<u>District I</u> 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 359680

	APPLICATION FOR PERIMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A 20	JNE
0 1 11 1411		010

Operator Name and Address Silverback Operating II, LLC	2. OGRID Number 330968	
19707 IH10 West, Suite 201 San Antonio, TX 78256		3. API Number 30-015-54750
4. Property Code 332021	5. Property Name State K Com	6. Well No. 101H

7 Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County		
M	27	19S	25E		1077	S	517	W	Eddy		

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County			
M	28	19S	25E	M	440	S	100	W	Eddy			

9. Pool Information

N. SEVEN RIVERS; GLORIETA-YESO	97565

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation	
New Well	OIL		State	3464	
16. Multiple	17. Proposed Depth	18. Formation	19. Contractor	20. Spud Date	
N	8630	Yeso		3/3/2024	
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	1217	271	0					
Prod	8.75	7	32	3506	173	0					
Prod	8.75	5.5	20	8630	1604	2159					

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Туре	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	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	ON DIVISION
Signature:					
Printed Name:	Electronically filed by Matthew All	ey	Approved By:	Ward Rikala	
Title:	Chief Financial Officer		Title:		
Email Address:	malley@silverbackexp.com		Approved Date:	2/16/2024	Expiration Date: 2/16/2026
Date:	2/14/2024	Phone: 303-513-0990	Conditions of Appr	oval Attached	

<u>District I</u>
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 Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 <u>District IV</u> 1220 S. St. Francis Dr. Santa Fe. NM 87505

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

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 -54750		97565	N. SEVEN RIVERS, GLORIET	ΓA-YESO	
⁴ Property Code 332021		⁵ Property Name STATE K COM			
⁷ OGRID No. 330968		⁸ O _I SILVERBACK	⁹ Elevation 3,464'		

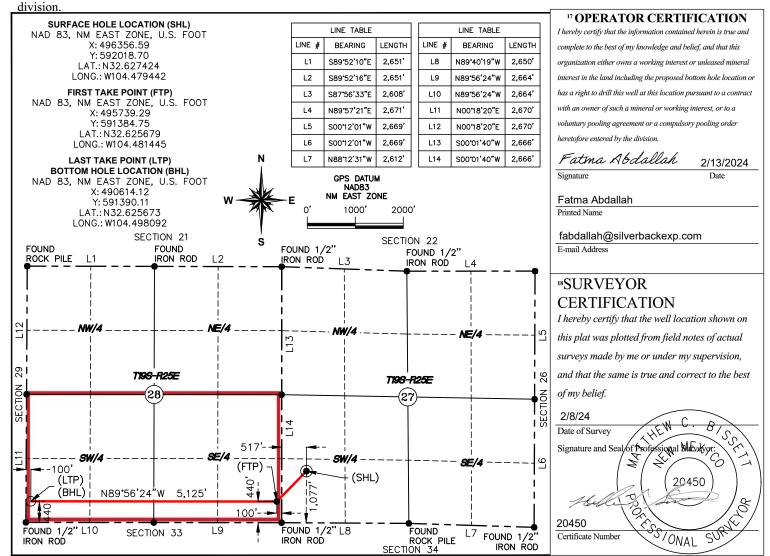
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
M	27	19-S	25-E		1,077'	SOUTH	517'	WEST	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			
M	28	19-S	25-E		440'	SOUTH	100'	WEST	EDDY			
12 Dedicated Acres 13 Joint or Infill 14 Consolidation Code		Code 15 Or	der No.									
320												

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



<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

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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 APD Conditions

Permit 359680

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
Silverback Operating II, LLC [330968]	30-015-54750
19707 IH10 West, Suite 201	Well:
San Antonio, TX 78256	State K Com #101H

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 intermediate1 strings of casing
ward.rikala	If cement does not circulate on any string, a CBL is required for that string 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

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: S	ilverback Operating I	OGRID:	330968	Da	te: <u>02</u> /	14 / 2024							
II. Type: ☑ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.													
If Other, please describe:													
III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.													
Well Nam	ne API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/I								
See attached													
IV. Central Delivery Point Name: State K Com CTB [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 Completion Initial Flow First Production Date Commencement Date Back Date Date													
See attached													
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

		<u> LITECTIV</u>	E 711 KHZ 1, 2022	
Beginning April 1, 2 reporting area must c			with its statewide natural ga	as capture requirement for the applicable
☐ Operator certifies capture requirement			tion because Operator is in o	compliance with its statewide natural gas
IX. Anticipated Nat	ural Gas Producti	on:		
We	11	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF
See attached				
X. Natural Gas Gat	hering System (NC	GGS):		
Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in
See attached				
production operations the segment or portion the segment or portion in the segment or portion in the segment or portion in the segment of the	s to the existing or point of the natural gas gas. The natural gas gas from the well prior to the complex of th	planned interconnect of the gathering system(s) to we thering system \(\subseteq \text{ will } \subseteq \text{ the date of first product} \) \(\subseteq does not anticipate that d above will continue to be oduction in response to the erts confidentiality pursue.	the natural gas gathering system which the well(s) will be considered will not have capacity to go ion. It its existing well(s) connect meet anticipated increases in the increased line pressure. Lant to Section 71-2-8 NMS 27.9 NMAC, and attaches a few which which is the context of the context of the context of the capacity of the context of the co	atticipated pipeline route(s) connecting the em(s), and the maximum daily capacity of nected. Eather 100% of the anticipated natural gas seed to the same segment, or portion, of the a line pressure caused by the new well(s). EA 1978 for the information provided in full description of the specific information

(i)

Section 3 - Certifications <u>Effective May 25, 2021</u>

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: power generation on lease; (a) **(b)** power generation for grid; compression on lease; (c) (d) liquids removal on lease; reinjection for underground storage; (e) **(f)** reinjection for temporary storage; **(g)** reinjection for enhanced oil recovery; fuel cell production; and (h)

Section 4 - Notices

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

other alternative beneficial uses approved by the division.

- (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: Fatma Abdallah								
Printed Name: Fatma Abdallah								
Title: Regulatory Manager								
E-mail Address: fabdallah@silverbackexp.com								
Date: 02/14/2024								
Phone: 210-585-3316								
OIL CONSERVATION DIVISION								
(Only applicable when submitted as a standalone form)								
Approved By:								
Title:								
Approval Date:								
Conditions of Approval:								

Section 1-Plan Description -III. Wells

Well Name <u>API</u> <u>ULSTR</u>		<u>Footages</u>	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D	
State K Com #101H Pending M-27-19S-25E		1077 FSL & 517 FWL	515	440	3000	
State K Com #102H	State K Com #102H Pending M-27-19S-25E		1117 FSL & 517 FWL	515	440	3000
State K Com #103H	Pending	M-27-19S-25E	1834 FSL & 380 FWL	515	440	3000
State K Com #201H	Pending	M-27-19S-25E	1097 FSL & 517 FWL	515	440	3000
State K Com #202H Pending M-27-19S-25E		1814 FSL & 380 FWL	515	440	3000	
	_				_	
V. Anticipated Schedule						
Well Name	<u>API</u>	Spud date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
State K Com #101H	Pending	3/3/2024	4/24/2024	5/30/2024	7/5/2024	7/5/2024
State K Com #102H	Pending	3/5/2024	5/1/2024	5/30/2024	7/6/2024	7/6/2024

5/30/2024

6/11/2024

6/11/2024

7/7/2024

7/8/2024

7/9/2024

7/7/2024

7/8/2024

7/9/2024

5/8/2024

5/15/2024

5/23/2024

Section 2- Enhanced Plan

IX. Anticipated Natural Gas Production

State K Com #103H

State K Com #201H

State K Com #202H

		Anticipated Average	Anticipated Volume of Natural
Well	API	Natural Gas Rate MCF/D	Gas for the First Year MCF
State K Com #101H	Pending	440	160600
State K Com #102H	Pending	440	160600
State K Com #103H	Pending	440	160600
State K Com #201H	Pending	440	160600
State K Com #202H	Pending	441	160600

3/7/2024

3/9/2024

3/11/2024

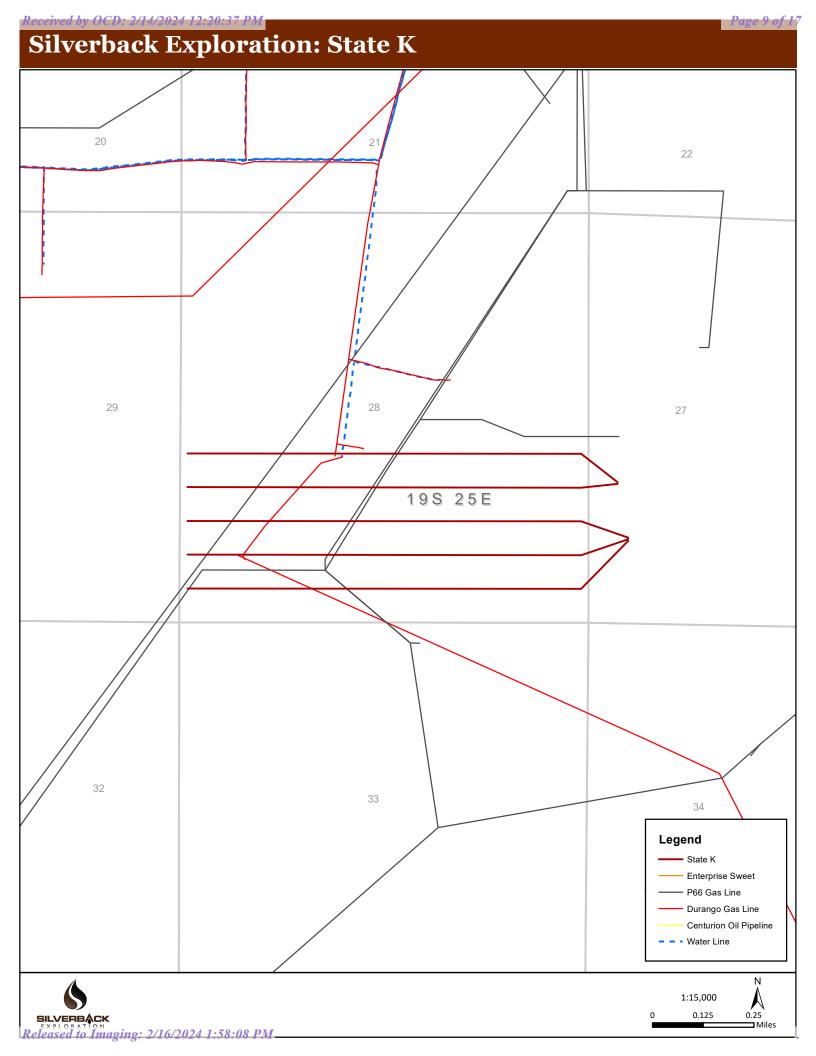
Pending

Pending

Pending

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
Frontier Field Services LLC.	State K Com CTB	M-27-19S-25E	7/5/2024	5 MMCF



Separation Equipment

Silverback Operating II (LLC) has sampled existing producing wells and performed laboratory testing to determine composition. Performance of existing producing wells was analyzed to predict expected production volumes including a low probably, high volume production case (approximately 75% higher than type curve or most likely amount of production). Production composition and the volumes were utilized as inputs to a process model which predicts relative amounts of gas, oil and water throughout the process. The high volume case was used to size equipment, piping and instrumentation. Equipment sizing is based on drop settlement and limits the amount of carry over to the gas phase.

Each well has a dedicated 3 phase separator and gas from that separator is taken directly to gas sales. Facility piping and pipeline were sized to allow peak volumes to flow with minimal pressure loss and deliver to midstream gatherer at an acceptable pressure. Water is conveyed directly to tankage.

Oil from 3 phase separators is comingled and conveyed to a heated separator for enhanced liquid-liquid separation and degassing. Vapors from the heater treater are routed to flare. Oil and water storage tanks vapor outlets are common and utilize a closed vent vapor system to ensure all working & breathing and flashing losses are routed to the flare which is sized to accommodate peak expected production volume. Flash volumes were estimated using the high volume case and process modeling software.

Operational Practices

Silverback Operating II, LLC will ensure pipeline connectivity before producing hydrocarbons and will operate a closed vent vapor capture system that is designed to capture all associated and evolved gas during normal operation. Venting will only occur during maintenance activities or equipment failure or upset. Silverback may utilize the following from list A-I of Section 3 for its operations to minimize flaring:

- Power generation on lease Natural gas driven gen set to produce power required to run supply well pad electrical loads
- Compression on lease gas lift or gas compression as required
- Liquids removal on lease gas pressure will be used to convey fluids as needed

Best Management Practices

Silverback utilizes automate engineering controls included in facility design to minimize venting and flaring. Additionally, operational best practices support minimization of flare and venting as described below.

If the main gas outlet becomes unavailable and pressure increases on the outlet sales line, produced gas will be routed directly to the facility flare. The facility control system will alert personnel to the need for maintenance and appropriate response to the temporary flaring event.

The facility design includes a closed vent vapor capture system to route flash or evolved from the heater treater and tanks to the flare.

For maintenance activities, Silverback will utilize the facility flare to blowdown equipment and piping whenever practical to minimize venting



Project: EDDY COUNTY, NM (NAD 83 - NME)

Site: State K Com

Start Build 3.00

STATE K 101H KOP @ 2157.02' MD

Start DLS 9.00 TFO 123.973

STATE K 101H MAX BACKBUILD

Start 200.00 hold at 2954.93 MD

STATE K 101H FTP

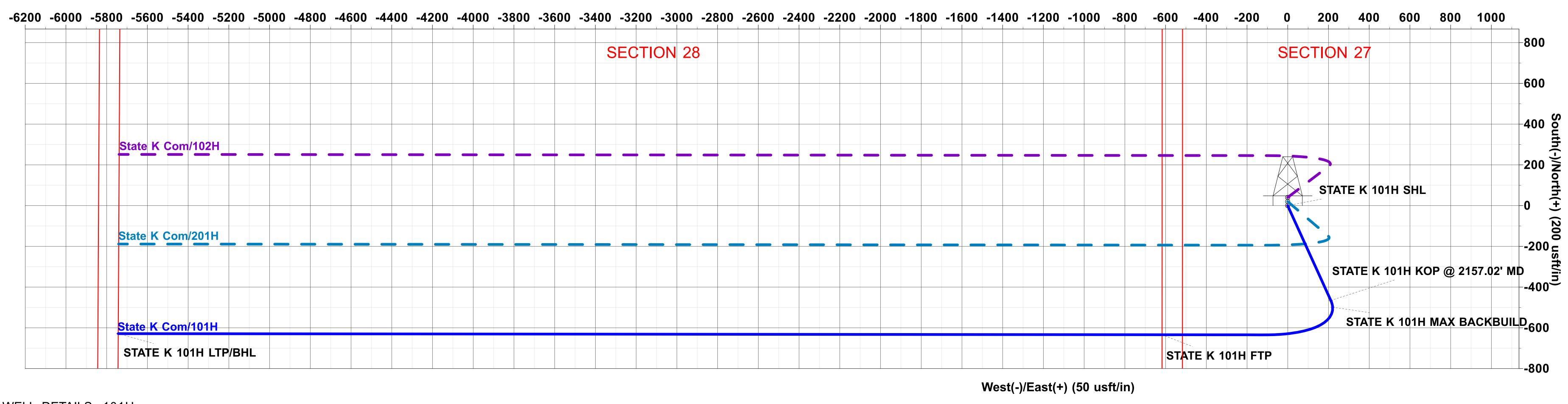
Start 5126.70 hold at 3503.78 MD

Start Build 9.00

2000-

2800-

Well: 101H Wellbore: OH Design: Plan 1r0



Start 5126.70 hold at 3503.78 MD

STATE K 101H FTP

State K Com/101H

TD at 8630.48

STATE K 101H LTP/BHL

West(-)/East(+) (200 usft/in)

WELL DETAILS: 101H

	4.00usft (TBD)	B = 20' @ 348	TBD	Rig Name:			
	, ,	3464.00	Ground Lev				
Longitude	Latittude	asting	ing	Northi	+E/-W	+N/-S	
-104.4794423	32.6274242	56.59	5.70 4	592018.	0.00	0.00	

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	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	
3	1294.26	23.83	155.53	1271.56	-148.17	67.43	3.00	-67.58	
4	2157.02	23.83	155.53	2060.78	-465.41	211.79	0.00	-212.28	
5	2954.93	60.00	270.06	2712.90	-634.48	-110.26	9.00	109.60	
6	3154.93	60.00	270.06	2812.90	-634.30	-283.47	0.00	282.80	
7	3503.78	91.40	270.06	2898.00	-633.95	-617.30	9.00	616.64	STATE K 101H FTP
8	8630.48	91.40	270.06	2773.00	-628.59	-5742.47	0.00	5741.81	STATE K 101H LTP/BHL

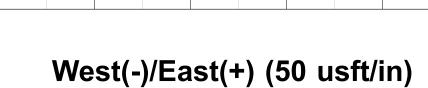
DESIGN TARGET DETAILS

	T) /D	. 11/ 0	. = / \ \ / \	N I (I '		1 (1)	1 '4 1
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
STATE K 101H SHL	0.00	0.00	0.00	592018.70	496356.59	32.6274242	-104.4794423
STATE K 101H KOP @ 2157.02' MD	2060.78	-465.41	211.79	591553.29	496568.38	32.6261458	-104.4787523
STATE K 101H MAX BACKBUILD	2147.07	-498.65	220.74	591520.05	496577.33	32.6260544	-104.4787230
STATE K 101H LTP/BHL	2773.00	-628.59	-5742.47	591390.11	490614.12	32.6256733	-104.4980920
STATE K 101H FTP	2898.00	-633.95	-617.30	591384.75	495739.29	32.6256793	-104.4814445

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

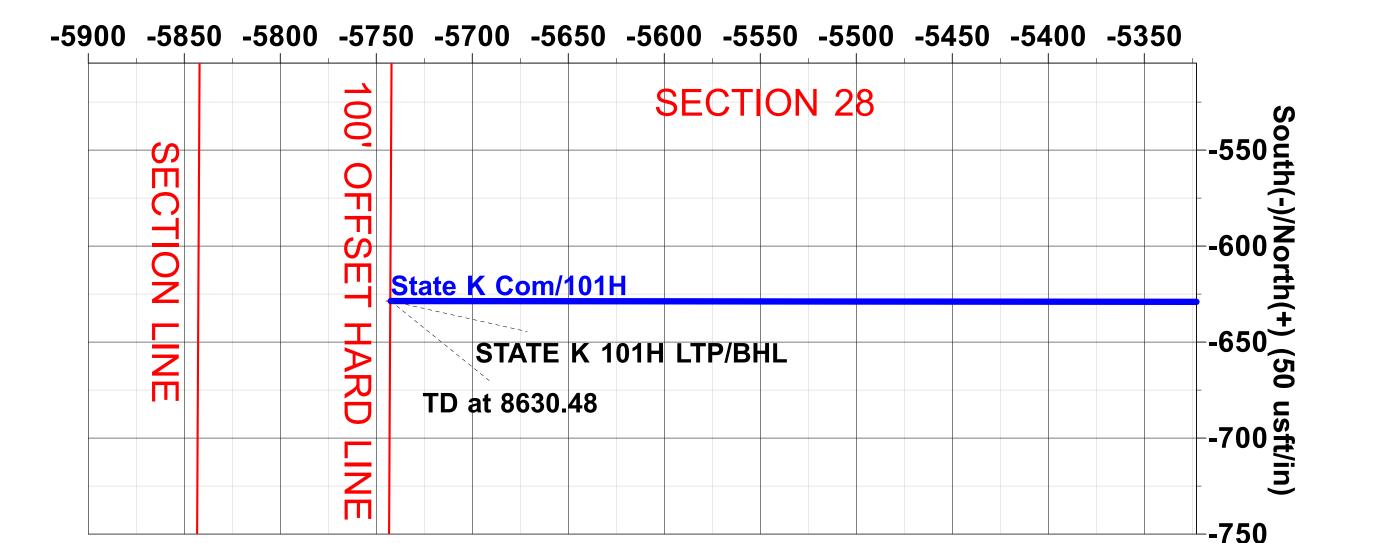
Geodetic System: US State Plane 1983 Datum: North American Datum 1983 Ellipsoid: GRS 1980 Zone: New Mexico Eastern Zone System Datum: Mean Sea Level

800 1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000 3200 3400 3600 3800 4000 4200 4400 4600 4800 5000 5200 5400 5600 5800 6000



Start Build 9.00

SECTION 27



State K Com/102H STATE K 102H SHL STATE K 201H SHL STATE K 101H SHL Start Build 3.00 State K Com/201H

State K Com/101H

West(-)/East(+) (10 usft/in)

-20

Vertical Section at 270.06° (200 usft/in)

Note: this document is provided for information purposes only. Prototype Well Planning LLC, it's employees, and agents make no guarantee or warranty, expressed or implied, as to the accuracy of this electronica file. The data included here and may be subject to error, while corruption, change, alteration, or update without any notice to the user. Prototype Well Planning LLC, it's employees, and it's agents assume no responsibility, expressed or implied, for any damages incurred either directly or indirectly by the use of this document. The users agree to the above specified terms of this document and agrees to verify the data enclosed to ascertain its accuracy for their intended use. If these conditions are unacceptable, user shall discard this document.

Created By: PROTOTYPE WELL PLANNING / Date: 14:11, February 08 2024

Plan: Plan 1r0 (101H/OH)

STATE K 101H KOP @ 2157.02' MD

STATE K 101H MAX BACKBUILD

Start DLS 9.00 TFO 123.973

Start 200.00 hold at 2954.93 MD



SILVERBACK EXPLORATION

EDDY COUNTY, NM (NAD 83 - NME) State K Com 101H

OH

Plan: Plan 1r0

Standard Planning Report

08 February, 2024



Database: EDM 5000.1.13 Single User Db
Company: SILVERBACK EXPLORATION
Project: EDDY COUNTY, NM (NAD 83 - NME)

Site: State K Com
Well: 101H
Wellbore: OH
Design: Plan 1r0

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well 101H

RKB = 20' @ 3484.00usft (TBD) RKB = 20' @ 3484.00usft (TBD)

Grid

Minimum Curvature

Project EDDY COUNTY, NM (NAD 83 - NME)

Map System:US State Plane 1983Geo Datum:North American Datum 1983Map Zone:New Mexico Eastern Zone

System Datum:

Mean Sea Level

Site State K Com

Site Position: Northing: 592,018.70 usft 32.6274243 Latitude: From: Мар Easting: 496,356.59 usft Longitude: -104.4794422 **Position Uncertainty:** 0.00 usft Slot Radius: 13-3/16 " **Grid Convergence:** -0.079°

Well 101H

Well Position +N/-S Latitude: 0.00 usft Northing: 592,018.70 usft 32.6274243 +E/-W 0.00 usft Easting: 496,356.59 usft Longitude: -104.4794422 **Position Uncertainty** 0.00 usft Wellhead Elevation: 0.00 usft **Ground Level:** 3,464.00 usft

Wellbore OH

 Magnetics
 Model Name
 Sample Date (°)
 Declination (°)
 Dip Angle (°)
 Field Strength (nT)

 IGRF2020
 02/05/24
 6.686
 60.047
 47,363

Design Plan 1r0

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
 270.06

Plan Section	s									
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	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,294.26	23.83	155.53	1,271.56	-148.17	67.43	3.00	3.00	0.00	155.531	
2,157.02	23.83	155.53	2,060.78	-465.41	211.79	0.00	0.00	0.00	0.000	
2,954.93	60.00	270.06	2,712.90	-634.48	-110.26	9.00	4.53	14.35	123.973	
3,154.93	60.00	270.06	2,812.90	-634.30	-283.47	0.00	0.00	0.00	0.000	
3,503.78	91.40	270.06	2,898.00	-633.95	-617.30	9.00	9.00	0.00	0.000	STATE K 101H FTF
8,630.48	91.40	270.06	2,773.00	-628.59	-5,742.47	0.00	0.00	0.00	0.000	STATE K 101H LTP



Database: EDM 5000.1.13 Single User Db SILVERBACK EXPLORATION Project: EDDY COUNTY, NM (NAD 83 - NME)

Site: State K Com Well: 101H

Wellbore: OH
Design: Plan 1r0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well 101H

RKB = 20' @ 3484.00usft (TBD) RKB = 20' @ 3484.00usft (TBD)

Grid

Minimum Curvature

esigi	•	FIAII IIU								
lann	ed 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
	STATE K 1									
	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
	200.00 300.00	0.00 0.00	0.00 0.00	200.00 300.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
	600.00	3.00	155.53	599.95	-2.38	1.08	-1.09	3.00	3.00	0.00
	700.00	6.00	155.53	699.63	- 9.52	4.33	-4.34	3.00	3.00	0.00
	800.00	9.00	155.53	798.77	-21.40	9.74	-9.76	3.00	3.00	0.00
	900.00	12.00	155.53	897.08	-37.99	17.29	-17.33	3.00	3.00	0.00
	1,000.00	15.00	155.53	994.31	-59.23	26.95	-27.02	3.00	3.00	0.00
	1,100.00	18.00	155.53	1,090.18	-85.08	38.72	-38.81	3.00	3.00	0.00
	1,200.00	21.00	155.53	1,184.43	-115.46	52.54	-52.66	3.00	3.00	0.00
	1,294.26 1,300.00	23.83 23.83	155.53 155.53	1,271.56 1,276.81	-148.17 -150.28	67.43 68.39	-67.58 -68.54	3.00 0.00	3.00 0.00	0.00 0.00
	•			,						
	1,400.00 1,500.00	23.83 23.83	155.53 155.53	1,368.29 1,459.77	-187.05 -223.82	85.12 101.85	-85.32 -102.09	0.00 0.00	0.00 0.00	0.00 0.00
	1,600.00	23.83	155.53	1,551.24	-260.59	118.59	-118.86	0.00	0.00	0.00
	1,700.00	23.83	155.53	1,642.72	-297.36	135.32	-135.63	0.00	0.00	0.00
	1,800.00	23.83	155.53	1,734.20	-334.13	152.05	-152.40	0.00	0.00	0.00
	1,900.00	23.83	155.53	1,825.67	-370.90	168.78	-169.17	0.00	0.00	0.00
	2,000.00	23.83	155.53	1,917.15	-407.67	185.52	-185.94	0.00	0.00	0.00
	2,100.00	23.83	155.53	2,008.62	-444.44	202.25	-202.72	0.00	0.00	0.00
	2,157.02	23.83 01H KOP @ 2 1	155.53	2,060.78	-465.41	211.79	-212.28	0.00	0.00	0.00
	2,200.00	21.89	164.16	2,100.40	-481.03	217.58	-218.08	9.00	-4.51	20.08
	2,250.00	20.30	175.89	2,147.07	-498.65	220.74	-221.27	9.00	-3.17	23.45
	*	01H MAX BAC		2,147.07	-430.03	220.74	-221.21	3.00	-0.17	20.40
	2,300.00	19.60	188.94	2,194.09	-515.60	220.06	-220.60	9.00	-1.41	26.11
	2,350.00	19.87	202.27	2,241.18	-531.75	215.53	-216.09	9.00	0.55	26.66
	2,400.00	21.09	214.68	2,288.04	-547.02	207.19	-207.76	9.00	2.43	24.82
	2,450.00	23.10	225.41	2,334.38	-561.31	195.08	-195.67	9.00	4.01	21.47
	2,500.00	25.71	234.30	2,379.93	-574.53	179.28	-179.89	9.00	5.23	17.77
	2,550.00	28.76	241.53	2,424.39	-586.60	159.89	-160.51	9.00	6.11	14.47
	2,600.00 2,650.00	32.13 35.73	247.43 252.28	2,467.50 2,508.99	-597.44 -607.00	137.03 110.83	-137.65 -111.46	9.00 9.00	6.74 7.19	11.79 9.71
	2,700.00	39.49	256.34	2,548.59	-615.20	81.46	-82.10	9.00	7.19	8.12
	2,750.00	43.37	259.79	2,586.08	-622.00	49.10	-49.75	9.00	7.76	6.90
	2,730.00	43.37 47.34	262.78	2,621.22	-627.35	13.95	-49.73 -14.60	9.00	7.76 7.94	5.97
	2,850.00	51.37	265.40	2,653.78	-631.23	-23.78	23.12	9.00	8.07	5.25
	2,900.00	55.46	267.74	2,683.58	-633.61	-63.84	63.18	9.00	8.18	4.68
	2,954.93	60.00	270.06	2,712.90	-634.48	-110.26	109.60	9.00	8.26	4.22
	3,000.00	60.00	270.06	2,735.43	-634.44	-149.30	148.63	0.00	0.00	0.00
	3,100.00	60.00	270.06	2,785.43	-634.35	-235.90	235.24	0.00	0.00	0.00
	3,154.93 3,200.00	60.00 64.06	270.06 270.06	2,812.90 2,834.03	-634.30 -634.26	-283.47 -323.27	282.80 322.60	0.00 9.00	0.00 9.00	0.00 0.00
	3,250.00	68.56	270.06	2,854.12	-634.21	-323.27 -369.04	368.38	9.00	9.00	0.00
	3,300.00	73.06	270.06	2,870.56	-634.16	-416.25	415.59	9.00	9.00	0.00
	3,350.00	73.06 77.56	270.06	2,883.23	-634.16 -634.11	-416.25 -464.60	463.94	9.00	9.00	0.00
	3,400.00	82.06	270.06	2,892.08	-634.06	-513.80	513.14	9.00	9.00	0.00
	3,450.00	86.56	270.06	2,897.04	-634.01	-563.54	562.88	9.00	9.00	0.00
	3,503.78	91.40	270.06	2,898.00	-633.95	-617.30	616.64	9.00	9.00	0.00
	STATE K 1	01H FTP								



Database:EDM 5000.1.13 Single User DbCompany:SILVERBACK EXPLORATIONProject:EDDY COUNTY, NM (NAD 83 - NME)

Site: State K Com Well: 101H

Wellbore: OH
Design: Plan 1r0

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well 101H

RKB = 20' @ 3484.00usft (TBD) RKB = 20' @ 3484.00usft (TBD)

Grid

Minimum Curvature

anned 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)
3,600.00	91.40	270.06	2,895.65	-633.85	-713.49	712.82	0.00	0.00	0.00
3,700.00	91.40	270.06	2,893.22	-633.74	-813.46	812.79	0.00	0.00	0.00
3,800.00	91.40	270.06	2,890.78	-633.64	-913.43	912.76	0.00	0.00	0.00
3,900.00	91.40	270.06	2,888.34	-633.54	-1,013.40	1,012.73	0.00	0.00	0.00
4,000.00	91.40	270.06	2,885.90	-633.43	-1,113.37	1,112.70	0.00	0.00	0.00
4,100.00	91.40	270.06	2,883.46	-633.33	-1,213.34	1,212.67	0.00	0.00	0.00
4,200.00	91.40	270.06	2,881.02	-633.22	-1,313.31	1,312.64	0.00	0.00	0.00
4,300.00	91.40	270.06	2,878.59	-633.12	-1,413.28	1,412.62	0.00	0.00	0.00
4,400.00	91.40	270.06	2,876.15	-633.01	-1,513.25	1,512.59	0.00	0.00	0.00
4,500.00	91.40	270.06	2,873.71	-632.91	-1,613.22	1,612.56	0.00	0.00	0.00
4,600.00	91.40	270.06	2,871.27	-632.80	-1,713.19	1,712.53	0.00	0.00	0.00
4,700.00	91.40	270.06	2,868.83	-632.70	-1,813.16	1,812.50	0.00	0.00	0.00
4,800.00	91.40	270.06	2,866.40	-632.59	-1,913.13	1,912.47	0.00	0.00	0.00
4,900.00	91.40	270.06	2,863.96	-632.49	-2,013.10	2,012.44	0.00	0.00	0.00
5,000.00	91.40	270.06	2,861.52	-632.39	-2,113.07	2,112.41	0.00	0.00	0.00
5,100.00	91.40	270.06	2,859.08	-632.28	-2,213.04	2,212.38	0.00	0.00	0.00
5,200.00	91.40	270.06	2,856.64	-632.18	-2,313.01	2,312.35	0.00	0.00	0.00
5,300.00	91.40	270.06	2,854.20	-632.07	-2,412.98	2,412.32	0.00	0.00	0.00
5,400.00	91.40	270.06	2,851.77	-631.97	-2,512.95	2,512.29	0.00	0.00	0.00
5,500.00	91.40	270.06	2,849.33	-631.86	-2,612.92	2,612.26	0.00	0.00	0.00
5,600.00	91.40	270.06	2,846.89	-631.76	-2,712.89	2,712.23	0.00	0.00	0.00
5,700.00	91.40	270.06	2,844.45	-631.65	-2,812.86	2,812.20	0.00	0.00	0.00
5,800.00	91.40	270.06	2,842.01	-631.55	-2,912.83	2,912.17	0.00	0.00	0.00
5,900.00	91.40	270.06	2,839.58	-631.44	-3,012.80	3,012.14	0.00	0.00	0.00
6,000.00	91.40	270.06	2,837.14	-631.34	-3,112.77	3,112.11	0.00	0.00	0.00
6,100.00	91.40	270.06	2,834.70	-631.24	-3,212.74	3,212.08	0.00	0.00	0.00
6,200.00	91.40	270.06	2,832.26	-631.13	-3,312.71	3,312.05	0.00	0.00	0.00
6,300.00	91.40	270.06	2,829.82	-631.03	-3,412.68	3,412.02	0.00	0.00	0.00
6,400.00	91.40	270.06	2,827.38	-630.92	-3,512.65	3,511.99	0.00	0.00	0.00
6,500.00	91.40	270.06	2,824.95	-630.82	-3,612.62	3,611.96	0.00	0.00	0.00
6,600.00	91.40	270.06	2,822.51	-630.71	-3,712.59	3,711.93	0.00	0.00	0.00
6,700.00	91.40	270.06	2,820.07	-630.61	-3,812.56	3,811.90	0.00	0.00	0.00
6,800.00	91.40	270.06	2,817.63	-630.50	-3,912.53	3,911.87	0.00	0.00	0.00
6,900.00	91.40	270.06	2,815.19	-630.40	-4,012.50	4,011.84	0.00	0.00	0.00
7,000.00	91.40	270.06	2,812.75	-630.29	-4,112.47	4,111.81	0.00	0.00	0.00
7,100.00	91.40	270.06	2,810.32	-630.19	-4,212.45	4,211.78	0.00	0.00	0.00
7,200.00	91.40	270.06	2,807.88	-630.09	-4,312.42	4,311.75	0.00	0.00	0.00
7,300.00	91.40	270.06	2,805.44	-629.98	-4,412.39	4,411.72	0.00	0.00	0.00
7,400.00	91.40	270.06	2,803.00	-629.88	-4,512.36	4,511.69	0.00	0.00	0.00
7,500.00	91.40	270.06	2,800.56	-629.77	-4,612.33	4,611.66	0.00	0.00	0.00
7,600.00	91.40	270.06	2,798.13	-629.67	-4,712.30	4,711.63	0.00	0.00	0.00
7,700.00	91.40	270.06	2,795.69	-629.56	-4,812.27	4,811.60	0.00	0.00	0.00
7,800.00	91.40	270.06	2,793.25	-629.46	-4,912.24	4,911.57	0.00	0.00	0.00
7,900.00	91.40	270.06	2,790.81	-629.35	-5,012.21	5,011.54	0.00	0.00	0.00
8,000.00	91.40	270.06	2,788.37	-629.25	-5,112.18	5,111.52	0.00	0.00	0.00
8,100.00	91.40	270.06	2,785.93	-629.14	-5,212.15	5,211.49	0.00	0.00	0.00
8,200.00	91.40	270.06	2,783.50	-629.04	-5,312.12	5,311.46	0.00	0.00	0.00
8,300.00	91.40	270.06	2,781.06	-628.94	-5,412.09	5,411.43	0.00	0.00	0.00
8,400.00	91.40	270.06	2,778.62	-628.83	-5,512.06	5,511.40	0.00	0.00	0.00
8,500.00	91.40	270.06	2,776.18	-628.73	-5,612.03	5,611.37	0.00	0.00	0.00
8,600.00 8,630.48 STATE K 1	91.40 91.40 01H LTP/BHL	270.06 270.06	2,773.74 2,773.00	-628.62 -628.59	-5,712.00 -5,742.47	5,711.34 5,741.81	0.00 0.00	0.00 0.00	0.00 0.00



Database: EDM 5000.1.13 Single User Db
Company: SILVERBACK EXPLORATION
Project: EDDY COUNTY, NM (NAD 83 - NME)

Site: State K Com
Well: 101H
Wellbore: OH
Design: Plan 1r0

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well 101H

RKB = 20' @ 3484.00usft (TBD) RKB = 20' @ 3484.00usft (TBD)

Grid

Minimum Curvature

Design Targets									
Target Name - hit/miss target D - Shape	ip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
STATE K 101H SHL - plan hits target cer - Point	0.00 nter	360.00	0.00	0.00	0.00	592,018.70	496,356.59	32.6274243	-104.4794422
STATE K 101H KOP (- plan hits target cer - Point	0.00 nter	0.00	2,060.78	-465.41	211.79	591,553.29	496,568.38	32.6261458	-104.4787522
STATE K 101H MAX I - plan hits target cer - Point	0.00 nter	0.00	2,147.07	-498.65	220.74	591,520.05	496,577.33	32.6260544	-104.4787230
STATE K 101H LTP/B - plan hits target cer - Point	0.00 nter	360.00	2,773.00	-628.59	-5,742.47	591,390.11	490,614.12	32.6256734	-104.4980920
STATE K 101H FTP - plan hits target cer - Point	0.00 nter	360.00	2,898.00	-633.95	-617.30	591,384.75	495,739.29	32.6256794	-104.4814445