.13	4,069.32	3,961.13	56.81	83.03	-88.285	522.00	7,341.64	2,602.07	2,462.46	139.61	18.638	
8,600.00	3,961.89	4,070.08	3,961.89	57.35	83.04	-88.322	522.00	7,341.64	2,557.52	2,417.35	140.17	18.245	
8,650.00	3,962.64	4,070.83	3,962.64	57.90	83.06	-88.359	522.00	7,341.64	2,513.18	2,372.44	140.74	17.857	
8,700.00	3,963.40	4,071.58	3,963.40	58.44	83.08	-88.396	522.00	7,341.64	2,469.06	2,327.76	141.31	17.473	
8,750.00	3,964.15	4,072.34	3,964.15	58.99	83.10	-88.432	522.00	7,341.64	2,425.17	2,283.29	141.87	17.094	
8,800.00	3,964.91	4,073.09	3,964.91	59.53	83.11	-88.469	522.00	7,341.64	2,381.51	2,239.07	142.44	16.719	
8,850.00	3,965.66	4,073.85	3,965.66	60.08	83.13	-88.506	522.00	7,341.64	2,338.11	2,195.10	143.01	16.350	
8,900.00	3,966.42	4,074.60	3,966.42	60.63	83.15	-88.543	522.00	7,341.64	2,294.98	2,151.40	143.57	15.985	
8,950.00	3,967.17	4,075.36	3,967.17	61.17	83.16	-88.580	522.00	7,341.64	2,252.13	2,107.99	144.14	15.624	
9,000.00	3,967.93	4,076.11	3,967.93	61.72	83.18	-88.617	522.00	7,341.64	2,209.58	2,064.87	144.71	15.269	
9,050.00	3,968.68	4,076.87	3,968.68	62.27	83.20	-88.654	522.00	7,341.64	2,167.35	2,022.07	145.28	14.919	
9,100.00	3,969.44	4,077.62	3,969.44	62.81	83.21	-88.691	522.00	7,341.64	2,125.46	1,979.61	145.85	14.573	
9,150.00	3,970.19	4,078.38	3,970.19	63.36	83.23	-88.728	522.00	7,341.64	2,083.92	1,937.50	146.42	14.233	
9,200.00	3,970.95	4,079.13	3,970.95	63.91	83.25	-88.764	522.00	7,341.64	2,042.76	1,895.78	146.98	13.898	
9,250.00	3,971.70	4,079.89	3,971.70	64.46	83.26	-88.801	522.00	7,341.64	2,002.01	1,854.45	147.55	13.568	
9,300.00	3,972.45	4,080.64	3,972.45	65.01	83.28	-88.838	522.00	7,341.64	1,961.68	1,813.56	148.12	13.244	
9,350.00	3,973.21	4,081.40	3,973.21	65.56	83.30	-88.875	522.00	7,341.64	1,921.81	1,773.11	148.69	12.925	
9,400.00	3,973.96	4,082.15	3,973.96	66.11	83.31	-88.912	522.00	7,341.64	1,882.42	1,733.15	149.26	12.612	
9,450.00	3,974.72	4,082.90	3,974.72	66.65	83.33	-88.949	522.00	7,341.64	1,843.54	1,693.71	149.83	12.304	
9,500.00	3,975.47	4,083.66	3,975.47	67.20	83.35	-88.986	522.00	7,341.64	1,805.21	1,654.81	150.40	12.003	
9,550.00	3,976.23	4,084.41	3,976.23	67.75	83.36	-89.023	522.00	7,341.64	1,767.47	1,616.50	150.97	11.707	
9,600.00	3,976.98	4,085.17	3,976.98	68.30	83.38	-89.060	522.00	7,341.64	1,730.34	1,578.80	151.54	11.418	
9,650.00	3,977.74	4,085.92	3,977.74	68.85	83.40	-89.097	522.00	7,341.64	1,693.88	1,541.77	152.11	11.136	
9,700.00	3,978.49	4,086.68	3,978.49	69.40	83.41	-89.133	522.00	7,341.64	1,658.12	1,505.44	152.68	10.860	
9,750.00	3,979.25	4,087.43	3,979.25	69.96	83.43	-89.170	522.00	7,341.64	1,623.12	1,469.87	153.25	10.591	
9,800.00	3,980.00	4,088.19	3,980.00	70.51	83.45	-89.207	522.00	7,341.64	1,588.92	1,435.10	153.82	10.330	
9,850.00	3,980.76	4,088.94	3,980.76	71.06	83.46	-89.244	522.00	7,341.64	1,555.57	1,401.18	154.39	10.075	
9,900.00	3,981.51	4,089.70	3,981.51	71.61	83.48	-89.281	522.00	7,341.64	1,523.13	1,368.17	154.96	9.829	
9,950.00	3,982.27	4,090.45	3,982.27	72.16	83.50	-89.318	522.00	7,341.64	1,491.67	1,336.13	155.53	9.591	
10,000.00	3,983.02	4,091.21	3,983.02	72.71	83.51	-89.355	522.00	7,341.64	1,461.24	1,305.13	156.11	9.361	
10,050.00	3,983.77	4,091.96	3,983.77	73.26	83.53	-89.392	522.00	7,341.64	1,431.90	1,275.23	156.68	9.139	
10,100.00	3,984.53	4,092.72	3,984.53	73.81	83.55	-89.429	522.00	7,341.64	1,403.74	1,246.49	157.25	8.927	
10,150.00	3,985.28	4,093.47	3,985.28	74.37	83.56	-89.466	522.00	7,341.64	1,376.82	1,219.00	157.82	8.724	
10,200.00	3,986.04	4,094.22	3,986.04	74.92	83.58	-89.503	522.00	7,341.64	1,351.20	1,192.81	158.39	8.531	
10,250.00	3,986.79	4,094.98	3,986.79	75.47	83.60	-89.539	522.00	7,341.64	1,326.98	1,168.02	158.96	8.348	
10,300.00	3,987.55	4,095.73	3,987.55	76.02	83.61	-89.576	522.00	7,341.64	1,304.23	1,144.70	159.53	8.175	
10,350.00	3,988.30	4,096.49	3,988.30	76.58	83.63	-89.613	522.00	7,341.64	1,283.02	1,122.92	160.10	8.014	
10,400.00	3,989.06	4,097.24	3,989.06	77.13	83.65	-89.650	522.00	7,341.64	1,263.44	1,102.76	160.68	7.863	
10,450.00	3,989.81	4,098.00	3,989.81	77.68	83.66	-89.687	522.00	7,341.64	1,245.55	1,084.30	161.25	7.724	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: AID STATE #8 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 335-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,500.00	3,990.57	4,098.75	3,990.57	78.24	83.68	-89.724	522.00	7,341.64	1,229.44	1,067.62	161.82	7.598	
10,550.00	3,991.32	4,099.51	3,991.32	78.79	83.70	-89.761	522.00	7,341.64	1,215.18	1,052.78	162.39	7.483	
10,600.00	3,992.08	4,100.26	3,992.08	79.34	83.71	-89.798	522.00	7,341.64	1,202.82	1,039.86	162.96	7.381	
10,650.00	3,992.83	4,101.02	3,992.83	79.90	83.73	-89.835	522.00	7,341.64	1,192.43	1,028.90	163.54	7.292	
10,700.00	3,993.59	4,101.77	3,993.59	80.45	83.75	-89.872	522.00	7,341.64	1,184.07	1,019.96	164.11	7.215	
10,750.00	3,994.34	4,102.53	3,994.34	81.00	83.76	-89.909	522.00	7,341.64	1,177.77	1,013.09	164.68	7.152	
10,800.00	3,995.09	4,103.28	3,995.09	81.56	83.78	-89.945	522.00	7,341.64	1,173.57	1,008.32	165.25	7.102	
10,850.00	3,995.85	4,104.04	3,995.85	82.11	83.80	-89.982	522.00	7,341.64	1,171.49	1,005.66	165.82	7.065	
10,873.83	3,996.21	4,104.40	3,996.21	82.38	83.81	-90.000	522.00	7,341.64	1,171.24	1,005.15	166.10	7.052	CC
10,900.00	3,996.60	4,104.79	3,996.60	82.67	83.81	-90.019	522.00	7,341.64	1,171.54	1,005.14	166.40	7.041	ES
10,950.00	3,997.36	4,105.55	3,997.36	83.22	83.83	-90.056	522.00	7,341.64	1,173.72	1,006.75	166.97	7.030	SF
11,000.00	3,998.11	4,106.30	3,998.11	83.77	83.85	-90.093	522.00	7,341.64	1,178.02	1,010.48	167.54	7.031	
11,050.00	3,998.87	4,107.05	3,998.87	84.33	83.86	-90.130	522.00	7,341.64	1,184.42	1,016.30	168.11	7.045	
11,074.95	3,999.24	4,107.43	3,999.24	84.60	83.87	-90.148	522.00	7,341.64	1,188.38	1,019.99	168.40	7.057	
11,100.00	3,999.62	4,107.81	3,999.62	84.88	83.88	-90.167	522.00	7,341.64	1,192.88	1,024.19	168.68	7.072	
11,124.98	4,000.00	4,108.19	4,000.00	85.16	83.89	-90.185	522.00	7,341.64	1,197.86	1,028.89	168.97	7.089	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: AID STATE #9 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 821-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,550.00	3,900.76	4,001.86	3,900.76	17.74	70.04	-87.984	1,176.76	5,361.98	4,742.00	4,654.98	87.03	54.490	
4,600.00	3,901.51	4,002.61	3,901.51	18.05	70.06	-88.007	1,176.76	5,361.98	4,696.10	4,608.73	87.37	53.751	
4,650.00	3,902.27	4,003.37	3,902.27	18.37	70.07	-88.030	1,176.76	5,361.98	4,650.27	4,562.54	87.73	53.005	
4,700.00	3,903.02	4,004.12	3,903.02	18.70	70.08	-88.054	1,176.76	5,361.98	4,604.54	4,516.44	88.10	52.266	
4,750.00	3,903.78	4,004.88	3,903.78	19.05	70.10	-88.077	1,176.76	5,361.98	4,558.89	4,470.41	88.48	51.523	
4,800.00	3,904.53	4,005.63	3,904.53	19.40	70.11	-88.100	1,176.76	5,361.98	4,513.34	4,424.47	88.87	50.786	
4,850.00	3,905.29	4,006.39	3,905.29	19.77	70.13	-88.123	1,176.76	5,361.98	4,467.88	4,378.61	89.27	50.047	
4,900.00	3,906.04	4,007.14	3,906.04	20.14	70.14	-88.146	1,176.76	5,361.98	4,422.52	4,332.84	89.68	49.316	
4,950.00	3,906.80	4,007.90	3,906.80	20.53	70.15	-88.169	1,176.76	5,361.98	4,377.26	4,287.16	90.10	48.584	
5,000.00	3,907.55	4,008.65	3,907.55	20.92	70.17	-88.192	1,176.76	5,361.98	4,332.10	4,241.59	90.52	47.859	
5,050.00	3,908.31	4,009.41	3,908.31	21.32	70.18	-88.215	1,176.76	5,361.98	4,287.06	4,196.10	90.95	47.135	
5,100.00	3,909.06	4,010.16	3,909.06	21.73	70.20	-88.238	1,176.76	5,361.98	4,242.12	4,150.73	91.39	46.419	
5,150.00	3,909.82	4,010.92	3,909.82	22.14	70.21	-88.262	1,176.76	5,361.98	4,197.30	4,105.46	91.84	45.705	
5,200.00	3,910.57	4,011.67	3,910.57	22.56	70.22	-88.285	1,176.76	5,361.98	4,152.59	4,060.31	92.28	44.999	
5,250.00	3,911.33	4,012.43	3,911.33	22.99	70.24	-88.308	1,176.76	5,361.98	4,108.01	4,015.27	92.74	44.295	
5,300.00	3,912.08	4,013.18	3,912.08	23.43	70.25	-88.331	1,176.76	5,361.98	4,063.55	3,970.35	93.20	43.600	
5,350.00	3,912.83	4,013.93	3,912.83	23.87	70.26	-88.354	1,176.76	5,361.98	4,019.22	3,925.55	93.67	42.909	
5,400.00	3,913.59	4,014.69	3,913.59	24.31	70.28	-88.377	1,176.76	5,361.98	3,975.03	3,880.89	94.14	42.225	
5,450.00	3,914.34	4,015.44	3,914.34	24.77	70.29	-88.400	1,176.76	5,361.98	3,930.98	3,836.36	94.62	41.546	
5,500.00	3,915.10	4,016.20	3,915.10	25.22	70.31	-88.423	1,176.76	5,361.98	3,887.07	3,791.97	95.09	40.876	
5,550.00	3,915.85	4,016.95	3,915.85	25.68	70.32	-88.446	1,176.76	5,361.98	3,843.31	3,747.73	95.58	40.210	
5,600.00	3,916.61	4,017.71	3,916.61	26.14	70.33	-88.470	1,176.76	5,361.98	3,799.70	3,703.63	96.07	39.553	
5,650.00	3,917.36	4,018.46	3,917.36	26.61	70.35	-88.493	1,176.76	5,361.98	3,756.25	3,659.69	96.56	38.901	
5,700.00	3,918.12	4,019.22	3,918.12	27.08	70.36	-88.516	1,176.76	5,361.98	3,712.97	3,615.92	97.05	38.258	
5,750.00	3,918.87	4,019.97	3,918.87	27.56	70.38	-88.539	1,176.76	5,361.98	3,669.86	3,572.30	97.55	37.620	
5,800.00	3,919.63	4,020.73	3,919.63	28.03	70.39	-88.562	1,176.76	5,361.98	3,626.92	3,528.87	98.05	36.990	
5,850.00	3,920.38	4,021.48	3,920.38	28.52	70.40	-88.585	1,176.76	5,361.98	3,584.17	3,485.61	98.56	36.367	
5,900.00	3,921.14	4,022.24	3,921.14	29.00	70.42	-88.608	1,176.76	5,361.98	3,541.60	3,442.54	99.06	35.752	
5,950.00	3,921.89	4,022.99	3,921.89	29.49	70.43	-88.631	1,176.76	5,361.98	3,499.24	3,399.66	99.57	35.143	
6,000.00	3,922.65	4,023.75	3,922.65	29.98	70.44	-88.654	1,176.76	5,361.98	3,457.07	3,356.99	100.08	34.542	
6,050.00	3,923.40	4,024.50	3,923.40	30.47	70.46	-88.678	1,176.76	5,361.98	3,415.12	3,314.52	100.60	33.949	
6,100.00	3,924.16	4,025.26	3,924.16	30.97	70.47	-88.701	1,176.76	5,361.98	3,373.39	3,272.28	101.11	33.363	
6,150.00	3,924.91	4,026.01	3,924.91	31.46	70.49	-88.724	1,176.76	5,361.98	3,331.88	3,230.25	101.63	32.784	
6,200.00	3,925.66	4,026.76	3,925.66	31.96	70.50	-88.747	1,176.76	5,361.98	3,290.61	3,188.46	102.15	32.214	
6,250.00	3,926.42	4,027.52	3,926.42	32.47	70.51	-88.770	1,176.76	5,361.98	3,249.59	3,146.92	102.67	31.650	
6,300.00	3,927.17	4,028.27	3,927.17	32.97	70.53	-88.793	1,176.76	5,361.98	3,208.82	3,105.62	103.20	31.094	
6,350.00	3,927.93	4,029.03	3,927.93	33.47	70.54	-88.816	1,176.76	5,361.98	3,168.32	3,064.59	103.72	30.546	
6,400.00	3,928.68	4,029.78	3,928.68	33.98	70.55	-88.839	1,176.76	5,361.98	3,128.08	3,023.84	104.25	30.006	
6,450.00	3,929.44	4,030.54	3,929.44	34.49	70.57	-88.863	1,176.76	5,361.98	3,088.14	2,983.36	104.78	29.473	
6,500.00	3,930.19	4,031.29	3,930.19	35.00	70.58	-88.886	1,176.76	5,361.98	3,048.49	2,943.18	105.31	28.948	
6,550.00	3,930.95	4,032.05	3,930.95	35.51	70.60	-88.909	1,176.76	5,361.98	3,009.15	2,903.31	105.84	28.431	
6,600.00	3,931.70	4,032.80	3,931.70	36.03	70.61	-88.932	1,176.76	5,361.98	2,970.13	2,863.76	106.37	27.922	
6,650.00	3,932.46	4,033.56	3,932.46	36.54	70.62	-88.955	1,176.76	5,361.98	2,931.44	2,824.53	106.91	27.420	
6,700.00	3,933.21	4,034.31	3,933.21	37.06	70.64	-88.978	1,176.76	5,361.98	2,893.10	2,785.66	107.44	26.927	
6,750.00	3,933.97	4,035.07	3,933.97	37.58	70.65	-89.001	1,176.76	5,361.98	2,855.12	2,747.14	107.98	26.441	
6,800.00	3,934.72	4,035.82	3,934.72	38.10	70.67	-89.024	1,176.76	5,361.98	2,817.52	2,709.00	108.52	25.963	
6,850.00	3,935.48	4,036.58	3,935.48	38.62	70.68	-89.048	1,176.76	5,361.98	2,780.30	2,671.24	109.06	25.494	
6,900.00	3,936.23	4,037.33	3,936.23	39.14	70.69	-89.071	1,176.76	5,361.98	2,743.49	2,633.90	109.60	25.032	
6,950.00	3,936.98	4,038.08	3,936.98	39.66	70.71	-89.094	1,176.76	5,361.98	2,707.11	2,596.97	110.14	24.579	
7,000.00	3,937.74	4,038.84	3,937.74	40.19	70.72	-89.117	1,176.76	5,361.98	2,671.16	2,560.48	110.68	24.134	
7,050.00	3,938.49	4,039.59	3,938.49	40.71	70.73	-89.140	1,176.76	5,361.98	2,635.68	2,524.45	111.23	23.697	
7,100.00	3,939.25	4,040.35	3,939.25	41.24	70.75	-89.163	1,176.76	5,361.98	2,600.67	2,488.90	111.77	23.268	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: AID STATE #9 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 821-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,150.00	3,940.00	4,041.10	3,940.00	41.77	70.76	-89.186	1,176.76	5,361.98	2,566.15	2,453.84	112.32	22.848	
7,200.00	3,940.76	4,041.86	3,940.76	42.29	70.78	-89.209	1,176.76	5,361.98	2,532.16	2,419.30	112.86	22.436	
7,250.00	3,941.51	4,042.61	3,941.51	42.82	70.79	-89.233	1,176.76	5,361.98	2,498.70	2,385.29	113.41	22.033	
7,300.00	3,942.27	4,043.37	3,942.27	43.35	70.80	-89.256	1,176.76	5,361.98	2,465.80	2,351.84	113.96	21.638	
7,350.00	3,943.02	4,044.12	3,943.02	43.88	70.82	-89.279	1,176.76	5,361.98	2,433.48	2,318.98	114.50	21.252	
7,400.00	3,943.78	4,044.88	3,943.78	44.41	70.83	-89.302	1,176.76	5,361.98	2,401.77	2,286.72	115.05	20.875	
7,450.00	3,944.53	4,045.63	3,944.53	44.95	70.85	-89.325	1,176.76	5,361.98	2,370.69	2,255.09	115.60	20.507	
7,500.00	3,945.29	4,046.39	3,945.29	45.48	70.86	-89.348	1,176.76	5,361.98	2,340.26	2,224.11	116.15	20.148	
7,550.00	3,946.04	4,047.14	3,946.04	46.01	70.87	-89.371	1,176.76	5,361.98	2,310.52	2,193.81	116.70	19.798	
7,600.00	3,946.80	4,047.90	3,946.80	46.55	70.89	-89.395	1,176.76	5,361.98	2,281.48	2,164.23	117.25	19.457	
7,650.00	3,947.55	4,048.65	3,947.55	47.08	70.90	-89.418	1,176.76	5,361.98	2,253.18	2,135.37	117.81	19.126	
7,700.00	3,948.30	4,049.40	3,948.30	47.62	70.91	-89.441	1,176.76	5,361.98	2,225.64	2,107.28	118.36	18.804	
7,750.00	3,949.06	4,050.16	3,949.06	48.16	70.93	-89.464	1,176.76	5,361.98	2,198.90	2,079.98	118.91	18.492	
7,800.00	3,949.81	4,050.91	3,949.81	48.69	70.94	-89.487	1,176.76	5,361.98	2,172.97	2,053.50	119.47	18.189	
7,850.00	3,950.57	4,051.67	3,950.57	49.23	70.96	-89.510	1,176.76	5,361.98	2,147.90	2,027.87	120.02	17.896	
7,900.00	3,951.32	4,052.42	3,951.32	49.77	70.97	-89.533	1,176.76	5,361.98	2,123.70	2,003.13	120.58	17.613	
7,950.00	3,952.08	4,053.18	3,952.08	50.31	70.98	-89.556	1,176.76	5,361.98	2,100.42	1,979.29	121.13	17.340	
8,000.00	3,952.83	4,053.93	3,952.83	50.85	71.00	-89.580	1,176.76	5,361.98	2,078.08	1,956.40	121.69	17.077	
8,050.00	3,953.59	4,054.69	3,953.59	51.39	71.01	-89.603	1,176.76	5,361.98	2,056.72	1,934.47	122.24	16.825	
8,100.00	3,954.34	4,055.44	3,954.34	51.93	71.03	-89.626	1,176.76	5,361.98	2,036.35	1,913.55	122.80	16.583	
8,150.00	3,955.10	4,056.20	3,955.10	52.47	71.04	-89.649	1,176.76	5,361.98	2,017.02	1,893.67	123.36	16.351	
8,200.00	3,955.85	4,056.95	3,955.85	53.01	71.05	-89.672	1,176.76	5,361.98	1,998.76	1,874.84	123.91	16.130	
8,250.00	3,956.61	4,057.71	3,956.61	53.55	71.07	-89.695	1,176.76	5,361.98	1,981.59	1,857.11	124.47	15.920	
8,300.00	3,957.36	4,058.46	3,957.36	54.09	71.08	-89.718	1,176.76	5,361.98	1,965.54	1,840.50	125.03	15.720	
8,350.00	3,958.12	4,059.22	3,958.12	54.63	71.09	-89.742	1,176.76	5,361.98	1,950.63	1,825.05	125.59	15.532	
8,400.00	3,958.87	4,059.97	3,958.87	55.18	71.11	-89.765	1,176.76	5,361.98	1,936.91	1,810.76	126.15	15.354	
8,450.00	3,959.62	4,060.72	3,959.62	55.72	71.12	-89.788	1,176.76	5,361.98	1,924.39	1,797.68	126.71	15.188	
8,500.00	3,960.38	4,061.48	3,960.38	56.26	71.14	-89.811	1,176.76	5,361.98	1,913.09	1,785.82	127.27	15.032	
8,550.00	3,961.13	4,062.23	3,961.13	56.81	71.15	-89.834	1,176.76	5,361.98	1,903.04	1,775.21	127.83	14.888	
8,600.00	3,961.89	4,062.99	3,961.89	57.35	71.16	-89.857	1,176.76	5,361.98	1,894.25	1,765.86	128.39	14.754	
8,650.00	3,962.64	4,063.74	3,962.64	57.90	71.18	-89.880	1,176.76	5,361.98	1,886.75	1,757.80	128.95	14.632	
8,700.00	3,963.40	4,064.50	3,963.40	58.44	71.19	-89.903	1,176.76	5,361.98	1,880.55	1,751.04	129.51	14.521	
8,750.00	3,964.15	4,065.25	3,964.15	58.99	71.21	-89.927	1,176.76	5,361.98	1,875.66	1,745.59	130.07	14.420	
8,800.00	3,964.91	4,066.01	3,964.91	59.53	71.22	-89.950	1,176.76	5,361.98	1,872.10	1,741.46	130.63	14.331	
8,850.00	3,965.66	4,066.76	3,965.66	60.08	71.23	-89.973	1,176.76	5,361.98	1,869.86	1,738.67	131.19	14.253	
8,900.00	3,966.42	4,067.52	3,966.42	60.63	71.25	-89.996	1,176.76	5,361.98	1,868.96	1,737.21	131.76	14.185	
8,908.67	3,966.55	4,067.65	3,966.55	60.72	71.25	-90.000	1,176.76	5,361.98	1,868.94	1,737.09	131.85	14.174	CC
8,950.00	3,967.17	4,068.27	3,967.17	61.17	71.26	-90.019	1,176.76	5,361.98	1,869.40	1,737.08	132.32	14.128	ES
9,000.00	3,967.93	4,069.03	3,967.93	61.72	71.27	-90.042	1,176.76	5,361.98	1,871.17	1,738.29	132.88	14.082	
9,050.00	3,968.68	4,069.78	3,968.68	62.27	71.29	-90.065	1,176.76	5,361.98	1,874.28	1,740.83	133.44	14.045	
9,100.00	3,969.44	4,070.54	3,969.44	62.81	71.30	-90.089	1,176.76	5,361.98	1,878.71	1,744.70	134.01	14.020	
9,150.00	3,970.19	4,071.29	3,970.19	63.36	71.32	-90.112	1,176.76	5,361.98	1,884.45	1,749.89	134.57	14.004	
9,200.00	3,970.95	4,072.05	3,970.95	63.91	71.33	-90.135	1,176.76	5,361.98	1,891.51	1,756.37	135.13	13.997	SF
9,250.00	3,971.70	4,072.80	3,971.70	64.46	71.34	-90.158	1,176.76	5,361.98	1,899.85	1,764.15	135.70	14.001	
9,300.00	3,972.45	4,073.55	3,972.45	65.01	71.36	-90.181	1,176.76	5,361.98	1,909.46	1,773.20	136.26	14.013	
9,350.00	3,973.21	4,074.31	3,973.21	65.56	71.37	-90.204	1,176.76	5,361.98	1,920.33	1,783.51	136.82	14.035	
9,400.00	3,973.96	4,075.06	3,973.96	66.11	71.39	-90.227	1,176.76	5,361.98	1,932.43	1,795.04	137.39	14.065	
9,450.00	3,974.72	4,075.82	3,974.72	66.65	71.40	-90.250	1,176.76	5,361.98	1,945.74	1,807.79	137.95	14.104	
9,500.00	3,975.47	4,076.57	3,975.47	67.20	71.41	-90.274	1,176.76	5,361.98	1,960.24	1,821.72	138.52	14.152	
9,550.00	3,976.23	4,077.33	3,976.23	67.75	71.43	-90.297	1,176.76	5,361.98	1,975.89	1,836.81	139.08	14.207	
9,600.00	3,976.98	4,078.08	3,976.98	68.30	71.44	-90.320	1,176.76	5,361.98	1,992.68	1,853.03	139.65	14.269	
9,650.00	3,977.74	4,078.84	3,977.74	68.85	71.45	-90.343	1,176.76	5,361.98	2,010.57	1,870.36	140.21	14.340	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: AID STATE #9 - Wellbore #1 - Wellbore #1

Offset Site Error: 0.00 usft

Survey Program: 821-INC-ONLY

Offset Well Error: 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,700.00	3,978.49	4,079.59	3,978.49	69.40	71.47	-90.366	1,176.76	5,361.98	2,029.53	1,888.76	140.78	14.417	
9,750.00	3,979.25	4,080.35	3,979.25	69.96	71.48	-90.389	1,176.76	5,361.98	2,049.54	1,908.20	141.34	14.501	
9,800.00	3,980.00	4,081.10	3,980.00	70.51	71.50	-90.412	1,176.76	5,361.98	2,070.56	1,928.66	141.91	14.591	
9,850.00	3,980.76	4,081.86	3,980.76	71.06	71.51	-90.436	1,176.76	5,361.98	2,092.57	1,950.10	142.47	14.687	
9,900.00	3,981.51	4,082.61	3,981.51	71.61	71.52	-90.459	1,176.76	5,361.98	2,115.53	1,972.49	143.04	14.790	
9,950.00	3,982.27	4,083.37	3,982.27	72.16	71.54	-90.482	1,176.76	5,361.98	2,139.41	1,995.80	143.61	14.898	
10,000.00	3,983.02	4,084.12	3,983.02	72.71	71.55	-90.505	1,176.76	5,361.98	2,164.18	2,020.01	144.17	15.011	
10,050.00	3,983.77	4,084.87	3,983.77	73.26	71.57	-90.528	1,176.76	5,361.98	2,189.81	2,045.08	144.74	15.130	
10,100.00	3,984.53	4,085.63	3,984.53	73.81	71.58	-90.551	1,176.76	5,361.98	2,216.28	2,070.98	145.30	15.253	
10,150.00	3,985.28	4,086.38	3,985.28	74.37	71.59	-90.574	1,176.76	5,361.98	2,243.55	2,097.68	145.87	15.380	
10,200.00	3,986.04	4,087.14	3,986.04	74.92	71.61	-90.597	1,176.76	5,361.98	2,271.59	2,125.15	146.44	15.512	
10,250.00	3,986.79	4,087.89	3,986.79	75.47	71.62	-90.621	1,176.76	5,361.98	2,300.37	2,153.37	147.00	15.648	
10,300.00	3,987.55	4,088.65	3,987.55	76.02	71.63	-90.644	1,176.76	5,361.98	2,329.87	2,182.30	147.57	15.788	
10,350.00	3,988.30	4,089.40	3,988.30	76.58	71.65	-90.667	1,176.76	5,361.98	2,360.07	2,211.93	148.14	15.932	
10,400.00	3,989.06	4,090.16	3,989.06	77.13	71.66	-90.690	1,176.76	5,361.98	2,390.92	2,242.22	148.70	16.078	
10,450.00	3,989.81	4,090.91	3,989.81	77.68	71.68	-90.713	1,176.76	5,361.98	2,422.42	2,273.15	149.27	16.228	
10,500.00	3,990.57	4,091.67	3,990.57	78.24	71.69	-90.736	1,176.76	5,361.98	2,454.53	2,304.69	149.84	16.381	
10,550.00	3,991.32	4,092.42	3,991.32	78.79	71.70	-90.759	1,176.76	5,361.98	2,487.23	2,336.82	150.41	16.537	
10,600.00	3,992.08	4,093.18	3,992.08	79.34	71.72	-90.782	1,176.76	5,361.98	2,520.50	2,369.52	150.97	16.695	
10,650.00	3,992.83	4,093.93	3,992.83	79.90	71.73	-90.806	1,176.76	5,361.98	2,554.31	2,402.77	151.54	16.856	
10,700.00	3,993.59	4,094.69	3,993.59	80.45	71.74	-90.829	1,176.76	5,361.98	2,588.65	2,436.54	152.11	17.018	
10,750.00	3,994.34	4,095.44	3,994.34	81.00	71.76	-90.852	1,176.76	5,361.98	2,623.49	2,470.81	152.68	17.183	
10,800.00	3,995.09	4,096.19	3,995.09	81.56	71.77	-90.875	1,176.76	5,361.98	2,658.81	2,505.57	153.24	17.350	
10,850.00	3,995.85	4,096.95	3,995.85	82.11	71.79	-90.898	1,176.76	5,361.98	2,694.60	2,540.79	153.81	17.519	
10,900.00	3,996.60	4,097.70	3,996.60	82.67	71.80	-90.921	1,176.76	5,361.98	2,730.83	2,576.45	154.38	17.689	
10,950.00	3,997.36	4,098.46	3,997.36	83.22	71.81	-90.944	1,176.76	5,361.98	2,767.50	2,612.55	154.95	17.861	
11,000.00	3,998.11	4,099.21	3,998.11	83.77	71.83	-90.967	1,176.76	5,361.98	2,804.57	2,649.06	155.52	18.034	
11,050.00	3,998.87	4,099.97	3,998.87	84.33	71.84	-90.991	1,176.76	5,361.98	2,842.04	2,685.96	156.08	18.208	
11,074.95	3,999.24	4,100.34	3,999.24	84.60	71.85	-91.002	1,176.76	5,361.98	2,860.88	2,704.52	156.37	18.296	
11,100.00	3,999.62	4,100.72	3,999.62	84.88	71.86	-91.014	1,176.76	5,361.98	2,879.89	2,723.24	156.65	18.384	
11,124.98	4,000.00	4,101.10	4,000.00	85.16	71.86	-91.025	1,176.76	5,361.98	2,898.94	2,742.01	156.94	18.472	

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: PUMA #1 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 209-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
700.00	698.70	687.71	698.70	2.25	12.00	-145.813	647.10	384.12	775.49	761.26	14.24	54.473	CC, ES
750.00	748.15	737.16	748.15	2.43	13.05	-146.048	647.10	384.12	781.64	766.19	15.44	50.612	
800.00	797.47	786.47	797.47	2.61	14.10	-146.304	647.10	384.12	788.52	771.88	16.64	47.388	
850.00	846.63	835.64	846.63	2.79	15.14	-146.581	647.10	384.12	796.15	778.33	17.83	44.662	
900.00	895.62	884.63	895.62	2.98	16.18	-146.877	647.10	384.12	804.54	785.54	19.00	42.347	
950.00	944.44	933.47	944.44	3.17	17.22	-147.190	647.10	384.12	813.68	793.52	20.16	40.359	
1,000.00	993.06	982.08	993.06	3.36	18.26	-147.518	647.10	384.12	823.59	802.28	21.31	38.655	
1,050.00	1,041.46	1,030.49	1,041.46	3.55	19.29	-147.859	647.10	384.12	834.26	811.83	22.44	37.185	
1,100.00	1,089.64	1,078.67	1,089.64	3.75	20.31	-148.213	647.10	384.12	845.72	822.17	23.55	35.913	
1,127.09	1,115.65	1,104.68	1,115.65	3.85	20.86	-148.408	647.10	384.12	852.25	828.10	24.14	35.298	
1,150.00	1,137.61	1,126.64	1,137.61	3.95	21.33	-148.634	647.10	384.12	857.87	833.20	24.67	34.769	
1,200.00	1,185.54	1,174.57	1,185.54	4.14	22.35	-149.116	647.10	384.12	870.19	844.36	25.83	33.690	
1,250.00	1,233.47	1,222.50	1,233.47	4.35	23.37	-149.586	647.10	384.12	882.57	855.58	26.99	32.705	
1,300.00	1,281.40	1,270.43	1,281.40	4.55	24.39	-150.042	647.10	384.12	895.00	866.86	28.14	31.801	
1,350.00	1,329.33	1,318.36	1,329.33	4.75	25.41	-150.487	647.10	384.12	907.49	878.19	29.30	30.971	
1,400.00	1,377.26	1,366.29	1,377.26	4.96	26.43	-150.919	647.10	384.12	920.03	889.57	30.46	30.205	
1,450.00	1,425.19	1,414.25	1,425.19	5.16	27.45	-151.340	647.10	384.12	932.61	900.99	31.62	29.495	
1,500.00	1,473.12	1,462.18	1,473.12	5.37	28.47	-151.751	647.10	384.12	945.25	912.47	32.78	28.838	
1,550.00	1,521.05	1,510.11	1,521.05	5.57	29.49	-152.150	647.10	384.12	957.92	923.99	33.94	28.226	
1,600.00	1,568.99	1,558.04	1,568.99	5.78	30.51	-152.539	647.10	384.12	970.64	935.55	35.10	27.656	
1,650.00	1,616.92	1,605.97	1,616.92	5.98	31.53	-152.918	647.10	384.12	983.41	947.15	36.26	27.124	
1,700.00	1,664.85	1,653.90	1,664.85	6.19	32.55	-153.288	647.10	384.12	996.21	958.79	37.42	26.625	
1,750.00	1,712.78	1,701.83	1,712.78	6.40	33.57	-153.649	647.10	384.12	1,009.05	970.47	38.58	26.157	
1,800.00	1,760.71	1,749.76	1,760.71	6.61	34.59	-154.000	647.10	384.12	1,021.93	982.19	39.74	25.718	
1,850.00	1,808.64	1,797.69	1,808.64	6.81	35.61	-154.343	647.10	384.12	1,034.84	993.95	40.90	25.304	
1,900.00	1,856.57	1,845.62	1,856.57	7.02	36.63	-154.677	647.10	384.12	1,047.79	1,005.73	42.06	24.914	
1,950.00	1,904.50	1,893.58	1,904.50	7.23	37.72	-155.004	647.10	384.12	1,060.77	1,017.48	43.29	24.505	
2,000.00	1,952.43	1,941.51	1,952.43	7.44	38.83	-155.323	647.10	384.12	1,073.78	1,029.25	44.53	24.115	
2,050.00	2,000.36	1,989.44	2,000.36	7.65	39.93	-155.634	647.10	384.12	1,086.83	1,041.06	45.77	23.746	
2,100.00	2,048.29	2,037.37	2,048.29	7.86	41.03	-155.938	647.10	384.12	1,099.90	1,052.89	47.01	23.398	
2,150.00	2,096.22	2,085.30	2,096.22	8.06	42.14	-156.235	647.10	384.12	1,113.00	1,064.75	48.25	23.068	
2,200.00	2,144.15	2,133.23	2,144.15	8.27	43.24	-156.525	647.10	384.12	1,126.13	1,076.64	49.49	22.755	
2,250.00	2,192.08	2,159.00	2,169.91	8.48	43.83	-156.678	647.10	384.12	1,139.50	1,089.26	50.24	22.681	
2,300.00	2,240.01	2,229.11	2,240.01	8.69	45.32	-157.085	647.10	384.12	1,152.47	1,100.61	51.85	22.226	
2,350.00	2,287.94	2,277.04	2,287.94	8.90	46.34	-157.356	647.10	384.12	1,165.67	1,112.66	53.01	21.989	
2,400.00	2,335.87	2,324.97	2,335.87	9.11	47.36	-157.621	647.10	384.12	1,178.90	1,124.73	54.17	21.762	
2,450.00	2,383.81	2,372.90	2,383.81	9.32	48.38	-157.880	647.10	384.12	1,192.15	1,136.82	55.33	21.545	
2,500.00	2,431.74	2,420.86	2,431.74	9.53	49.36	-158.133	647.10	384.12	1,205.43	1,148.98	56.45	21.355	
2,550.00	2,479.67	2,468.79	2,479.67	9.74	50.25	-158.381	647.10	384.12	1,218.73	1,161.24	57.49	21.199	
2,600.00	2,527.60	2,516.72	2,527.60	9.95	51.15	-158.623	647.10	384.12	1,232.05	1,173.51	58.53	21.048	
2,650.00	2,575.53	2,564.65	2,575.53	10.16	52.05	-158.861	647.10	384.12	1,245.38	1,185.81	59.58	20.904	
2,700.00	2,623.46	2,612.58	2,623.46	10.37	52.95	-159.093	647.10	384.12	1,258.74	1,198.12	60.62	20.764	
2,750.00	2,671.39	2,660.51	2,671.39	10.58	53.85	-159.321	647.10	384.12	1,272.12	1,210.46	61.66	20.630	
2,800.00	2,719.32	2,708.44	2,719.32	10.79	54.75	-159.544	647.10	384.12	1,285.51	1,222.81	62.71	20.500	
2,850.00	2,767.25	2,756.37	2,767.25	11.00	55.65	-159.762	647.10	384.12	1,298.93	1,235.18	63.75	20.375	
2,900.00	2,815.18	2,804.30	2,815.18	11.22	56.55	-159.976	647.10	384.12	1,312.36	1,247.56	64.79	20.254	
2,950.00	2,863.11	2,852.23	2,863.11	11.43	57.44	-160.186	647.10	384.12	1,325.81	1,259.97	65.84	20.138	
3,000.00	2,911.04	2,900.16	2,911.04	11.64	58.34	-160.391	647.10	384.12	1,339.27	1,272.39	66.88	20.025	
3,000.54	2,911.56	2,900.68	2,911.56	11.64	58.35	-160.394	647.10	384.12	1,339.42	1,272.52	66.89	20.024	
3,050.00	2,958.99	2,948.11	2,958.99	11.85	59.24	-149.904	647.10	384.12	1,352.21	1,283.90	68.31	19.796	
3,100.00	3,006.89	2,996.01	3,006.89	12.06	60.14	-139.690	647.10	384.12	1,364.05	1,294.34	69.71	19.568	
3,150.00	3,054.62	3,043.74	3,054.62	12.26	61.04	-130.416	647.10	384.12	1,374.81	1,303.74	71.07	19.344	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: PUMA #1 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 209-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
3,200.00	3,102.03	3,091.15	3,102.03	12.46	61.92	-122.397	647.10	384.12	1,384.51	1,312.12	72.39	19.127	
3,250.00	3,149.01	3,138.13	3,149.01	12.66	62.81	-115.703	647.10	384.12	1,393.18	1,319.53	73.65	18.916	
3,300.00	3,195.41	3,184.53	3,195.41	12.85	63.68	-110.245	647.10	384.12	1,400.86	1,326.00	74.86	18.713	
3,350.00	3,241.12	3,225.00	3,235.87	13.04	64.43	-105.777	647.10	384.12	1,407.63	1,331.71	75.92	18.540	
3,400.00	3,286.01	3,275.15	3,286.01	13.22	65.38	-102.388	647.10	384.12	1,413.52	1,336.40	77.12	18.328	
3,450.00	3,329.96	3,319.09	3,329.96	13.40	66.21	-99.657	647.10	384.12	1,418.64	1,340.46	78.18	18.145	
3,500.00	3,372.84	3,361.97	3,372.84	13.57	67.02	-97.538	647.10	384.12	1,423.08	1,343.88	79.20	17.969	
3,550.00	3,414.54	3,403.68	3,414.54	13.74	67.80	-95.918	647.10	384.12	1,426.91	1,346.74	80.17	17.798	
3,600.00	3,454.95	3,444.08	3,454.95	13.91	68.56	-94.705	647.10	384.12	1,430.25	1,349.14	81.11	17.634	
3,650.00	3,493.95	3,483.08	3,493.95	14.06	69.30	-93.824	647.10	384.12	1,433.21	1,351.19	82.01	17.475	
3,700.00	3,531.43	3,520.56	3,531.43	14.22	70.00	-93.208	647.10	384.12	1,435.89	1,353.01	82.89	17.324	
3,750.00	3,567.30	3,556.43	3,567.30	14.37	70.68	-92.806	647.10	384.12	1,438.42	1,354.69	83.73	17.179	
3,800.00	3,601.45	3,590.58	3,601.45	14.52	71.32	-92.570	647.10	384.12	1,440.91	1,356.37	84.54	17.043	
3,850.00	3,633.80	3,622.93	3,633.80	14.67	71.93	-92.458	647.10	384.12	1,443.49	1,358.15	85.33	16.916	
3,900.00	3,664.25	3,653.38	3,664.25	14.82	72.51	-92.436	647.10	384.12	1,446.26	1,360.17	86.09	16.800	
3,950.00	3,692.71	3,681.84	3,692.71	14.98	73.04	-92.470	647.10	384.12	1,449.34	1,362.52	86.82	16.694	
4,000.00	3,719.12	3,699.00	3,709.86	15.13	73.37	-92.217	647.10	384.12	1,452.87	1,365.52	87.34	16.634	
4,008.31	3,723.30	3,712.45	3,723.30	15.17	73.64	-92.544	647.10	384.12	1,453.47	1,365.82	87.65	16.583	
4,050.00	3,744.15	3,733.30	3,744.15	15.30	74.07	-93.257	647.10	384.12	1,457.11	1,368.85	88.26	16.509	
4,100.00	3,769.15	3,758.30	3,769.15	15.48	74.58	-94.110	647.10	384.12	1,462.64	1,373.65	88.98	16.437	
4,150.00	3,794.15	3,783.30	3,794.15	15.68	75.09	-94.962	647.10	384.12	1,469.42	1,379.71	89.71	16.379	
4,200.00	3,819.15	3,808.30	3,819.15	15.89	75.60	-95.811	647.10	384.12	1,477.45	1,387.02	90.42	16.339	
4,208.31	3,823.30	3,812.45	3,823.30	15.92	75.69	-95.952	647.10	384.12	1,478.90	1,388.36	90.54	16.334	
4,250.00	3,842.82	3,831.96	3,842.82	16.12	76.09	-95.820	647.10	384.12	1,486.85	1,395.68	91.18	16.307	
4,300.00	3,862.61	3,851.76	3,862.61	16.36	76.49	-95.397	647.10	384.12	1,497.98	1,406.07	91.91	16.298	SF
4,350.00	3,878.33	3,867.48	3,878.33	16.62	76.81	-94.654	647.10	384.12	1,510.86	1,418.25	92.60	16.316	
4,400.00	3,889.86	3,879.00	3,889.86	16.89	77.05	-93.570	647.10	384.12	1,525.48	1,432.25	93.22	16.364	
4,450.00	3,897.10	3,886.25	3,897.10	17.17	77.20	-92.130	647.10	384.12	1,541.77	1,448.04	93.74	16.448	
4,499.66	3,900.00	3,889.14	3,900.00	17.45	77.26	-90.346	647.10	384.12	1,559.51	1,465.43	94.08	16.576	
4,500.00	3,900.01	3,889.15	3,900.01	17.45	77.26	-90.346	647.10	384.12	1,559.64	1,465.55	94.08	16.577	
4,550.00	3,900.76	3,889.90	3,900.76	17.74	77.27	-90.376	647.10	384.12	1,578.91	1,484.49	94.43	16.721	
4,600.00	3,901.51	3,890.66	3,901.51	18.05	77.29	-90.406	647.10	384.12	1,599.52	1,504.75	94.77	16.878	
4,650.00	3,902.27	3,891.41	3,902.27	18.37	77.30	-90.436	647.10	384.12	1,621.41	1,526.27	95.13	17.044	
4,700.00	3,903.02	3,892.17	3,903.02	18.70	77.32	-90.466	647.10	384.12	1,644.52	1,549.02	95.50	17.221	
4,750.00	3,903.78	3,892.92	3,903.78	19.05	77.33	-90.496	647.10	384.12	1,668.81	1,572.93	95.88	17.405	
4,800.00	3,904.53	3,893.68	3,904.53	19.40	77.35	-90.526	647.10	384.12	1,694.24	1,597.97	96.27	17.599	
4,850.00	3,905.29	3,894.43	3,905.29	19.77	77.36	-90.556	647.10	384.12	1,720.73	1,624.06	96.67	17.800	
4,900.00	3,906.04	3,895.19	3,906.04	20.14	77.38	-90.585	647.10	384.12	1,748.26	1,651.19	97.07	18.009	
4,950.00	3,906.80	3,895.94	3,906.80	20.53	77.39	-90.615	647.10	384.12	1,776.77	1,679.27	97.49	18.224	
5,000.00	3,907.55	3,896.70	3,907.55	20.92	77.41	-90.645	647.10	384.12	1,806.21	1,708.29	97.91	18.447	
5,050.00	3,908.31	3,897.45	3,908.31	21.32	77.43	-90.675	647.10	384.12	1,836.54	1,738.19	98.35	18.674	
5,100.00	3,909.06	3,898.21	3,909.06	21.73	77.44	-90.705	647.10	384.12	1,867.72	1,768.93	98.78	18.907	
5,150.00	3,909.82	3,898.96	3,909.82	22.14	77.46	-90.735	647.10	384.12	1,899.70	1,800.47	99.23	19.144	
5,200.00	3,910.57	3,899.72	3,910.57	22.56	77.47	-90.765	647.10	384.12	1,932.44	1,832.76	99.68	19.387	
5,250.00	3,911.33	3,900.47	3,911.33	22.99	77.49	-90.794	647.10	384.12	1,965.91	1,865.78	100.13	19.633	
5,300.00	3,912.08	3,901.22	3,912.08	23.43	77.50	-90.824	647.10	384.12	2,000.07	1,899.48	100.59	19.883	
5,350.00	3,912.83	3,901.98	3,912.83	23.87	77.52	-90.854	647.10	384.12	2,034.89	1,933.83	101.06	20.135	
5,400.00	3,913.59	3,902.73	3,913.59	24.31	77.53	-90.884	647.10	384.12	2,070.33	1,968.80	101.53	20.392	
5,450.00	3,914.34	3,903.49	3,914.34	24.77	77.55	-90.914	647.10	384.12	2,106.35	2,004.35	102.01	20.649	
5,500.00	3,915.10	3,904.24	3,915.10	25.22	77.56	-90.944	647.10	384.12	2,142.94	2,040.46	102.48	20.910	
5,550.00	3,915.85	3,905.00	3,915.85	25.68	77.58	-90.974	647.10	384.12	2,180.06	2,077.10	102.97	21.172	
5,600.00	3,916.61	3,905.75	3,916.61	26.14	77.60	-91.003	647.10	384.12	2,217.69	2,114.24	103.45	21.437	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: PUMA #1 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 209-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,650.00	3,917.36	3,906.51	3,917.36	26.61	77.61	-91.033	647.10	384.12	2,255.80	2,151.85	103.94	21.702	
5,700.00	3,918.12	3,907.26	3,918.12	27.08	77.63	-91.063	647.10	384.12	2,294.36	2,189.92	104.44	21.969	
5,750.00	3,918.87	3,908.02	3,918.87	27.56	77.64	-91.093	647.10	384.12	2,333.36	2,228.42	104.93	22.236	
5,800.00	3,919.63	3,908.77	3,919.63	28.03	77.66	-91.123	647.10	384.12	2,372.77	2,267.34	105.43	22.505	
5,850.00	3,920.38	3,909.53	3,920.38	28.52	77.67	-91.153	647.10	384.12	2,412.57	2,306.63	105.94	22.774	
5,900.00	3,921.14	3,910.28	3,921.14	29.00	77.69	-91.182	647.10	384.12	2,452.75	2,346.31	106.44	23.043	
5,950.00	3,921.89	3,911.04	3,921.89	29.49	77.70	-91.212	647.10	384.12	2,493.28	2,386.33	106.95	23.312	
6,000.00	3,922.65	3,911.79	3,922.65	29.98	77.72	-91.242	647.10	384.12	2,534.15	2,426.69	107.46	23.582	
6,050.00	3,923.40	3,912.54	3,923.40	30.47	77.73	-91.272	647.10	384.12	2,575.34	2,467.36	107.97	23.852	
6,100.00	3,924.16	3,913.30	3,924.16	30.97	77.75	-91.302	647.10	384.12	2,616.83	2,508.35	108.49	24.121	
6,150.00	3,924.91	3,914.05	3,924.91	31.46	77.77	-91.332	647.10	384.12	2,658.62	2,549.62	109.01	24.390	
6,200.00	3,925.66	3,914.81	3,925.66	31.96	77.78	-91.362	647.10	384.12	2,700.69	2,591.17	109.52	24.659	
6,250.00	3,926.42	3,915.56	3,926.42	32.47	77.80	-91.391	647.10	384.12	2,743.03	2,632.98	110.05	24.926	
6,300.00	3,927.17	3,916.32	3,927.17	32.97	77.81	-91.421	647.10	384.12	2,785.62	2,675.05	110.57	25.194	
6,350.00	3,927.93	3,917.07	3,927.93	33.47	77.83	-91.451	647.10	384.12	2,828.45	2,717.36	111.09	25.460	
6,400.00	3,928.68	3,917.83	3,928.68	33.98	77.84	-91.481	647.10	384.12	2,871.51	2,759.89	111.62	25.726	
6,450.00	3,929.44	3,918.58	3,929.44	34.49	77.86	-91.511	647.10	384.12	2,914.79	2,802.65	112.15	25.991	
6,500.00	3,930.19	3,919.34	3,930.19	35.00	77.87	-91.541	647.10	384.12	2,958.29	2,845.62	112.67	26.255	
6,550.00	3,930.95	3,920.09	3,930.95	35.51	77.89	-91.570	647.10	384.12	3,001.99	2,888.78	113.21	26.518	
6,600.00	3,931.70	3,920.85	3,931.70	36.03	77.90	-91.600	647.10	384.12	3,045.88	2,932.14	113.74	26.780	
6,650.00	3,932.46	3,921.60	3,932.46	36.54	77.92	-91.630	647.10	384.12	3,089.96	2,975.69	114.27	27.041	
6,700.00	3,933.21	3,922.36	3,933.21	37.06	77.94	-91.660	647.10	384.12	3,134.21	3,019.41	114.80	27.301	
6,750.00	3,933.97	3,923.11	3,933.97	37.58	77.95	-91.690	647.10	384.12	3,178.64	3,063.30	115.34	27.559	
6,800.00	3,934.72	3,923.86	3,934.72	38.10	77.97	-91.720	647.10	384.12	3,223.22	3,107.35	115.88	27.816	
6,850.00	3,935.48	3,924.62	3,935.48	38.62	77.98	-91.750	647.10	384.12	3,267.97	3,151.55	116.41	28.072	
6,900.00	3,936.23	3,925.37	3,936.23	39.14	78.00	-91.779	647.10	384.12	3,312.86	3,195.91	116.95	28.326	
6,950.00	3,936.98	3,926.13	3,936.98	39.66	78.01	-91.809	647.10	384.12	3,357.90	3,240.41	117.49	28.580	
7,000.00	3,937.74	3,926.88	3,937.74	40.19	78.03	-91.839	647.10	384.12	3,403.08	3,285.05	118.03	28.831	
7,050.00	3,938.49	3,927.64	3,938.49	40.71	78.04	-91.869	647.10	384.12	3,448.39	3,329.81	118.58	29.082	
7,100.00	3,939.25	3,928.39	3,939.25	41.24	78.06	-91.899	647.10	384.12	3,493.83	3,374.71	119.12	29.331	
7,150.00	3,940.00	3,929.15	3,940.00	41.77	78.07	-91.929	647.10	384.12	3,539.39	3,419.73	119.66	29.578	
7,200.00	3,940.76	3,929.90	3,940.76	42.29	78.09	-91.958	647.10	384.12	3,585.07	3,464.86	120.21	29.825	
7,250.00	3,941.51	3,930.66	3,941.51	42.82	78.10	-91.988	647.10	384.12	3,630.86	3,510.11	120.75	30.069	
7,300.00	3,942.27	3,931.41	3,942.27	43.35	78.12	-92.018	647.10	384.12	3,676.76	3,555.46	121.30	30.312	
7,350.00	3,943.02	3,932.17	3,943.02	43.88	78.14	-92.048	647.10	384.12	3,722.77	3,600.93	121.84	30.554	
7,400.00	3,943.78	3,932.92	3,943.78	44.41	78.15	-92.078	647.10	384.12	3,768.88	3,646.49	122.39	30.794	
7,450.00	3,944.53	3,933.68	3,944.53	44.95	78.17	-92.107	647.10	384.12	3,815.08	3,692.15	122.94	31.033	
7,500.00	3,945.29	3,934.43	3,945.29	45.48	78.18	-92.137	647.10	384.12	3,861.39	3,737.90	123.49	31.270	
7,550.00	3,946.04	3,935.19	3,946.04	46.01	78.20	-92.167	647.10	384.12	3,907.78	3,783.74	124.04	31.505	
7,600.00	3,946.80	3,935.94	3,946.80	46.55	78.21	-92.197	647.10	384.12	3,954.26	3,829.67	124.58	31.740	
7,650.00	3,947.55	3,936.69	3,947.55	47.08	78.23	-92.227	647.10	384.12	4,000.82	3,875.69	125.14	31.972	
7,700.00	3,948.30	3,937.45	3,948.30	47.62	78.24	-92.257	647.10	384.12	4,047.47	3,921.78	125.69	32.203	
7,750.00	3,949.06	3,938.20	3,949.06	48.16	78.26	-92.286	647.10	384.12	4,094.19	3,967.96	126.24	32.433	
7,800.00	3,949.81	3,938.96	3,949.81	48.69	78.27	-92.316	647.10	384.12	4,141.00	4,014.21	126.79	32.661	
7,850.00	3,950.57	3,939.71	3,950.57	49.23	78.29	-92.346	647.10	384.12	4,187.87	4,060.53	127.34	32.887	
7,900.00	3,951.32	3,940.47	3,951.32	49.77	78.31	-92.376	647.10	384.12	4,234.82	4,106.93	127.89	33.112	
7,950.00	3,952.08	3,941.22	3,952.08	50.31	78.32	-92.406	647.10	384.12	4,281.84	4,153.39	128.45	33.335	
8,000.00	3,952.83	3,941.98	3,952.83	50.85	78.34	-92.435	647.10	384.12	4,328.92	4,199.92	129.00	33.557	
8,050.00	3,953.59	3,942.73	3,953.59	51.39	78.35	-92.465	647.10	384.12	4,376.07	4,246.51	129.55	33.778	
8,100.00	3,954.34	3,943.49	3,954.34	51.93	78.37	-92.495	647.10	384.12	4,423.28	4,293.17	130.11	33.997	
8,150.00	3,955.10	3,944.24	3,955.10	52.47	78.38	-92.525	647.10	384.12	4,470.55	4,339.88	130.66	34.214	
8,200.00	3,955.85	3,945.00	3,955.85	53.01	78.40	-92.555	647.10	384.12	4,517.88	4,386.66	131.22	34.430	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: PUMA #1 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 209-INC-ONLY — **Offset Well Error:** 0.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,250.00	3,956.61	3,945.75	3,956.61	53.55	78.41	-92.584	647.10	384.12	4,565.26	4,433.49	131.77	34.645	
8,300.00	3,957.36	3,946.51	3,957.36	54.09	78.43	-92.614	647.10	384.12	4,612.70	4,480.37	132.33	34.858	
8,350.00	3,958.12	3,947.26	3,958.12	54.63	78.44	-92.644	647.10	384.12	4,660.20	4,527.31	132.89	35.069	
8,400.00	3,958.87	3,948.01	3,958.87	55.18	78.46	-92.674	647.10	384.12	4,707.74	4,574.30	133.44	35.279	
8,450.00	3,959.62	3,948.77	3,959.62	55.72	78.48	-92.704	647.10	384.12	4,755.34	4,621.34	134.00	35.488	
8,500.00	3,960.38	3,949.52	3,960.38	56.26	78.49	-92.733	647.10	384.12	4,802.98	4,668.43	134.56	35.695	
8,550.00	3,961.13	3,950.28	3,961.13	56.81	78.51	-92.763	647.10	384.12	4,850.68	4,715.56	135.11	35.901	
8,600.00	3,961.89	3,951.03	3,961.89	57.35	78.52	-92.793	647.10	384.12	4,898.42	4,762.74	135.67	36.105	
8,650.00	3,962.64	3,951.79	3,962.64	57.90	78.54	-92.823	647.10	384.12	4,946.20	4,809.97	136.23	36.308	
8,700.00	3,963.40	3,952.54	3,963.40	58.44	78.55	-92.853	647.10	384.12	4,994.02	4,857.24	136.79	36.509	
8,750.00	3,964.15	3,953.30	3,964.15	58.99	78.57	-92.882	647.10	384.12	5,041.89	4,904.55	137.35	36.709	
8,800.00	3,964.91	3,954.05	3,964.91	59.53	78.58	-92.912	647.10	384.12	5,089.80	4,951.90	137.90	36.908	
8,850.00	3,965.66	3,954.81	3,965.66	60.08	78.60	-92.942	647.10	384.12	5,137.75	4,999.29	138.46	37.105	
8,900.00	3,966.42	3,955.56	3,966.42	60.63	78.61	-92.972	647.10	384.12	5,185.74	5,046.72	139.02	37.301	
8,950.00	3,967.17	3,956.32	3,967.17	61.17	78.63	-93.002	647.10	384.12	5,233.76	5,094.18	139.58	37.496	
9,000.00	3,967.93	3,957.07	3,967.93	61.72	78.64	-93.031	647.10	384.12	5,281.82	5,141.68	140.14	37.689	
9,050.00	3,968.68	3,957.83	3,968.68	62.27	78.66	-93.061	647.10	384.12	5,329.92	5,189.22	140.70	37.881	
9,100.00	3,969.44	3,958.58	3,969.44	62.81	78.68	-93.091	647.10	384.12	5,378.05	5,236.79	141.26	38.072	
9,150.00	3,970.19	3,959.33	3,970.19	63.36	78.69	-93.121	647.10	384.12	5,426.22	5,284.40	141.82	38.261	
9,200.00	3,970.95	3,960.09	3,970.95	63.91	78.71	-93.150	647.10	384.12	5,474.42	5,332.04	142.38	38.449	
9,250.00	3,971.70	3,960.84	3,971.70	64.46	78.72	-93.180	647.10	384.12	5,522.65	5,379.71	142.94	38.636	
9,300.00	3,972.45	3,961.60	3,972.45	65.01	78.74	-93.210	647.10	384.12	5,570.91	5,427.41	143.50	38.821	
9,350.00	3,973.21	3,962.35	3,973.21	65.56	78.75	-93.240	647.10	384.12	5,619.20	5,475.14	144.06	39.005	
9,400.00	3,973.96	3,963.11	3,973.96	66.11	78.77	-93.270	647.10	384.12	5,667.52	5,522.90	144.62	39.188	
9,450.00	3,974.72	3,963.86	3,974.72	66.65	78.78	-93.299	647.10	384.12	5,715.87	5,570.69	145.19	39.369	
9,500.00	3,975.47	3,964.62	3,975.47	67.20	78.80	-93.329	647.10	384.12	5,764.25	5,618.50	145.75	39.550	
9,550.00	3,976.23	3,965.37	3,976.23	67.75	78.81	-93.359	647.10	384.12	5,812.65	5,666.35	146.31	39.729	
9,600.00	3,976.98	3,966.13	3,976.98	68.30	78.83	-93.389	647.10	384.12	5,861.09	5,714.22	146.87	39.907	
9,650.00	3,977.74	3,966.88	3,977.74	68.85	78.85	-93.418	647.10	384.12	5,909.54	5,762.11	147.43	40.083	
9,700.00	3,978.49	3,967.64	3,978.49	69.40	78.86	-93.448	647.10	384.12	5,958.03	5,810.04	147.99	40.259	
9,750.00	3,979.25	3,968.39	3,979.25	69.96	78.88	-93.478	647.10	384.12	6,006.54	5,857.98	148.55	40.433	
9,800.00	3,980.00	3,969.15	3,980.00	70.51	78.89	-93.508	647.10	384.12	6,055.07	5,905.95	149.12	40.606	
9,850.00	3,980.76	3,969.90	3,980.76	71.06	78.91	-93.537	647.10	384.12	6,103.62	5,953.95	149.68	40.778	
9,900.00	3,981.51	3,970.66	3,981.51	71.61	78.92	-93.567	647.10	384.12	6,152.20	6,001.96	150.24	40.949	
9,950.00	3,982.27	3,971.41	3,982.27	72.16	78.94	-93.597	647.10	384.12	6,200.81	6,050.00	150.80	41.119	
10,000.00	3,983.02	3,972.16	3,983.02	72.71	78.95	-93.627	647.10	384.12	6,249.43	6,098.06	151.37	41.287	
10,050.00	3,983.77	3,972.92	3,983.77	73.26	78.97	-93.656	647.10	384.12	6,298.07	6,146.15	151.93	41.454	
10,100.00	3,984.53	3,973.67	3,984.53	73.81	78.98	-93.686	647.10	384.12	6,346.74	6,194.25	152.49	41.621	
10,150.00	3,985.28	3,974.43	3,985.28	74.37	79.00	-93.716	647.10	384.12	6,395.43	6,242.37	153.05	41.786	
10,200.00	3,986.04	3,975.18	3,986.04	74.92	79.02	-93.746	647.10	384.12	6,444.13	6,290.52	153.62	41.950	
10,250.00	3,986.79	3,975.94	3,986.79	75.47	79.03	-93.775	647.10	384.12	6,492.86	6,338.68	154.18	42.113	
10,300.00	3,987.55	3,976.69	3,987.55	76.02	79.05	-93.805	647.10	384.12	6,541.60	6,386.86	154.74	42.274	
10,350.00	3,988.30	3,977.45	3,988.30	76.58	79.06	-93.835	647.10	384.12	6,590.37	6,435.06	155.30	42.435	
10,400.00	3,989.06	3,978.20	3,989.06	77.13	79.08	-93.864	647.10	384.12	6,639.15	6,483.28	155.87	42.595	
10,450.00	3,989.81	3,978.96	3,989.81	77.68	79.09	-93.894	647.10	384.12	6,687.95	6,531.52	156.43	42.754	
10,500.00	3,990.57	3,979.71	3,990.57	78.24	79.11	-93.924	647.10	384.12	6,736.77	6,579.77	156.99	42.911	
10,550.00	3,991.32	3,980.47	3,991.32	78.79	79.12	-93.954	647.10	384.12	6,785.60	6,628.05	157.56	43.068	
10,600.00	3,992.08	3,981.22	3,992.08	79.34	79.14	-93.983	647.10	384.12	6,834.45	6,676.33	158.12	43.223	
10,650.00	3,992.83	3,981.98	3,992.83	79.90	79.15	-94.013	647.10	384.12	6,883.32	6,724.64	158.68	43.378	
10,700.00	3,993.59	3,982.73	3,993.59	80.45	79.17	-94.043	647.10	384.12	6,932.20	6,772.96	159.25	43.532	
10,750.00	3,994.34	3,983.48	3,994.34	81.00	79.19	-94.073	647.10	384.12	6,981.10	6,821.30	159.81	43.684	
10,800.00	3,995.09	3,984.24	3,995.09	81.56	79.20	-94.102	647.10	384.12	7,030.02	6,869.65	160.37	43.836	

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

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Offset Design AID NORTH 14-13 STATE COM - OFFSET: PUMA #1 - Wellbore #1 - Wellbore #1 — **Offset Site Error:** 0.00 usft

Survey Program: 209-INC-ONLY — **Offset Well Error:** 0.00 usft

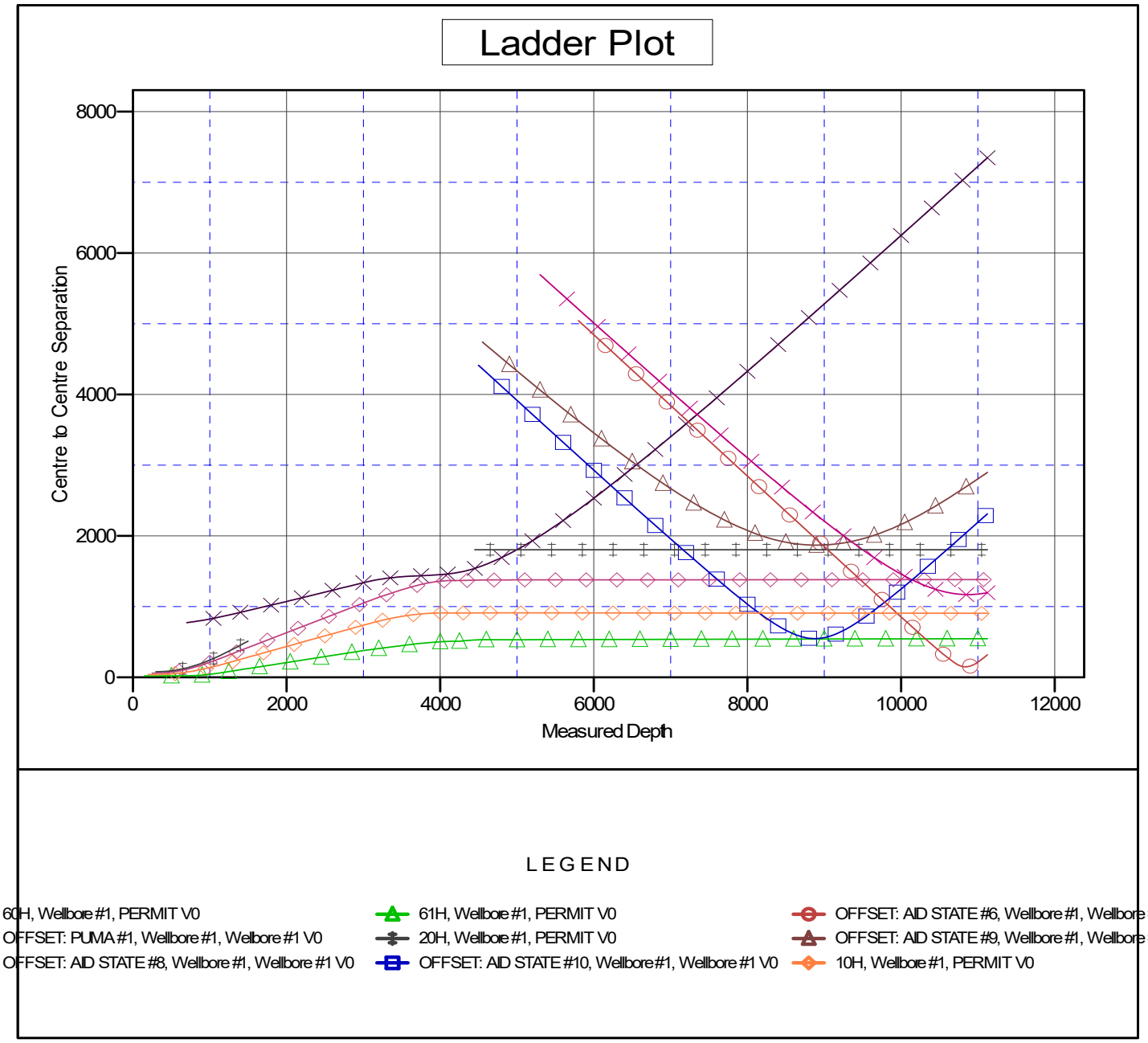
Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,850.00	3,995.85	3,984.99	3,995.85	82.11	79.22	-94.132	647.10	384.12	7,078.95	6,918.01	160.94	43.986	
10,900.00	3,996.60	3,985.75	3,996.60	82.67	79.23	-94.162	647.10	384.12	7,127.89	6,966.40	161.50	44.136	
10,950.00	3,997.36	3,986.50	3,997.36	83.22	79.25	-94.191	647.10	384.12	7,176.85	7,014.79	162.06	44.285	
11,000.00	3,998.11	3,987.26	3,998.11	83.77	79.26	-94.221	647.10	384.12	7,225.83	7,063.20	162.63	44.432	
11,050.00	3,998.87	3,988.01	3,998.87	84.33	79.28	-94.251	647.10	384.12	7,274.81	7,111.63	163.19	44.579	
11,074.95	3,999.24	3,988.39	3,999.24	84.60	79.29	-94.266	647.10	384.12	7,299.27	7,135.80	163.47	44.652	
11,100.00	3,999.62	3,988.77	3,999.62	84.88	79.29	-94.280	647.10	384.12	7,323.82	7,160.06	163.75	44.725	
11,124.98	4,000.00	3,989.14	4,000.00	85.16	79.30	-94.295	647.10	384.12	7,348.30	7,184.27	164.03	44.798	

SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Reference Depths are relative to RKB = 20' @ 3620.00usft (AKITA 57) Coordinates are relative to: 21H
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Central Meridian is -104.3333333 Grid Convergence at Surface is: 0.101°



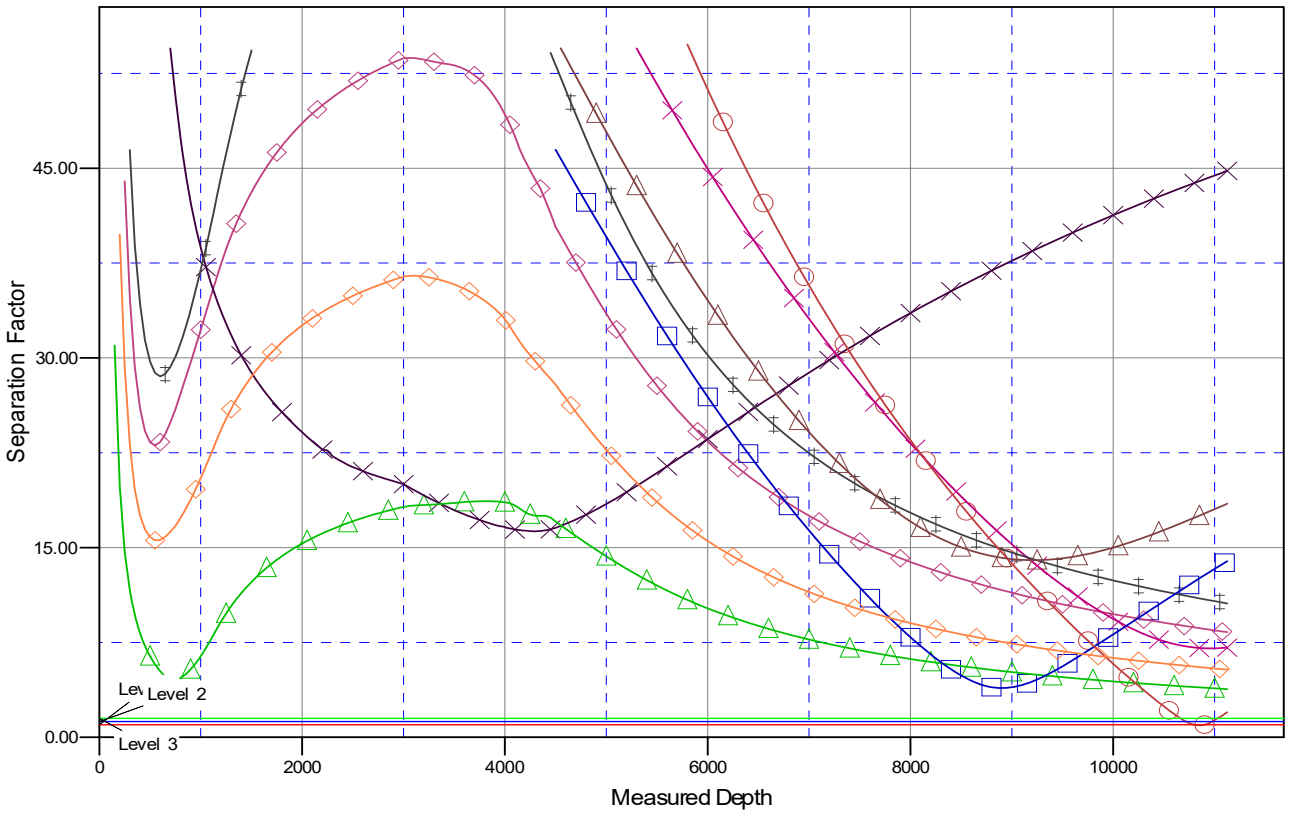
SPUR ENERGY PARTNERS

Anticollision Report

Company:	SPUR ENERGY PARTNERS, LLC	**Local Co-ordinate Reference:**	Well 21H
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Reference Site:	AID NORTH 14-13 STATE COM	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site Error:	0.00 usft	**North Reference:**	Grid
Reference Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	Wellbore #1	**Database:**	EDM 5000.1.13 Single User Db
Reference Design:	PERMIT	**Offset TVD Reference:**	Reference Datum

Reference Depths are relative to RKB = 20' @ 3620.00usft (AKITA 57) Coordinates are relative to: 21H
Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Central Meridian is -104.3333333 Grid Convergence at Surface is: 0.101°

Separation Factor Plot



LEGEND

60H, Wellbore #1, PERMIT V0
61H, Wellbore #1, PERMIT V0
OFFSET: AID STATE #6, Wellbore #1, Wellbore #
OFFSET: PUMA #1, Wellbore #1, Wellbore #1 V0
20H, Wellbore #1, PERMIT V0
OFFSET: AID STATE #9, Wellbore #1, Wellbore #
OFFSET: AID STATE #8, Wellbore #1, Wellbore #1 V0
OFFSET: AID STATE #10, Wellbore #1, Wellbore #1 V0
10H, Wellbore #1, PERMIT V0

SPUR ENERGY PARTNERS, LLC

EDDY COUNTY, NM (NAD 83 - NME)
AID NORTH 14-13 STATE COM
21H

Wellbore #1

Plan: PERMIT

Standard Planning Report

01 August, 2023

SPUR ENERGY PARTNERS

Planning Report

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well 21H
Company:	SPUR ENERGY PARTNERS, LLC	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site:	AID NORTH 14-13 STATE COM	**North Reference:**	Grid
Well:	21H	**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 AID NORTH 14-13 STATE COM

Site Position:		**Northing:**	669,070.00 usft	**Latitude:**	32.8391593
From:	Map	**Easting:**	598,767.90 usft	**Longitude:**	-104.1463439
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.101 °

Well 21H

Well Position	**+N/-S**	-39.90 usft	**Northing:**	669,030.10 usft	**Latitude:**	32.8390496
	+E/-W	0.40 usft	**Easting:**	598,768.30 usft	**Longitude:**	-104.1463428
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	3,600.00 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	08/01/23	6.613	60.303	47,574

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	88.75

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	0.000	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,127.09	16.54	175.58	1,115.65	-118.22	9.13	2.00	2.00	0.00	175.582	
3,000.54	16.54	175.58	2,911.56	-650.03	50.22	0.00	0.00	0.00	0.000	
4,008.31	60.00	88.75	3,723.30	-797.52	544.27	6.00	4.31	-8.62	-96.364	
4,208.31	60.00	88.75	3,823.30	-793.75	717.43	0.00	0.00	0.00	0.000	
4,499.66	89.14	88.75	3,900.00	-787.70	995.20	10.00	10.00	0.00	0.000	AID NORTH 21H F
11,074.95	89.14	88.75	3,999.24	-644.59	7,568.19	0.00	0.00	0.00	0.000	AID NORTH 21H L
11,124.98	89.14	88.75	4,000.00	-643.50	7,618.20	0.00	0.00	0.00	0.000	AID NORTH 21H B

SPUR ENERGY PARTNERS

Planning Report

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well 21H
Company:	SPUR ENERGY PARTNERS, LLC	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site:	AID NORTH 14-13 STATE COM	**North Reference:**	Grid
Well:	21H	**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
AID NORTH 21H SHL: 1268' FNL, 2383' 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	175.58	399.98	-1.74	0.13	0.10	2.00	2.00	0.00
500.00	4.00	175.58	499.84	-6.96	0.54	0.39	2.00	2.00	0.00
600.00	6.00	175.58	599.45	-15.65	1.21	0.87	2.00	2.00	0.00
700.00	8.00	175.58	698.70	-27.80	2.15	1.54	2.00	2.00	0.00
800.00	10.00	175.58	797.47	-43.39	3.35	2.41	2.00	2.00	0.00
900.00	12.00	175.58	895.62	-62.42	4.82	3.46	2.00	2.00	0.00
1,000.00	14.00	175.58	993.06	-84.84	6.56	4.70	2.00	2.00	0.00
1,100.00	16.00	175.58	1,089.64	-110.65	8.55	6.13	2.00	2.00	0.00
1,127.09	16.54	175.58	1,115.65	-118.22	9.13	6.55	2.00	2.00	0.00
1,200.00	16.54	175.58	1,185.54	-138.91	10.73	7.70	0.00	0.00	0.00
1,300.00	16.54	175.58	1,281.40	-167.30	12.93	9.27	0.00	0.00	0.00
1,400.00	16.54	175.58	1,377.26	-195.69	15.12	10.85	0.00	0.00	0.00
1,500.00	16.54	175.58	1,473.12	-224.07	17.31	12.42	0.00	0.00	0.00
1,600.00	16.54	175.58	1,568.99	-252.46	19.51	13.99	0.00	0.00	0.00
1,700.00	16.54	175.58	1,664.85	-280.85	21.70	15.57	0.00	0.00	0.00
1,800.00	16.54	175.58	1,760.71	-309.23	23.89	17.14	0.00	0.00	0.00
1,900.00	16.54	175.58	1,856.57	-337.62	26.09	18.71	0.00	0.00	0.00
2,000.00	16.54	175.58	1,952.43	-366.01	28.28	20.29	0.00	0.00	0.00
2,100.00	16.54	175.58	2,048.29	-394.39	30.47	21.86	0.00	0.00	0.00
2,200.00	16.54	175.58	2,144.15	-422.78	32.66	23.43	0.00	0.00	0.00
2,300.00	16.54	175.58	2,240.01	-451.17	34.86	25.01	0.00	0.00	0.00
2,400.00	16.54	175.58	2,335.87	-479.56	37.05	26.58	0.00	0.00	0.00
2,500.00	16.54	175.58	2,431.74	-507.94	39.24	28.15	0.00	0.00	0.00
2,600.00	16.54	175.58	2,527.60	-536.33	41.44	29.73	0.00	0.00	0.00
2,700.00	16.54	175.58	2,623.46	-564.72	43.63	31.30	0.00	0.00	0.00
2,800.00	16.54	175.58	2,719.32	-593.10	45.82	32.87	0.00	0.00	0.00
2,900.00	16.54	175.58	2,815.18	-621.49	48.02	34.45	0.00	0.00	0.00
3,000.54	16.54	175.58	2,911.56	-650.03	50.22	36.03	0.00	0.00	0.00
AID NORTH 21H KOP: 3000.54' MD									
3,050.00	16.47	165.13	2,958.99	-663.83	52.57	38.07	6.00	-0.14	-21.14
3,100.00	16.92	154.79	3,006.89	-677.27	57.49	42.70	6.00	0.90	-20.67
3,150.00	17.86	145.24	3,054.62	-690.15	64.96	49.89	6.00	1.87	-19.10
3,200.00	19.21	136.80	3,102.03	-702.45	74.96	59.62	6.00	2.70	-16.88
3,250.00	20.89	129.55	3,149.01	-714.13	87.47	71.87	6.00	3.37	-14.50
3,300.00	22.84	123.41	3,195.41	-725.15	102.45	86.60	6.00	3.89	-12.28
3,350.00	24.98	118.23	3,241.12	-735.49	119.85	103.78	6.00	4.29	-10.37
3,400.00	27.28	113.84	3,286.01	-745.12	139.64	123.36	6.00	4.59	-8.77
3,450.00	29.69	110.10	3,329.96	-754.01	161.76	145.27	6.00	4.83	-7.48
3,500.00	32.20	106.88	3,372.84	-762.14	186.14	169.47	6.00	5.01	-6.43
3,550.00	34.77	104.09	3,414.54	-769.48	212.72	195.88	6.00	5.15	-5.59
3,600.00	37.40	101.64	3,454.95	-776.02	241.43	224.44	6.00	5.26	-4.90
3,650.00	40.08	99.47	3,493.95	-781.73	272.19	255.07	6.00	5.35	-4.34
3,700.00	42.79	97.53	3,531.43	-786.61	304.91	287.67	6.00	5.42	-3.88
3,750.00	45.53	95.78	3,567.30	-790.63	339.50	322.17	6.00	5.48	-3.50
3,800.00	48.30	94.19	3,601.45	-793.79	375.87	358.47	6.00	5.53	-3.19
3,850.00	51.08	92.73	3,633.80	-796.08	413.93	396.46	6.00	5.57	-2.92
3,900.00	53.88	91.38	3,664.25	-797.49	453.55	436.05	6.00	5.60	-2.70
3,950.00	56.70	90.12	3,692.71	-798.02	494.65	477.12	6.00	5.63	-2.51
4,000.00	59.53	88.94	3,719.12	-797.66	537.10	519.57	6.00	5.66	-2.36

SPUR ENERGY PARTNERS

Planning Report

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Company:	SPUR ENERGY PARTNERS, LLC	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site:	AID NORTH 14-13 STATE COM	**North Reference:**	Grid
Well:	21H	**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)
4,008.31	60.00	88.75	3,723.30	-797.52	544.27	526.74	6.00	5.67	-2.27
4,100.00	60.00	88.75	3,769.15	-795.79	623.66	606.15	0.00	0.00	0.00
4,208.31	60.00	88.75	3,823.30	-793.75	717.43	699.95	0.00	0.00	0.00
4,250.00	64.17	88.75	3,842.82	-792.95	754.26	736.78	10.00	10.00	0.00
4,300.00	69.17	88.75	3,862.61	-791.95	800.15	782.68	10.00	10.00	0.00
4,350.00	74.17	88.75	3,878.33	-790.91	847.58	830.13	10.00	10.00	0.00
4,400.00	79.17	88.75	3,889.86	-789.86	896.21	878.77	10.00	10.00	0.00
4,450.00	84.17	88.75	3,897.10	-788.78	945.65	928.22	10.00	10.00	0.00
4,499.66	89.14	88.75	3,900.00	-787.70	995.20	977.78	10.00	10.00	0.00
AID NORTH 21H FTP: 2149' FNL, 1404' FEL									
4,600.00	89.14	88.75	3,901.51	-785.52	1,095.51	1,078.11	0.00	0.00	0.00
4,700.00	89.14	88.75	3,903.02	-783.34	1,195.47	1,178.10	0.00	0.00	0.00
4,800.00	89.14	88.75	3,904.53	-781.16	1,295.44	1,278.09	0.00	0.00	0.00
4,900.00	89.14	88.75	3,906.04	-778.99	1,395.40	1,378.08	0.00	0.00	0.00
5,000.00	89.14	88.75	3,907.55	-776.81	1,495.37	1,478.07	0.00	0.00	0.00
5,100.00	89.14	88.75	3,909.06	-774.63	1,595.33	1,578.05	0.00	0.00	0.00
5,200.00	89.14	88.75	3,910.57	-772.46	1,695.30	1,678.04	0.00	0.00	0.00
5,300.00	89.14	88.75	3,912.08	-770.28	1,795.26	1,778.03	0.00	0.00	0.00
5,400.00	89.14	88.75	3,913.59	-768.10	1,895.23	1,878.02	0.00	0.00	0.00
5,500.00	89.14	88.75	3,915.10	-765.93	1,995.19	1,978.01	0.00	0.00	0.00
5,600.00	89.14	88.75	3,916.61	-763.75	2,095.16	2,078.00	0.00	0.00	0.00
5,700.00	89.14	88.75	3,918.12	-761.57	2,195.12	2,177.99	0.00	0.00	0.00
5,800.00	89.14	88.75	3,919.63	-759.40	2,295.09	2,277.97	0.00	0.00	0.00
5,900.00	89.14	88.75	3,921.14	-757.22	2,395.05	2,377.96	0.00	0.00	0.00
6,000.00	89.14	88.75	3,922.65	-755.05	2,495.02	2,477.95	0.00	0.00	0.00
6,100.00	89.14	88.75	3,924.16	-752.87	2,594.98	2,577.94	0.00	0.00	0.00
6,200.00	89.14	88.75	3,925.66	-750.69	2,694.95	2,677.93	0.00	0.00	0.00
6,300.00	89.14	88.75	3,927.17	-748.52	2,794.91	2,777.92	0.00	0.00	0.00
6,400.00	89.14	88.75	3,928.68	-746.34	2,894.88	2,877.91	0.00	0.00	0.00
6,500.00	89.14	88.75	3,930.19	-744.16	2,994.84	2,977.89	0.00	0.00	0.00
6,600.00	89.14	88.75	3,931.70	-741.99	3,094.81	3,077.88	0.00	0.00	0.00
6,700.00	89.14	88.75	3,933.21	-739.81	3,194.77	3,177.87	0.00	0.00	0.00
6,800.00	89.14	88.75	3,934.72	-737.63	3,294.74	3,277.86	0.00	0.00	0.00
6,900.00	89.14	88.75	3,936.23	-735.46	3,394.70	3,377.85	0.00	0.00	0.00
7,000.00	89.14	88.75	3,937.74	-733.28	3,494.67	3,477.84	0.00	0.00	0.00
7,100.00	89.14	88.75	3,939.25	-731.10	3,594.63	3,577.83	0.00	0.00	0.00
7,200.00	89.14	88.75	3,940.76	-728.93	3,694.60	3,677.81	0.00	0.00	0.00
7,300.00	89.14	88.75	3,942.27	-726.75	3,794.56	3,777.80	0.00	0.00	0.00
7,400.00	89.14	88.75	3,943.78	-724.57	3,894.53	3,877.79	0.00	0.00	0.00
7,500.00	89.14	88.75	3,945.29	-722.40	3,994.49	3,977.78	0.00	0.00	0.00
7,600.00	89.14	88.75	3,946.80	-720.22	4,094.46	4,077.77	0.00	0.00	0.00
7,700.00	89.14	88.75	3,948.30	-718.04	4,194.42	4,177.76	0.00	0.00	0.00
7,800.00	89.14	88.75	3,949.81	-715.87	4,294.39	4,277.75	0.00	0.00	0.00
7,900.00	89.14	88.75	3,951.32	-713.69	4,394.35	4,377.74	0.00	0.00	0.00
8,000.00	89.14	88.75	3,952.83	-711.52	4,494.31	4,477.72	0.00	0.00	0.00
8,100.00	89.14	88.75	3,954.34	-709.34	4,594.28	4,577.71	0.00	0.00	0.00
8,200.00	89.14	88.75	3,955.85	-707.16	4,694.24	4,677.70	0.00	0.00	0.00
8,300.00	89.14	88.75	3,957.36	-704.99	4,794.21	4,777.69	0.00	0.00	0.00
8,400.00	89.14	88.75	3,958.87	-702.81	4,894.17	4,877.68	0.00	0.00	0.00
8,500.00	89.14	88.75	3,960.38	-700.63	4,994.14	4,977.67	0.00	0.00	0.00
8,600.00	89.14	88.75	3,961.89	-698.46	5,094.10	5,077.66	0.00	0.00	0.00
8,700.00	89.14	88.75	3,963.40	-696.28	5,194.07	5,177.64	0.00	0.00	0.00
8,800.00	89.14	88.75	3,964.91	-694.10	5,294.03	5,277.63	0.00	0.00	0.00
8,900.00	89.14	88.75	3,966.42	-691.93	5,394.00	5,377.62	0.00	0.00	0.00

SPUR ENERGY PARTNERS

Planning Report

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Company:	SPUR ENERGY PARTNERS, LLC	**TVD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Project:	EDDY COUNTY, NM (NAD 83 - NME)	**MD Reference:**	RKB = 20' @ 3620.00usft (AKITA 57)
Site:	AID NORTH 14-13 STATE COM	**North Reference:**	Grid
Well:	21H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

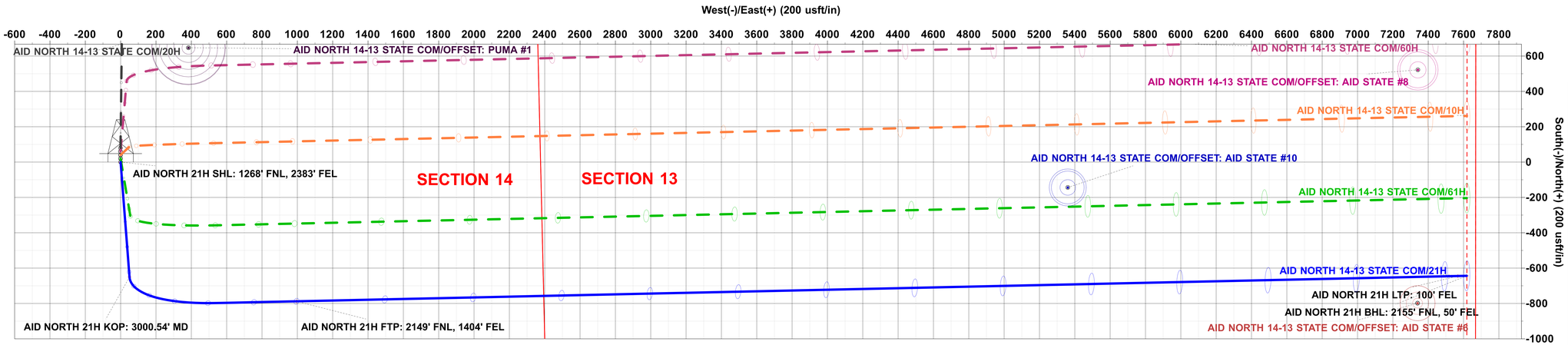
Planned Survey

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)
9,000.00	89.14	88.75	3,967.93	-689.75	5,493.96	5,477.61	0.00	0.00	0.00
9,100.00	89.14	88.75	3,969.44	-687.57	5,593.93	5,577.60	0.00	0.00	0.00
9,200.00	89.14	88.75	3,970.95	-685.40	5,693.89	5,677.59	0.00	0.00	0.00
9,300.00	89.14	88.75	3,972.45	-683.22	5,793.86	5,777.58	0.00	0.00	0.00
9,400.00	89.14	88.75	3,973.96	-681.04	5,893.82	5,877.56	0.00	0.00	0.00
9,500.00	89.14	88.75	3,975.47	-678.87	5,993.79	5,977.55	0.00	0.00	0.00
9,600.00	89.14	88.75	3,976.98	-676.69	6,093.75	6,077.54	0.00	0.00	0.00
9,700.00	89.14	88.75	3,978.49	-674.51	6,193.72	6,177.53	0.00	0.00	0.00
9,800.00	89.14	88.75	3,980.00	-672.34	6,293.68	6,277.52	0.00	0.00	0.00
9,900.00	89.14	88.75	3,981.51	-670.16	6,393.65	6,377.51	0.00	0.00	0.00
10,000.00	89.14	88.75	3,983.02	-667.99	6,493.61	6,477.50	0.00	0.00	0.00
10,100.00	89.14	88.75	3,984.53	-665.81	6,593.58	6,577.48	0.00	0.00	0.00
10,200.00	89.14	88.75	3,986.04	-663.63	6,693.54	6,677.47	0.00	0.00	0.00
10,300.00	89.14	88.75	3,987.55	-661.46	6,793.51	6,777.46	0.00	0.00	0.00
10,400.00	89.14	88.75	3,989.06	-659.28	6,893.47	6,877.45	0.00	0.00	0.00
10,500.00	89.14	88.75	3,990.57	-657.10	6,993.44	6,977.44	0.00	0.00	0.00
10,600.00	89.14	88.75	3,992.08	-654.93	7,093.40	7,077.43	0.00	0.00	0.00
10,700.00	89.14	88.75	3,993.59	-652.75	7,193.37	7,177.42	0.00	0.00	0.00
10,800.00	89.14	88.75	3,995.09	-650.57	7,293.33	7,277.40	0.00	0.00	0.00
10,900.00	89.14	88.75	3,996.60	-648.40	7,393.30	7,377.39	0.00	0.00	0.00
11,000.00	89.14	88.75	3,998.11	-646.22	7,493.26	7,477.38	0.00	0.00	0.00
11,074.95	89.14	88.75	3,999.24	-644.59	7,568.19	7,552.32	0.00	0.00	0.00
AID NORTH 21H LTP: 100' FEL									
11,100.00	89.14	88.75	3,999.62	-644.04	7,593.23	7,577.37	0.00	0.00	0.00
11,124.98	89.14	88.75	4,000.00	-643.50	7,618.20	7,602.35	0.00	0.00	0.00
AID NORTH 21H BHL: 2155' FNL, 50' FEL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
AID NORTH 21H SHL - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	669,030.10	598,768.30	32.8390496	-104.1463428
AID NORTH 21H KOP - plan hits target center - Point	0.00	0.00	2,911.56	-650.03	50.22	668,380.07	598,818.53	32.8372627	-104.1461831
AID NORTH 21H FTP - plan hits target center - Point	0.00	0.00	3,900.00	-787.70	995.20	668,242.40	599,763.50	32.8368796	-104.1431072
AID NORTH 21H LTP - plan misses target center by 0.61usft at 11074.95usft MD (3999.24 TVD, -644.59 N, 7568.19 E) - Point	0.00	0.00	3,999.24	-645.20	7,568.20	668,384.90	606,336.50	32.8372369	-104.1217057
AID NORTH 21H BHL - plan hits target center - Point	0.00	0.00	4,000.00	-643.50	7,618.20	668,386.60	606,386.50	32.8372413	-104.1215429

Project: EDDY COUNTY, NM (NAD 83 - NME)
Site: AID NORTH 14-13 STATE COM
Well: 21H
Wellbore: Wellbore #1
Design: PERMIT



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

WELL DETAILS: 21H

Rig Name: AKITA 57 RKB = 20' @ 3620.00usft (AKITA 57)
Ground Level: 3600.00

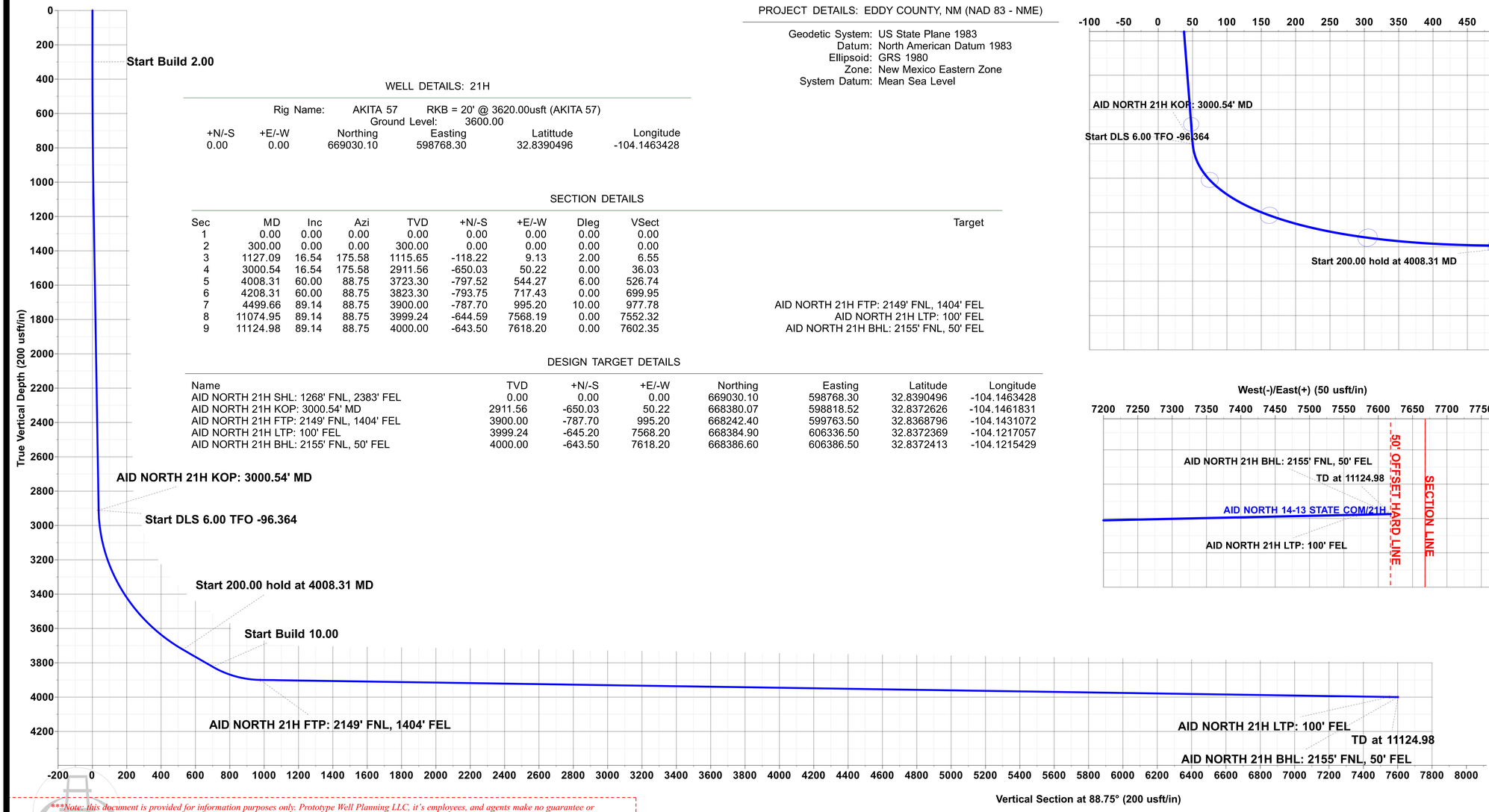
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	669030.10	598768.30	32.8390496	-104.1463428

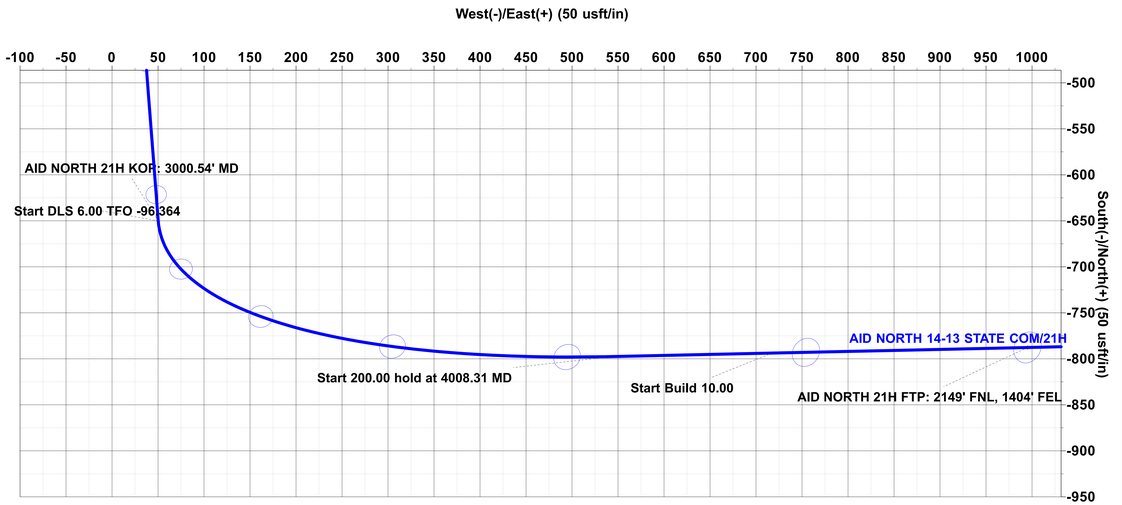
SECTION DETAILS

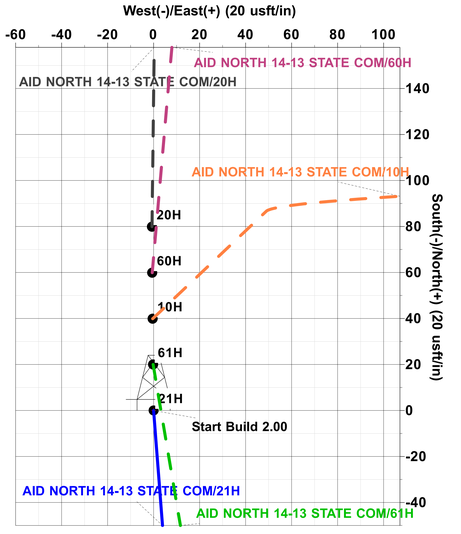
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	
3	1127.09	16.54	175.58	1115.65	-118.22	9.13	2.00	6.55	
4	3000.54	16.54	175.58	2911.56	-650.03	50.22	0.00	36.03	
5	4008.31	60.00	88.75	3723.30	-797.52	544.27	6.00	526.74	
6	4208.31	60.00	88.75	3823.30	-793.75	717.43	0.00	699.95	
7	4499.66	89.14	88.75	3900.00	-787.70	995.20	10.00	977.78	AID NORTH 21H FTP: 2149' FNL, 1404' FEL
8	11074.95	89.14	88.75	3999.24	-644.59	7568.19	0.00	7552.32	AID NORTH 21H LTP: 100' FEL
9	11124.98	89.14	88.75	4000.00	-643.50	7618.20	0.00	7602.35	AID NORTH 21H BHL: 2155' FNL, 50' FEL

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
AID NORTH 21H SHL: 1268' FNL, 2383' FEL	0.00	0.00	0.00	669030.10	598768.30	32.8390496	-104.1463428
AID NORTH 21H KOP: 3000.54' MD	2911.56	-650.03	50.22	668380.07	598818.52	32.8372626	-104.1461831
AID NORTH 21H FTP: 2149' FNL, 1404' FEL	3900.00	-787.70	995.20	668242.40	599763.50	32.8368796	-104.1431072
AID NORTH 21H LTP: 100' FEL	3999.24	-645.20	7568.20	668384.90	606336.50	32.8372369	-104.1217057
AID NORTH 21H BHL: 2155' FNL, 50' FEL	4000.00	-643.50	7618.20	668386.60	606386.50	32.8372413	-104.1215429







Plan: PERMIT (21H/Wellbore #1)

Created By: PROTOTYPE WELL PLANNING / Date: 16:14, August 01 2023

Spur Energy Partners LLC – Aid North 14-13 State Com 21H

1. Geologic Formations

TVD of Target	4,000'
MD at TD	11,125'

Formation	Depth	Lithology	Expected Fluids
Quaternary	0'	Dolomite, other: Caliche	Useable Water
Tansill	485'	Sandstone, Dolomite	None
Yates	595'	Dolomite, Limestone, Shale, Siltstone	None
Seven Rivers	850'	Dolomite, Limestone	Natural Gas, Oil
Queen	1395'	Anhydrite, Dolomite, Sandstone	Natural Gas, Oil
Grayburg	1825'	Anhydrite	Natural Gas, Oil
San Andres	2170'	Dolomite	Natural Gas, Oil
Glorieta	3520'	Dolomite, Siltstone	Natural Gas, Oil
Paddock	3620'	Dolomite, Limestone	Natural Gas, Oil
Blinebry	4015'	Dolomite, Limestone	Natural Gas, Oil
Abo	5675'	Dolomite, Limestone	Natural Gas, Oil

*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	Grade	Conn.	SF	SF Burst	Body SF	Joint SF
		From (ft)	To (ft)		(lbs)			Collapse		Tension	Tension
Seven Rivers	12.25	0	1275	9.625	36	J-55	BTC	1.125	1.2	1.4	1.4
N/A	8.75	0	4250	7	32	L-80	BK-HT	1.125	1.2	1.4	1.4
Yeso	8.75	4250	11125	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 – Aid North 14-13 State Com 21H

	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 3rd 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 2nd 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?	
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 (Lead)	0	950	100%
Surface (Tail)	950	1275	100%
Production (Lead)	0	3250	100%
Production (Tail)	3250	11125	25%

Casing String	# Sks	Wt. (lb/gal)	Yld (ft3/sack)	H20 (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface (Lead)	259	12	2.4	13.48	8:12	Clas C Premium Plus Cement
Surface (Tail)	119	13.2	1.87	9.92	6:59	Clas C Premium Plus Cement
Production (Lead)	334	11.4	2.42	15.29	N/A	Clas C Premium Plus Cement
Production (Tail)	1516	13.2	1.56	9.81	N/A	Clas C Premium Plus Cement

Spur Energy Partners LLC – Aid North 14-13 State Com 21H

4. Pressure Control Equipment

Spur Energy Partners LLC variance for flex hose

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	1852 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	112°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.

	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 follows:

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	1275	Water-Based Mud	8.6-8.9	32-36	N/C
1275	11125	Water-Based Mud	8.6-8.9	32-36	N/C

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

Spur Energy Partners LLC – Aid North 14-13 State Com 21H

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	SCP - 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 (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S 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	H2S is present
Y	H2S Plan attached

Total estimated cuttings volume: 1013.3 bbls**.**

Spur Energy Partners LLC – Aid North 14-13 State Com 21H

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 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, 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
_x__ Directional Plan
_x__ H2S Contingency Plan
_x__ Akita 57 Attachments
_x__ BOP Schematics
_x__ 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

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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 / 08 / 2023

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
AID NORTH 14 13 STATE COM 10H	30-015-	B-14-17S-28E	1228' FNL 2382' FEL	260 BBL/D	300 MCF/D	700 BBL/D
AID NORTH 14 13 STATE COM 20H	30-015-	B-14-17S-28E	1188' FNL 2382' FEL	260 BBL/D	300 MCF/D	700 BBL/D
AID NORTH 14 13 STATE COM 21H	30-015-	B-14-17S-28E	1268' FNL 2383' FEL	260 BBL/D	300 MCF/D	700 BBL/D
AID NORTH 14 13 STATE COM 60H	30-015-	B-14-17S-28E	1208' FNL 2382' FEL	200 BBL/D	275 MCF/D	800 BBL/D
AID NORTH 14 13 STATE COM 61H	30-015-	B-14-17S-28E	1248' FNL 2383' FEL	200 BBL/D	275 MCF/D	800 BBL/D

IV. Central Delivery Point Name: AID NORTH 14 13 STATE 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
AID NORTH 14 13 STATE COM 10H	30-015-	10/26/2023	11/03/2023	12/16/2023	01/15/2024	01/20/2024
AID NORTH 14 13 STATE COM 20H	30-015-	11/04/2023	11/12/2023	12/16/2023	01/15/2024	01/20/2024
AID NORTH 14 13 STATE COM 21H	30-015-	11/13/2023	11/21/2023	12/16/2023	01/15/2024	01/20/2024
AID NORTH 14 13 STATE COM 60H	30-015-	11/22/2023	11/30/2023	12/16/2023	01/15/2024	01/20/2024
AID NORTH 14 13 STATE COM 61H	30-015-	12/01/2023	12/09/2023	12/16/2023	01/15/2024	01/24/2024

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:	Sarah Chapman
Printed Name:	SARAH CHAPMAN
Title:	REGULATORY DIRECTOR
E-mail Address:	SCHAPMAN@SPURENERGY.COM
Date:	08/08/2023
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 ignitor 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.

Hydrogen Sulfide (H2S)

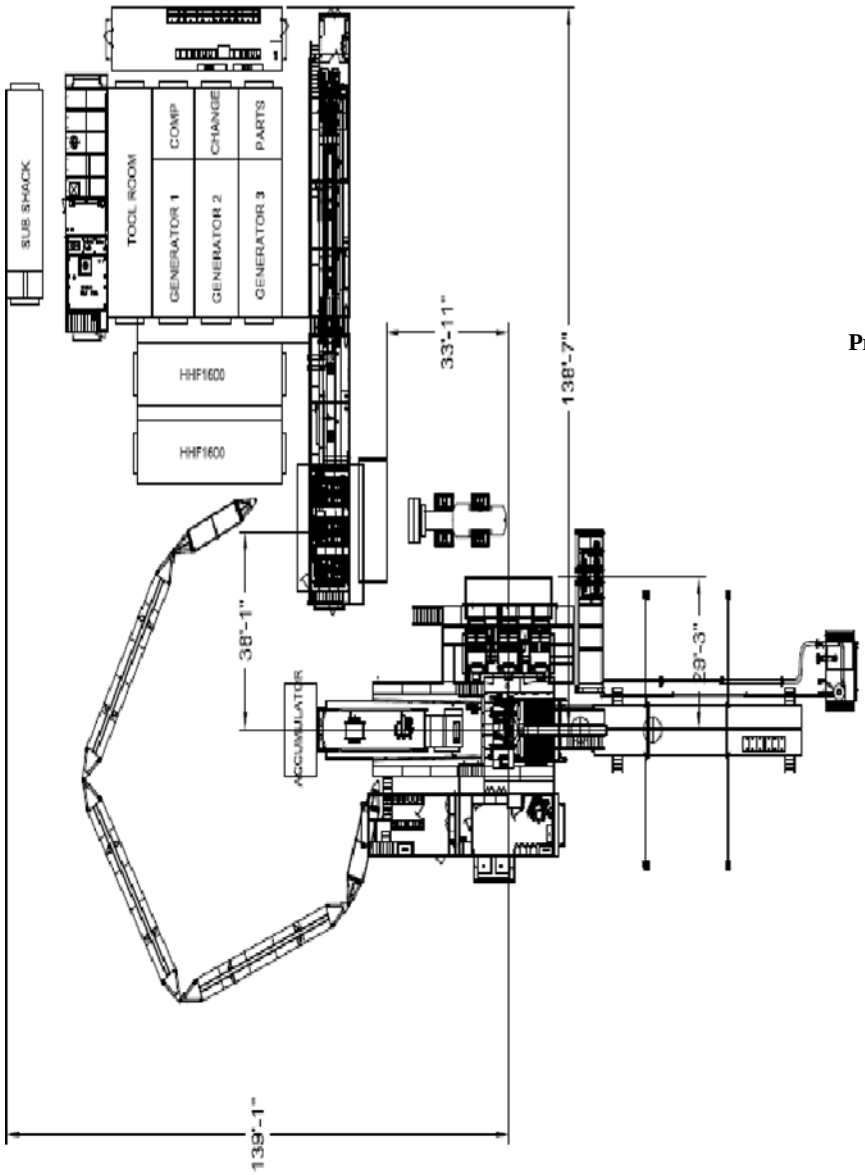
Operations Plan

For

Spur Energy Partners

New Mexico Operations

Secondary Briefing Area



Primary Briefing Area

Exit to road. Caution sign placed here.

N

Secondary Egress

WIND: Prevailing winds are from the Southwest

Spur Energy Partners
New Mexico Operations
Hydrogen Sulfide Operation Plan

A. Introduction:

The Safety of all personnel at Spur Energy Partners Facilities is of utmost importance to the company, and therefor management and employees must take responsibility for their safety and for the safety of all employees and others at a facility. If you have any concerns about the safe operations of the facility, contract personnel, or vendors, please contact the Company's Safety Contact, Superintendent, or Production Foreman immediately.

The objective of this contingency plan is to provide an organized plan of action for alerting, responding to and protecting employees, other workers and the public from H2S exposure in the event of a release of a potentially hazardous volume of H2S to the atmosphere. This plan should be activated immediately if any such release occurs. The Superintendent is responsible for initiating and carrying out the plan.

B. Scope:

Prevent the uncontrolled release of H_2S into the atmosphere. Provide proper procedures and equipment to alert and respond to emergencies.

Provide immediate and adequate medical attention should an injury occur.

To provide Company employees working at actual or potential Hydrogen Sulfide (H2S) facilities with a safe procedure to comply with applicable Federal, State and Company requirements.

This document is intended to provide general policy, procedures and expectations surrounding elevated levels of H2S. The intent is to promote sound and safe operations, while seeking effective communication surrounding operational considerations working around H2S.

This procedure applies to all Company employees and contractors working at facilities that have the potential to release 100 ppm or higher concentrations of H2S.

The plan establishes guidelines for all personnel whose work activity may involve exposure to Hydrogen Sulfide Gas (H_2S).

C. Hydrogen Sulfide Gas (H2S) Characteristics:

1. H2S is a toxic, poisonous gas that could cause death or injury. And it is also flammable.
2. H2S is an irritant and extremely toxic gas that is several times deadlier than carbon monoxide (CO).
3. H2S is heavier than air with a specific gravity of 1.1895 @ 600 F. so it will tend to lie in lower areas. Wind movement or air currents can readily disperse H2S since wind currents can easily overcome the heavier weight. On calm days, with no wind, the H2S will tend to accumulate in dangerous concentrations; however, if the H2S is warmer than the surrounding air it may rise.
4. H2S is colorless.
5. In small concentrations, H2S has the characteristic odor of rotten eggs. It may be detected by smell at a concentration in air of about 2 ppm but may NOT be detected

at high concentrations. DO NOT DEPEND ON THE SENSE OF SMELL TO DETECT H2S! H2S will paralyze the olfactory nerve causing a loss of the sense of smell within 2 – 15 minutes of an exposure in concentrations as low as 100-150 ppm.

6. H2S burns with a blue flame and has an auto ignition temperature of 5000 F. H2S forms an explosive mixture in the range of 4.3% to 45% by volume with air. H2S, when ignited, produces Sulfur Dioxide (SO2). SO2 is another toxic gas but less toxic than H2S.
7. Physiological Effects
    - 1,000-2,000+ ppm: Loss of consciousness and possible death.
    - 100-1,000 ppm: Serious respiratory, central nervous, and cardiovascular system effects.
    - 150-200 ppm: Olfactory fatigue (sense of smell is significantly impaired).
    - 100 ppm: Immediately Dangerous to Life and Health (IDLH concentration).
    - 5-30 ppm: Moderate irritation of the eyes.
    - 5-10 ppm: Relatively minor metabolic changes in exercising individuals during short-term exposures.
    - Less than 5 ppm: Metabolic changes observed in exercising individuals, but not clinically significant.
    - 5 ppm: Increase in anxiety symptoms (single exposure).
    - 5 ppm: Start of the dose-response curve (short-term exposure).
    - 0.032-0.02 ppm: Olfactory threshold (begin to smell).

D. H_2S Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing work at an effected facility:

1. The hazards and characteristics of hydrogen sulfide (H2S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.
5. The procedures for operating process equipment.

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

1. Corrective action and shutdown procedures when a release or leak occurs.
2. Notification process

Annual drills will be conducted to utilize the procedures and make improvements as needed. It will also serve as refresher training on the process.

Note: All H_2S safety equipment and systems will be installed, tested, and operational when operation commences.

E. Protective equipment controls:

Any facility that has the potential to emit H2S at 100 ppm or higher will be required to install and utilize the below controls:

1. Where applicable, area air monitors will be installed and function tested and calibrated no less than monthly and set on a quarterly basis PM schedule.
2. Facility operators will use self contained breathing apparatuses (SCBA's) to perform routine operations in areas where H2S may be present.
3. Trigger of 100 PPM or more must be communicated and work proceeding the trigger must use the buddy system.
4. Visible windsocks must be installed at key locations surrounding the facility.
5. H2S warning signs must be placed at the entrance to the facility as well as other key locations.
6. Personal H2S Monitor are required to be worn by all personnel on locations.
7. Stairs and ladders leading to the top of a tank or vessel containing 300 ppm or greater shall be chained or marked to restrict entry.

F. Emergency Procedures

1. Spill or Release of H_2S gas

If a spill or leak releases H_2S the following action must be initiated and completed:

a. Internally – Employee contacts supervisor and HSE Department and performs “d” below.

b. Externally - Someone identifies a possible H_2S emergency and reports it to Company Management, via the listed phone number on posted facility signs.

c. The Company dispatches an employee to investigate possible H_2S emergency and will secure situation or initiate emergency call for backup.

d. If the Radius of Exposure has been breached begin the following:

- Establish safe command center.
- Call for additional personnel and delegate the following:
  - i. Notifying public safety agencies (Sheriff, Fire Department, Department of Public Safety, Hwy. Department).
  - ii. Safeguarding the facility and effected area.
  - iii. Blocking roads as needed.
  - iv. Notifying/evacuating public.
  - v. Notifying regulatory agencies.
  - vi. Gathering additional information about release ie., location, flowrate, quantity, etc.
  - vii. Stopping release if safe to do so (use 2 trained persons)
  - viii. Notifying company management.
  - ix. Cleanup/repair facilities.

e. Facility Standard Operating Procedure

- Evacuate the area, travel crosswind then proceed upwind.
- Gather at muster point. Ensure Primary Muster point is upwind
- Notify managers & appropriate EMS if required.
- Safely shut down (ESD) facility if the facility hasn't already shut in.
- Pick up SCBA (should be a 30 minute - 1 hour pack, located at Muster point.)
- Use buddy system for man down scenario with rescuers assigned.
  - 1 person to mask up to operate facility controls as needed.
  - 1 person for rescue if needed.
  - 1 person for calling EMS and company management
- Investigate area and isolate release of gas if safe to do and ensure closure using 4 gas monitor.
- If venting gas can't be isolated, return to muster point, and re-evaluate path forward.
- Give detailed description where/how gas is being released.
- After isolation verify that area monitors return to 0 and are not in alarm.
- Resume normal operations, once managers agree the ROOT CAUSE has been addressed and corrected.

G. Contacting Authorities

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

H. Call List

Spur Energy Partners Emergency Contact List			
Person	**Location**	**Office Phone**	**Cell Phone**
Drilling and Completions Department			
Drilling Manager - Chris Hollis	Houston	832-930-8629	713-380-7754
Completions Manager - Theresa Voss	Houston	832-930-8614	832-849-8635
VP of Operations - Seth Ireland	Houston	832-930-8527	940-704-6375
Senior VP of Operations - John Nabors	Houston	832-930-8526	281-904-8811
Executive VP of Operations - Todd Mucha	Houston	832-930-8515	281-795-2286
HES/Environmental and Regulatory Department			
EHS Manager - Braidy Moulder	Artesia	575-616-5400	713-264-2517
Superintendent - Jerry Mathews	Artesia	575-616-5400	575-748-5234
Asst. Superintendent - Kenny Kidd	Artesia	575-616-5400	575-703-5851
Regulatory Director - Sarah Chapman	Houston	832-930-8613	281-642-5503
Regulatory Agencies			
Bureau of Land Management	Carlsbad	575-886-6544	
Bureau of Land Management	Hobbs	575-393-3612	
Bureau of Land Management	Roswell	575-622-5335	
Bureau of Land Management	Santa Fe	505-954-2000	
DOT Judicial Pipelines - Incident Reporting NM Public Regulation Commission	Santa Fe	505-827-3549 505-490-2375	
EPA Hotline	Dallas	214-665-6444	
Federal OSHA, Area Office	Lubbock	806-472-7681	
National Response Center	Washington, D.C.	800-424-8803	
National Infrastructure Coordinator Center	Washington, D.C.	202-282-2901	
New Mexico Air Quality Bureau	Santa Fe	505-827-1494	
New Mexico Oil Conservation Division	Artesia	575-748-1283 575-370-7545After	
New Mexico Oil Conservation Division	Hobbs	575-393-6161	
New Mexico Oil Conservation Division	Santa Fe	505-476-3770	
New Mexico OCD Environmental Bureau	Santa Fe	505-827-7152 505-476-3470	
New Mexico Environmental Department	Hobbs	575-827-9329	
NM State Emergency Response Center	Santa Fe	505-476-9600	

Medical Facilities		
Artesia General Hospital	Artesia	575-748-3333
Covenant Medical Center	Lubbock	806-725-1011
Covenant Medical Center Lakeside	Lubbock	806-725-6000
Guadalupe County Hospital	Carlsbad	575-887-6633
Lea Regional Hospital	Hobbs	575-492-5000
Medical Center Hospital	Odessa	432-640-4000
Midland Memorial Hospital	Midland	432-685-1111
Nor-Lea General Hospital	Lovington	575-396-6611
Odessa Regional Hospital	Odessa	432-334-8200
Union County General Hospital	Clayton	575-374-2585
University Medical Center	Lubbock	806-725-8200
Law Enforcement - Sheriff		
Ector County Sheriff's Department	Odessa	432-335-3050
Ector County Sheriff's Department	Artesia	575-746-2704
Ector County Sheriff's Department	Carlsbad	575-887-7551
Lea County Sherrif's Department	Eunice	575-384-2020
Lea County Sherrif's Department	Hobbs	575-393-2515
Lea County Sherrif's Department	Lovington	575-396-3611
Lubbock County Sheriff's Department	Abernathy	806-296-2724
Midland County Sheriff's Department	Midland	432-688-1277
Union County Sheriff's Department	Clayton	575-374-2583
Law Enforcement - Police		
Abernathy Police Department	Abernathy	806-298-2545
Artesia City Police	Artesia	575-746-2704
Carlsbad City Police	Carlsbad	575-885-2111
Clayton City Police	Clayton	575-374-2504
Eunice City Police	Eunice	575-394-2112
Hobbs City Police	Hobbs	575-397-9265 575-393-2677
Jal City Police	Jal	575-395-2501
Lovington City Police	Lovington	575-396-2811

Midland City Police	Midland	432-685-7113
Odessa City Police	Odessa	432-335-3378
Law Enforcement - FBI		
FBI	Albuquerque	505-224-2000
FBI	Midland	432-570-0255
Law Enforcement - DPS (911)		
NM State Police	Artesia	575-746-2704
NM State Police	Carlsbad	575-885-3137
NM State Police	Eunice	575-392-5588
NM State Police	Hobbs	575-392-5588
NM State Police	Clayton	575-374-2473
Firefighting and Rescue (911)		
Abernathy	Abernathy	806-298-2022
Amistad/Rosebud	Amistad/Rosebud	575-633-9113
Artesia	Artesia	575-746-5751
Carlsbad	Carlsbad	575-885-3125
Clayton	Clayton	575-374-2435
Eunice	Eunice	575-394-2111
Hobbs	Hobbs	575-397-9308
Jal	Jal	575-395-2221
Lovington	Lovington	575-396-2359
Maljamar	Maljamar	575-676-4100
Midland	Midland	432-685-7346
Nara Visa	Nara Visa	575-461-3300
Odessa	Odessa	432-335-4659
Tucumcari	Tucumcari	911
West Odessa	Odessa	432-381-3033

Ambulance (911)		
Abernathy Ambulance	Abernathy	806-298-2241
Amistad/Rosebud	Amistad/Rosebud	575-633-9113
Artesia Ambulance	Artesia	575-746-2701
Carlsbad Ambulance	Carlsbad	575-885-2111
Clayton Ambulance	Clayton	575-374-2501
Eunice Ambulance	Eunice	575-394-3258
Hobbs Ambulance	Hobbs	575-397-9308
Jal Ambulance	Jal	575-395-3501
Lovington Ambulance	Lovington	575-396-2811
Midland Ambulance	Midland	432-685-7499
Nara Visa Ambulance	Nara Visa	575-461-3300
Odessa Ambulance	Odessa	432-335-3378
Tucumcari Ambulance	Tucumcari	911
Medical Air Ambulance Service		
AEROCARE - Methodist Hospital	Lubbock	800-627-2376
Southwest MediVac	Hobbs	800-242-6199
Odessa Care Star	Odessa	888-624-3571

I. List of Facilities with the potential for 500ppm or higher H2S exposure.

ATTACHMENT 1: SPUR FACILITIES WITH ROE REVIEW

ALASKA 29 FEE TANK BATTERY
ARABIAN 6 FEE TANK BATTERY
ARCO 26 A STATE OIL BATTERY
ARCO B FEDERAL COM NO. 001
ARKANSAS STATE 23 TANK BATTERY
AVALON FEDERAL #001
B&B/ROSS RANCH OIL TANK BATTERY
BC FEDERAL 10 (9-13) TNK BTY
BC FEDERAL 1-8 &14 TNK BTY
BC FEDERAL 42 TNK BTY
BEE FED OIL BATTERY
BEECH 25 FEDERAL #9H BATTERY
BEECH FEDERAL 1
BEECH FEDERAL 2 BATTERY
BERRY A FEDERAL #005 SWB
BERRY A FEDERAL PADD BATTERY
BIG BOY STATE TB
BLUETAIL 8 FEDERAL 2 TANK BATTERY
BONE YARD 11 FEE TANK BATTERY
BOOT HILL 25 1H SWB
BOSE IKARD 4 ST COM 18H BATTERY
BRANTLEY FEDERAL #001
BR-549 STATE BATTERY
BRADLEY 8 FEE #3H-BATTERY
BRADLEY 8 FEE BATTERY
BRAGG 10 FEE 1 BATTERY
BRIGHAM H 2
BRIGHAM H FED (NORTH) BATTERY
BURCH KEELY 13C TK BTY
BURCH KEELY 18A TK BATT
BURCH KEELY 19A OIL BATT
BURCH KEELY 23A TK BATT
BURCH KEELY EAST 18B TANK BAT
BURCH KEELY SEC 13A NORTH BTTY
BURCH KEELY SEC 13B SOUTH BTTY
BURCH KEELY UNIT CTB BTTY
BURCH KEELY UNIT E BATTERY
BURKETT 16 STATE
CADDO FEDERAL BATTERY
CADILLAC ST 4 BATTERY
CALIFORNIA 29 FEE 1
CARMEN 3 FEDERAL BATTERY
CARRINGTON 12 ST 3,4,7 BATTERY
CHASER 8 STATE 2 TANK BATTERY
CHEYENNE FEDERAL TNK BTY
CLYDESDALE 1 FEE #1H BAT
CLYDESDALE 1 FEE 6H - BATTERY
COAL TRAIN FEDERAL COM #1
COFFIN STATE #1
COLLIER 22 STATE COM #43H
COLLIER STATE OIL BATTERY
CONOCO 8 STATE 4 TB
CONTINENTAL A STATE TNK BTY
CONTINENTAL B YESO TANK BTY
CONTINENTAL STATE 15A TNK BTY
CRYPT 30 STATE #1H
DAGGER DRAW FED/FOSTER FED TANK BATTERY
DARNER 9 STATE 1 TANK BATTERY
DARNER 9 STATE 2
DARTER 9 STATE 8 TANK BATTERY
DARNER 9 STATE CTB
DEXTER FEDERAL PAD TNK BTY
DODD 10A OIL BATTERY
DODD 10B TK BTTY
DODD FED #14C TK BATT
DODD FED 11A BATTERY
DODD FED UNIT 980H BATTERY
DODD FEDERAL 14A-TB
DODD FEDERAL UNIT 15A BTTY
DODD FEDERAL UNIT NORTH BTTY
DODD FEDERAL UNIT SOUTH BTTY
DOGWOOD FEDERAL TNK BTY
DORAMI 33 FEDERAL COM 2H.4H.9H TANK BATTERY
EBONY STATE TB
EDWARD STATE TNK BTY
ELECTRA FEDERAL 33 (NORTH) BATTERY
ELECTRA FEDERAL 5 (SWEET) TNK BTY
ELECTRA FEDERAL SOUR TNK BTY
EMPIRE SOUTH DEEP UNIT 21
FALABELLA 31 FEE #1H TK BATT
FALABELLA 31 FEE 8H TK BTY
FAT TIRE 12 COM FEDERAL CTB
FEDERAL BA COM NO. 001
FEDERAL BB NO. 001
FLAT HEAD FED COM 6H TANK BATTERY
FLAT HEAD FED COM 27H TANK BATTERY

ATTACHMENT 1: SPUR FACILITIES WITH ROE REVIEW

FIR FEDERAL TNK BTY
FIRECRACKER STATE TB
FLEMMING STATE OIL BATTERY
FOLK FEDERAL B TNK BTY
FOLK FEDERAL TNK BTY
FOLK STATE TANK BATTERY
FORAN STATE OIL BATTERY
GC FEDERAL 11 TNK BTY
GC FEDERAL 27 TNK BTY
GC FEDERAL TNK BTY
GILLESPIE STATE OIL BATTERY
GISSLER FEDERAL 13H TANK BATT
GJ WEST COOP SOUTH TB
GJ WEST COOP UNIT 092 BTY
GJ WEST COOP UNIT 191 BTY
GJ WEST COOP UNIT 210 BTY
GJ WEST COOP UNIT CENTRAL
GJ WEST COOP UNIT N TNK BTY
GOLD STAR TNK BTY
GOODMAN 22 TANK BATTERY
GRAVE DIGGER FEDERAL COM TANK BATTERY
GRAVE DIGGER ST COM #3H TANK BATTERY
GRAVE DIGGER STATE COM #8H SWB
HALBERD 27 ST 3H BATTERY
HANOVER STATE #3 (YESO)
HARPER STATE TNK BTY
HARVARD FEDERAL TNK BTY
HATFIELD B TB
HEARSE 36 ST COM TANK BATTERY
HOBGOBLIN 7 FED COM 4H TK BAT
HOLDER CB 11 TNK BTY
HOLDER CB FEDERAL 6&7 TNK BTY
HOLIDAY
HOUMA STATE TNK BTY
HT 18 FED 01.05.04 TANK BATTERY
HT 18 FEDERAL 8
HUBER 10,11,12 FEDERAL OIL TANK BATTERY
HUBER 3 FEDERAL OIL TANK BATTERY
HUBER 5 FEDERAL OIL TANK BATTERY
HYDRUS 10 FED 03.07.08.11 TANK BATTERY
HYDRUS 10 FED 04.05 TANK BATTERY
HYDRUS 10 FED 06.09.10.12 TANK BATTERY
IMPERIAL STATE TNK BTY
IVAR THE BONELESS FED 11H - BATTERY
JC FEDERAL 13 TNK BTY
JC FEDERAL 2 (SOUR) TNK BTY
JC FEDERAL 27 TNK BTY
JENKINS B FEDERAL TNK BTY
JG STATE 16 1 TANK BATTERY
JG STATE 16 7 TANK BATTERY
JON BOB 1
JUNIPER STATE TNK BTY
KIOWA OIL BATTERY
KOOL AID STATE
LAKEWOOD NORTH TANK BATTERY
LAKEWOOD SOUTH TANK BATTERY
LARA MICHELLE STATE OIL BTTY
LEAKER CC STATE TB
LEE 3 FEE 6H - TK BATT
LIVE OAK TANK BATTERY
MALCO 23 FEDERAL COM #13H
MAPLE STATE
MARACAS 22 STATE TANK BATTERY
MARY FEDERAL OIL BATTERY
MAYARO 22 STATE TANK BATTERY
MC FEDERAL 14 TANK BATTERY
MC FEDERAL 6 DEVONIAN
MC FEDERAL PADDOCK TNK BTY
MC SOUTHEAST BATTERY
MC STATE OIL BATTERY
MCCOY STATE TB
MCINTYRE A EAST TANK BATTERY
MCINTYRE B 10
MCINTYRE B 4
MCINTYRE B TNK BTY
MCINTYRE DK 15 TNK BTY
MCINTYRE DK FEDERAL 28H SWB
MEADOWHAWK 5 FEDERAL 3
MELROSE FEDERAL TNK BTY
MERAK 7 FEDERAL 8 TANK BATTERY
MESILLA STATE 3 & 5 TNK BTY
MESILLA STATE TNK BTY
MESQUITE STATE TANK BATTERY
MIMOSA STATE TNK BTY
MIRANDA FEDERAL B TNK BTY
MIRANDA FEDERAL TB

ATTACHMENT 1: SPUR FACILITIES WITH ROE REVIEW

MOE FEDERAL OIL BATTERY
MOHAWK FEDERAL TNK BTY
MONCRIEF 3 OIL BATTERY
MOORE STATE OIL BATTERY
MORRIS BOYD 26 FEE COM 1H
MORRIS BOYD TANK BATTERY
MORRIS E & F TANK BATTERY
MUSKEGON SOUTH STATE OIL BATTERY
NAVAHO FEDERAL TNK BTY
NELSON 13.23. TNK BATT
NEWCASTLE 6 FED COM - TANK BATTERY
NIRVANA TANK BATTERY
NOOSE FED 10 TANK BATTERY
NOOSE FED 5 TANK BATTERY
OKLAHOMA 32 TANK BATTERY
OSAGE BOYD 15 FED 09.12.13.14 TANK BATTERY
OSAGE BOYD YESO TANK BATTERY
PAINT 32 FEE OIL BATTERY
PAN CANADIAN A2-B3 TANK BATTERY
PASSION 1 FED PDK 5H TK BATT
PATTON 5 FEE 2H OIL BATTERY
PATTON 5 FEE 8H OIL BATTERY
PAWNEE STATE TNK BTY
PEACEMAKER 25 FEDERAL TANK BATTERY
PERE MARQUETTE 18 FEDERAL 1 TANK BATTERY
PILUM 15 FEE 2H BATTERY
PINTO 36 STATE COM 1H TNK BTY
PINTO 36 STATE COM 4H TNK BTY
PINTO 36 STATE TB
POLARIS B 5-10 TANK BTTY
POSEIDON 3 FEDERAL 4 TANK BATTERY
POSEIDON 3 FEDERAL 05.07.17.18 TANK BATTERY
PUCKETT 13 FEDERAL COM 35H
PUCKETT 13 FEDERAL TB
RAGNAR FED COM 25H - BATTERY
RANDALL FED 3 BATTERY
RED LAKE 32 TANK BATTERY
REDBUD FEDERAL TNK BTY
RINCON STATE TANK BATTERY
RJ UNIT NORTH TANK BATTERY
RJ UNIT SOUTH TANK BATTERY
RONCO FEDERAL #1
ROSE 02.03.04.05.06 TANK BATTERY
ROSE SOUTH TANK BATTERY
ROSS RANCH 09.13.14 BATTERY
SAM ADAMS 12 FED 4H UBB TK BATT
SANDY CROSSING 32 STATE COM 1
SCHLEY FEDERAL TNK BTY
SHAWNEE FEDERAL TNK BTY
SHELBY 23 BATTERY
SHERMAN 4 FEE 4H BATTERY
SHERMAN 4 FEE 6H BATTERY
SHORTY 2 STATE COM TANK BATTERY
SINCLAIR PARKE (PADDOCK) TNK BTY
SKELLY 605 BATTERY
SKELLY 942 BATTERY
SKELLY 968 BATTERY
SKELLY 973 BATTERY
SKELLY 989 BATTERY
SKELLY UNIT 907 CTB BATTERY
SKELLY UNIT 940 BATTERY
SOUTH BOYD FED COM OIL TANK BATTERY
SOUTH EMPIRE STATE COM 1
SPIKETAIL 5 STATE 2 TANK BATTERY
SPRUCE FEDERAL TNK BTY
STATE B GAS COM NO. 001
STATE S-19 YESO (SOUR) TNK BTY
STONEWALL 9 FEE #1H TBAT
STONEWALL 9 FEE 8H BATTERY
SUBMARINE 10 FED COM 2H OIL BAT
TAYLOR D TANK BATTEY
TENNECO STATE TNK BTY
TEX MACK FED
TEXACO BE TNK BTY
TEXAS 32 FEE TANK BATTERY
TEXMACK 36 STATE COM #1
TH STATE #1
THO STATE OIL BATTRY
THORNTAIL 31 FEDERAL 1
THUNDER ROAD FEDERAL OIL BTTY
TUMAK FED 3 BAT
VEGA 9 FED TANK BATTERY
VT 36 STATE #1H
W D MCINTYRE C 10
WAUKEE 36 STATE COME CTB
WD MCINTYRE C 8-9 TNK BTY

ATTACHMENT 1: SPUR FACILITIES WITH ROE REVIEW

WD MCINTYRE E TNK BTY
WELCH A 28 10.20.50 CTB
WESTERN FEDERAL TNK BTY
WHITE OAK STATE B TB
WHITE OAK STATE TNK BTY
WHITE STAR FEDERAL TNK BTY
WICHITA STATE TNK BTY
WILLOW STATE TNK BTY
YALE B OIL BATTERY
YALE STATE TANK BTY
YUCCA STATE TNK BTY

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018