### **BEFORE THE OIL CONSERVATION DIVISION EXAMINER HEARING – APRIL 6, 2023**

### **CASE NO. 23424**

MORRISON UNIT 101H MORRISON UNIT 102H MORRISON UNIT 103H MORRISON UNIT 104H

### **EDDY COUNTY, NEW MEXICO**



#### STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

#### APPLICATION OF SILVERBACK, LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO

CASE NO. 23234

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# TAB 1

## **COMPULSORY POOLING CHECKLIST**

### COMPULSORY POOLING APPLICATION CHECKLIST

#### ALL INFORMATION IN THE APPLICATION MUST BE SUPPORTED BY SIGNED AFFIDAVITS

Case: 23424	APPLICANT'S RESPONSE
Hearing Date: Pending	
Applicant	Silverback Operating II, LLC
Designated Operator & OGRID (affiliation if applicable)	Silverback Operating II, LLC ( OGRID #: 330968)
Applicant's Counsel:	Benjamin Holliday
Case Title:	Application of Silverback Operating II, LLC for Complusory Pooling
	creating standard 320-acre, more or less, horizontal spacing unit covering N/2 of Section 9-T19S-R25E, N.M.P.M., Eddy County, New
	Mexico
Entries of Appearance/Intervenors:	Michael H. Feldewert, Adam G. Rankin, Julia Broggi, Paula M. Vance (Holland & Hart) for Fasken Oil & Ranch, LLC (Fasken)
Well Family	Morrison #101H, #102H, #103H, #104H
Formation/Pool	
Formation Name(s) or Vertical Extent:	Yeso
Primary Product (Oil or Gas):	Oil
Pooling this vertical extent:	Yeso
Pool Name and Pool Code:	Penasco Draw; SA-Yeso (#50270)
Well Location Setback Rules:	Statewide
Spacing Unit Size:	320-acre, more or less; N/2 of Section 9-T19S-R25E. N.M.P.M., Eddy County, New Mexico
Spacing Unit	
Type (Horizontal/Vertical)	Horizontal
Size (Acres)	320-acres, more or less, covering N/2 of Section 9-T19S-R25E, N.M.P.M., Eddy County, New Mexico
Building Blocks:	Quarter Quarter: Two (2) lease tracts make up the unit: NW/4 Section 9; NE/4 Section 9
Orientation:	East / West - Laydown - N/2
Description: TRS/County	N/2 of Section 9-T19S-R25E, N.M.P.M., Eddy County, New Mexico
Standard Horizontal Well Spacing Unit (Y/N), If No, describe	Yes
Other Situations	
Depth Severance: Y/N. If yes, description	Yes; surface of the earth down to 3,000' subsurface, and 3000' to Base of Yeso. All wells will be drilled and completed in the Surface to 3000' interval. All uncommitted working interest owners and unleased mineral interest owners in both ownership horizons have been noticed in this matter, and notice by publication has been made in accordance with NMAC.
Proximity Tracts: If yes, description	Yes. The completed interval of the Morrison #102H well will be located within 330' of the quarter-quarter section line separating the S/2 N/2 and N/2 N/2 of Section 9 to allow the creation of a 320-acre standard horizontal spacing unit.
ReleasedDefiImadyallyif 445A20219112:55:38 PM	Morrison #102H (see below for description info.)

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Received by OCD: 4/5/2023 12:53:32 PM Applicant's Ownership in Each Tract	NW4: 56.842448%WI, NE/4: 53.833334% WI, Proposed Unit = 55.337891% WI. See Also Exhibit A-4b
Well(s)	
Name & API (if assigned), surface and bottom hole location, footages, completion target, orientation, completion status (standard or non-standard)	see below
Well #1	Morrison #101H (API No.: 30-015-50070) SHL: 501' FNL & 1,330' FWL of Section 10-T19S-R25E FTP: 340' FNL & 100' FEL of Section 9-T19S-R25E BHL: 340' FNL & 100' FWL of Section 9-T19S-R25E Target: Yeso Orientation: horizontal
Well #2	Completion status: standard <u>TMD: 8,135'; TVD: 2,267'; LL: 6,386'</u> Morrison #102H (API No.: 30-015-50071) - Defining Well
	SHL: 521' FNL & 1,330' FWL of Section 10-T19S-R25E FTP: 1,000' FNL & 100' FEL of Section 9-T19S-R25E BHL: 1,000' FNL & 100' FWL of Section 9-T19S-R25E Target: Yeso Orientation: horizontal Completion status: standard TMD: 8,233'; TVD: 2,290'; LL: 6,386'
Well #3	Morrison #103H (API No.: 30-015-50072) SHL: 2,418' FNL & 729' FWL of Section 10-T1(S-R25E FTP: 1,660' FNL & 100' FEL of Section 9-T19S-R25E BHL: 1,660' FNL & 100' FWL of Section 9-T19S-R25E Target: Yeso Orientation: horizontal Completion status: standard TMD: 8,266'; TVD: 2,314'; LL: 5,783'
Well #4	Morrison #104H (API No.: 30-015-50073) SHL: 2,438' FNL & 729' FWL of Section 10-T19S-R25E FTP: 2, 320' FNL & 100' FEL of Section 9-T19S-R25E BHL: 2,320' FNL & 100' FWL of Section 9-T19S-R25E Target: Yeso Orientation: horizontal Completion status: standard TMD: 8,106'; TVD: 2,351'; LL: 5,783'
Horizontal Well First and Last Take Points	Exhibit "A-3"
Completion Target (Formation, TVD and MD)	Exhibit "A-3"
AFE Capex and Operating Costs	
Drilling Supervision/Month \$	\$8,000.00
Production Supervision/Month \$	\$800.00
Justification for Supervision Costs	Exhibit "A"
Requested Risk Charge	200%
Notice of Hearing	
Proposed Notice of Hearing	Exhibit "A-1"
Proof of Mailed Notice of Hearing (20 days before hearing)	Exhibit "C-1"
Proof of Published Notice of Hearing (10 days before hearing)	Exhibit "C-2"

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#### Received by OCD: 4/5/2023 12:53:32 PM Exhibit "A-4" Land Ownership Schematic of the Spacing Unit Tract List (including lease numbers and owners) Exhibit "A-4a, A-4b" Exhibit "A-4b" Pooled Parties (including ownership type) Unlocatable Parties to be Pooled None Ownership Depth Severance (including percentage above & below) Yes; see line #26 above Joinder Sample Copy of Proposal Letter Exhibit "A-7" Exhibit "A-4b" List of Interest Owners (ie Exhibit A of JOA) Exhibit "A-8" Chronology of Contact with Non-Joined Working Interests Overhead Rates In Proposal Letter Exhibit "A-8" Cost Estimate to Drill and Complete Exhibit "A" Cost Estimate to Equip Well Exhibit "A" Cost Estimate for Production Facilities Exhibit "A" Geology Exhibit "B" Summary (including special considerations) Spacing Unit Schematic Exhibit "B-1" Exhibit "B-4" Gunbarrel/Lateral Trajectory Schematic Well Orientation (with rationale) Exhibit "B" and "B-5" **Target Formation** Exhibit "B" and "B-5" HSU Cross Section Exhibit "B-3" Depth Severance Discussion None. Forms, Figures and Tables C-102 Exhibit "A-3" Tracts Exhibit "A-4a" Summary of Interests, Unit Recapitulation (Tracts) Exhibit "A-4b" Exhibit "A-2" and "B-1" General Location Map (including basin) Well Bore Location Map Exhibit "B-4", "B-5", "A-3" Structure Contour Map - Subsea Depth Exhibit "B-2" Exhibit "B-3" Cross Section Location Map (including wells) Cross Section (including Landing Zone) Exhibit "B-3" and "B-5" Additional Information Special Provisions/Stipulations CERTIFICATION: I hereby certify that the information provided in this checklist is complete and accurate. **Printed Name** (Attorney or Party Representative): Benjamin Bryan Holliday Signed Name (Attorney or Party Representative): Date: 4-Apr-23

# **TAB 2**

## **APPLICATION AND COMPULSORY POOLING DOCKET SUMMARY**

#### STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

#### APPLICATION OF SILVERBACK, LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO

CASE NO.

#### **APPLICATION**

Pursuant to NMSA § 70-2-17, Silverback Operating II, LLC ("Applicant") (OGRID No. 330968), through its undersigned attorney, hereby files this Application with the Oil Conservation Division of the State of New Mexico ("Division") for an order (1) creating a 320-acre, more or less, standard horizontal well spacing unit comprised of the N2 Section 9, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico ("Unit"), and (2) pooling all uncommitted interest within the Penasco Draw SA-Yeso Formation, designated as an oil pool (Pool Code 50270), underlying said Unit. In support of its Application, Applicant states the following:

- 1. Applicant is a working interest owner in the Unit and has the right to drill thereon.
- 2. Applicant seeks to dedicate the above-referenced Unit to the following wells, referred to collectively as the Wells:
  - a. Morrison Unit 101H, API No. 30-015-50070, which is an oil well that will be horizontally drilled from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 501 feet FNL, and approximately 1330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,000 feet FNL, and approximately 100 feet FWL;
  - b. Morrison Unit 102H, API No. 30-015-50071, which is an oil well that will be horizontally drilled from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 521 feet FNL, and approximately 1,330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,000 feet FNL, and approximately 100 feet FWL;
  - c. **Morrison Unit 103H**, API No. 30-015-50072, which is an oil well that will be horizontally drilled from a surface hole located in the SW4 NW4 of Section 10,

Township 19 South, Range 25 East, being approximately 2,418 feet FNL, and approximately 729 feet FWL, to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,660 feet FNL, and approximately 100 feet FWL; and

- d. Morrison Unit 104H, API No. 30-015-50073, which is an oil well that will be horizontally drilled from a surface hole located in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 2,438 feet FNL, and approximately 729 feet FWL, to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 2,320 feet FNL, and approximately 100 feet FWL.
- The completed interval of the Wells will be orthodox and remain within 330-feet of the adjoining quarter-quarter section (or equivalent) tracts to allow inclusion of these proximity tracts within the proposed Unit under NMAC 19.15.16.15(B)(1)(6).
- 4. Applicant has undertaken diligent, good-faith efforts to obtain voluntary agreements from all interest owners to participate in the drilling of the Wells but has been unable to obtain voluntary agreements from all interest owners.
- 5. The approval of this Unit and pooling of uncommitted interests within the Unit will avoid the drilling of unnecessary wells, prevent waste, and protect correlative rights.
- 6. In order to allow Applicant to obtain it's just and fair share of the oil and gas underlying the subject lands, all uncommitted interests in the Unit should be pooled and Applicant should be designated the operator of the Wells and Unit.

WHEREFORE, Applicant requests this Application be set for hearing April 6, 2023, and that after notice and hearing, the Division enter an order

- A. Pooling all uncommitted interests in the Unit;
- B. Approving the Wells in the Unit;
- C. Designating Applicant as operator of the Unit and the Wells;
- D. Authorizing Applicant to recover its costs of drilling, equipping and completing the Wells;

- E. Approving the actual operating charges and costs of supervision while drilling and after completion, together with a provision adjusting the rates pursuant to the COPAS accounting procedures; and
- F. Imposing a 200% penalty for the risk assumed by Applicant in drilling and completing the Wells against any working interest owner who does not voluntarily participate in the drilling of the Wells.

Respectfully submitted,

HOLLIDAY ENERGY LAW GROUP, PC

/s/ Benjamin B. Holliday Benjamin B. Holliday 4040 Broadway, Suite 350 San Antonio, Texas 78209 Phone: (210) 469-3197 ben@theenergylawgroup.com ben-svc@theenergylawgroup.com Counsel for Silverback Operating II, LLC

Application of Silverback Operating II, LLC for Compulsory Pooling, Eddy County, New Mexico. Applicant seeks an order pooling all uncommitted interests in the Penasco Draw SA-Yeso Formation underlying a 320-acre, more or less, standard horizontal spacing unit comprised of the N/2 Section 9, Township 19 South, Range 25 East, NMPM Eddy County, New Mexico ("Unit"). The Unit will be dedicated to the following wells: a) Morrison Unit #101H well ("101H Well"), which will be horizontally drilled from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 501 feet FNL, and approximately 1,330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,000 feet FNL, and approximately 100 feet FWL; b) the Morrison Unit #102H well ("102H Well"), which will be horizontally drilled from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 521 feet FNL, and approximately 1,330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,000 feet FNL, and approximately 100 feet FWL; c) the Morrison Unit #103H well ("103H Well"), which will be horizontally drilled from a surface hole located in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 2,418 feet FNL, and approximately 729 feet FWL, to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,660 feet FNL, and approximately 100 feet FWL; and d) the Morrison Unit #104H well ("104H Well"), which will be horizontally drilled from a surface hole located in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 2,438 feet FNL, and approximately 729 feet FWL, to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 2,320 feet FNL, and approximately 100 feet FWL. The 101H Well, 102H Well, 103H Well, and 104H Well are referred to collectively herein as the "Wells." The completed interval of the Wells will be orthodox. Also, to be considered will be the cost of drilling and completing the Wells and the allocation of the cost, the designation of Applicant as the operator of the Wells, and a 200% charge for the risk involved in drilling and completing the Wells. The Wells are located approximately 20 miles South of Artesia, New Mexico.

# **TAB 3**

## EXHIBIT A AFFIDAVIT OF LARRY COSHOW

#### STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

#### APPLICATION OF SILVERBACK, LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO

#### CASE NO. 23424

#### **AFFIDAVIT OF LARRY K. COSHOW**

Larry K. Coshow, being first duly sworn and upon oath, deposes and states as follows:

1. My name is Larry K. Coshow, and I am a landman with Silverback Operating II, LLC ("Silverback"). I have previously testified before the Oil Conservation Division ("Division") as an expert witness in petroleum land matters. My credentials have been made a matter of record and I have been recognized by the Division as an expert witness.

2. I am submitting this affidavit in support of Silverbacks' application in the abovereferenced case pursuant to 19.15.14.12(A)(1) NMAC.

3. I am familiar with the application filed by Silverback in this case, and I am familiar with the status of the lands in the subject area. Copies of Silverback's Application and the Proposed Hearing Notice are attached as Silverback Exhibit A-1.

4. None of the parties to be pooled in this case have indicated opposition to this matter proceeding by affidavit to the Division, and therefore I do not expect any opposition at the hearing.

5. In this case, Silverback seeks an order pooling all uncommitted interest owners in the following spacing unit:

a. The proposed spacing unit is a 320-acre, more or less, standard horizontal spacing unit in the Penasco Draw, SA-Yeso Formation, Pool Code No. 50270, comprised of the N/2 of Section 9, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico ("Spacing Unit"). The Spacing Unit includes proximity tracts, and the defining well for proximity tract purposes is the Morrison 102H. The completed interval of the Morrison 102H well is within 330 feet of the adjoining quarterquarter section tracts separating the N/2 N/2 and S/2 N/2 of Section 9 to allow inclusion of those tracts within the proposed 320-acre horizontal spacing unit under NMAC 19.15.16.15B(1)(b).

- b. The Spacing Unit will be initially dedicated to the following wells (collectively the "Wells"):
  - Morrison 101H, API No. 30-015-50070, which is an oil well that will be horizontally drilled to the Penasco Draw, SA-Yeso formation from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East;
  - Morrison 102H, API No. 30-015-50071, which is an oil well that will be horizontally drilled to the Penasco Draw, SA-Yeso formation from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East;
  - Morrison 103H, API No. 30-015-50072, which is an oil well that will be horizontally drilled to the Penasco Draw, SA-Yeso formation from a surface hole location in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, to a bottom hole location in the SW4 NW4 of Section 16, Township 19 South, Range 25 East.

 iv. Morrison 104H, API No. 30-015-50073, which is an oil well that will be horizontally drilled to the Penasco Draw, SA-Yeso formation from a surface hole location in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, to a bottom hole location in the SW4 NW4 of Section 16, Township 19 South, Range 25 East.

6. Silverback Exhibit A-2 contains a general location map outlining the Spacing Unit being pooled in Case No. 23424 in relation to the surrounding area in Eddy County. The acreage in the Spacing Unit contains fee lands.

7. Silverback Exhibit A-3 contains the form C-102s for the Wells. The Oil Conservation Division has placed the Wells in the Penasco Draw, SA-Yeso Formation, Pool Code No. 50270. The location of each of the Wells is orthodox and meets the Division's offset requirements.

8. There is a depth severance in the Penasco Draw, SA-Yeso Formation underlying the subject acreage at three thousand (3000) feet, separating the ownership horizons a) from the surface to 3000', and b) from 3000' to 100' below the Base of the Yeso Formation. All uncommitted working interest and unleased mineral interest owners within the Yeso formation have been noticed in this matter.

9. Silverback Exhibit A-4 contains a plat outlining the spacing unit being pooled in Case No. 23424. This Exhibit also identifies each tract number, tract percentage interest, and spacing unit percentage interest for the interest owners being pooled and their last known addresses. The unleased mineral interests and "uncommitted" working interest owners that remain to be pooled in this case are marked in yellow. In compiling these addresses, I conducted a diligent search of the public records in Eddy County, New Mexico, where the wells are located, phone

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directories, internet databases, and performed internet searches to locate the contact information for parties entitled to notification. As is detailed on Silverback Exhibit A-5, various of the unleased mineral owners and working interest owners were all locatable, notice was provided, and a green card was returned. Though no other parties were deemed unlocatable after a diligent search, out of an abundance of caution Silverback caused notice to be published more than ten (10) days prior to the compulsory pooling hearing in the Carlsbad Current Argus in accordance with 19.15.4.12(B) NMAC; Silverback Exhibit A-6 contains a copy of the legal advertisement, as well as the affidavit of publication. I provided the law firm of Holliday Energy Law Group, PC, with the name and addresses for all uncommitted interests.

10. Silverback sent well proposal letters for the Wells, together with corresponding AFEs, to the working interest owners in this case. Silverback Exhibit A-7 is a sample of the well proposal letter, along with the AFEs, sent to these working interest owners. The estimated costs of the Wells set forth in the AFEs are fair, reasonable, and comparable to the costs of other wells of similar depths and lengths drilled in this area of New Mexico.

11. Silverback requests overhead and administrative rates of \$8,000/month for drilling each well and \$800/month for producing each well. These rates are fair and comparable to the rates charged by other operators for wells of this type in this area of New Mexico. Silverback respectfully requests that these administrative and overhead costs be incorporated into any orders entered by the Division in this case.

12. Silverback requests the maximum cost, plus 200% risk charge, be assessed against the non-consenting working interest owners.

13. Silverback requests that it be designated operator of the unit and Wells.

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14. Silverback has been able to locate contact information for the unleased mineral owners and working interest owners that it seeks to pool and has undertaken good faith efforts to reach an agreement with the locatable uncommitted interest owners. Silverback Exhibit A-8 contains a chronology of the contacts with the working interest owners that Silverback seeks to pool. Silverback has made a good faith effort to obtain voluntary joinder of the unleased mineral interest and working interest owners in the Wells.

15. The unleased mineral interest and working interest owners being pooled have either been contacted regarding the Wells or have been provided notice by publication as set forth above, but have failed or refused to voluntarily commit their interest in the Wells. If a mutually agreeable lease or Joint Operating Agreement is reached between Silverback and an interest owner, I will inform the Division that Silverback is no longer seeking to pool that party, and Silverback requests that the voluntary agreement become operative and supersede the Division's order for said parties, except to the extent that the Division deems it necessary to maintain spacing criteria for the purpose of conservation, the prevention of waste, and the protection of correlative rights.

16. Silverback Exhibits A-1 through A-8 were either prepared by me or compiled under my direction and supervision.

17. The granting of this application is in the best interest of conservation, the prevention of waste, and the protection of correlative rights, and will avoid the drilling of unnecessary wells.

18. I swear that to the best of my knowledge and belief, all of the matters set forth herein and in the exhibits are true, correct, and accurate.

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#### FURTHER AFFIANT SAYETH NOT.

Dated this \_\_\_\_\_ day of April, 2023.

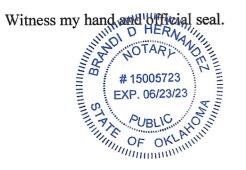
Larry K. Coshow Silverback Operating II, LLC

#### STATE OF OKLAHOMA

)

COUNTY OF OKLAHOMA)

SUBSCRIBED AND SWORN to before me this <u></u>day of April, 2023, by Larry K. Coshow, Landman for Silverback Operating II, LLC.



Notary Public, State of Oklahoma

# TAB 4

## EXHIBIT A-1 CASE NO. 23424 APPLICATION AND NOTICE SUMMARY

#### STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

#### APPLICATION OF SILVERBACK, LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO

CASE NO.

#### **APPLICATION**

Pursuant to NMSA § 70-2-17, Silverback Operating II, LLC ("Applicant") (OGRID No. 330968), through its undersigned attorney, hereby files this Application with the Oil Conservation Division of the State of New Mexico ("Division") for an order (1) creating a 320-acre, more or less, standard horizontal well spacing unit comprised of the N2 Section 9, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico ("Unit"), and (2) pooling all uncommitted interest within the Penasco Draw SA-Yeso Formation, designated as an oil pool (Pool Code 50270), underlying said Unit. In support of its Application, Applicant states the following:

- 1. Applicant is a working interest owner in the Unit and has the right to drill thereon.
- 2. Applicant seeks to dedicate the above-referenced Unit to the following wells, referred to collectively as the Wells:
  - a. Morrison Unit 101H, API No. 30-015-50070, which is an oil well that will be horizontally drilled from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 501 feet FNL, and approximately 1330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,000 feet FNL, and approximately 100 feet FWL;
  - b. Morrison Unit 102H, API No. 30-015-50071, which is an oil well that will be horizontally drilled from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 521 feet FNL, and approximately 1,330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,000 feet FNL, and approximately 100 feet FWL;
  - c. **Morrison Unit 103H**, API No. 30-015-50072, which is an oil well that will be horizontally drilled from a surface hole located in the SW4 NW4 of Section 10,

Township 19 South, Range 25 East, being approximately 2,418 feet FNL, and approximately 729 feet FWL, to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,660 feet FNL, and approximately 100 feet FWL; and

- d. Morrison Unit 104H, API No. 30-015-50073, which is an oil well that will be horizontally drilled from a surface hole located in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 2,438 feet FNL, and approximately 729 feet FWL, to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 2,320 feet FNL, and approximately 100 feet FWL.
- The completed interval of the Wells will be orthodox and remain within 330-feet of the adjoining quarter-quarter section (or equivalent) tracts to allow inclusion of these proximity tracts within the proposed Unit under NMAC 19.15.16.15(B)(1)(6).
- 4. Applicant has undertaken diligent, good-faith efforts to obtain voluntary agreements from all interest owners to participate in the drilling of the Wells but has been unable to obtain voluntary agreements from all interest owners.
- 5. The approval of this Unit and pooling of uncommitted interests within the Unit will avoid the drilling of unnecessary wells, prevent waste, and protect correlative rights.
- 6. In order to allow Applicant to obtain it's just and fair share of the oil and gas underlying the subject lands, all uncommitted interests in the Unit should be pooled and Applicant should be designated the operator of the Wells and Unit.

WHEREFORE, Applicant requests this Application be set for hearing April 6, 2023, and that after notice and hearing, the Division enter an order

- A. Pooling all uncommitted interests in the Unit;
- B. Approving the Wells in the Unit;
- C. Designating Applicant as operator of the Unit and the Wells;
- D. Authorizing Applicant to recover its costs of drilling, equipping and completing the Wells;

- E. Approving the actual operating charges and costs of supervision while drilling and after completion, together with a provision adjusting the rates pursuant to the COPAS accounting procedures; and
- F. Imposing a 200% penalty for the risk assumed by Applicant in drilling and completing the Wells against any working interest owner who does not voluntarily participate in the drilling of the Wells.

Respectfully submitted,

HOLLIDAY ENERGY LAW GROUP, PC

/s/ Benjamin B. Holliday Benjamin B. Holliday 4040 Broadway, Suite 350 San Antonio, Texas 78209 Phone: (210) 469-3197 ben@theenergylawgroup.com ben-svc@theenergylawgroup.com Counsel for Silverback Operating II, LLC

Application of Silverback Operating II, LLC for Compulsory Pooling, Eddy County, New Mexico. Applicant seeks an order pooling all uncommitted interests in the Penasco Draw SA-Yeso Formation underlying a 320-acre, more or less, standard horizontal spacing unit comprised of the N/2 Section 9, Township 19 South, Range 25 East, NMPM Eddy County, New Mexico ("Unit"). The Unit will be dedicated to the following wells: a) Morrison Unit #101H well ("101H Well"), which will be horizontally drilled from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 501 feet FNL, and approximately 1,330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,000 feet FNL, and approximately 100 feet FWL; b) the Morrison Unit #102H well ("102H Well"), which will be horizontally drilled from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 521 feet FNL, and approximately 1,330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,000 feet FNL, and approximately 100 feet FWL; c) the Morrison Unit #103H well ("103H Well"), which will be horizontally drilled from a surface hole located in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 2,418 feet FNL, and approximately 729 feet FWL, to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,660 feet FNL, and approximately 100 feet FWL; and d) the Morrison Unit #104H well ("104H Well"), which will be horizontally drilled from a surface hole located in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 2,438 feet FNL, and approximately 729 feet FWL, to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 2,320 feet FNL, and approximately 100 feet FWL. The 101H Well, 102H Well, 103H Well, and 104H Well are referred to collectively herein as the "Wells." The completed interval of the Wells will be orthodox. Also, to be considered will be the cost of drilling and completing the Wells and the allocation of the cost, the designation of Applicant as the operator of the Wells, and a 200% charge for the risk involved in drilling and completing the Wells. The Wells are located approximately 20 miles South of Artesia, New Mexico.

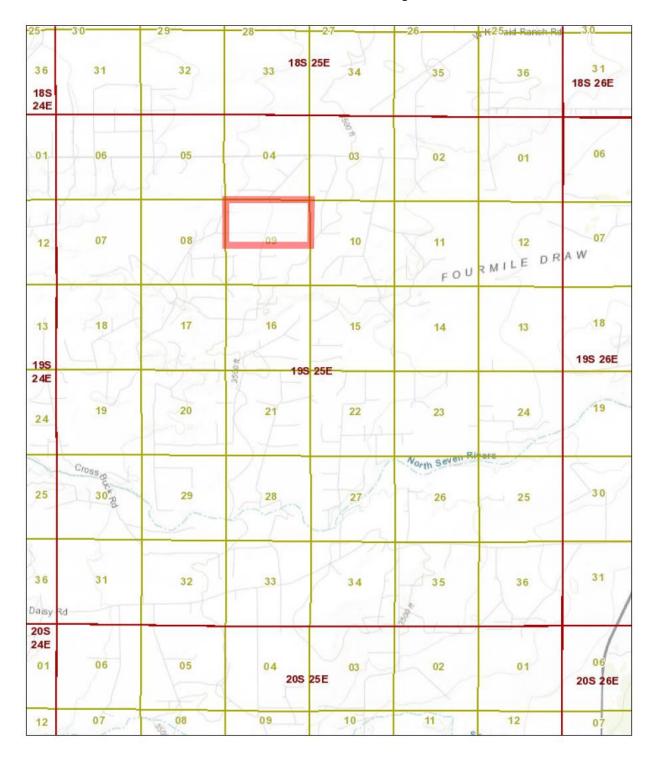
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## TAB 4

## EXHIBIT A-2 LOCATION MAP

**Released to Imaging: 4/5/2023 12:55:38 PM** 

#### Exhibit A-2 Proposed Morrison HSU N2 Section 9, Township 19 South, Range 25 East, NMPM, Eddy County New Mexico



#### **General Location Map**

## **TAB 4**

## EXHIBIT A-3 Morrison Unit C102s

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

1 Operator Name and Address

### 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 326830

2 OCRID Number

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

Silv	erback Operating II 0 West, Suite 201	, LLC							330968		
	n Antonio, TX 78257								3. API Number 30-015-50	070	
4. Property Cod			Property Name						6. Well No.		
333	446		MORR	ISON					101H		
					7 Surfa	ce Location					
UL - Lot	Section	Township	Range			Feet From	N/S Line	Feet From	E/W Line	County	
D	10	19S		25E		501	N	1330	W	Eddy	
					8. Proposed Bo	ttom Hole Locat	ion				
UL - Lot	Section	Township	Range			Feet From	N/S Line	Feet From	E/W Line	County	
D	9	19S		25E	D	340	N	100	W	Eddy	
					9. Pool	Information					
PENASCO D	RAW;SA-YESO (AS	SOC)							5027	0	
					Additional V	Nell Information					
11. Work Type		12. Well Typ		1	13. Cable/Rotary	14. Leas		15. Grou	nd Level Elevation		
	v Well	0					Private		3502		
16. Multiple N		17. Proposed	I Depth 135	1	<ol> <li>Formation Yeso</li> </ol>	19. Con	ractor	20. Spud	Date 11/30/2022		
Depth to Groun	nd water	0	155		Distance from nearest 1	fresh water well		Distance	to nearest surface wate	r	
🛛 We will be u	using a closed-loo	p system in lieu	of lined pits								
				2	1. Proposed Casin	o and Cement P	rogram				
Туре	Hole Size	Casing S	ize		ing Weight/ft	Setting		Sacks of Ce	ment	Estimated TOC	
Surf	12.25	9.625	5		36	125	0	275		0	
Prod	8.75	7			32	280		190 1443		0	
Prod	8.75	5.5			20	813	8135			2306	
				Cas	sing/Cement Progra	am: Additional C	omments				
				2	2. Proposed Blow	out Prevention P	rogram				
	Туре			Worki	ing Pressure		Test Pres	sure	М	anufacturer	
	Double Ram				5000		5000	)	S	SHAFFER	
	certify that the inform	nation given abo	ove is true and	complete	e to the best of my			OIL CONSERVA	TION DIVISION		
knowledge a	nd bellet. ify I have complied	l with 19 15 14 9		and/or 1	9 15 14 9 (B) NMA	c					
⊠, if applicat		- with 15.10.14.0			0.10.14.0 (D) 110/						
Signature:											
Printed Name:		y filed by Matthe	w Alley			Approved By:	Katherine				
Title:	Chief Finan	-				Title:	Geoscient				
Email Address:	malley@silv	erbackexp.com				Approved Date:	10/18/202	2	Expiration Date: 1	0/18/2024	

Conditions of Approval Attached

10/13/2022

Date:

Phone: 303-513-0990

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

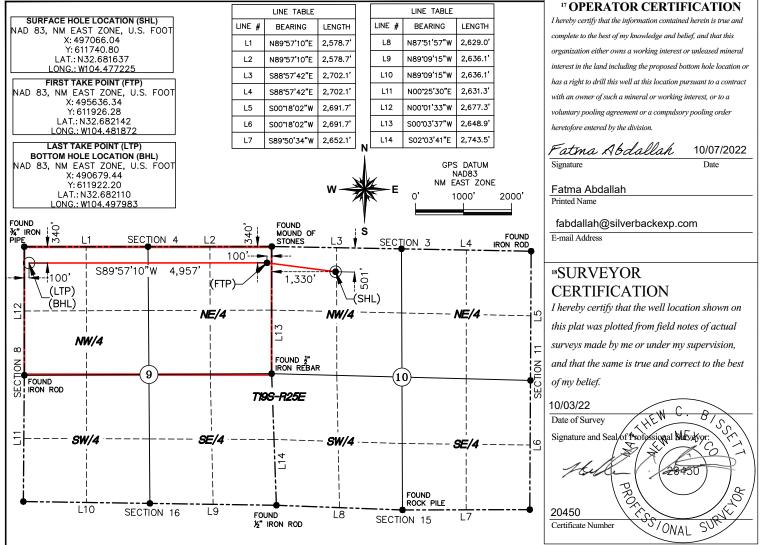
Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

					ITIM B HICH	LI IOL DEDIC	IIII OI (I BI)	<u> </u>		
<sup>1</sup> A 30-015	PI Number 5007			<sup>2</sup> Pool Cod 50270	e	PENA	<sup>3</sup> Pool Na ASCO DRAW; SA		SSOC)	
<sup>4</sup> Property C	ode				<sup>5</sup> Property N	Name			6	Well Number
333446					MORRIS					101H
<sup>7</sup> OGRID N	lo.				<sup>8</sup> Operator I	Name				<sup>9</sup> Elevation
330968				SIL	VERBACK OPER	ATING II, LLC				3,502'
					<sup>10</sup> Surface I	Location				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/	/West line	County
D	10	19-S	25-E		501'	NORTH	1,330'	WES	т	EDDY
			<sup>п</sup> Вс	ottom Ho	le Location If	Different Fron	n Surface			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/	/West line	County
D	9	19-S	25-E		340'	NORTH	100'	WES	ST	EDDY
<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint o	r Infill	<sup>4</sup> Consolidation	Code <sup>15</sup> O	rder 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 division.



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

Phone: (505) 476-3470 Fax: (505) 476-3462

## **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division**

PERMIT CONDITIONS OF APPROVAL

<u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170	1220 S. St Francis Dr.
District IV 1220 S. St Francis Dr., Santa Fe, NM 87505	Santa Fe, NM 87505

	PERMIT CONDITIONS OF APPROVAL	
	ame and Address: Silverback Operating II, LLC [330968]	API Number: 30-015-50070
	H10 West, Suite 201 San Antonio, TX 78257	Well: MORRISON #101H
OCD Reviewer	Condition	
kpickford	Will require administrative order for non-standard spacing unit	
kpickford	Notify OCD 24 hours prior to casing & cement	
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud	
	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operato water zone or zones and shall immediately set in cement the water protection string	r shall drill without interruption through the fresh
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. drilling fluids and solids must be contained in a steel closed loop system	This includes synthetic oils. Oil based mud,

Page 30 36165

Form APD Conditions

Permit 326830

Re	ceived b	v OCD:	4/5/2023 22953 232 PMM
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		Sta Energy, Minerals	te of New Mex and Natural Reso		ent	Subr Via I	nit Electronically E-permitting
		1220	onservation Div South St. France	cis Dr.			
		Sai	nta Fe, NM 875	505			
	ľ	NATURAL G	AS MANAC	TEMENT D	LAN		
	J	ATURAL G					
This Natural Gas Ma	nagement Plan	must be submitted w	with each Application	ion for Permit to I	Drill (AP	D) for a new of	r recompleted we
			n 1 – Plan De Effective May 25,				
I. Operator:	back Operating	II, LLC	OGRID:	330968		<b>Date:</b> ///////	10 / 2022
II. Type: 🖾 Origina	l 🗆 Amendme	nt due to $\Box$ 19.15.27	7.9.D(6)(a) NMAC	C □ 19.15.27.9.D	(6)(b) NI	MAC $\square$ Other.	
If Other, please descr	riba						
ir other, preuse deser				· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·
<b>II. Well(s):</b> Provide be recompleted from					wells pro	posed to be dri	lled or proposed
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D		Pipated ACF/D P	Anticipated roduced Water BBL/D
MORRISON 101H	30-015	D-10-19S-25E	501' N 1330' W	515	800		3,000
MORRISON 102H	30-015	D-10-19S-25E	521' N 1330' W	515	800		3,000
IV. Central Delivery	v Point Name:	MORRISON CDP				[See 19 15 2	7.9(D)(1) NMAC
	, <b>1</b> 01110 1 ( <b>u</b> 1110)					_[500 1).15.2	(1)(1)(1)
V. Anticipated Sche proposed to be recom					vell or se	t of wells propo	osed to be drilled
Well Name	API	Spud Date	TD Reached Date	Completion Commencement		Initial Flow Back Date	First Productio Date
MORRISON 101H	30-015	2/3/23	2/10/23	3/22/23		4/27/23	4/27/23
MORRISON 102H	30-015	2/12/23	2/20/23	3/22/23		4/27/23	4/27/23
VI. Separation Equi	ractices: 🛛 Att	ach a complete desc		-			
Subsection A through	h F of 19.15.27.	8 NMAC.					
VIII. Best Manager during active and pla			ete description of	Operator's best n	nanagem	ent practices to	o minimize venti

#### 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.

 $\overline{x}$  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.**  $\Box$  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  $\Box$  will  $\Box$  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  $\Box$  does  $\Box$  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:**  $\Box$  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.

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

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

 $\overline{X}$  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

 $\Box$  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.**  $\Box$  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.**  $\Box$  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: Jatom Alalla
Printed Name: Fatma Abdallah
Title: Regulatory Manager
E-mail Address: fabdallah@silverbackexp.com
Date: 10/10/2022
Phone: 210-585-3316
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Approved By: Title:
Title:
Title: Approval Date:
Title: Approval Date:
Title: Approval Date:

#### **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 a Vapor Recovery Unit (VRU).

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 Vapor Recovery Unit (VRU) Site VRUs are sized to accommodate peak expected production volume. Flash volumes were estimated using the high volume case and process modeling software. Gas from the VRU outlet is combined with 1st stage separation gas and sent to sales.

#### **Venting and Flaring**

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 or flaring will only occur during start up and shut down, 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:

a) Power generation on lease – Natural gas driven gen set to produce power required to run supply well pad electrical loads

c) Compression on lease - gas lift or gas compression as required

d) 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 Vapor Recovery Unit (VRU) Compressor. If the VRU requires planned or unplanned maintenance, vapors will automatically be routed to the facility flare.

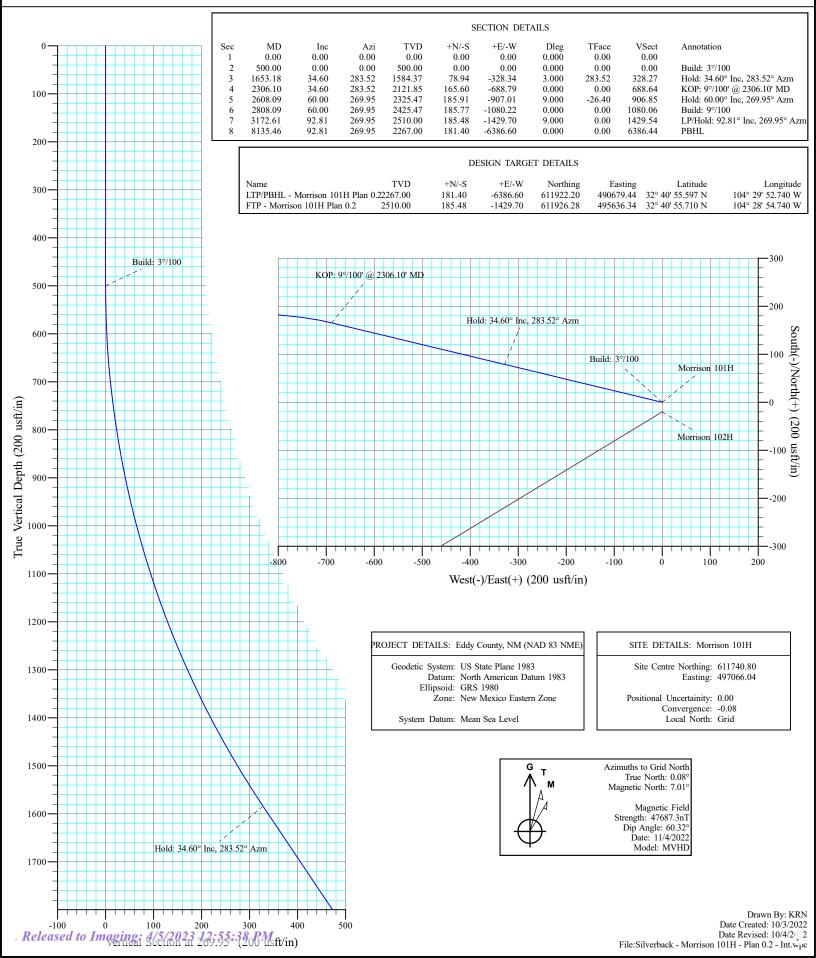
For maintenance activities, Silverback will utilize the facility flare to blowdown equipment and piping whenever practical to minimize venting

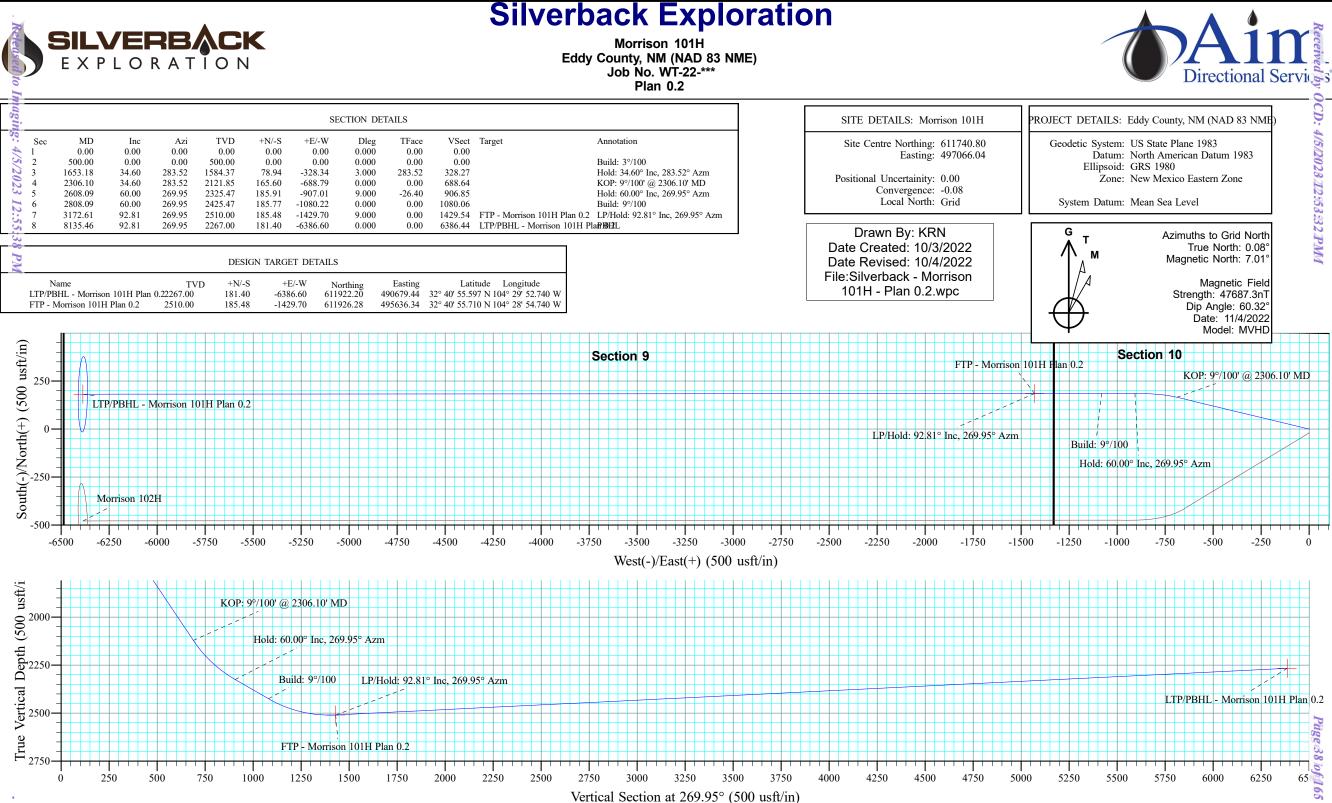
# Received by OCD: 4/5/2023 12:53:32 PM Silverback Exploration



#### Morrison 101H Eddy County, NM (NAD 83 NME) Job No. WT-22-\*\*\* Plan 0.2









# **Silverback Exploration**

Eddy County, NM (NAD 83 NME) Morrison 101H Morrison 101H

Planning

Plan: Plan 0.2

# **Standard Planning Report**

04 October, 2022



# Received by OCD: 4/5/2023 12953 232 PMM

SILVERBACK EXPLORATION



Planning Report



Database: Company: Project: Site: Well: Wellbore: Design:	Silverbad	ck Explorat unty, NM ( 101H 101H	1 Single User tion NAD 83 NME		Local Co-ordinate Reference:Site Morrison 101HTVD Reference:Well @ 3518.00usft (16' RKB)MD Reference:Well @ 3518.00usft (16' RKB)North Reference:GridSurvey Calculation Method:Minimum Curvature					
Project	Eddy Cou	nty, NM (N	NAD 83 NME)							
Map System: Geo Datum: Map Zone:	US State P North Amer New Mexic	rican Datu	m 1983		System D	atum:	Ν	lean Sea Leve	I	
Site	Morrison	101H								
Site Position: From: Position Uncertai	Map nty:	0.00	North Eastir usft Slot R	-		740.80 usft 066.04 usft 13-3/16 "	Latitude: Longitude: Grid Conve			32° 40' 53.894 N 104° 28' 38.009 W -0.08 °
Well	Morrison 1	101H								
Well Position Position Uncertai	+N/-S +E/-W	0.0	0 usft Ea	orthing: sting: ellhead Elev	vation:	611,740.80 497,066.04	usft Lo	ntitude: ongitude: round Level:		32° 40' 53.894 N 104° 28' 38.009 W 3.502.00 usft
	•	0.0								0,002.00 001
Wellbore	Planning									
Magnetics	Model Name Sample Date		e Date	Declination Dip (°)			Angle (°)		Strength nT)	
		MVHD	1	1/4/2022		6.93		60.32		47,687.339
Design	Plan 0.2									
Audit Notes:										
Version:			Phas		PLAN	Ti	e On Depth:		0.00	
Vertical Section:		De	pth From (T (usft)	VD)	+N/-S (usft)		E/-W µsft)	Dir	ection (°)	
			0.00		0.00		0.00	20	69.95	
Plan Survey Tool	Program	Dato	10/4/2022							
Depth From (usft)	Depth To (usft)	D	/ (Wellbore)		Tool Name		Remarks			
1 0.00		-	2 (Planning)		MWD+HRG	M				
					OWSG MWE	) + HRGM				
Plan Sections										
•	nation Az (°)	timuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.000			0.00	
1,653.18 2,306.10	34.60 34.60	283.52 283.52	1,584.37 2,121.85	78.94 165.60	-328.34 -688.79	3.000 0.000			283.52 0.00	
2,608.09	60.00	263.52 269.95	2,121.05 2,325.47	185.91	-000.79 -907.01	9.000			-26.40	
2,808.09	60.00	269.95	2,425.47	185.77	-1,080.22	0.000			0.00	
3,172.61	92.81	269.95	2,510.00	185.48	-1,429.70	9.000	9.000	0.000	0.00	FTP - Morrison 101

10/4/2022 11:25:39AM

## Received by OCD: 4/5/2023 22953 232 PMM



# **Aim Directional Services, LLC**

Planning Report



Da	atabase:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Morrison 101H
C	ompany:	Silverback Exploration	TVD Reference:	Well @ 3518.00usft (16' RKB)
P	roject:	Eddy County, NM (NAD 83 NME)	MD Reference:	Well @ 3518.00usft (16' RKB)
Si	ite:	Morrison 101H	North Reference:	Grid
W	/ell:	Morrison 101H	Survey Calculation Method:	Minimum Curvature
W	ellbore:	Planning	-	
D	esign:	Plan 0.2		

#### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.000	0.000	0.000
200.00 300.00	0.00	0.00 0.00	200.00	0.00	0.00	0.00	0.000	0.000 0.000	0.000
400.00	0.00 0.00	0.00	300.00 400.00	0.00 0.00	0.00 0.00	0.00 0.00	0.000 0.000	0.000	0.000 0.000
500.00 Build: 3°/1	0.00	0.00	500.00	0.00	0.00	0.00	0.000	0.000	0.000
600.00	3.00	283.52	599.95	0.61	-2.54	2.54	3.000	3.000	0.000
700.00	6.00	283.52	699.63	2.45	-10.17	10.17	3.000	3.000	0.000
800.00	9.00	283.52	798.77	5.50	-22.86	22.86	3.000	3.000	0.000
900.00	12.00	283.52	897.08	9.76	-40.58	40.57	3.000	3.000	0.000
1,000.00	15.00	283.52	994.31	15.21	-63.27	63.26	3.000	3.000	0.000
1,100.00	18.00	283.52	1,090.18	21.85	-90.89	90.87	3.000	3.000	0.000
1,200.00 1,300.00	21.00 24.00	283.52 283.52	1,184.43 1,276.81	29.65 38.60	-123.34 -160.54	123.31 160.51	3.000 3.000	3.000 3.000	0.000 0.000
1,400.00	27.00	283.52	1,367.06	48.66	-202.40	202.35	3.000	3.000	0.000
1,500.00	30.00	283.52	1,454.93	59.81	-248.78	248.73	3.000	3.000	0.000
1,600.00	33.00	283.52	1,540.18	72.02	-299.58	299.52	3.000	3.000	0.000
1,653.18	34.60	283.52	1,584.37	78.94	-328.34	328.27	3.000	3.000	0.000
	0° Inc, 283.52°				0.5.4.40				
1,700.00 1,800.00	34.60 34.60	283.52 283.52	1,622.92 1,705.23	85.15 98.42	-354.19 -409.39	354.11 409.31	0.000 0.000	0.000 0.000	0.000 0.000
1,900.00 2,000.00	34.60 34.60	283.52 283.52	1,787.55 1.869.87	111.70 124.97	-464.60 -519.80	464.50 519.69	0.000 0.000	0.000 0.000	0.000 0.000
2,000.00	34.60	283.52	1,009.07	138.24	-575.01	574.89	0.000	0.000	0.000
2,200.00	34.60	283.52	2,034.51	151.51	-630.21	630.08	0.000	0.000	0.000
2,306.10	34.60	283.52	2,121.85	165.60	-688.79	688.64	0.000	0.000	0.000
KOP: 9°/10	00' @ 2306.10'	MD							
2,350.00	38.17	280.68	2,157.19	171.02	-714.24	714.09	9.000	8.142	-6.474
2,400.00	42.31	277.95	2,195.35	176.22	-746.11	745.96	9.000	8.282	-5.459
2,450.00	46.51	275.62	2,231.06 2,264.10	180.32	-780.84 -818.23	780.69	9.000 9.000	8.392 8.474	-4.650 -4.042
2,500.00 2,550.00	50.74 55.01	273.60 271.81	2,204.10	183.31 185.18	-858.04	818.07 857.88	9.000	8.536	-4.042 -3.579
-									
2,600.00 2,608.09	59.30 60.00	270.20 269.95	2,321.39 2,325.47	185.90 185.91	-900.03 -907.01	899.87 906.85	9.000 9.000	8.583 8.606	-3.223 -3.052
	0° Inc, 269.95°		2,020.77	100.01	007.01	000.00	0.000	5.000	5.002
2,700.00	60.00	269.95	2,371.43	185.84	-986.61	986.45	0.000	0.000	0.000
2,808.09	60.00	269.95	2,425.47	185.77	-1,080.22	1,080.06	0.000	0.000	0.000
Build: 9°/1 2,850.00	<b>00</b> 63.77	269.95	2,445.22	185.74	-1,117.18	1,117.02	9.000	9.000	0.000
,			-						
2,900.00 2,950.00	68.27 72.77	269.95 269.95	2,465.53 2,482.20	185.70 185.66	-1,162.85 -1,209.98	1,162.69 1,209.82	9.000 9.000	9.000 9.000	0.000 0.000
3,000.00	77.27	269.95	2,482.20	185.62	-1,209.98	1,209.82	9.000	9.000	0.000
3,050.00	81.77	269.95	2,504.21	185.58	-1,307.42	1,307.26	9.000	9.000	0.000
3,100.00	86.27	269.95	2,509.42	185.54	-1,357.14	1,356.97	9.000	9.000	0.000
3,150.00	90.77	269.95	2,510.71	185.50	-1,407.11	1,406.94	9.000	9.000	0.000
3,172.61	92.81	269.95	2,510.00	185.48	-1,429.70	1,429.54	9.000	9.000	0.000
	2.81° Inc, 269.		2 500 66	185 46	1 467 06	1 466 00	0.000	0.000	0.000
3,200.00 3,300.00	92.81 92.81	269.95 269.95	2,508.66 2,503.76	185.46 185.38	-1,457.06 -1,556.94	1,456.90 1,556.78	0.000 0.000	0.000	0.000
3,400.00	92.81	269.95	2,498.87	185.29	-1,656.82	1,656.66	0.000	0.000	0.000
3,500.00	92.81	269.95	2,493.97	185.21	-1,756.70	1,756.54	0.000	0.000	0.000
3,600.00	92.81	269.95	2,489.07	185.13	-1,856.58	1,856.42	0.000	0.000	0.000

10/4/2022 11:25:39AM

COMPASS 5000.15 Build 93A

## Received by OCD: 4/5/2023 22953 232 PMM



# **Aim Directional Services, LLC**

Planning Report



C	Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Morrison 101H
C	Company:	Silverback Exploration	TVD Reference:	Well @ 3518.00usft (16' RKB)
F	Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	Well @ 3518.00usft (16' RKB)
S	Site:	Morrison 101H	North Reference:	Grid
۷	Vell:	Morrison 101H	Survey Calculation Method:	Minimum Curvature
۷	Vellbore:	Planning	-	
C	Design:	Plan 0.2		

#### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,700.00 3,800.00 3,900.00	92.81 92.81 92.81	269.95 269.95 269.95	2,484.18 2,479.28 2,474.38	185.05 184.96 184.88	-1,956.46 -2,056.34 -2,156.22	1,956.30 2,056.18 2,156.06	0.000 0.000 0.000	0.000 0.000 0.000	0.000 0.000 0.000
4,000.00 4,100.00 4,200.00 4,300.00 4,400.00	92.81 92.81 92.81 92.81 92.81	269.95 269.95 269.95 269.95 269.95 269.95	2,469.49 2,464.59 2,459.69 2,454.80 2,449.90	184.80 184.72 184.64 184.55 184.47	-2,256.10 -2,355.98 -2,455.86 -2,555.74 -2,655.62	2,255.94 2,355.82 2,455.70 2,555.58 2,655.46	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
4,500.00 4,600.00 4,700.00 4,800.00 4,900.00	92.81 92.81 92.81 92.81 92.81	269.95 269.95 269.95 269.95 269.95 269.95	2,445.01 2,440.11 2,435.21 2,430.32 2,425.42	184.39 184.31 184.22 184.14 184.06	-2,755.50 -2,855.38 -2,955.26 -3,055.14 -3,155.02	2,755.34 2,855.22 2,955.10 3,054.98 3,154.86	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	92.81 92.81 92.81 92.81 92.81 92.81	269.95 269.95 269.95 269.95 269.95 269.95	2,420.52 2,415.63 2,410.73 2,405.83 2,400.94	183.98 183.90 183.81 183.73 183.65	-3,254.90 -3,354.78 -3,454.66 -3,554.54 -3,654.42	3,254.74 3,354.62 3,454.50 3,554.38 3,654.26	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
5,500.00 5,600.00 5,700.00 5,800.00 5,900.00	92.81 92.81 92.81 92.81 92.81 92.81	269.95 269.95 269.95 269.95 269.95 269.95	2,396.04 2,391.15 2,386.25 2,381.35 2,376.46	183.57 183.48 183.40 183.32 183.24	-3,754.30 -3,854.18 -3,954.06 -4,053.94 -4,153.82	3,754.14 3,854.02 3,953.90 4,053.78 4,153.66	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
6,000.00 6,100.00 6,200.00 6,300.00 6,400.00	92.81 92.81 92.81 92.81 92.81 92.81	269.95 269.95 269.95 269.95 269.95 269.95	2,371.56 2,366.66 2,361.77 2,356.87 2,351.97	183.16 183.07 182.99 182.91 182.83	-4,253.70 -4,353.58 -4,453.46 -4,553.34 -4,653.22	4,253.54 4,353.42 4,453.30 4,553.18 4,653.06	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
6,500.00 6,600.00 6,700.00 6,800.00 6,900.00	92.81 92.81 92.81 92.81 92.81 92.81	269.95 269.95 269.95 269.95 269.95 269.95	2,347.08 2,342.18 2,337.29 2,332.39 2,327.49	182.74 182.66 182.58 182.50 182.42	-4,753.10 -4,852.98 -4,952.86 -5,052.74 -5,152.62	4,752.94 4,852.82 4,952.70 5,052.58 5,152.46	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
7,000.00 7,100.00 7,200.00 7,300.00 7,400.00	92.81 92.81 92.81 92.81 92.81	269.95 269.95 269.95 269.95 269.95 269.95	2,322.60 2,317.70 2,312.80 2,307.91 2,303.01	182.33 182.25 182.17 182.09 182.00	-5,252.50 -5,352.38 -5,452.26 -5,552.14 -5,652.02	5,252.34 5,352.22 5,452.10 5,551.98 5,651.86	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
7,500.00 7,600.00 7,700.00 7,800.00 7,900.00	92.81 92.81 92.81 92.81 92.81	269.95 269.95 269.95 269.95 269.95 269.95	2,298.11 2,293.22 2,288.32 2,283.43 2,278.53	181.92 181.84 181.76 181.68 181.59	-5,751.90 -5,851.78 -5,951.66 -6,051.54 -6,151.42	5,751.74 5,851.62 5,951.50 6,051.38 6,151.26	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
8,000.00 8,100.00 8,135.46 <b>PBHL</b>	92.81 92.81 92.81	269.95 269.95 269.95	2,273.63 2,268.74 2,267.00	181.51 181.43 181.40	-6,251.30 -6,351.18 -6,386.60	6,251.14 6,351.02 6,386.44	0.000 0.000 0.000	0.000 0.000 0.000	0.000 0.000 0.000

## Received by OCD: 4/5/2023 22953 232 PMM



# **Aim Directional Services, LLC**

Planning Report



Database: Company: Project: Site: Well:	RTOC- EDM 5000.1 Single User Db Silverback Exploration Eddy County, NM (NAD 83 NME) Morrison 101H Morrison 101H	Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:	Site Morrison 101H Well @ 3518.00usft (16' RKB) Well @ 3518.00usft (16' RKB) Grid Minimum Curvature
Wellbore: Design:	Planning Plan 0.2		
Design Targets			

#### Target Name

- hit/miss target I - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP/PBHL - Morrison - plan hits target ce - Point	0.00 nter	360.00	2,267.00	181.40	-6,386.60	611,922.20	490,679.44	32° 40' 55.597 N	104° 29' 52.740 W
FTP - Morrison 101H - plan hits target ce	0.00 nter	0.00	2,510.00	185.48	-1,429.70	611,926.28	495,636.34	32° 40' 55.710 N	104° 28' 54.740 W

- Point

#### **Plan Annotations**

Measured	Vertical	Local Coor	dinates	
Depth (usft)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
500.00	500.00	0.00	0.00	Build: 3°/100
1,653.18	1,584.37	78.94	-328.34	Hold: 34.60° Inc, 283.52° Azm
2,306.10	2,121.85	165.60	-688.79	KOP: 9°/100' @ 2306.10' MD
2,608.09	2,325.47	185.91	-907.01	Hold: 60.00° Inc, 269.95° Azm
2,808.09	2,425.47	185.77	-1,080.22	Build: 9°/100
3,172.61	2,510.00	185.48	-1,429.70	LP/Hold: 92.81° Inc, 269.95° Azm
8,135.46	2.267.00	181.40	-6,386.60	PBHL

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

Date:

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 326890

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

	verback Operating II	LLC							2. OGRID Number 33096			
	10 West, Suite 201							_	3. API Number			
Sar	n Antonio, TX 78257								30-015	5-5007	1	
4. Property Co			5. Property						6. Well No.			
333	3446			MORRISON					102H			
					7. Surf	ace Location						
UL - Lot	Section	Township	F	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line		County	
D	10	19	IS	25E		521	N	1330		W		Eddy
					8. Proposed B	ottom Hole Locat	ion					
UL - Lot	Section	Township	Rar	nge	Lot Idn	Feet From	N/S Line	Feet From	E/W Line		County	
D	9	19S		25E	D	1000	N	10	)	W		Eddy
					9. Poo	I Information						
PENASCO D	RAW;SA-YESO (AS	SOC)							5	50270		
		,			Additional	Well Information			•			
11. Work Type		12. Well Ty	/pe		13. Cable/Rotary	14. Leas	e Type	15. Grou	nd Level Elevation	1		
	w Well		OIL		· • · • • • • • • • • • • • • • • • • •		Private					
16. Multiple		17. Propos	•		18. Formation	19. Cont	ractor	20. Spud				
N			8233		Yeso				11/30/2022			
Depth to Groun	nd water				Distance from nearest	t fresh water well		Distance	to nearest surface	water		
🛛 We will be	using a closed-loop	o system in lie	eu of linec	•	21. Proposed Casi	ing and Cement P	rogram					
Туре	Hole Size	Casing	Size	Ca	asing Weight/ft	Setting	Depth	Sacks of Ce	ment		Estimated	TOC
Surf	12.25	9.6			36		1250				0	
Prod	<u>8.75</u> 8.75	7			32 20	290	-	<u>196</u> 1443		0 2349		
Prod	8.75	5.	0		20	823	3	1443			2349	
				C	asing/Cement Prog	ram: Additional C	omments					
					22. Proposed Blow	vout Prevention P						
	Туре			Wo	rking Pressure		Test Press				ufacturer	
	Double Ram				5000		5000			SH	AFFER	
oo I harabu	certify that the inforn				** ** *** * ****							
knowledge a	,	lation given a		le and comple	te to the best of my			OIL CONSERVA				
	tify I have complied	with 19.15.14	.9 (A) NM	AC 🛛 and/or	19.15.14.9 (B) NMA	AC						
🛛, if applica	ble.											
0:												
Signature:	Electror i U	مر المرامين الم - 44					Katharing I	Dialofand				
Printed Name:	Electronicali Chief Financ	y filed by Mattl	new Alley			Approved By:	Katherine I					
Title: Email Address	-	erbackexp.co	~			Title: Approved Date:	Geoscient		Expiration Da	te: 10/	19/2024	
Email Address		erbackexb COI				Approved Liste.	10/18/2022	<u> </u>	Expiration Da	.ie: 10/1	10/2024	

Conditions of Approval Attached

10/13/2022

Phone: 303-513-0990

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

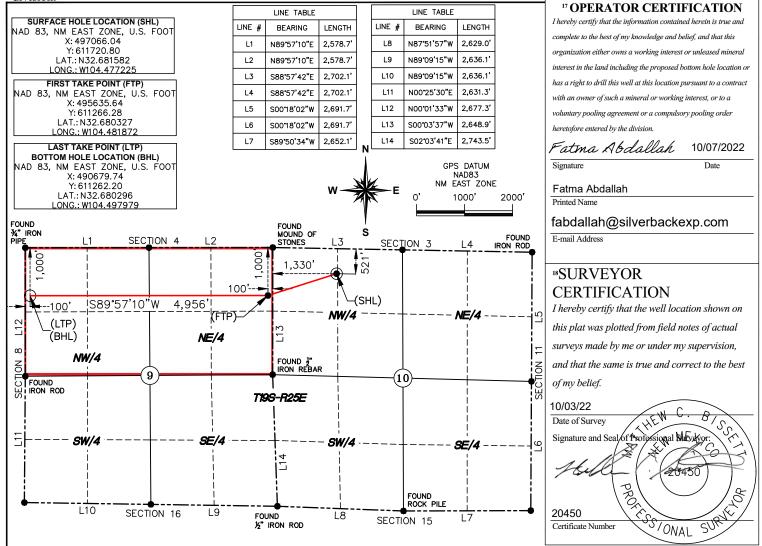
Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> A 30-015	PI Number 5007			<sup>2</sup> Pool ( 5027		PEI	<sup>3</sup> Pool Na NASCO DRAW; S		ASSOC)		
<sup>4</sup> Property C 333446	ode				<sup>5</sup> Property MORRIS				6	Well Number 102H	
<sup>7</sup> OGRID N 330968	ío.				<sup>8</sup> Operator SILVERBACK OPE					<sup>9</sup> Elevation 3,502'	
					<sup>10</sup> Surface	Location					
UL or lot no. D	Section 10	Township 19-S		ge Lot	Idn Feet from the 521'	North/South line	Feet from the 1,330'		East/West line Coun WEST EDDY		
			п <u>н</u>	l Sottom I	Hole Location I	I f Different Fror	n Surface				
UL or lot no. D	Section 9	Townshir 19-S		je Lot	Idn Feet from the 1,000'	e North/South line NORTH	Feet from the 100'	East WES	t/West line ST	County EDDY	
<sup>12</sup> Dedicated Acres 320	<sup>13</sup> Joint o	r Infill	<sup>14</sup> Consolidati	n Code	<sup>5</sup> Order No.						

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



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District III

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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

PERMIT CONDITIONS OF APPROVAL

API Number: 30-015-50071

Page 46 0f 165
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Permit 326890

Operator Name and Address: Silverback Operating II, LLC [330968] IH10 West, Suite 201 Well: San Antonio, TX 78257 MORRISON #102H OCD Condition Reviewer kpickford Will require administrative order for non-standard spacing unit

kpickford	Notify OCD 24 hours prior to casing & cement
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
	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
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing
	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

Re	ceived b	v OCD:	4/5/2023 22953 32 PMM
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		Sta Energy, Minerals	te of New Mex and Natural Res		ent		nit Electronically E-permitting
		1220	onservation Di South St. Franc nta Fe, NM 87:	cis Dr.			
	]	NATURAL G	AS MANA(	GEMENT P	LAN		
This Natural Gas Ma	nagement Plan	must be submitted w	vith each Applicat	ion for Permit to I	Drill (A	PD) for a new o	r recompleted well.
			n 1 – Plan De Effective May 25,				
I. Operator:	back Operating	II, LLC	OGRID:	330968		<b>Date:</b> /	10 / 2022
II. Type: 🛛 Origina	l □ Amendmer	nt due to □ 19.15.27	7.9.D(6)(a) NMAG	C 🗆 19.15.27.9.D(	(6)(b) N	MAC 🗆 Other.	
If Other, please desci	ribe:						
III. Well(s): Provide be recompleted from					wells pr	roposed to be dr	illed or proposed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D		cipated MCF/D P	Anticipated roduced Water BBL/D
MORRISON 101H	30-015	D-10-19S-25E	501' N 1330' W	515	800	)	3,000
MORRISON 102H	30-015	D-10-19S-25E	521' N 1330' W	515	80	0	3,000
IV. Central Delivery V. Anticipated Sche proposed to be recom	dule: Provide t	ne following inform			vell or s		7.9(D)(1) NMAC]
Well Name	API	Spud Date	TD Reached Date	Completion Commencement		Initial Flow Back Date	First Production Date
MORRISON 101H	30-015	2/3/23	2/10/23	3/22/23		4/27/23	4/27/23
MORRISON 102H	30-015	2/12/23	2/20/23	3/22/23		4/27/23	4/27/23
VI. Separation Equi VII. Operational Pr Subsection A through VIII. Best Manager	r <b>actices:</b> ⊠ Att n F of 19.15.27.	ach a complete deso 8 NMAC.	cription of the act	ions Operator wil	l take t	o comply with t	the requirements o
during active and pla				Sperator 5 best II	lianagei	nent praetices to	

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# 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.

 $\overline{x}$  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	g Available Maximum Daily Capacity of System Segment Tie-in		

**XI. Map.**  $\Box$  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  $\Box$  will  $\Box$  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  $\Box$  does  $\Box$  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:**  $\Box$  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.

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

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

 $\overline{X}$  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

 $\Box$  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.**  $\Box$  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.**  $\Box$  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: Jatom Alalla
Printed Name: Fatma Abdallah
Title: Regulatory Manager
E-mail Address: fabdallah@silverbackexp.com
Date: 10/10/2022
Phone: 210-585-3316
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Approved By: Title:
Title:
Title: Approval Date:
Title: Approval Date:
Title: Approval Date:

#### **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 a Vapor Recovery Unit (VRU).

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 Vapor Recovery Unit (VRU) Site VRUs are sized to accommodate peak expected production volume. Flash volumes were estimated using the high volume case and process modeling software. Gas from the VRU outlet is combined with 1st stage separation gas and sent to sales.

### **Venting and Flaring**

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 or flaring will only occur during start up and shut down, 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:

a) Power generation on lease – Natural gas driven gen set to produce power required to run supply well pad electrical loads

c) Compression on lease – gas lift or gas compression as required

d) 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 Vapor Recovery Unit (VRU) Compressor. If the VRU requires planned or unplanned maintenance, vapors will automatically be routed to the facility flare.

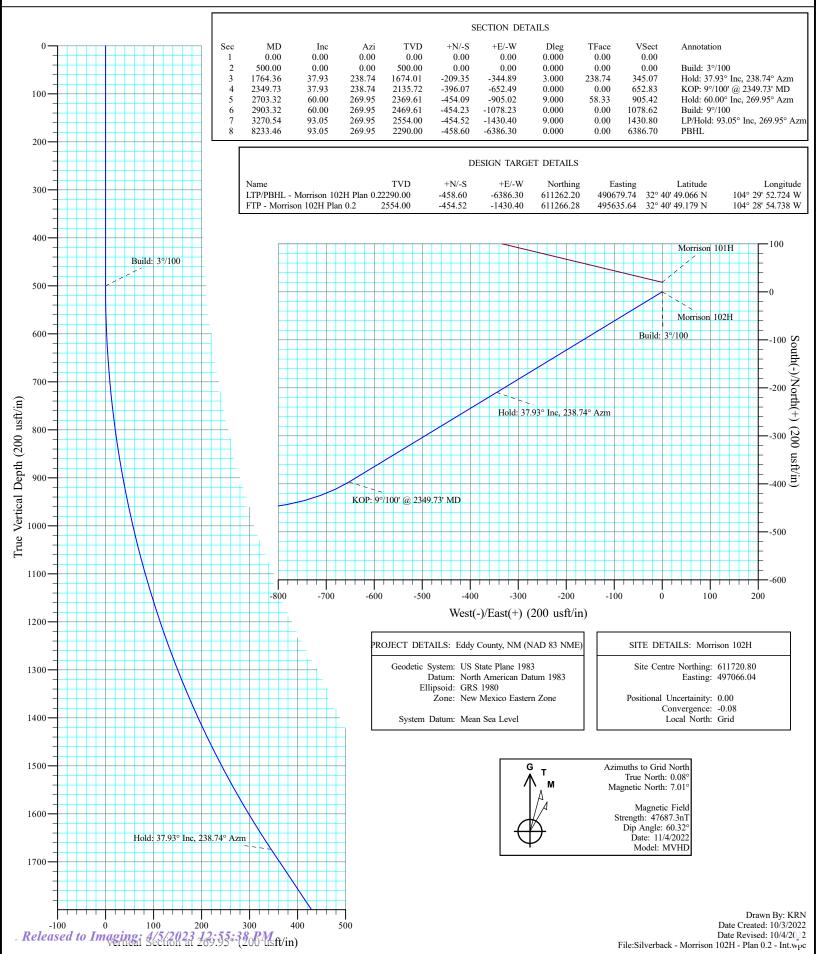
For maintenance activities, Silverback will utilize the facility flare to blowdown equipment and piping whenever practical to minimize venting

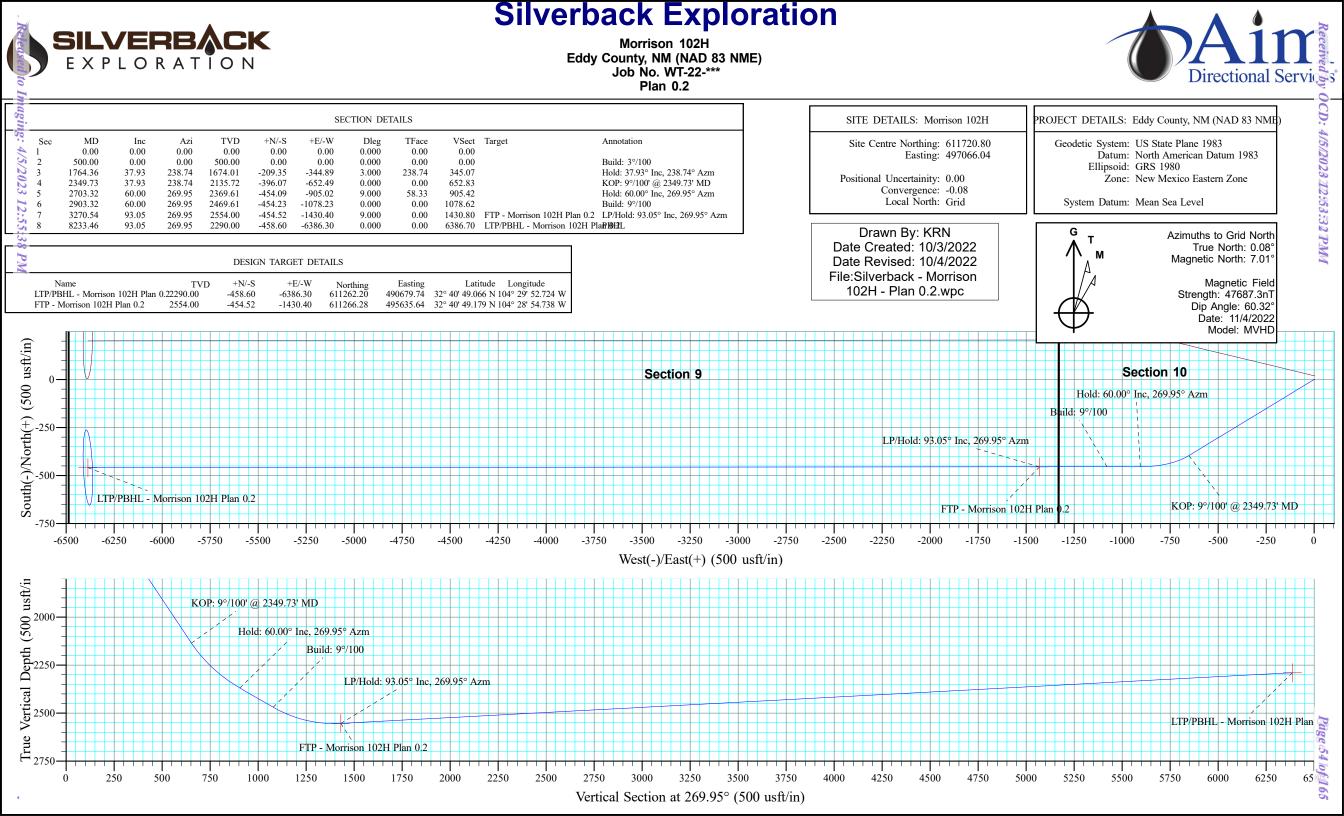
# Received by OCD: 4/5/2023 12:53:32 PM Silverback Exploration



#### Morrison 102H Eddy County, NM (NAD 83 NME) Job No. WT-22-\*\*\* Plan 0.2









# **Silverback Exploration**

Eddy County, NM (NAD 83 NME) Morrison 102H Morrison 102H

Planning

Plan: Plan 0.2

# **Standard Planning Report**

04 October, 2022



#### Received by OCD: 4/5/2028 22953 732 PMM



# **Aim Directional Services, LLC**

**Planning Report** 



Database: Company: Project: Site: Well: Wellbore: Design:	Silvert Eddy ( Morris Morris Planni	RTOC- EDM 5000.1 Single User Db Silverback ExplorationLocal Co-ordinate Reference: TVD Reference:Site Morrison 102H Well @ 3518.00usft (* Well @ 3518.00usft (* Well @ 3518.00usft (* Well @ 3518.00usft (* Well @ 3518.00usft (* Grid Morrison 102H Planning Plan 0.2Site Morrison 102H Morrison 102H Survey Calculation Method:Site Morrison 102H Well @ 3518.00usft (* Grid Minimum Curvature						00usft (16' RI 00usft (16' RI			
Project	Eddy C	ounty, NM (N	NAD 83 NME)								
Map System: Geo Datum: Map Zone:	North An	e Plane 1983 nerican Datu xico Eastern	m 1983		System Da	atum:	N	lean Sea Leve	I		
Site	Morriso	on 102H									
Site Position: From: Position Uncert	Map tainty:		North Eastii ) usft Slot F	-	-	720.80 usft 066.04 usft 13-3/16 "	Latitude: Longitude: Grid Conve			32° 40' 53.696 N 104° 28' 38.008 W -0.08 °	
Well	Morriso	n 102H									
Well Position Position Uncer	+N/-S +E/-W tainty	0.0	0 usft Ea	orthing: sting: ellhead Elev	vation:	611,720.80 497,066.04	usft Lo	atitude: ongitude: round Level:		32° 40' 53.696 N 104° 28' 38.008 W 3,502.00 usft	
Wellbore	Planni	ng									
Magnetics	Mod	lel Name	Sample	e Date	Declina (°)			Angle (°)		Field Strength (nT)	
		MVHD	1	1/4/2022		6.93		60.32		47,687.339	
Design	Plan 0.	2									
Audit Notes:											
Version:			Phas		PLAN		e On Depth:		0.00		
Vertical Section	n:	De	pth From (T (usft)	VD)	+N/-S (usft)		E/-W Isft)	Dir	ection (°)		
			0.00		0.00	0	.00	20	69.95		
Plan Survey To Depth Froi (usft)	•	То	10/4/2022 <b>y (Wellbore)</b>		Tool Name		Remarks	i			
1 0.0	00 8,233	3.46 Plan 0.	2 (Planning)		MWD+HRGM OWSG MWE						
Plan Sections											
Measured Depth In (usft)	clination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target	
0.00 500.00 1,764.36 2,349.73	0.00 0.00 37.93 37.93	0.00 0.00 238.74 238.74	0.00 500.00 1,674.01 2,135.72	0.00 0.00 -209.35 -396.07	0.00 0.00 -344.89 -652.49	0.000 0.000 3.000 0.000	0.000 3.000	0.000 0.000	0.00 0.00 238.74 0.00		
2,349.73 2,703.32 2,903.32 3,270.54	60.00 60.00 93.05	269.95 269.95 269.95	2,369.61 2,469.61 2,554.00	-454.09 -454.23 -454.52	-905.02 -1,078.23 -1,430.40	9.000 9.000 9.000 9.000	6.24 0.000	18.82700.000	58.33 0.00	FTP - Morrison 102	
8,233.46	93.05	269.95	2,290.00	-458.60	-6,386.30	0.000	0.000	0.000	0.00	LTP/PBHL - Morrisc	

10/4/2022 11:42:14AM

## Received by OCD: 4/5/2023 22953 32 PMM



# **Aim Directional Services, LLC**

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Morrison 102H
Company:	Silverback Exploration	TVD Reference:	Well @ 3518.00usft (16' RKB)
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	Well @ 3518.00usft (16' RKB)
Site:	Morrison 102H	North Reference:	Grid
Well:	Morrison 102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning	-	
Design:	Plan 0.2		

#### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.000	0.000	0.000
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.000	0.000	0.000
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.000	0.000	0.000
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.000	0.000	0.000
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.000	0.000	0.000
Build: 3°/1									
600.00	3.00	238.74	599.95	-1.36	-2.24	2.24	3.000	3.000	0.000
700.00	6.00	238.74	699.63	-5.43	-8.94	8.95	3.000	3.000	0.000
800.00 900.00	9.00	238.74 238.74	798.77 897.08	-12.20 -21.66	-20.10 -35.68	20.11 35.70	3.000 3.000	3.000 3.000	0.000 0.000
	12.00								
1,000.00	15.00	238.74	994.31	-33.77	-55.63	55.66	3.000	3.000	0.000
1,100.00	18.00	238.74	1,090.18	-48.50	-79.91	79.95	3.000	3.000	0.000
1,200.00	21.00	238.74	1,184.43	-65.82	-108.44	108.50	3.000	3.000	0.000
1,300.00	24.00	238.74	1,276.81	-85.68	-141.15	141.22	3.000	3.000	0.000
1,400.00	27.00	238.74	1,367.06	-108.02	-177.94	178.04	3.000	3.000	0.000
1,500.00	30.00	238.74	1,454.93	-132.77	-218.73	218.85	3.000	3.000	0.000
1,600.00	33.00	238.74	1,540.18	-159.88	-263.39	263.53	3.000	3.000	0.000
1,700.00	36.00 37.93	238.74	1,622.59	-189.27	-311.80	311.97	3.000	3.000	0.000
1,764.36	3° Inc, 238.74°	238.74	1,674.01	-209.35	-344.89	345.07	3.000	3.000	0.000
1,800.00	37.93	238.74	1,702.12	-220.72	-363.61	363.81	0.000	0.000	0.000
1,900.00	37.93	238.74	1.780.99	-252.62	-416.16	416.38	0.000	0.000	0.000
2.000.00	37.93	238.74	1,859.87	-284.51	-468.71	468.96	0.000	0.000	0.000
2.100.00	37.93	238.74	1,938.74	-316.41	-521.26	521.53	0.000	0.000	0.000
2,200.00	37.93	238.74	2,017.62	-348.31	-573.80	574.11	0.000	0.000	0.000
2,300.00	37.93	238.74	2,096.49	-380.21	-626.35	626.68	0.000	0.000	0.000
2,349.73	37.93	238.74	2,135.72	-396.07	-652.49	652.83	0.000	0.000	0.000
KOP: 9°/10	00' @ 2349.73'	MD							
2,400.00	40.46	244.68	2,174.69	-411.07	-680.45	680.81	9.000	5.035	11.812
2,450.00	43.25	249.98	2,211.94	-423.88	-711.22	711.59	9.000	5.577	10.593
2,500.00	46.26	254.73	2,247.45	-434.51	-744.76	745.14	9.000	6.016	9.513
2,550.00	49.44	259.02	2,281.01	-442.89	-780.85	781.24	9.000	6.372	8.577
2,600.00	52.77	262.91	2,312.40	-448.96	-819.27	819.66	9.000	6.660	7.781
2,650.00	56.22	266.47	2,341.44	-452.70	-859.79	860.18	9.000	6.893	7.111
2,703.32	60.00	269.95	2,369.61	-454.09	-905.02	905.42	9.000	7.086	6.537
	0° Inc, 269.95°		0.417.05	454.40	000 75	000 44		0.000	
2,800.00	60.00	269.95	2,417.95	-454.16	-988.75	989.14	0.000	0.000	0.000
2,903.32 Build: 9°/1	60.00	269.95	2,469.61	-454.23	-1,078.23	1,078.62	0.000	0.000	0.000
2,950.00	64.20	269.95	2,491.45	-454.26	-1,119.47	1,119.86	9.000	9.000	0.000
3,000.00	68.70	269.95	2,511.42	-454.30	-1,165.29	1,165.69	9.000	9.000	0.000
3,050.00 3,100.00	73.20	269.95	2,527.73	-454.34 -454.38	-1,212.54	1,212.94	9.000	9.000	0.000
3,100.00 3,150.00	77.70 82.20	269.95 269.95	2,540.29 2,549.01	-454.38 -454.42	-1,260.93 -1,310.15	1,261.32 1,310.54	9.000 9.000	9.000 9.000	0.000 0.000
3,200.00	86.70	269.95	2,553.85	-454.46	-1,359.90	1,360.30	9.000	9.000	0.000
3,250.00	91.20	269.95	2,554.76	-454.50	-1,409.88	1,410.27	9.000	9.000	0.000
3,270.54	93.05 3.05° Inc. 269.	269.95 95° Azm	2,554.00	-454.52	-1,430.40	1,430.80	9.000	9.000	0.000
3.300.00	93.05 mc, 269.	269.95	2,552.43	-454.54	-1,459.82	1,460.22	0.000	0.000	0.000
3,400.00	93.05	269.95	2,547.11	-454.63	-1,559.68	1,560.08	0.000	0.000	0.000
3,500.00	93.05	269.95	2,541.79	-454.71	-1,659.54	1,659.93	0.000	0.000	0.000
3,600.00	93.05	269.95	2,536.47	-454.79	-1,759.40	1,759.79	0.000	0.000	0.000

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Page 3

COMPASS 5000.15 Build 93A

## Received by OCD: 4/5/2023 22953 32 PMM



# **Aim Directional Services, LLC**

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Morrison 102H
Company:	Silverback Exploration	TVD Reference:	Well @ 3518.00usft (16' RKB)
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	Well @ 3518.00usft (16' RKB)
Site:	Morrison 102H	North Reference:	Grid
Well:	Morrison 102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning	-	
Design:	Plan 0.2		

#### Planned Survey

3,700.00 3,800.00 3,900.00 4,000.00 4,100.00 4,200.00 4,200.00 4,300.00 4,400.00 4,500.00 4,600.00 4,600.00 4,700.00 5,000.00 5,000.00 5,200.00 5,300.00 5,600.00 5,600.00 5,600.00 5,600.00 6,000.00 6,000.00 6,200.00 6,300.00 6,500.00 6,500.00 6,500.00 6,700.00 6,700.00 7,000.00 7,000.00 7,000.00 7,000.00 7,000.00 7,300.00 7,400.00	93.05 93.05 93.05 93.05 93.05 93.05 93.05 93.05 93.05 93.05 93.05 93.05 93.05 93.05 93.05 93.05 93.05 93.05 93.05 93.05	93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95         93.05       269.95	2,531.15 2,525.84 2,520.52 2,515.20 2,509.88 2,504.56 2,499.24 2,493.92 2,488.60 2,483.28 2,477.96 2,472.64 2,467.32	-454.87 -454.96 -455.04 -455.20 -455.28 -455.28 -455.37 -455.45 -455.53 -455.61 -455.70 -455.78	-1,859.26 -1,959.11 -2,058.97 -2,158.83 -2,258.69 -2,358.55 -2,458.41 -2,558.26 -2,658.12 -2,658.12 -2,757.98	1,859.65 1,959.51 2,059.37 2,159.23 2,259.09 2,358.94 2,458.80 2,558.66 2,658.52	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	$\begin{array}{c} 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.$	0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000
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4,600.00 4,700.00 4,800.00 4,900.00 5,000.00 5,100.00 5,200.00 5,300.00 5,500.00 5,600.00 5,700.00 5,800.00 6,000.00 6,000.00 6,200.00 6,300.00 6,200.00 6,300.00 6,500.00 6,600.00 6,700.00 6,700.00 7,000.00 7,000.00 7,000.00 7,200.00 7,300.00 7,400.00	93.05 93.05 93.05 93.05 93.05 93.05 93.05 93.05	93.05     269.95       93.05     269.95       93.05     269.95       93.05     269.95       93.05     269.95       93.05     269.95       93.05     269.95       93.05     269.95	2,483.28 2,477.96 2,472.64 2,467.32	-455.61 -455.70 -455.78	-2,757.98		0 000	_ · · · ·	
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6,600.00 6,700.00 6,800.00 6,900.00 7,000.00 7,100.00 7,200.00 7,300.00 7,400.00	93.05 93.05 93.05 93.05 93.05 93.05	93.05269.9593.05269.9593.05269.95	2,408.81 2,403.49 2,398.17 2,392.85 2,387.53	-456.76 -456.85 -456.93 -457.01 -457.09	-4,156.00 -4,255.86 -4,355.72 -4,455.57 -4,555.43	4,156.40 4,256.25 4,356.11 4,455.97 4,555.83	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
7,100.00 7,200.00 7,300.00 7,400.00	93.05 93.05 93.05 93.05 93.05 93.05	93.05269.9593.05269.9593.05269.95	2,382.21 2,376.89 2,371.57 2,366.25 2,360.93	-457.17 -457.26 -457.34 -457.42 -457.50	-4,655.29 -4,755.15 -4,855.01 -4,954.87 -5,054.72	4,655.69 4,755.55 4,855.40 4,955.26 5,055.12	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
	93.05 93.05 93.05 93.05 93.05 93.05	93.05269.9593.05269.9593.05269.95	2,355.61 2,350.29 2,344.97 2,339.66 2,334.34	-457.59 -457.67 -457.75 -457.83 -457.91	-5,154.58 -5,254.44 -5,354.30 -5,454.16 -5,554.02	5,154.98 5,254.84 5,354.70 5,454.55 5,554.41	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
7,500.00 7,600.00 7,700.00 7,800.00 7,900.00	93.05 93.05 93.05 93.05	93.05269.9593.05269.9593.05269.95	2,329.02 2,323.70 2,318.38 2,313.06 2,307.74	-458.00 -458.08 -458.16 -458.24 -458.33	-5,653.87 -5,753.73 -5,853.59 -5,953.45 -6,053.31	5,654.27 5,754.13 5,853.99 5,953.85 6,053.71	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
8,000.00 8,100.00 8,200.00 8,233.46 <b>PBHL</b>	93.05	93.05269.9593.05269.9593.05269.9593.05269.9593.05269.95	2,302.42 2,297.10 2,291.78 2,290.00	-458.41 -458.49 -458.57 -458.60	-6,153.17 -6,253.02 -6,352.88 -6,386.30	6,153.56 6,253.42 6,353.28 6,386.70	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000

10/4/2022 11:42:14AM

## Received by OCD: 4/5/2023 22953 32 PMM



# **Aim Directional Services, LLC**

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Morrison 102H
Company:	Silverback Exploration	TVD Reference:	Well @ 3518.00usft (16' RKB)
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	Well @ 3518.00usft (16' RKB)
Site:	Morrison 102H	North Reference:	Grid
Well:	Morrison 102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Plan 0.2		
Design Targets			
Design Targets			

#### Target Name

- hit/miss target I - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP/PBHL - Morrison - plan hits target ce - Point	0.00 nter	360.00	2,290.00	-458.60	-6,386.30	611,262.20	490,679.74	32° 40' 49.066 N	104° 29' 52.724 W
FTP - Morrison 102H - plan hits target ce	0.00 nter	0.00	2,554.00	-454.52	-1,430.40	611,266.28	495,635.64	32° 40' 49.179 N	104° 28' 54.738 W

- Point

#### **Plan Annotations**

Measured	Vertical	Local Coor	dinates	
Depth (usft)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
500.00	500.00	0.00	0.00	Build: 3°/100
1,764.36	1,674.01	-209.35	-344.89	Hold: 37.93° Inc, 238.74° Azm
2,349.73	2,135.72	-396.07	-652.49	KOP: 9°/100' @ 2349.73' MD
2,703.32	2,369.61	-454.09	-905.02	Hold: 60.00° Inc, 269.95° Azm
2,903.32	2,469.61	-454.23	-1,078.23	Build: 9°/100
3,270.54	2,554.00	-454.52	-1,430.40	LP/Hold: 93.05° Inc, 269.95° Azm
8,233.46	2,290.00	-458.60	-6,386.30	PBHL

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 326895

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

	me and Address erback Operating I						2.	330968			
	0 West, Suite 201	, 220					3.	API Number			
	Antonio, TX 7825	7						30-015-500	)72		
4. Property Cod	le	5.	Property Name				6.	Well No.			
333	446		MORRISON	N				103H			
				7. Su	rface Location						
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County		
E	10	19S	256	E	2418	N	729	W	Eddy		
				8. Proposed	Bottom Hole Locatio	on					
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County		
E	9	19S	25E	E	1660	N	100	W	Eddy		
				9. Po	ol Information						
PENASCO DE	RAW;SA-YESO (AS	SSOC)						5027	0		
				Additiona	al Well Information						
11. Work Type		12. Well Type	)	13. Cable/Rotary	14. Lease	Туре	15. Ground	Level Elevation			
New	v Well	OI	L			Private	3	3498			
16. Multiple 17. Proposed Depth			18. Formation	19. Contra	actor	20. Spud D					
N		82	65	Yeso		11/30/2022					
Depth to Groun	d water			Distance from neare	st fresh water well		Distance to	nearest surface water			
	using a closed-loo		•		sing and Cement Pro						
Туре	Hole Size	Casing Si		Casing Weight/ft	Setting Do		Sacks of Cem 275	ent	Estimated TOC		
Surf Prod	12.25 8.75	9.625		36 32	2933	1250			0		
Prod	8.75	5.5		20	8265				1961		
1100	0.10	0.0					1444		1001		
				Casing/Cement Pro	gram: Additional Co	omments					
	Tune		1	22. Proposed Blo Working Pressure	wout Prevention Prevention			M	anufa atura r		
	Type Double Ram		V	5000		Test Pressure 5000		Manufacturer SHAFFER			
	Double Raili			3000		5000		5	HAFFEN		
knowledge an I further certi ⊠, if applicat	nd belief. ify I have complied	Ū.		plete to the best of m /or 19.15.14.9 (B) NN			OIL CONSERVATIO	ON DIVISION			
Signature:											
Printed Name:		ly filed by Matthe	w Alley		Approved By:	Katherine F					
Title:	Chief Finan	-			Title:	Geoscienti		1			
Email Address:	ail Address: malley@silverbackexp.com					Approved Date: 10/18/2022 Expiration Date: 10/18/2024					

Conditions of Approval Attached

10/13/2022

Date:

Phone: 303-513-0990

# 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

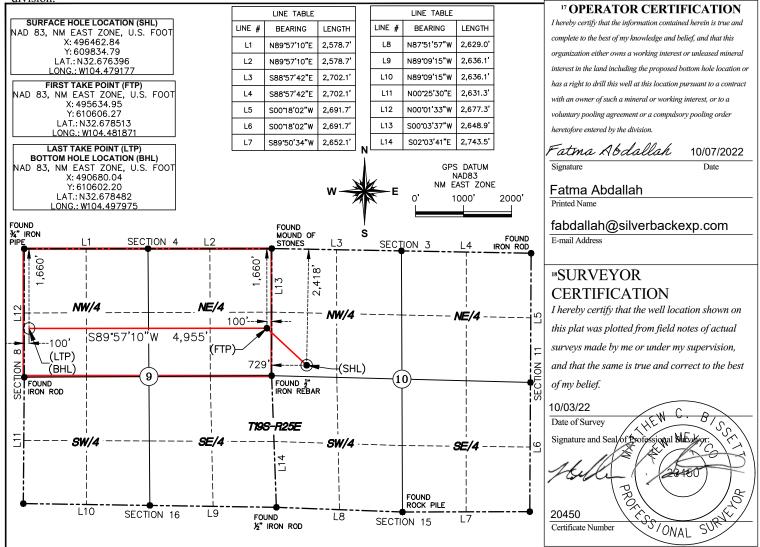
AMENDED REPORT

Page 61 0f 165

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> A 30-01	PI Number	)72		<sup>2</sup> Pool Coo 50270						
<sup>4</sup> Property C 333446	ode				<sup>5</sup> Property I MORRIS		<sup>6</sup> Well Number 103H			
<sup>7</sup> OGRID N 330968	0.		<sup>8</sup> Operator Name <sup>9</sup> Elevation           SILVERBACK OPERATING II, LLC         3,498'							
	<sup>10</sup> Surface Location									
UL or lot no.		Township		Lot Idı						
E	10	19-S	25-E		2,418'	NORTH	729'	WEST	EDDY	
			<sup>11</sup> Bo	ottom Ho	ole Location If	Different Fron	n Surface			
UL or lot no.	Section	Township		Lot Idı		North/South line NORTH	Feet from the 100'			
E	9	19-S	25-E		1,660'	WEST	EDDY			
<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint of	r Infill	<sup>14</sup> Consolidation	Code <sup>15</sup> C	order 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 division.



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 F Phone:(505) 334-6 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**

PERMIT CONDITIONS OF APPROVAL

Rd., Aztec, NM 87410 -6178 Fax:(505) 334-6170	1220 S. St Francis Dr.	
is Dr., Santa Fe, NM 87505	Santa Fe, NM 87505	

•	ame and Address:	API Number:
	Silverback Operating II, LLC [330968]	30-015-50072
	IH10 West, Suite 201	Well:
	San Antonio, TX 78257	MORRISON #103H
OCD	Condition	
Reviewer		
kpickford	Will require administrative order for non-standard spacing unit	
kpickford	Notify OCD 24 hours prior to casing & cement	
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud	
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator	r shall drill without interruption through the fresh
	water zone or zones and shall immediately set in cement the water protection string	
knickford	Coment is required to circulate on both surface and intermediate1 strings of casing	

kpickford Cement is required to circulate on both surface and intermediate1 strings of casing

kpickford 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

Form APD Conditions

Permit 326895

Received by OCD: 4/5/2023 12953:32 PMM

		Sta Energy, Minerals	ite of New Mez and Natural Res		ent	Subi Via	nit Electronically E-permitting	
			onservation Di South St. Fran					
		Sa	nta Fe, NM 87	505				
	]	NATURAL G	AS MANA	GEMENT P	LAN			
This Natural Gas Ma	nagement Plan	must be submitted w	with each Applica	tion for Permit to I	Drill (A	PD) for a new o	r recompleted well	
			<u>1 – Plan D</u> Effective May 25.					
I. Operator:	back Operating	II, LLC	OGRID:	330968		Date:10 /	10 / 2022	
II. Type: 🗵 Origina	1 🗆 Amendme	nt due to 🗆 19.15.27	7.9.D(6)(a) NMA	C 🗆 19.15.27.9.D(	(6)(b) N	MAC 🗆 Other.		
If Other, please descr	ribe:							
III. Well(s): Provide be recompleted from Well Name				ooint.	Anti	cipated	Anticipated	
				Oil BBL/D	Gas	MCF/D P	Produced Water BBL/D	
MORRISON 103H	30-015	E-10-19S-25E	2,418' N 729' W	515	800	)	3,000	
MORRISON 104H	30-015	E-10-19S-25E	2,438' N 729' W	515	80	0	3,000	
IV. Central Delivery V. Anticipated Sche proposed to be recom	<b>dule:</b> Provide t	he following inform			vell or s		7.9(D)(1) NMAC	
Well Name	API	Spud Date	TD Reached Date	Completion Commencement			First Production Date	
MORRISON 103H	30-015	2/22/23	3/1/23	4/1/23		4/27/23	4/27/23	
MORRISON 104H	30-015	3/3/23	3/11/23	4/1/23		4/27/23	4/27/23	
VI. Separation Equi VII. Operational Pr Subsection A through	ractices: 🛛 Att	ach a complete desc		-				
VIII. Best Managen during active and pla			ete description of	f Operator's best n	nanager	ment practices to	o minimize ventir	

# 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.

 $\overline{x}$  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.**  $\Box$  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  $\Box$  will  $\Box$  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  $\Box$  does  $\Box$  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:**  $\Box$  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.

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

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

 $\overline{X}$  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

 $\Box$  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.**  $\Box$  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.**  $\Box$  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: Jatom Alalla								
Printed Name: Fatma Abdallah								
Title: Regulatory Manager								
E-mail Address: fabdallah@silverbackexp.com								
Date: 10/10/2022								
Phone: 210-585-3316								
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)								
Approved By:								
Approved by:								
Title:								
Title:								
Title: Approval Date:								
Title: Approval Date:								
Title: Approval Date:								

#### **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 a Vapor Recovery Unit (VRU).

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 Vapor Recovery Unit (VRU) Site VRUs are sized to accommodate peak expected production volume. Flash volumes were estimated using the high volume case and process modeling software. Gas from the VRU outlet is combined with 1st stage separation gas and sent to sales.

### **Venting and Flaring**

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 or flaring will only occur during start up and shut down, 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:

a) Power generation on lease – Natural gas driven gen set to produce power required to run supply well pad electrical loads

c) Compression on lease - gas lift or gas compression as required

d) 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 Vapor Recovery Unit (VRU) Compressor. If the VRU requires planned or unplanned maintenance, vapors will automatically be routed to the facility flare.

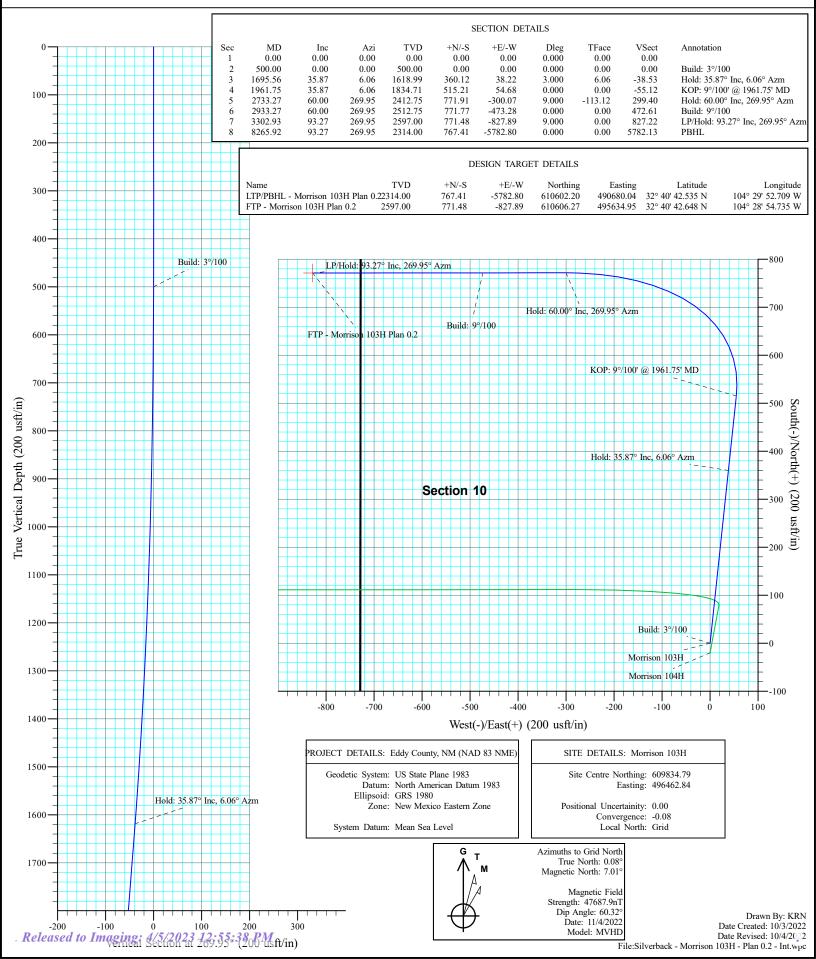
For maintenance activities, Silverback will utilize the facility flare to blowdown equipment and piping whenever practical to minimize venting

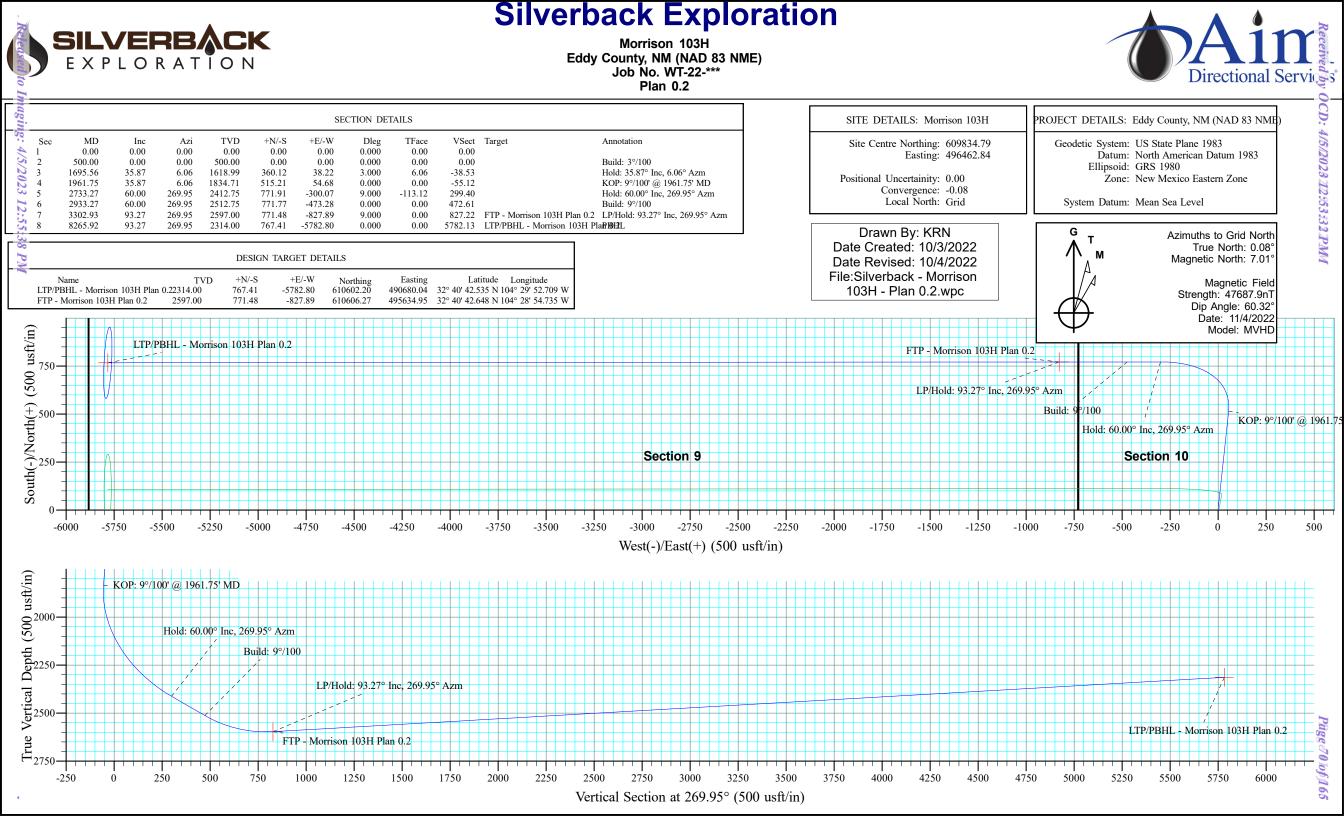
# Received by OCD: 4/5/2023 12:53:32 PM Silverback Exploration



#### Morrison 103H Eddy County, NM (NAD 83 NME) Job No. WT-22-\*\*\* Plan 0.2









# **Silverback Exploration**

Eddy County, NM (NAD 83 NME) Morrison 103H Morrison 103H

Planning

Plan: Plan 0.2

# **Standard Planning Report**

04 October, 2022



#### Received by OCD: 4/5/2028/12953132/PMM

EXPLORATION



**Planning Report** 



Database: Company: Project: Site: Well: Well: Design:		RTOC- EDM 5000.1 Single User Db Silverback Exploration Eddy County, NM (NAD 83 NME) Morrison 103H Morrison 103H Planning Plan 0.2				TVD Refe MD Refe North Re	rence:		Site Morrison 103H Well @ 3514.00usft (16' RKB) Well @ 3514.00usft (16' RKB) Grid Minimum Curvature			
Project		Eddy C	ounty, NM (	NAD 83 NME	)							
Map System: Geo Datum: Map Zone:	1	North An	e Plane 1983 nerican Datu xico Eastern	im 1983		System D	atum:	Ν	<i>l</i> lean Sea Leve			
Site		Morrisc	on 103H									
Site Position From: Position Unc		Map : <b>y:</b>		North Eastin Ousft Slot F	•	,	334.79 usft 462.84 usft 13-3/16 "	Latitude: Longitude Grid Conv			32° 40' 35.025 N 104° 28' 45.036 W -0.08 °	
Well		Morriso	n 103H									
Well Position	ı	+N/-S	0.0	00 usft No	orthing:		609,834.79	usft La	atitude:		32° 40' 35.025 N	
		+E/-W			sting:		496,462.84	_	ongitude:		104° 28' 45.036 W	
Position Unc	ertaint	y	0.0	00 usft W	ellhead Ele	vation:		G	round Level:		3,498.00 usf	
Wellbore		Plannii	ng									
Magnetics		Mod	lel Name	Sample	e Date	Declina (°)	ition		Angle (°)	Field S (n	trength T)	
			MVHD	1	11/4/2022		6.94		60.32		47,687.941	
Design		Plan 0.	2									
Audit Notes:												
Version:				Phas	e:	PLAN	Ti	e On Depth		0.00		
Vertical Section	ion:		D	epth From (T (usft)	VD)	+N/-S (usft)	-	E/-W Isft)	Dir	ection (°)		
				0.00		0.00		.00	20	69.95		
Plan Survey		-		10/4/2022								
Depth Fi (usft)		Depth (usf		y (Wellbore)		Tool Name		Remarks	;			
1 (	0.00	8,265		.2 (Planning)		MWD+HRG	M					
						OWSG MWE	) + HRGM					
Plan Sections	s											
Measured Depth (usft)	Inclin (°		Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target	
0.00		0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.000	0.00		
500.00		0.00	0.00	500.00	0.00	0.00	0.000			0.00		
1,695.56		35.87	6.06	1,618.99	360.12	38.22	3.000			6.06		
1,961.75		35.87	6.06	1,834.71	515.21	54.68	0.000			0.00		
2,733.27		60.00	269.95	2,412.75	771.91	-300.07	9.000			-113.12		
2,933.27 3,302.93		60.00 93.27	269.95 269.95	2,512.75 2,597.00	771.77 771.48	-473.28 -827.89	0.000 9.000			0.00	TP - Morrison 103	
3,302.93 8,265.92		93.27 93.27	269.95	2,397.00	767.41	-027.09 -5,782.80	9.000 0.000				TP - Morrison 103	
0,200.02		50.21	200.00	2,017.00	101.41	0,102.00	0.000	0.000		0.00 1		

10/4/2022 12:30:51PM

## Received by OCD: 4/5/2023 22953 132 PMM



## **Aim Directional Services, LLC**

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Morrison 103H
Company:	Silverback Exploration	TVD Reference:	Well @ 3514.00usft (16' RKB)
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	Well @ 3514.00usft (16' RKB)
Site:	Morrison 103H	North Reference:	Grid
Well:	Morrison 103H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Plan 0.2		

#### **Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.000	0.000	0.000
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.000	0.000	0.000
300.00 400.00	0.00 0.00	0.00 0.00	300.00 400.00	0.00 0.00	0.00 0.00	0.00 0.00	0.000 0.000	0.000 0.000	0.000 0.000
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.000	0.000	0.000
Build: 3°/1		0.00	500.05	0.00	0.00	0.00	0.000	0.000	0.000
600.00 700.00	3.00 6.00	6.06 6.06	599.95 699.63	2.60 10.40	0.28 1.10	-0.28 -1.11	3.000 3.000	3.000 3.000	0.000 0.000
800.00	9.00	6.06	798.77	23.38	2.48	-2.50	3.000	3.000	0.000
900.00	12.00	6.06	897.08	41.50	4.40	-4.44	3.000	3.000	0.000
1,000.00	15.00	6.06	994.31	64.71	6.87	-6.92	3.000	3.000	0.000
1,100.00	18.00	6.06	1,090.18	92.95	9.86	-9.95	3.000	3.000	0.000
1,200.00	21.00	6.06	1,184.43	126.14	13.39	-13.50	3.000	3.000	0.000
1,300.00	24.00	6.06	1,276.81	164.19	17.42	-17.57	3.000	3.000	0.000
1,400.00	27.00	6.06	1,367.06	207.00	21.97	-22.15	3.000	3.000	0.000
1,500.00	30.00	6.06	1,454.93	254.44	27.00	-27.22	3.000	3.000	0.000
1,600.00	33.00	6.06	1,540.18	306.40	32.52	-32.78	3.000	3.000	0.000
1,695.56	35.87	6.06	1,618.99	360.12	38.22	-38.53	3.000	3.000	0.000
Hold: 35.87 1,700.00	7° Inc, 6.06° Az 35.87		1,622.59	362.71	38.49	-38.81	0.000	0.000	0.000
1,700.00	35.87 35.87	6.06 6.06	1,622.59	362.71 420.97	38.49 44.67	-38.81 -45.04	0.000	0.000	0.000
1,900.00	35.87 35.87	6.06	1,784.67	479.24	50.86	-51.28	0.000	0.000 0.000	0.000
1,961.75	35.87 0' @ 1961.75'	6.06	1,834.71	515.21	54.68	-55.12	0.000	0.000	0.000
2,000.00	34.64	0.48	1,865.95	537.24	55.95	-56.42	9.000	-3.205	-14.576
2,050.00	33.45	352.73	1,907.40	565.13	54.32	-54.82	9.000	-2.387	-15.511
2,100.00	32.76	344.58	1,949.30	591.85	48.98	-49.50	9.000	-1.367	-16.297
2,150.00	32.62	336.25	1,991.40	617.24	39.95	-40.49	9.000	-0.283	-16.665
2,200.00	33.03	327.97	2,033.44	641.15	27.29	-27.84	9.000	0.816	-16.544
2,250.00	33.97	319.99	2,075.15	663.41	11.07	-11.65	9.000	1.875	-15.959
2,300.00	35.39	312.49	2,116.29	683.90	-8.60	8.00	9.000	2.848	-15.014
2,350.00	37.25	305.56	2,156.59	702.49	-31.60	30.98	9.000	3.709	-13.855
2,400.00	39.47	299.25	2,195.81	719.06	-57.78	57.16	9.000	4.446	-12.618
2,450.00	42.00	293.55	2,233.71	733.52	-87.00	86.36	9.000	5.064	-11.409
2,500.00 2,550.00	44.79 47.79	288.40 283.75	2,270.05 2,304.61	745.77 755.73	-119.06 -153.78	118.41 153.12	9.000 9.000	5.574 5.992	-10.291 -9.295
2,600.00	50.95	279.54	2,337.17	763.35	-190.93	190.26	9.000	6.333	-8.431
2,650.00	54.26	275.69	2,367.54	768.59	-230.29	229.62	9.000	6.610	-7.692
2,000.00	57.67	275.09	2,307.54	708.59	-230.29	229.02	9.000	6.835	-7.068
2,733.27	60.00	269.95	2,412.75	771.91	-300.07	299.40	9.000	6.990	-6.626
	)° Inc, 269.95°								
2,800.00	60.00	269.95	2,446.11	771.87	-357.86	357.19	0.000	0.000	0.000
2,900.00	60.00	269.95	2,496.11	771.79	-444.46	443.79	0.000	0.000	0.000
2,933.27	60.00	269.95	2,512.75	771.77	-473.28	472.61	0.000	0.000	0.000
Build: 9°/1									
2,950.00	61.51	269.95	2,520.92	771.76	-487.87	487.20	9.000	9.000	0.000
3,000.00 3,050.00	66.01 70.51	269.95 269.95	2,543.02 2.561.54	771.72 771.68	-532.71 -579.14	532.03 578.46	9.000 9.000	9.000 9.000	0.000 0.000
3,100.00	70.51 75.01	269.95	2,561.54 2,576.36	771.65	-579.14 -626.88	626.20	9.000	9.000	0.000
3,150.00 3,200.00	79.51 84.01	269.95 269.95	2,587.39 2,594.55	771.61 771.56	-675.63 -725.10	674.96 724.43	9.000 9.000	9.000 9.000	0.000 0.000
3,250.00	88.51	269.95	2,594.55	771.50	-774.98	724.43	9.000	9.000	0.000

10/4/2022 12:30:51PM

COMPASS 5000.15 Build 93A

## Received by OCD: 4/5/2023 22953 132 PMM



## **Aim Directional Services, LLC**

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Morrison 103H
Company:	Silverback Exploration	TVD Reference:	Well @ 3514.00usft (16' RKB)
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	Well @ 3514.00usft (16' RKB)
Site:	Morrison 103H	North Reference:	Grid
Well:	Morrison 103H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning	-	
Design:	Plan 0.2		

#### Planned Survey

LP/Hold: 33.27' inc, 269.95' Azm 3,400.00 93.27 269.95 2,585.76 771.32 -1,024.64 1,023.97 0,000 0,000 0,000 3,500.00 93.27 269.95 2,569.06 771.34 -1,724.48 1,123.80 0,000 0,000 0,000 3,700.00 93.27 269.95 2,567.36 771.91 -1,524.32 1,223.64 0,000 0,000 0,000 3,300.00 93.27 269.95 2,567.25 770.99 1 -1,523.83 1,523.15 0,000 0,000 0,000 4,000.00 93.27 269.95 2,551.55 770.83 -1,623.66 1,623.66 1,622.99 0,000 0,000 0,000 4,000.00 93.27 269.95 2,554.55 770.83 -1,623.66 1,623.66 1,623.69 0,000 0,000 0,000 4,000.00 93.27 269.95 2,540.14 770.66 -1,623.68 1,623.69 1,602.99 0,000 0,000 0,000 4,000.00 93.27 269.95 2,540.14 770.66 -1,623.64 1,623.64 0,000 0,000 0,000 4,000.00 93.27 269.95 2,540.14 770.66 -1,623.64 1,823.44 1,822.67 0,000 0,000 0,000 4,600.00 93.27 269.95 2,543.14 770.56 -2,023.01 2,022.34 0,000 0,000 0,000 4,600.00 93.27 269.95 2,551.53 770.71 -2,212.28 1,922.50 0,000 0,000 0,000 4,600.00 93.27 269.95 2,551.33 770.53 -2,222.83 0,000 0,000 0,000 4,600.00 93.27 269.95 2,551.33 770.17 -2,422.36 2,221.29 0,000 0,000 0,000 4,600.00 93.27 269.95 2,503.37 770.17 -2,422.36 2,421.68 0,000 0,000 0,000 4,900.00 93.27 269.95 2,505.37 770.17 -2,422.36 2,421.68 0,000 0,000 0,000 5,000.00 93.27 269.95 2,444.83 770.91 -2,522.20 2,521.53 0,000 0,000 0,000 5,000.00 93.27 269.95 2,447.47 769.86 -3,221.17 2,821.04 0,000 0,000 0,000 5,000.00 93.27 269.95 2,447.83 770.91 -2,622.04 2,621.35 0,000 0,000 0,000 5,000.00 93.27 269.95 2,447.83 770.99 -2,222.33 2,221.55 0,000 0,000 0,000 5,000.00 93.27 269.95 2,447.84 770.97 -3,222.93 0,222.93 0,000 0,000 0,000 5,000.00 93.27 269.95 2,447.83 770.99 -2,222.33 0,000 0,000 0,000 5,000.00 93.27 269.95 2,447.84 769.97 -3,221.65 2,200.88 0,000 0,000 0,000 5,000.00 93.27 269.95 2,448.83 770.99 -2,222.33 0,000 0,000 0,000 5,000.00 93.27 269.95 2,448.83 770.99 -3,221.55 0,000 0,000 0,000 5,000.00 93.27 269.95 2,448.84 776.97 -3,221.55 0,000 0,000 0,000 5,000.00 93.27 269.95 2,448.44 769.76 -3,221.55 0,000 0,000 0,000 5,000.00 93.27 269.95 2,448.47 769.76 -3,221.55 1,20	Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3,302.93	93.27	269.95	2,597.00	771.48	-827.89	827.22	9.000	9.000	0.000
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	LP/Hold: 9	3.27° Inc, 269.	95° Azm							
3,600.00       93.27       269.95       2,580.06       771.15       -1,124.48       1,123.80       0.000       0.000       0.000         3,800.00       93.27       269.95       2,566.66       771.07       -1,324.15       1,323.48       0.000       0.000       0.000         3,000.00       93.27       269.95       2,557.25       770.91       -1,423.93       1,523.15       0.000       0.000       0.000         4,000.00       93.27       269.95       2,551.55       770.83       -1,623.86       1,622.99       0.000       0.000       0.000         4,200.00       93.27       269.95       2,543.45       770.68       -1,823.34       1,822.50       0.000       0.000       0.000         4,400.00       93.27       269.95       2,524.44       770.50       -2,023.01       2,022.34       0.000       0.000       0.000         4,600.00       93.27       269.95       2,513.44       770.33       -2,222.69       2,222.00       0.000       0.000       0.000         4,600.00       93.27       269.95       2,500.23       770.09       -2,622.01       2,611.53       0.000       0.000       0.000       0.000       0.000       0.000       0.000 <t< td=""><td>3,400.00</td><td>93.27</td><td>269.95</td><td>2,591.46</td><td>771.40</td><td>-924.80</td><td>924.13</td><td>0.000</td><td>0.000</td><td>0.000</td></t<>	3,400.00	93.27	269.95	2,591.46	771.40	-924.80	924.13	0.000	0.000	0.000
3,600.00       93.27       289.95       2,563.66       771.15       -1,124.48       1,123.64       0.000       0.000       0.000         3,800.00       93.27       289.95       2,566.86       771.16       -1,324.415       1,323.48       0.000       0.000       0.000         4,000.00       93.27       289.95       2,562.95       770.91       -1,523.83       1,523.15       0.000       0.000       0.000         4,000.00       93.27       289.95       2,551.55       770.83       -1,623.86       1,822.90       0.000       0.000       0.000         4,200.00       93.27       289.95       2,554.44       770.68       -1,823.81       1,822.50       0.000       0.000       0.000         4,400.00       93.27       289.95       2,528.74       770.50       -2,023.01       2,022.44       0.000       0.000       0.000         4,600.00       93.27       289.95       2,514.34       770.33       -2,222.01       2,022.40       0.000       0.000       0.000         4,600.00       93.27       289.95       2,516.35       770.09       -2,322.53       2,221.63       0.000       0.000       0.000       0.000       0.000       0.000       0.000       <	3 500 00	93 27	269 95	2 585 76	771 32	-1 024 64	1 023 97	0 000	0 000	0.000
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3,800.00       93.27       269.95       2,568.66       771.07       -1,324.15       1,323.34       0.000       0.000       0.000         4,000.00       93.27       269.95       2,557.25       770.91       -1,523.83       1,523.15       0.000       0.000       0.000         4,000.00       93.27       269.95       2,551.55       770.83       -1,623.66       1,622.99       0.000       0.000       0.000         4,200.00       93.27       269.95       2,544.85       770.56       -1,823.34       1,822.50       0.000       0.000       0.000         4,400.00       93.27       269.95       2,523.44       770.50       -2,023.01       2,022.34       0.000       0.000       0.000         4,600.00       93.27       269.95       2,513.44       770.33       -2,222.69       2,122.18       0.000       0.000       0.000         4,600.00       93.27       269.95       2,516.37       770.17       -2,422.69       2,222.00       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000       0.000										
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$ \begin{array}{c} 4,100.00 & 93.27 & 269.95 & 2,551.55 & 770.83 & -1,623.66 & 1,622.99 & 0.000 & 0.000 & 0.000 \\ 4,200.00 & 93.27 & 269.95 & 2,540.14 & 770.66 & -1,823.34 & 1,822.67 & 0.000 & 0.000 & 0.000 \\ 4,000.00 & 93.27 & 269.95 & 2,528.74 & 770.58 & -1,923.18 & 1,922.50 & 0.000 & 0.000 & 0.000 \\ 4,600.00 & 93.27 & 269.95 & 2,523.04 & 770.42 & -2,122.85 & 2,122.18 & 0.000 & 0.000 & 0.000 \\ 4,000.00 & 93.27 & 269.95 & 2,513.4 & 770.50 & -2,023.01 & 2,022.34 & 0.000 & 0.000 & 0.000 \\ 4,000.00 & 93.27 & 269.95 & 2,517.34 & 770.30 & -2,222.09 & 2,222.18 & 0.000 & 0.000 & 0.000 \\ 4,000.00 & 93.27 & 269.95 & 2,517.63 & 770.25 & -2,322.53 & 2,321.85 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,500.23 & 770.09 & -2,522.20 & 2,521.53 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,408.33 & 770.01 & -2,622.04 & 2,621.36 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,448.83 & 769.92 & -2,721.8 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,448.83 & 776.94 & -2,621.47 & 2,721.20 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,474.72 & 768.68 & -3,021.39 & 3.0021 & 10.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,477.4 & 769.76 & -3,921.55 & 2,920.84 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,477.4 & 769.51 & -3,221.93 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,474.72 & 768.68 & -3,021.39 & 3.0001 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,447.61 & 769.51 & -3,220.39 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,448.21 & 769.51 & -3,220.39 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,448.17 & 769.51 & -3,220.57 & 3,519.90 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,448.61 & 768.43 & -3,220.93 & 3.0000 & 0.000 & 0.000 \\ 6,000.00 & 93.27 & 269.95 & 2,448.17 & 769.57 & -3,519.90 & 0.000 & 0.000 & 0.000 \\ 6,000.00 & 93.27 & 269.95 & 2,446.17 & 768.36 & -4,319.92 & 3,919.25 & 0.000 & 0.000 & 0.000 \\ 6,000.00 & 93.27 & 269.95 & 2,461.67 & 64.31 & -3,19.92 & 0.000 & 0.000 & 0.000 \\ 6,000.00 & 93.27 & 269.95 & 2,361.87 & 76$	,									
$\begin{array}{c} 4,200.00 & 93.27 & 269.95 & 2,545.65 & 770.74 & -1,723.50 & 1,722.83 & 0.000 & 0.000 & 0.000 \\ 4,400.00 & 93.27 & 269.95 & 2,534.44 & 770.58 & -1,923.18 & 1,922.50 & 0.000 & 0.000 & 0.000 \\ 4,600.00 & 93.27 & 269.95 & 2,528.74 & 770.50 & -2,023.01 & 2,022.34 & 0.000 & 0.000 & 0.000 \\ 4,600.00 & 93.27 & 269.95 & 2,517.34 & 770.33 & -2,222.69 & 2,222.10 & 0.000 & 0.000 & 0.000 \\ 4,000.00 & 93.27 & 269.95 & 2,517.54 & 770.57 & -2,322.5 & 2,321.85 & 0.000 & 0.000 & 0.000 \\ 4,900.00 & 93.27 & 269.95 & 2,515.163 & 770.25 & -2,322.53 & 2,321.85 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,505.93 & 770.17 & -2,422.36 & 2,421.69 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,600.23 & 770.09 & -2,522.20 & 2,521.53 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,494.83 & 7760.92 & -2,721.87 & 2,721.20 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,488.83 & 769.92 & -2,721.87 & 2,721.20 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,447.42 & 769.76 & -2,921.55 & 2,920.88 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,461.21 & 769.164 & -3,221.05 & 3,0000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,466.17 & 769.16 & -3,212.23 & 3,120.55 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,466.17 & 769.51 & -3,221.06 & 3,220.39 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,448.91 & 769.51 & -3,221.06 & 3,200.33 & 0.000 & 0.000 & 0.000 \\ 5,000.00 & 93.27 & 269.95 & 2,448.91 & 769.57 & 3,519.90 & 0.000 & 0.000 & 0.000 \\ 6,000.00 & 93.27 & 269.95 & 2,448.91 & 769.13 & -3,220.08 & 3,819.41 & 0.000 & 0.000 & 0.000 \\ 6,000.00 & 93.27 & 269.95 & 2,448.91 & 769.17 & -3,220.73 & 5,719.57 & 0.000 & 0.000 & 0.000 \\ 6,000.00 & 93.27 & 269.95 & 2,448.91 & 769.57 & 3,519.90 & 0.000 & 0.000 & 0.000 \\ 6,000.00 & 93.27 & 269.95 & 2,447.47 & 768.86 & -4,019.09 & 0.000 & 0.000 & 0.000 \\ 6,000.00 & 93.27 & 269.95 & 2,448.91 & 769.27 & -3,520.73 & 5,719.57 & 0.000 & 0.000 & 0.000 \\ 6,000.00 & 93.27 & 269.95 & 2,431.80 & 768.59 & -4,418.14 & 4,181.78 & 0.000 & 0.000 & $										
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4,400.00       93.27       269.95       2,534.44       770.58       -1,923.18       1,922.50       0.000       0.000       0.000         4,500.00       93.27       269.95       2,523.04       770.42       -2,122.85       2,122.18       0.000       0.000       0.000         4,700.00       93.27       269.95       2,511.34       770.33       -2,222.69       2,222.02       0.000       0.000       0.000         4,800.00       93.27       269.95       2,511.63       770.07       -2,422.36       2,421.69       0.000       0.000       0.000         5,000.00       93.27       269.95       2,494.53       770.17       -2,422.36       2,421.69       0.000       0.000       0.000         5,000.00       93.27       269.95       2,448.13       776.94       -2,821.71       2,821.40       0.000       0.000       0.000         5,000.00       93.27       269.95       2,477.42       769.76       -2,921.55       2,920.88       0.000       0.000       0.000         5,000.00       93.27       269.95       2,476.61       769.41       -3,221.66       3,220.39       0.000       0.000       0.000       0.000       0.000       0.000       0.000 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>										
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$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	4,900.00	93.27	269.95	2,505.93	770.17	-2,422.36	2,421.69	0.000	0.000	0.000
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5,400.00 $93.27$ $269.95$ $2,477.42$ $769.76$ $-2,921.55$ $2,920.88$ $0.000$ $0.000$ $0.000$ $5,500.00$ $93.27$ $269.95$ $2,476.62$ $769.60$ $-3,121.22$ $3,120.55$ $0.000$ $0.000$ $0.000$ $5,700.00$ $93.27$ $269.95$ $2,466.02$ $769.60$ $-3,212.12$ $3,120.55$ $0.000$ $0.000$ $0.000$ $5,700.00$ $93.27$ $269.95$ $2,464.61$ $769.43$ $-3,221.06$ $3,220.39$ $0.000$ $0.000$ $0.000$ $5,900.00$ $93.27$ $269.95$ $2,444.91$ $769.35$ $-3,420.74$ $3,420.06$ $0.000$ $0.000$ $0.000$ $6,000.00$ $93.27$ $269.95$ $2,443.21$ $769.27$ $-3,520.57$ $3,519.90$ $0.000$ $0.000$ $0.000$ $6,100.00$ $93.27$ $269.95$ $2,437.51$ $769.10$ $-3,720.25$ $3,719.57$ $0.000$ $0.000$ $0.000$ $6,200.00$ $93.27$ $269.95$ $2,420.10$ $768.94$ $-3,919.92$ $0.000$ $0.000$ $0.000$ $6,400.00$ $93.27$ $269.95$ $2,420.10$ $768.86$ $-4,019.76$ $4,019.09$ $0.000$ $0.000$ $0.000$ $6,600.00$ $93.27$ $269.95$ $2,403.29$ $768.69$ $-4,219.43$ $4,218.76$ $0.000$ $0.000$ $6,600.00$ $93.27$ $269.95$ $2,307.59$ $768.61$ $-4,319.27$ $4,318.60$ $0.000$ $0.000$ $6,00.00$ $93.27$ $269.95$ $2,38$	5,200.00									0.000
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$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	5,400.00	93.27	269.95	2,477.42	769.76	-2,921.55	2,920.88	0.000	0.000	0.000
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	5.500.00	93.27	269.95	2.471.72	769.68	-3.021.39	3.020.71	0.000	0.000	0.000
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	5,600.00									0.000
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	5,700.00	93.27	269.95	2,460.31	769.51	-3,221.06		0.000	0.000	0.000
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	5,800.00		269.95		769.43	-3,320.90	3,320.23	0.000	0.000	0.000
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	5,900.00	93.27	269.95	2,448.91	769.35	-3,420.74	3,420.06	0.000	0.000	0.000
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	6.000.00	93.27	269.95	2.443.21	769.27	-3.520.57	3.519.90	0.000	0.000	0.000
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	6,100.00			2,437.51	769.19			0.000	0.000	0.000
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6,600.00       93.27       269.95       2,408.99       768.78       -4,119.60       4,118.92       0.000       0.000       0.000         6,700.00       93.27       269.95       2,403.29       768.69       -4,219.43       4,218.76       0.000       0.000       0.000       0.000         6,800.00       93.27       269.95       2,397.59       768.61       -4,319.27       4,318.60       0.000       0.000       0.000         6,900.00       93.27       269.95       2,391.89       768.53       -4,419.11       4,418.44       0.000       0.000       0.000         7,000.00       93.27       269.95       2,386.19       768.45       -4,518.95       4,518.27       0.000       0.000       0.000         7,100.00       93.27       269.95       2,380.48       768.37       -4,618.78       4,618.11       0.000       0.000       0.000         7,200.00       93.27       269.95       2,369.08       768.20       -4,818.46       4,817.78       0.000       0.000       0.000         7,400.00       93.27       269.95       2,363.38       768.12       -4,918.29       4,917.62       0.000       0.000       0.000         7,600.00       93.27       <	6,400.00						3,919.25		0.000	0.000
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6,800.00       93.27       269.95       2,397.59       768.61       -4,319.27       4,318.60       0.000       0.000       0.000         6,900.00       93.27       269.95       2,391.89       768.53       -4,419.11       4,418.44       0.000       0.000       0.000         7,000.00       93.27       269.95       2,386.19       768.45       -4,518.95       4,518.27       0.000       0.000       0.000         7,100.00       93.27       269.95       2,380.48       768.37       -4,618.78       4,618.11       0.000       0.000       0.000         7,200.00       93.27       269.95       2,374.78       768.28       -4,718.62       4,717.95       0.000       0.000       0.000         7,300.00       93.27       269.95       2,369.08       768.20       -4,818.46       4,817.78       0.000       0.000       0.000         7,400.00       93.27       269.95       2,357.67       768.04       -5,018.13       5,017.46       0.000       0.000       0.000         7,600.00       93.27       269.95       2,351.97       767.96       -5,117.97       5,117.30       0.000       0.000       0.000         7,600.00       93.27       269.95										0.000
6,900.0093.27269.952,391.89768.53-4,419.114,418.440.0000.0000.0007,000.0093.27269.952,386.19768.45-4,518.954,518.270.0000.0000.0007,100.0093.27269.952,380.48768.37-4,618.784,618.110.0000.0000.0007,200.0093.27269.952,374.78768.28-4,718.624,717.950.0000.0000.0007,300.0093.27269.952,369.08768.20-4,818.464,817.780.0000.0000.0007,400.0093.27269.952,363.38768.12-4,918.294,917.620.0000.0000.0007,500.0093.27269.952,357.67768.04-5,018.135,017.460.0000.0000.0007,600.0093.27269.952,351.97767.96-5,117.975,117.300.0000.0000.0007,700.0093.27269.952,346.27767.87-5,217.815,217.130.0000.0000.0007,800.0093.27269.952,340.57767.79-5,317.645,316.970.0000.0000.0007,900.0093.27269.952,334.87767.71-5,417.485,416.810.0000.0000.0008,000.0093.27269.952,329.16767.63-5,517.325,516.650.0000.0000.000										0.000
7,000.00       93.27       269.95       2,386.19       768.45       -4,518.95       4,518.27       0.000       0.000       0.000         7,100.00       93.27       269.95       2,380.48       768.37       -4,618.78       4,618.11       0.000       0.000       0.000         7,200.00       93.27       269.95       2,374.78       768.28       -4,718.62       4,717.95       0.000       0.000       0.000         7,300.00       93.27       269.95       2,369.08       768.20       -4,818.46       4,817.78       0.000       0.000       0.000         7,400.00       93.27       269.95       2,357.67       768.04       -5,018.13       5,017.46       0.000       0.000       0.000         7,600.00       93.27       269.95       2,351.97       767.96       -5,117.97       5,117.30       0.000       0.000       0.000         7,600.00       93.27       269.95       2,346.27       767.87       -5,217.81       5,217.13       0.000       0.000       0.000         7,800.00       93.27       269.95       2,340.57       767.79       -5,317.64       5,316.97       0.000       0.000       0.000         7,900.00       93.27       269.95										0.000
7,100.00       93.27       269.95       2,380.48       768.37       -4,618.78       4,618.11       0.000       0.000       0.000         7,200.00       93.27       269.95       2,374.78       768.28       -4,718.62       4,717.95       0.000       0.000       0.000       0.000         7,300.00       93.27       269.95       2,369.08       768.20       -4,818.46       4,817.78       0.000       0.000       0.000       0.000         7,400.00       93.27       269.95       2,363.38       768.12       -4,918.29       4,917.62       0.000       0.000       0.000         7,500.00       93.27       269.95       2,357.67       768.04       -5,018.13       5,017.46       0.000       0.000       0.000         7,600.00       93.27       269.95       2,351.97       767.96       -5,117.97       5,117.30       0.000       0.000       0.000         7,700.00       93.27       269.95       2,346.27       767.87       -5,217.81       5,217.13       0.000       0.000       0.000         7,800.00       93.27       269.95       2,340.57       767.79       -5,317.64       5,316.97       0.000       0.000       0.000         7,900.00       <	7 000 00	93 27	269 95	2 386 19	768 45	-4 518 95	4 518 27	0 000	0 000	0.000
7,200.00       93.27       269.95       2,374.78       768.28       -4,718.62       4,717.95       0.000       0.000       0.000         7,300.00       93.27       269.95       2,369.08       768.20       -4,818.46       4,817.78       0.000       0.000       0.000       0.000         7,400.00       93.27       269.95       2,363.38       768.12       -4,918.29       4,917.62       0.000       0.000       0.000         7,500.00       93.27       269.95       2,357.67       768.04       -5,018.13       5,017.46       0.000       0.000       0.000         7,600.00       93.27       269.95       2,351.97       767.96       -5,117.97       5,117.30       0.000       0.000       0.000         7,700.00       93.27       269.95       2,346.27       767.87       -5,217.81       5,217.13       0.000       0.000       0.000         7,800.00       93.27       269.95       2,340.57       767.79       -5,317.64       5,316.97       0.000       0.000       0.000         7,900.00       93.27       269.95       2,334.87       767.71       -5,417.48       5,416.81       0.000       0.000       0.000         8,000.00       93.27       <										0.000
7,300.00       93.27       269.95       2,369.08       768.20       -4,818.46       4,817.78       0.000       0.000       0.000         7,400.00       93.27       269.95       2,363.38       768.12       -4,918.29       4,917.62       0.000       0.000       0.000       0.000         7,500.00       93.27       269.95       2,357.67       768.04       -5,018.13       5,017.46       0.000       0.000       0.000       0.000         7,600.00       93.27       269.95       2,351.97       767.96       -5,117.97       5,117.30       0.000       0.000       0.000         7,700.00       93.27       269.95       2,346.27       767.87       -5,217.81       5,217.13       0.000       0.000       0.000         7,800.00       93.27       269.95       2,340.57       767.79       -5,317.64       5,316.97       0.000       0.000       0.000         7,900.00       93.27       269.95       2,334.87       767.71       -5,417.48       5,416.81       0.000       0.000       0.000         8,000.00       93.27       269.95       2,329.16       767.63       -5,517.32       5,516.65       0.000       0.000       0.000										0.000
7,400.00         93.27         269.95         2,363.38         768.12         -4,918.29         4,917.62         0.000         0.000         0.000           7,500.00         93.27         269.95         2,357.67         768.04         -5,018.13         5,017.46         0.000         0.000         0.000         0.000           7,600.00         93.27         269.95         2,351.97         767.96         -5,117.97         5,117.30         0.000         0.000         0.000           7,700.00         93.27         269.95         2,346.27         767.87         -5,217.81         5,217.13         0.000         0.000         0.000           7,800.00         93.27         269.95         2,340.57         767.79         -5,317.64         5,316.97         0.000         0.000         0.000           7,900.00         93.27         269.95         2,334.87         767.71         -5,417.48         5,416.81         0.000         0.000         0.000           8,000.00         93.27         269.95         2,329.16         767.63         -5,517.32         5,516.65         0.000         0.000         0.000										0.000
7,500.0093.27269.952,357.67768.04-5,018.135,017.460.0000.0000.0007,600.0093.27269.952,351.97767.96-5,117.975,117.300.0000.0000.0007,700.0093.27269.952,346.27767.87-5,217.815,217.130.0000.0000.0007,800.0093.27269.952,340.57767.79-5,317.645,316.970.0000.0000.0007,900.0093.27269.952,334.87767.71-5,417.485,416.810.0000.0000.0008,000.0093.27269.952,329.16767.63-5,517.325,516.650.0000.0000.000										0.000
7,600.00         93.27         269.95         2,351.97         767.96         -5,117.97         5,117.30         0.000         0.000         0.000           7,700.00         93.27         269.95         2,346.27         767.87         -5,217.81         5,217.13         0.000         0.000         0.000         0.000           7,800.00         93.27         269.95         2,340.57         767.79         -5,317.64         5,316.97         0.000         0.000         0.000           7,900.00         93.27         269.95         2,334.87         767.71         -5,417.48         5,416.81         0.000         0.000         0.000           8,000.00         93.27         269.95         2,329.16         767.63         -5,517.32         5,516.65         0.000         0.000         0.000	7 500 00	93 27	269 95		768 04	-5 018 13		0 000	0 000	0.000
7,700.00         93.27         269.95         2,346.27         767.87         -5,217.81         5,217.13         0.000         0.000         0.000           7,800.00         93.27         269.95         2,340.57         767.79         -5,317.64         5,316.97         0.000         0.000         0.000         0.000           7,900.00         93.27         269.95         2,334.87         767.71         -5,417.48         5,416.81         0.000         0.000         0.000           8,000.00         93.27         269.95         2,329.16         767.63         -5,517.32         5,516.65         0.000         0.000         0.000										0.000
7,800.00         93.27         269.95         2,340.57         767.79         -5,317.64         5,316.97         0.000         0.000         0.000           7,900.00         93.27         269.95         2,334.87         767.71         -5,417.48         5,416.81         0.000         0.000         0.000           8,000.00         93.27         269.95         2,329.16         767.63         -5,517.32         5,516.65         0.000         0.000         0.000										0.000
7,900.00         93.27         269.95         2,334.87         767.71         -5,417.48         5,416.81         0.000         0.000         0.000           8,000.00         93.27         269.95         2,329.16         767.63         -5,517.32         5,516.65         0.000         0.000         0.000										0.000
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8 TULTU 93.27 269.95 2.323.46 767.55 =5.617.15 5.616.48 0.000 0.000 0.000	8,100.00	93.27	269.95	2,323.10	767.55	-5,617.15	5,616.48	0.000	0.000	0.000
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10/4/2022 12:30:51PM

## Received by OCD: 4/5/2023 22953 132 PMM



## **Aim Directional Services, LLC**

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Morrison 103H
Company:	Silverback Exploration	TVD Reference:	Well @ 3514.00usft (16' RKB)
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	Well @ 3514.00usft (16' RKB)
Site:	Morrison 103H	North Reference:	Grid
Well:	Morrison 103H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Plan 0.2		

#### **Design Targets**

Target Name - hit/miss target I - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP/PBHL - Morrison - plan hits target ce - Point	0.00 nter	360.00	2,314.00	767.41	-5,782.80	610,602.20	490,680.04	32° 40' 42.535 N	104° 29' 52.709 W
FTP - Morrison 103H - plan hits target ce - Point	0.00 nter	0.00	2,597.00	771.48	-827.89	610,606.27	495,634.95	32° 40' 42.648 N	104° 28' 54.735 W

#### **Plan Annotations**

Measured	Vertical	Local Coor	dinates	
Depth (usft)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
500.00	500.00	0.00	0.00	Build: 3°/100
1,695.56	1,618.99	360.12	38.22	Hold: 35.87° Inc, 6.06° Azm
1,961.75	1,834.71	515.21	54.68	KOP: 9°/100' @ 1961.75' MD
2,733.27	2,412.75	771.91	-300.07	Hold: 60.00° Inc, 269.95° Azm
2,933.27	2,512.75	771.77	-473.28	Build: 9°/100
3,302.93	2,597.00	771.48	-827.89	LP/Hold: 93.27° Inc, 269.95° Azm
8,265.92	2,314.00	767.41	-5,782.80	PBHL

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

#### Page 76 bf 165

.

Form C-101 August 1, 2011 Permit 326896

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

				- ,	,	,	,	-	
	me and Address						2. 0	GRID Number	
	erback Operating	II, LLC						330968	
	West, Suite 201	7					3. A	PI Number	70
	Antonio, TX 7825							30-015-500	73
4. Property Cod		5.	Property Name				6. V	Vell No.	
333	446		MORRISON					104H	
				7. Su	rface Location				
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
E	10	19S	25E		2438	N	729	W	Eddy
				8. Proposed	Bottom Hole Locatio	on			
UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
E	9	19S	25E	E	2320	N	100	W	Eddy
				9. Po	ol Information				
PENASCO DE	RAW;SA-YESO (A	SSOC)						50270	)
				Additiona	al Well Information				
11. Work Type		12. Well Type	9	13. Cable/Rotary	14. Lease	Туре	15. Ground	evel Elevation	
	/ Well	Ö				Private	3	498	
16. Multiple		17. Proposed	Depth	18. Formation	19. Contra	actor	20. Spud Da	te	
N		81	05	Yeso			1	0/31/2022	
Depth to Groun	d water			Distance from neare	st fresh water well		Distance to r	earest surface water	
🛛 We will be u	ising a closed-loc	op system in lieu	of lined pits						
				21 Proposed Ca	sing and Cement Pro	ogram			
Туре	Hole Size	Casing S	ize C	asing Weight/ft	Setting D		Sacks of Ceme	nt	Estimated TOC
Surf	12.25	9.625		36	1250		275		0
Prod	8.75	7		32	2773		187		0
Prod	8.75	5.5		20	8105		1444		1895
			C	acing/Comont Bro	gram: Additional Co	mmonto			
			6	asing/cement Pro	gram. Additional Co				
				22. Proposed Blo	wout Prevention Prevention	ogram			
	Туре		Wo	rking Pressure		Test Press	sure	Ma	nufacturer
	Double Ram			5000		5000		Sł	HAFFER
23. I hereby c	ertify that the infor	mation given abo	ve is true and comple	ete to the best of m	у		OIL CONSERVATIO	N DIVISION	
knowledge ar									
		d with 19.15.14.9	(A) NMAC And/or	· 19.15.14.9 (B) NN	IAC				
⊠, if applicab	ole.								
Signature									
Signature:		11. CI. II. M. C.				K-11	D: - I-f I		
Printed Name:		Illy filed by Matthe	w Alley		Approved By:	Katherine			
Title:	-	ncial Officer			Title:	Geoscient			
Email Address:	malley@sil	verbackexp.com			Approved Date:	10/18/2022	2	Expiration Date: 10	/18/2024

Conditions of Approval Attached

10/17/2022

Date:

Phone: 303-513-0990

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

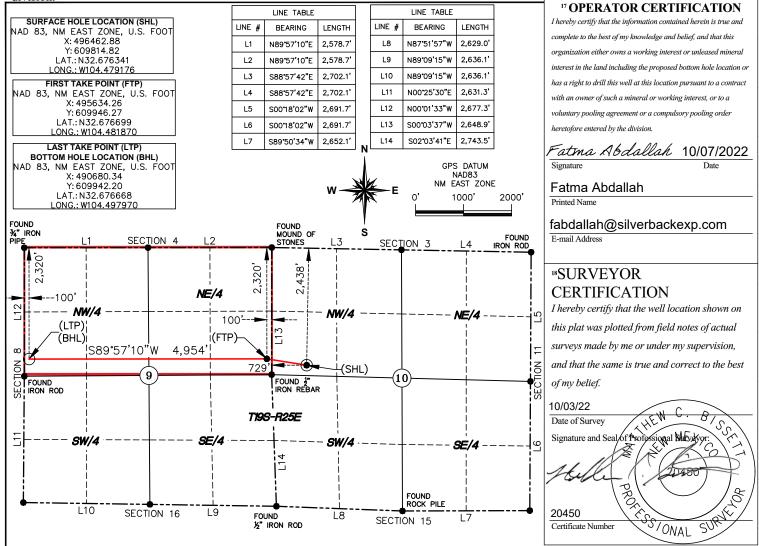
Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> A	PI Number	r		<sup>2</sup> Pool Cod	e		<sup>3</sup> Pool Na	me		
30-015	500	73		50270		F	PENASCO DRAV	V; SA-YES	O (ASSC	)C)
<sup>4</sup> Property C	ode				<sup>5</sup> Property N	Name			<sup>6</sup> V	Well Number
333446					MORRIS	ON				104H
<sup>7</sup> OGRID N	0.				<sup>8</sup> Operator I	Name			1	<sup>9</sup> Elevation
330968				SIL	VERBACK OPER	RATING II, LLC				3,498'
					<sup>10</sup> Surface I	Location		·		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East	/West line	County
E	10	19-S	25-E		2,438'	NORTH	729'	WES	т	EDDY
			<sup>11</sup> Bo	ottom Ho	le Location If	Different Fron	n Surface			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East	/West line	County
E	9	19-S	25-E		2,320'	NORTH	100'	WES	ST	EDDY
<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint o	r Infill	<sup>14</sup> Consolidation	Code <sup>15</sup> O	rder 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 division.



## 

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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

PERMIT CONDITIONS OF APPROVAL	
Operator Name and Address:	API Number:
Silverback Operating II, LLC [330968]	30-015-50073
IH10 West, Suite 201	Well:
San Antonio, TX 78257	MORRISON #104H

OCD	Condition
Reviewer	
kpickford	Will require administrative order for non-standard spacing unit
kpickford	Notify OCD 24 hours prior to casing & cement
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
	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
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing
	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

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Permit 326896

Received by OCD: 4/5/2023 12953:32 PMM

1220 Sa NATURAL ( Plan must be submitted <u>Sectio</u>		eis Dr. 505 GEMENT PI	LAN		
NATURAL ( Plan must be submitted <u>Sectio</u>	GAS MANA(	GEMENT PI	LAN		
Plan must be submitted Sectio			LAN		
<u>Sectio</u>	with each Applicat				
		ion for Permit to I	Drill (APD) f	or a new of	r recompleted well
	<u>n 1 – Plan De</u> Effective May 25,				
ating II, LLC	OGRID:	330968	D	ate: <u>10</u> /	10 / 2022
dment due to $\Box$ 19.15.2	27.9.D(6)(a) NMAG	C 🗆 19.15.27.9.D(	6)(b) NMAC	C□ Other.	
			vells propos	ed to be dri	lled or proposed t
PI ULSTR	Footages	Anticipated	Anticipat	-	
		Oil BBL/D	Gas MCF		Anticipated roduced Water BBL/D
E-10-19S-25E	2,418' N 729' W				roduced Water
E-10-19S-25E E-10-19S-25E	2,418' N 729' W 2,438' N 729' W	Oil BBL/D	Gas MCF		roduced Water BBL/D
	2,438' N 729' W	Oil BBL/D 515 515 7 or recompleted w	Gas MCF 800 800 [S	D P	roduced Water BBL/D 3,000 3,000 7.9(D)(1) NMAC
E-10-19S-25E <b>me:</b> MORRISON CDP ide the following inform	2,438' N 729' W	Oil BBL/D 515 515 7 or recompleted w	Gas MCF 800 800 [S rell or set of Ini	D P	roduced Water BBL/D 3,000 3,000 7.9(D)(1) NMAC osed to be drilled o
E-10-19S-25E me: MORRISON CDP ide the following inform n a single well pad or co	2,438' N 729' W nation for each new onnected to a centra TD Reached	Oil BBL/D 515 515 7 or recompleted w al delivery point. Completion	Gas MCF 800 800 [S ell or set of Date Ini Ba	D P See 19.15.2 wells propo	roduced Water BBL/D 3,000 3,000 7.9(D)(1) NMAC osed to be drilled of First Production
	ring information for eac ell pad or connected to a	Idment due to [] 19.15.27.9.D(6)(a) NMAC	Adment due to [] 19.15.27.9.D(6)(a) NMAC [] 19.15.27.9.D( ring information for each new or recompleted well or set of well pad or connected to a central delivery point.	Indment due to [] 19.15.27.9.D(6)(a) NMAC [] 19.15.27.9.D(6)(b) NMAC	Adment due to [] 19.15.27.9.D(6)(a) NMAC [] 19.15.27.9.D(6)(b) NMAC [] Other.

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## 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.

 $\overline{x}$  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.**  $\Box$  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  $\Box$  will  $\Box$  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  $\Box$  does  $\Box$  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:**  $\Box$  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.

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

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

 $\overline{X}$  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

 $\Box$  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.**  $\Box$  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.**  $\Box$  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: Jatom Alalla
Printed Name: Fatma Abdallah
Title: Regulatory Manager
E-mail Address: fabdallah@silverbackexp.com
Date: 10/10/2022
Phone: 210-585-3316
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Title: Approval Date:
Approval Date:
Approval Date:
Approval Date:

#### **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 a Vapor Recovery Unit (VRU).

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 Vapor Recovery Unit (VRU) Site VRUs are sized to accommodate peak expected production volume. Flash volumes were estimated using the high volume case and process modeling software. Gas from the VRU outlet is combined with 1st stage separation gas and sent to sales.

#### **Venting and Flaring**

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 or flaring will only occur during start up and shut down, 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:

a) Power generation on lease – Natural gas driven gen set to produce power required to run supply well pad electrical loads

c) Compression on lease - gas lift or gas compression as required

d) 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 Vapor Recovery Unit (VRU) Compressor. If the VRU requires planned or unplanned maintenance, vapors will automatically be routed to the facility flare.

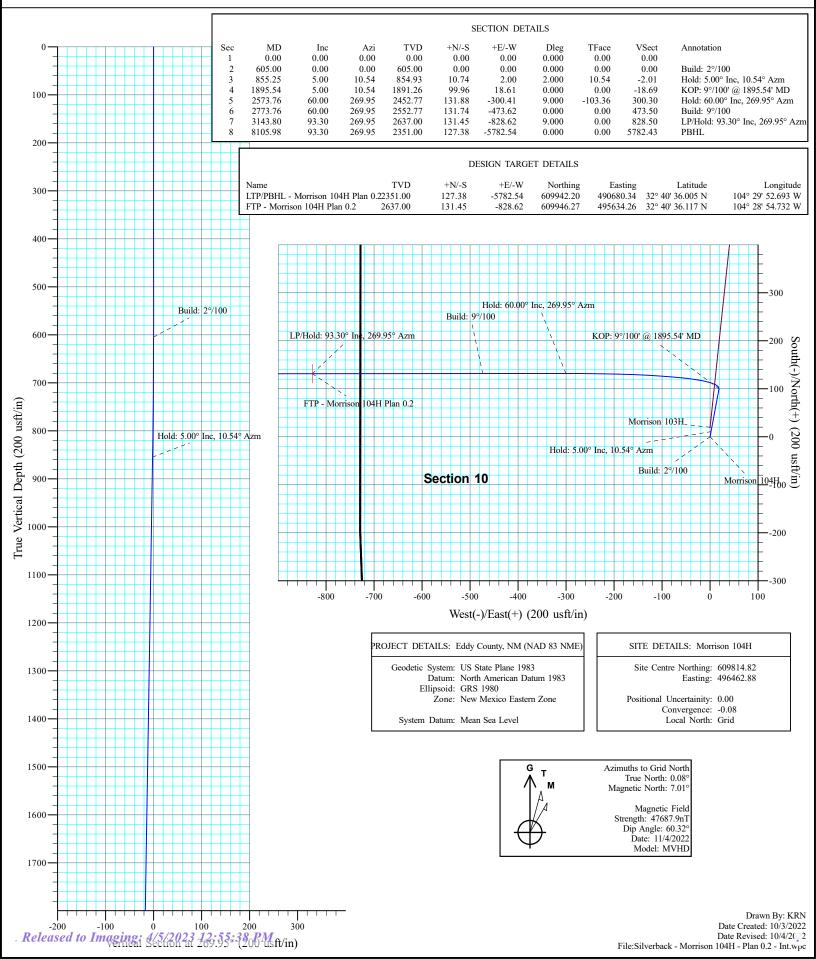
For maintenance activities, Silverback will utilize the facility flare to blowdown equipment and piping whenever practical to minimize venting

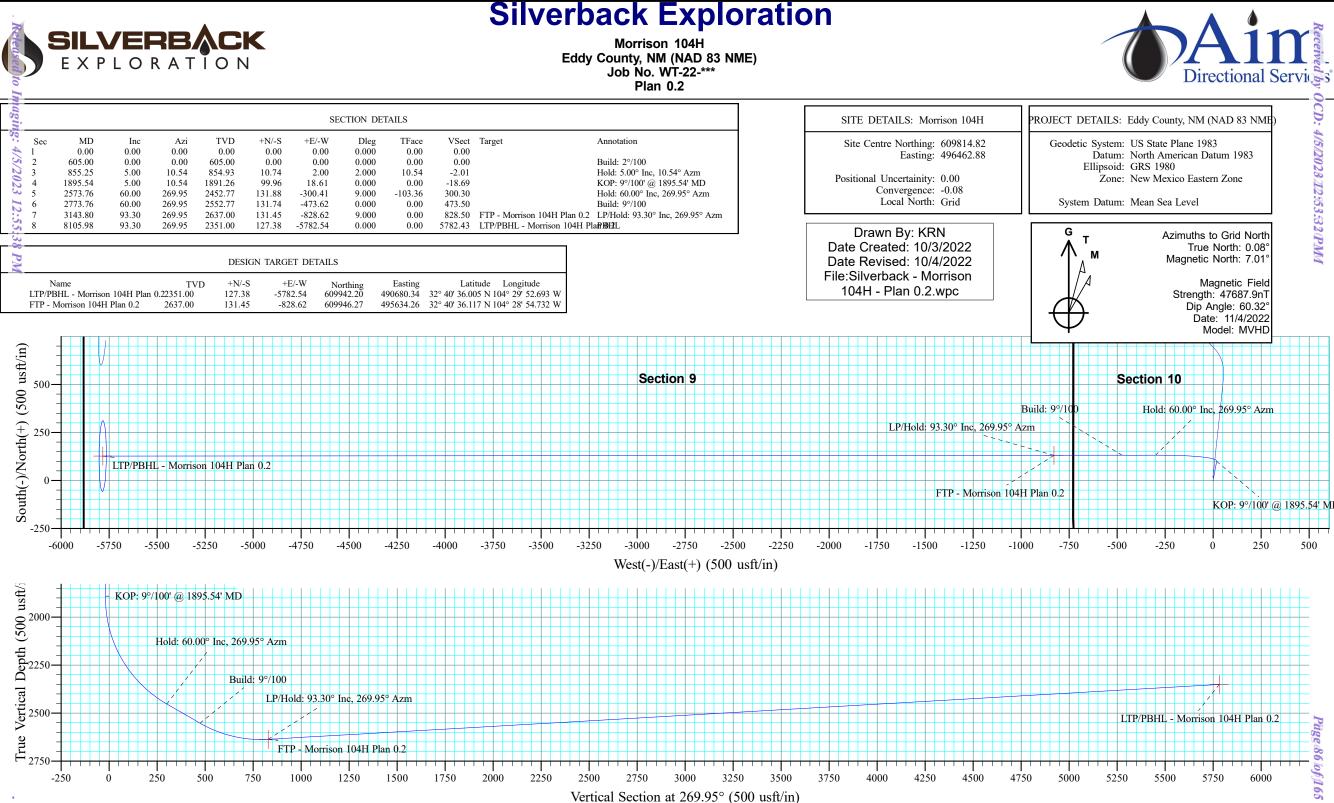
## Received by OCD: 4/5/2023 12:53:32 PM Silverback Exploration



Morrison 104H Eddy County, NM (NAD 83 NME) Job No. WT-22-\*\*\* Plan 0.2









## **Silverback Exploration**

Eddy County, NM (NAD 83 NME) Morrison 104H Morrison 104H

Planning

Plan: Plan 0.2

## **Standard Planning Report**

04 October, 2022



## Received by OCD: 4/5/2023/12953:32/PMM

SILVERBACK EXPLORATION



Planning Report



Database: Company: Project: Site: Well: Wellbore: Design:	Silv Edd Mor Mor Plar	RTOC- EDM 5000.1 Single User Db Silverback Exploration Eddy County, NM (NAD 83 NME) Morrison 104H Morrison 104H Planning Plan 0.2			TVD Refe MD Refe North Re	Local Co-ordinate Reference:Site Morrison 104HTVD Reference:Well @ 3514.00usft (16' RKB)MD Reference:Well @ 3514.00usft (16' RKB)North Reference:GridSurvey Calculation Method:Minimum Curvature				
Project	Eddy	County, NM (	NAD 83 NME	1						
Map System: Geo Datum: Map Zone:	North	ate Plane 1983 American Datu ⁄Iexico Eastern	um 1983		System D	atum:	Ν	lean Sea Leve	1	
Site	Morr	ison 104H								
Site Position: From: Position Unce	Μ	ap 0.00	North Eastin 0 usft Slot F	•	,	814.82 usft 62.88 usft 13-3/16 "	Latitude: Longitude Grid Conv			32° 40' 34.828 N 104° 28' 45.035 W -0.08 °
Well	Morri	son 104H								
Well Position Position Unce	+N/-\$ +E/-V ertainty	<b>V</b> 0.0	00 usft Ea	orthing: sting: ellhead Elev	vation:	609,814.82 496,462.88	usft Lo	ntitude: ongitude: round Level:		32° 40' 34.828 N 104° 28' 45.035 W 3,498.00 usft
Wellbore	Plar	ining								
Magnetics	М	odel Name	Sample	e Date	Declina (°)	tion	•	Angle (°)		Strength nT)
		MVHD	1	1/4/2022		6.94		60.32		47,687.940
Design	Plan	0.2								
Audit Notes:										
Version:			Phas	e: I	PLAN	Ti	e On Depth:		0.00	
Vertical Section	on:	D	epth From (T (usft)	VD)	+N/-S (usft)		E/-W Isft)	Dir	ection (°)	
			0.00		0.00		.00	20	69.95	
Plan Survey 1		m Data	10/4/2022							
Depth Fr (usft)	om Dep	oth To	y (Wellbore)		Tool Name		Remarks	i		
1 0	).00 8, <sup>~</sup>	105.96 Plan 0	.2 (Planning)		MWD+HRGM OWSG MWE					
Plan Sections	;									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	0.00	
605.00	0.00		605.00	0.00	0.00	0.000			0.00	
855.25	5.00		854.93 1 801 26	10.74	2.00	2.000			10.54	
1,895.54 2,573.76	5.00 60.00		1,891.26 2,452.77	99.96 131.88	18.61 -300.41	0.000 9.000			0.00 -103.36	
2,373.76	60.00		2,432.77 2,552.77	131.88	-473.62	0.000			0.00	
3,143.80	93.30	269.95	2,637.00	131.45	-828.62	9.000	9.000	0.000	0.00	FTP - Morrison 104
8,105.98	93.30	269.95	2,351.00	127.38	-5,782.54	0.000	0.000	0.000 0.000	0.00	LTP/PBHL - Morriso

10/4/2022 12:43:00PM

## Received by OCD: 4/5/2023 22953:32 (PMM



## **Aim Directional Services, LLC**

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Morrison 104H
Company:	Silverback Exploration	TVD Reference:	Well @ 3514.00usft (16' RKB)
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	Well @ 3514.00usft (16' RKB)
Site:	Morrison 104H	North Reference:	Grid
Well:	Morrison 104H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Plan 0.2		

#### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00 100.00 200.00 300.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 100.00 200.00 300.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000
400.00 500.00	0.00	0.00	400.00 500.00	0.00	0.00	0.00	0.000	0.000	0.000
605.00 Build: 2°/1	0.00	0.00	605.00	0.00	0.00	0.00	0.000	0.000	0.000
700.00 800.00 855.25	1.90 3.90 5.00	10.54 10.54 10.54	699.98 799.85 854.93	1.55 6.52 10.74	0.29 1.21 2.00	-0.29 -1.22 -2.01	2.000 2.000 2.000	2.000 2.000 2.000	0.000 0.000 0.000
Hold: 5.00	° Inc, 10.54° Az	zm							
900.00 1,000.00 1,100.00 1,200.00 1,300.00	5.00 5.00 5.00 5.00 5.00	10.54 10.54 10.54 10.54 10.54	899.51 999.13 1,098.75 1,198.37 1,297.99	14.58 23.15 31.73 40.31 48.88	2.71 4.31 5.91 7.50 9.10	-2.73 -4.33 -5.93 -7.54 -9.14	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
1,400.00 1,500.00 1,600.00 1,700.00 1,800.00	5.00 5.00 5.00 5.00 5.00	10.54 10.54 10.54 10.54 10.54	1,397.60 1,497.22 1,596.84 1,696.46 1,796.08	57.46 66.04 74.61 83.19 91.77	10.70 12.29 13.89 15.49 17.08	-10.75 -12.35 -13.95 -15.56 -17.16	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
1,895.54	5.00	10.54	1,891.26	99.96	18.61	-18.69	0.000	0.000	0.000
<b>KOP: 9°/10</b> 1,900.00 1,950.00 2,000.00 2,050.00	<b>0' @ 1895.54'</b> 4.93 6.14 9.56 13.63	MD 6.00 319.52 297.50 287.71	1,895.70 1,945.49 1,995.02 2,044.00	100.34 104.52 108.47 112.18	18.66 17.15 11.73 2.43	-18.75 -17.24 -11.82 -2.53	9.000 9.000 9.000 9.000	-1.734 2.421 6.852 8.124	-102.045 -92.953 -44.033 -19.592
2,100.00 2,150.00 2,200.00 2,250.00 2,300.00	17.90 22.25 26.66 31.09 35.53	282.43 279.15 276.90 275.26 273.98	2,092.11 2,139.06 2,184.56 2,228.34 2,270.11	115.63 118.79 121.64 124.18 126.37	-10.69 -27.55 -48.04 -72.04 -99.41	10.59 27.44 47.94 71.94 99.30	9.000 9.000 9.000 9.000 9.000	8.540 8.717 8.807 8.859 8.891	-10.557 -6.561 -4.492 -3.295 -2.543
2,350.00 2,400.00 2,450.00 2,500.00 2,550.00	39.99 44.45 48.92 53.40 57.87	272.96 272.11 271.39 270.76 270.20	2,309.63 2,346.65 2,380.94 2,412.29 2,440.51	128.21 129.69 130.79 131.52 131.86	-129.96 -163.52 -199.87 -238.80 -280.06	129.85 163.41 199.76 238.69 279.95	9.000 9.000 9.000 9.000 9.000	8.913 8.928 8.938 8.946 8.952	-2.043 -1.696 -1.446 -1.261 -1.123
2,573.76	60.00	269.95	2,452.77	131.88	-300.41	300.30	9.000	8.956	-1.041
2,600.00 2,700.00	<b>0° Inc, 269.95°</b> 60.00 60.00	269.95 269.95	2,465.89 2,515.89	131.87 131.79 121.74	-323.14 -409.74	323.02 409.63	0.000	0.000 0.000 0.000	0.000 0.000
2,773.76 Build: 9°/1 2,800.00	60.00 00 62.36	269.95 269.95	2,552.77 2,565.42	131.74 131.72	-473.62 -496.61	473.50 496.49	0.000	9.000	0.000
2,850.00 2,900.00 2,950.00 3,000.00 3,050.00	66.86 71.36 75.86 80.36 84.86	269.95 269.95 269.95 269.95 269.95 269.95	2,586.85 2,604.67 2,618.77 2,629.07 2,635.50	131.69 131.65 131.61 131.57 131.53	-541.77 -588.47 -636.43 -685.34 -734.91	541.65 588.35 636.31 685.22 734.80	9.000 9.000 9.000 9.000 9.000	9.000 9.000 9.000 9.000 9.000	0.000 0.000 0.000 0.000 0.000
3,100.00 3,143.80	89.36 93.30	269.95 269.95	2,638.02 2,637.00	131.49 131.45	-784.84 -828.62	784.72 828.50	9.000 9.000	9.000 9.000	0.000 0.000
LP/Hold: 9	3.30° Inc, 269.	95° AZM							

10/4/2022 12:43:00PM

## Received by OCD: 4/5/2023 22953:32 (PMM



## **Aim Directional Services, LLC**

Planning Report



Database:	RTOC- EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Morrison 104H
Company:	Silverback Exploration	TVD Reference:	Well @ 3514.00usft (16' RKB)
Project:	Eddy County, NM (NAD 83 NME)	MD Reference:	Well @ 3514.00usft (16' RKB)
Site:	Morrison 104H	North Reference:	Grid
Well:	Morrison 104H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Planning		
Design:	Plan 0.2		

#### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,200.00 3,300.00 3,400.00	93.30 93.30 93.30	269.95 269.95 269.95	2,633.76 2,628.00 2,622.23	131.40 131.32 131.24	-884.72 -984.56 -1,084.39	884.61 984.44 1,084.27	0.000 0.000 0.000	0.000 0.000 0.000	0.000 0.000 0.000
3,500.00 3,600.00 3,700.00 3,800.00 3,900.00	93.30 93.30 93.30 93.30 93.30 93.30	269.95 269.95 269.95 269.95 269.95 269.95	2,616.47 2,610.71 2,604.94 2,599.18 2,593.42	131.16 131.08 130.99 130.91 130.83	-1,184.22 -1,284.06 -1,383.89 -1,483.72 -1,583.56	1,184.11 1,283.94 1,383.78 1,483.61 1,583.44	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
4,000.00 4,100.00 4,200.00 4,300.00 4,400.00	93.30 93.30 93.30 93.30 93.30 93.30	269.95 269.95 269.95 269.95 269.95	2,587.65 2,581.89 2,576.13 2,570.36 2,564.60	130.75 130.67 130.58 130.50 130.42	-1,683.39 -1,783.23 -1,883.06 -1,982.89 -2,082.73	1,683.28 1,783.11 1,882.94 1,982.78 2,082.61	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
4,500.00 4,600.00 4,700.00 4,800.00 4,900.00	93.30 93.30 93.30 93.30 93.30	269.95 269.95 269.95 269.95 269.95 269.95	2,558.83 2,553.07 2,547.31 2,541.54 2,535.78	130.34 130.26 130.17 130.09 130.01	-2,182.56 -2,282.39 -2,382.23 -2,482.06 -2,581.90	2,182.45 2,282.28 2,382.11 2,481.95 2,581.78	$\begin{array}{c} 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\\ 0.000\end{array}$	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	93.30 93.30 93.30 93.30 93.30	269.95 269.95 269.95 269.95 269.95 269.95	2,530.02 2,524.25 2,518.49 2,512.73 2,506.96	129.93 129.85 129.76 129.68 129.60	-2,681.73 -2,781.56 -2,881.40 -2,981.23 -3,081.06	2,681.61 2,781.45 2,881.28 2,981.12 3,080.95	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
5,500.00 5,600.00 5,700.00 5,800.00 5,900.00	93.30 93.30 93.30 93.30 93.30	269.95 269.95 269.95 269.95 269.95 269.95	2,501.20 2,495.43 2,489.67 2,483.91 2,478.14	129.52 129.44 129.35 129.27 129.19	-3,180.90 -3,280.73 -3,380.57 -3,480.40 -3,580.23	3,180.78 3,280.62 3,380.45 3,480.28 3,580.12	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
6,000.00 6,100.00 6,200.00 6,300.00 6,400.00	93.30 93.30 93.30 93.30 93.30	269.95 269.95 269.95 269.95 269.95 269.95	2,472.38 2,466.62 2,460.85 2,455.09 2,449.33	129.11 129.03 128.94 128.86 128.78	-3,680.07 -3,779.90 -3,879.73 -3,979.57 -4,079.40	3,679.95 3,779.79 3,879.62 3,979.45 4,079.29	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
6,500.00 6,600.00 6,700.00 6,800.00 6,900.00	93.30 93.30 93.30 93.30 93.30	269.95 269.95 269.95 269.95 269.95 269.95	2,443.56 2,437.80 2,432.03 2,426.27 2,420.51	128.70 128.62 128.53 128.45 128.37	-4,179.24 -4,279.07 -4,378.90 -4,478.74 -4,578.57	4,179.12 4,278.95 4,378.79 4,478.62 4,578.46	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
7,000.00 7,100.00 7,200.00 7,300.00 7,400.00	93.30 93.30 93.30 93.30 93.30	269.95 269.95 269.95 269.95 269.95 269.95	2,414.74 2,408.98 2,403.22 2,397.45 2,391.69	128.29 128.21 128.12 128.04 127.96	-4,678.40 -4,778.24 -4,878.07 -4,977.90 -5,077.74	4,678.29 4,778.12 4,877.96 4,977.79 5,077.63	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000 0.000
7,500.00 7,600.00 7,700.00 7,800.00 7,900.00	93.30 93.30 93.30 93.30 93.30	269.95 269.95 269.95 269.95 269.95 269.95	2,385.93 2,380.16 2,374.40 2,368.64 2,362.87	127.88 127.80 127.71 127.63 127.55	-5,177.57 -5,277.41 -5,377.24 -5,477.07 -5,576.91	5,177.46 5,277.29 5,377.13 5,476.96 5,576.79	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000	0.000 0.000 0.000 0.000 0.000
8,000.00 8,105.98 <b>PBHL</b>	93.30 93.30	269.95 269.95	2,357.11 2,351.00	127.47 127.38	-5,676.74 -5,782.54	5,676.63 5,782.43	0.000 0.000	0.000 0.000	0.000 0.000

10/4/2022 12:43:00PM

Page 4

## Received by OCD: 4/5/2023 22953:32 (PMM



## **Aim Directional Services, LLC**

Planning Report



Database: Company: Project: Site: Well: Wellbore:	RTOC- EDM 5000.1 Single User Db Silverback Exploration Eddy County, NM (NAD 83 NME) Morrison 104H Morrison 104H Planning	Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method:	Site Morrison 104H Well @ 3514.00usft (16' RKB) Well @ 3514.00usft (16' RKB) Grid Minimum Curvature
Wellbore: Design:	Planning Plan 0.2		
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
1	LTP/PBHL - Morrison - plan hits target ce - Point	0.00 enter	360.00	2,351.00	127.38	-5,782.54	609,942.20	490,680.34	32° 40' 36.004 N	104° 29' 52.693 W
	FTP - Morrison 104H - plan hits target ce	0.00 enter	360.00	2,637.00	131.45	-828.62	609,946.27	495,634.26	32° 40' 36.117 N	104° 28' 54.732 W

- Point

#### **Plan Annotations**

Measured	Vertical	Local Coor	dinates	
Depth (usft)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
605.00	605.00	0.00	0.00	Build: 2°/100
855.25	854.93	10.74	2.00	Hold: 5.00° Inc, 10.54° Azm
1,895.54	1,891.26	99.96	18.61	KOP: 9°/100' @ 1895.54' MD
2,573.76	2,452.77	131.88	-300.41	Hold: 60.00° Inc, 269.95° Azm
2,773.76	2,552.77	131.74	-473.62	Build: 9°/100
3,143.80	2,637.00	131.45	-828.62	LP/Hold: 93.30° Inc, 269.95° Azm
8,105.98	2,351.00	127.38	-5.782.54	PBHL

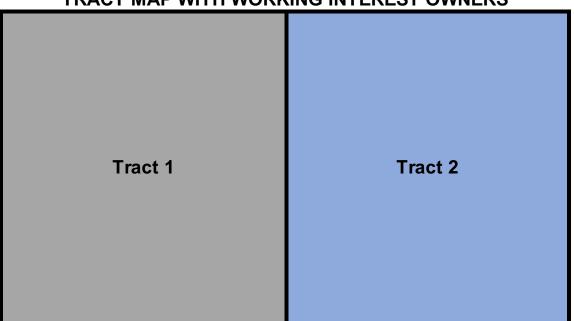
# **TAB 4**

## EXHIBIT A-4A Spacing Unit Plat

## **EXHIBIT A-4B MORRISON UNIT OWNERSHIP**

## **EXHIBIT A-4C MORRISON CONTACT INFORMATION**

## Exhibit "A-5a" Case No. 23175 Silverback Operating II, LLC - Applicant



## TRACT MAP WITH WORKING INTEREST OWNERS

## N/2 of Section 9, Township 19 South, Range 25 East NMPM, Eddy County, New Mexico

Tract 1: W/2	Silverback New Mexico, LLC - 56.84%; Vladin, LLC - 1.38%; Sharbro Energy, LLC - 2.06%; OXY Y-1 Company - 2.22%; Fasken Land & Minerals, Ltd 14.58%; The Toles Company - 4.17%; Graham Family Investments, LLC - 4.17%; Marshall & Winston, Inc 9.38%; Balwick Limited Partnership - 1.74%; Lodewick, LLC - 3.47%
Tract 2: E/2	Silverback New Mexico, LLC - 53.83%; Vladin, LLC - 0.33%; Sharbro Energy, LLC - 0.50%; Fasken Land & Minerals, Ltd 25%; The Toles Company - 4.17%; Graham Family Investments, LLC - 4.17%; SEP Permian, LLC - 6.38%; COG Operating, LLC 5.625%

Case No. 23424 by Silverback Operating Morrison Unit

Plat prepared by : Larry K. Coshow, CPL Date: March 27, 2023



## **PROPOSED MORRISON HSU OWNERSHIP INFORMATION TOP TO BASE OF PENASCO DRAW SA-YESO FORMATION**

#### PROPOSED HSU TRACT PARTICIPATION FACTORS

Tract	<b>Location</b>	Section	Acres	Tract Part. Factor
1	NW/4	S9-T19S-R25E	160.00	0.5000
2	NE/4	S2-T19S-R25E	160.00	0.5000
Total			320.00	1.0000

## PROPOSED MORRISON HSU – TRACT & UNIT OWNERSHIP INFORMATION

TRACT 1 (NW/4 89-T198-R25E)	INT.TYPE	TRACT WI	GROSS AC.	NET AC.	UNIT WI
Silverback Operating II, LLC	WI	56.842448%	160.0000	90.947917	0.28421224
Vladin, LLC	WI	1.375000%	160.0000	02.200000	0.00687500
Sharbro Energy, LLC	WI	2.062500%	160.0000	03.300000	0.01031250
OXY Y-1 Company	WI	<mark>2.220052%</mark>	<mark>160.0000</mark>	<mark>03.552083</mark>	<mark>0.01110026</mark>
Fasken Land & Minerals, Ltd.	WI	14.583333%	160.0000	23.333333	0.07291666
The Toles Company	UMI	4.166667%	160.0000	6.6666667	0.02083334
Graham Family Investments, LLC	<mark>UMI</mark>	<mark>4.166667%</mark>	<mark>160.0000</mark>	<mark>6.6666667</mark>	<mark>0.02083334</mark>
Marshall & Winston, Inc.	UMI	9.375000%	160.0000	15.000000	0.04687500
Balwick Limited Partnership	<mark>UMI</mark>	1.736111%	160.0000	<mark>02.777778</mark>	<mark>0.00868055</mark>
Lodewick, LLC	UMI	<mark>3.472222%</mark>	<mark>160.0000</mark>	<mark>05.555556</mark>	<mark>0.01736111</mark>
Tract 1 Total		100.000000%		160.000000	0.50000000

TRACT 2 (NE/4 S9-T19S-R25E)	INT.TYPE	TRACT WI	GROSS AC.	NET AC.	UNIT WI
Silverback Operating II, LLC	WI	53.833334%	160.0000	86.133334	0.26916667
Vladin, LLC	WI	0.333333%	160.0000	0.533333	0.00166667
Sharbro Energy, LLC	WI	0.500000%	160.0000	0.800000	0.00250000
Fasken Land & Minerals, Ltd.	WI	25.000000%	160.0000	40.000000	0.12500000
SEP Permian, LLC	WI	<mark>6.375000%</mark>	160.0000	10.2000000	<mark>0.03187500</mark>
COG Operating, LLC	WI	5.625000%	160.0000	9.0000000	0.02812500
The Toles Company	UMI	4.166667%	160.0000	6.6666667	0.02083333
Graham Family Investments, LLC	UMI	<mark>4.166666%</mark>	<mark>160.0000</mark>	<mark>6.6666667</mark>	<mark>0.02083333</mark>
Tract 2 Total		100.000000%		160.000000	0.50000000

WI = Working Interest / UMI = Unleased Mineral Interest

Owner	INTEREST	UNIT WI/UMI	NET ACRES
Silverback Operating II, LLC	WI	0.55337891	177.081251
Fasken Land & Minerals, Ltd.	WI	0.19791667	63.333333
OXY Y-1 Company	WI	0.01110026	<mark>3.552083</mark>
COG Operating, LLC	WI	0.02812500	9.000000
SEP Permian, LLC	WI	0.03187500	10.200000
Vladin, LLC	WI	0.00854167	2.733333
Sharbro Energy, LLC	WI	0.01281250	4.100000
The Toles Company	UMI	0.04166667	13.333333
Graham Family Investments	UMI	0.04166666	<mark>13.333333</mark>
Marshall & Winston, Inc.	UMI	0.04687500	15.000000
Balwick Limited Partnership	UMI	0.00868055	<mark>2.777778</mark>
Lodewick, LLC	UMI	0.01736111	<mark>5.555556</mark>
Total Unit WI/NRI		1.00000000	320.000000

## PROPOSED MORRISON HSU – RECORD TITLE UNIT OWNERSHIP SUMMARY

## Exhibit A-4c Case No. 23424 Silverback Operating II, LLC - Applicant Compulsory Pooling Respondent List

Interest Type	Company/Owner	Address	City	State	Zip Code
WI	Fasken Oil and Ranch LTD	6101 Holiday Hill Road	Midland	TX	79707
WI	Spur Energy Partners Holdings, LLC	9655 Katy Freeway, Suite	Houston	TX	77024
WI	Sharbro Energy, LLC	PO Box 840	Artesia	NM	88211-0840
WI	Vladin, LLC	PO Box 100	Artesia	NM	88211-0100
WI	Oxy Y 1 Company	5 Greenway Plaza, Suite 1	Houston	TX	77046
UMI	The Toles Company	PO Box 1300	Roswell	NM	88202-1835
UMI	Graham Family Investments	PO Box 1835	Roswell	NM	88202-1835
UMI	Marshall & Winston, LLC	PO Box 5080	Midland	TX	79710-0880
UMI	Balwick Limited Partnership	PO Box 52336	Midland	TX	79710-2336
UMI	Lodewick, LLC	3305 Wentwood	Dallas	TX	75225

# TAB 4

## EXHIBIT A-5 Notice via Certified Mail



#### March 13, 2023

#### VIA U.S. CERTIFIED MAIL, RETURN RECEIPT REQUESTED

#### TO: ALL INTEREST OWNERS ON ATTACHED LIST

RE: Case No. 23424 – Application of Silverback Operating II, LLC for Compulsory Pooling, Eddy County, NM – Morrison 101H, 102H, 103H, and 104H Wells

Dear Interest Owner:

This will advise that pursuant to NMSA 1978 § 70-2-17, Silverback Operating II, LLC ("Silverback") has filed an application with the New Mexico Oil Conservation Division for an order regarding the proposed wells described below. You are receiving this notice because you may have an interest in this well.

Case No. 23424. Application of Silverback Operating II, LLC for Compulsory Pooling, Eddy County, New Mexico. Applicant in the above-styled cause seeks an order from the Division pooling all uncommitted interests in the Penasco Draw SA-Yeso Formation, designated as an oil pool (Pool Code 50270) into a standard 320-acre, more or less, horizontal spacing and proration unit ("HSU") comprised of N2 Section 9, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico. The HSU is to be dedicated to the following wells (collectively the "Wells"):

 Morrison 101H, API No. 30-015-50070, which is an oil well that will be horizontally drilled from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 501 feet FNL, and approximately 1330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,000 feet FNL, and approximately 100 feet FWL;

- Morrison 102H, API No. 30-015-50071, which is an oil well that will be horizontally drilled from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 521 feet FNL, and approximately 1,330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,000 feet FNL, and approximately 100 feet FWL;
- 3. Morrison 103H, API No. 30-015-50072, which is an oil well that will be horizontally drilled from a surface hole located in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 2,418 feet FNL, and approximately 729 feet FWL, to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,660 feet FNL, and approximately 100 feet FWL; and
- 4. Morrison 104H, API No. 30-015-50073, which is an oil well that will be horizontally drilled from a surface hole located in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 2,438 feet FNL, and approximately 729 feet FWL, to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 2,320 feet FNL, and approximately 100 feet FWL.

The first and last takepoints for the Wells meet the setback requirements set forth in the statewide rules for horizontal oil wells, and the completed laterals for Wells will comply with the standard setbacks. Also to be considered will be the cost of drilling and completing the Wells and the allocation of costs, the designation of Silverback as operator of the Wells, and a 200% charge for the risk involved in drilling and completing the wells.

The attached Application has been set for a hearing on April 6, 2023, before a Division Examiner at the New Mexico Oil Conservation Division. During the COVID-19 Public Health Emergency, state buildings are closed to the public and hearings will be conducted remotely. The hearing will be conducted on April 6, 2023 beginning at 8:15am. To participate in the electronic the instructions posted on the docket for the hearing date: hearing, see https://www.emnrd.nm.gov/ocd/hearing-info/. You are not required to attend this hearing, but as an owner of an interest that may be affected, you may appear and present testimony.

Failure to appear at that time and become a party of record will preclude you from challenging this application at a later time. If you intend to present testimony or evidence at the hearing, you must enter your appearance by March 29, 2023, and serve the Division, counsel for Applicant, and other parties with a pre-hearing statement by March 20, 2023, in accordance with Division Rule 19.15.4.13.

Please feel free to contact me if you have any questions about this Application.

Regards,

## **Benjamin Holliday**

#### **Holliday ENERGY Law Group**

4040 Broadway, Suite 350
San Antonio, Texas 78209
O: 210.469.3187 M: 210.219.9126
E: ben@theenergylawgroup.com
W: theENERGYlawgroup.com

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## ATTACHED OWNER LIST

## WORKING INTEREST OWNERS

Fasken Oil and Ranch LTD	6101 Holiday Hill Road, Midland, TX 79707
Spur Energy Partners Holdings, LLC	9655 Katy Freeway, Suite 500, Houston, TX 77024
Toles Company	P.O. Box 1300, Roswell, NM 88202-1300
Graham Family Investments, LLC	P.O. Box 1835, Roswell, NM 88202-1835
Sharbro Energy, LLC	P.O. Box 840. Artesia, NM 88211-0840
Vladin, LLC	P.O. Box 100, Artesia, NM 88211-0100
Marshall & Winston, Inc.	P.O. Box 50880, Midland, TX 79710-0880
Oxy Y 1 Company	5 Greenway Plaza, Suite 110, Houston, TX 77046
Balwick Limited Partnership	P.O. Box 52336, Midland, TX 79710-2336
Lodewick, LLC	3305 Wentwood, Dallas, TX 75225

#### STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

#### APPLICATION OF SILVERBACK, LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO

CASE NO. \_\_\_\_\_

## **APPLICATION**

Pursuant to NMSA § 70-2-17, Silverback Operating II, LLC ("Applicant") (OGRID No. 330968), through its undersigned attorney, hereby files this Application with the Oil Conservation Division of the State of New Mexico ("Division") for an order (1) creating a 320-acre, more or less, standard horizontal well spacing unit comprised of the N2 Section 9, Township 19 South, Range 25 East, NMPM, Eddy County, New Mexico ("Unit"), and (2) pooling all uncommitted interest within the Penasco Draw SA-Yeso Formation, designated as an oil pool (Pool Code 50270), underlying said Unit. In support of its Application, Applicant states the following:

- 1. Applicant is a working interest owner in the Unit and has the right to drill thereon.
- 2. Applicant seeks to dedicate the above-referenced Unit to the following wells, referred to collectively as the Wells:
  - a. Morrison Unit 101H, API No. 30-015-50070, which is an oil well that will be horizontally drilled from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 501 feet FNL, and approximately 1330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,000 feet FNL, and approximately 100 feet FWL;
  - b. Morrison Unit 102H, API No. 30-015-50071, which is an oil well that will be horizontally drilled from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 521 feet FNL, and approximately 1,330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,000 feet FNL, and approximately 100 feet FWL;
  - c. Morrison Unit 103H, API No. 30-015-50072, which is an oil well that will be horizontally drilled from a surface hole located in the SW4 NW4 of Section 10,

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Township 19 South, Range 25 East, being approximately 2,418 feet FNL, and approximately 729 feet FWL, to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 1,660 feet FNL, and approximately 100 feet FWL; and

- d. Morrison Unit 104H, API No. 30-015-50073, which is an oil well that will be horizontally drilled from a surface hole located in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximately 2,438 feet FNL, and approximately 729 feet FWL, to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 2,320 feet FNL, and approximately 100 feet FWL.
- 3. The completed interval of the Wells will be orthodox and remain within 330-feet of the adjoining quarter-quarter section (or equivalent) tracts to allow inclusion of these proximity tracts within the proposed Unit under NMAC 19.15.16.15(B)(1)(6).
- 4. Applicant has undertaken diligent, good-faith efforts to obtain voluntary agreements from all interest owners to participate in the drilling of the Wells but has been unable to obtain voluntary agreements from all interest owners.
- 5. The approval of this Unit and pooling of uncommitted interests within the Unit will avoid the drilling of unnecessary wells, prevent waste, and protect correlative rights.
- 6. In order to allow Applicant to obtain it's just and fair share of the oil and gas underlying the subject lands, all uncommitted interests in the Unit should be pooled and Applicant should be designated the operator of the Wells and Unit.

WHEREFORE, Applicant requests this Application be set for hearing April 6, 2023, and that after notice and hearing, the Division enter an order

- A. Pooling all uncommitted interests in the Unit;
- B. Approving the Wells in the Unit;
- C. Designating Applicant as operator of the Unit and the Wells;
- D. Authorizing Applicant to recover its costs of drilling, equipping and completing the Wells;

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- E. Approving the actual operating charges and costs of supervision while drilling and after completion, together with a provision adjusting the rates pursuant to the COPAS accounting procedures; and
- F. Imposing a 200% penalty for the risk assumed by Applicant in drilling and completing the Wells against any working interest owner who does not voluntarily participate in the drilling of the Wells.

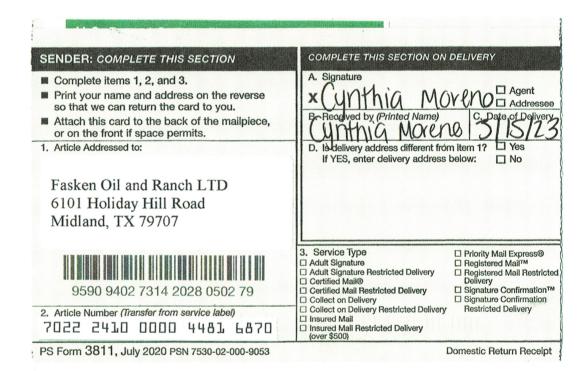
Respectfully submitted,

HOLLIDAY ENERGY LAW GROUP, PC

/s/ Benjamin B. Holliday Benjamin B. Holliday 4040 Broadway, Suite 350 San Antonio, Texas 78209 Phone: (210) 469-3197 ben@theenergylawgroup.com ben-svc@theenergylawgroup.com Counsel for Silverback Operating II, LLC

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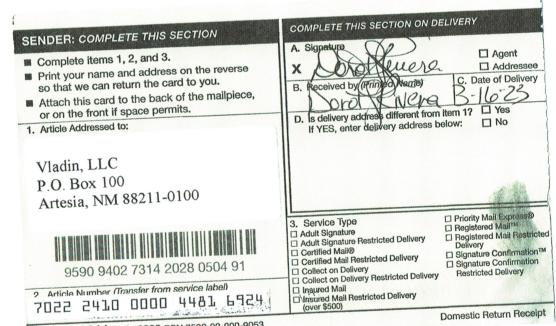




SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON D	ELIVERY
<ul> <li>Complete items 1, 2, and 3.</li> <li>Print your name and address on the reverses so that we can return the card to you.</li> <li>Attach this card to the back of the mailpiece, or on the front if space permits.</li> <li>1. Article Addressed to:</li> <li>Sharbro Energy, LLC</li> <li>P.O. Box 840</li> <li>Artesia, NM 88211-0840</li> </ul>	A. Signature B. Received by Printed Name) B. Store D. Is delivery address different from If YES, enter delivery address to	Agent Addresses C. Date of Delivery Litem 1? U Yes below: No
9590 9402 7314 2028 0504 84 2. Article Number (Transfer from service labell 7022 2410 0000 4481 6917	3. Service Type Adult Signature Restricted Delivery Certified Mail® Certified Mail® Certified Mail® Collect on Delivery Collect on Delivery Restricted Delivery Insured Mail Insured Mail Restricted Delivery (over \$500)	<ul> <li>□ Priority Mail Express@</li> <li>□ Registered Mail™</li> <li>□ Registered Mail Restricte Delivery</li> <li>□ Signature Confirmation Restricted Delivery</li> </ul>
	Insured Mail Restricted Delivery (over \$500)	Domestic Return Re

PS Form 3811, July 2020 PSN 7530-02-000-9053





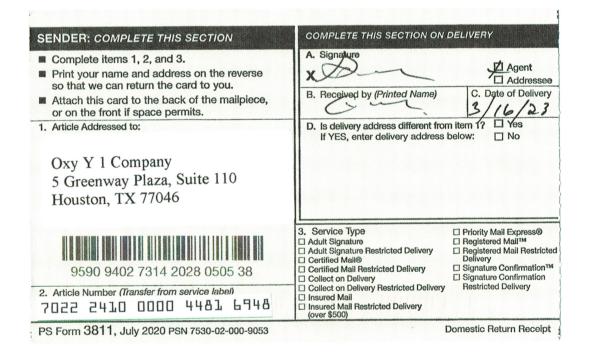
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PS Form 3811, July 2020 PSN 7530-02-000-9053



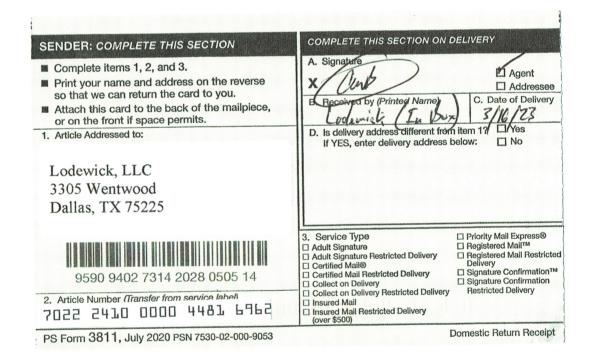




COMPLETE THIS SECTION ON D	ELIVERY
A. Signature X. Charles Constant B. Received by (Printed Name) D. Is delivery address different from If YES, enter delivery address b	□ Agent □ Addressee ↓ C. Date of Delivery ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ elow: □ No
Service Type     Adult Signature     Adult Signature Restricted Delivery     Certified Mail®     Certified Mail®     Collect on Delivery     Collect on Delivery Restricted Delivery     Insured Mail	<ul> <li>Priority Mail Express®</li> <li>Registered Mail™</li> <li>Registered Mail™</li> <li>Registered Mail Restricted Delivery</li> <li>Signature Confirmation™</li> <li>Signature Confirmation Restricted Delivery</li> </ul>
	X Charley Opinited Name     B. Received by (Printed Name     D. Is delivery address different from     If YES, enter delivery address b     Service Type     Adult Signature     Adult Signature     Adult Signature     Certified Mail®     Certified Mail®     Certified Mail®

PS Form 3811, July 2020 PSN 7530-02-000-9053





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## EXHIBIT A-6 Newspaper Affidavit of Publication and Advertisement

### **Carlsbad Current Argus.**

Affidavit of Publication Ad # 0005640893 This is not an invoice

#### HOLLIDAY ENERGY LAW GROUP 4040 BROADWAY ST, SUITE 350

#### SAN ANTONIO, TX 78209

I, a legal clerk of the **Carlsbad Current Argus**, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof in editions dated as follows:

03/24/2023

Legal Clerk

Subscribed and sworn before me this March 24, 2023:

State of WI, County of Brown NOTARY PUBLIC

My commission expires

KATHLEEN ALLEN Notary Public State of Wisconsin

Ad # 0005640893 PO #: 5640893 # of Affidavits1

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This is to notify the follow-This is to notify the follow-ing entities, individuals, their heirs, personal repre-sentatives, trustees, succes-sors or assigns, and any oth-er uncommitted mineral owners: Fasken Oil and Ranch LTD; Spur Energy Partners Holdings, LLC; Toles Company; Graham Family Investments, LLC; Sharbro Energy, LLC; Vladin, LLC; Marshall & Winston, Inc.; Oxy Y 1 Company; Balwick Limited Partnership; and Lodewick, LLC. Case No. 23424, Application of Silver-23424, Application of Silver-23424, Application of Silver-back Operating II, LLC for the Compulsory Pooling of the N/2 Section 9, Township 19 South, Range 25 East Ed-dy County, New Mexico, as to the Penasco Draw SA-Vace Formation is not for Yeso Formation is set for hearing on Thursday, April 6, 2023 at 8:15 a.m. before a Division Examiner at the New Mexico Oil Conserva-tion Division. Hearing may be viewed online by going to https://www.emrd.nm.g ov/ocd/hearing-info/. Appliov/ocd/hearing-info/. Appli-cant's attorney is Benjamin Holliday, Holliday Energy Law Group, 4040 Broadway, Suite 350, San Antonio, TX 78209, ben@theenergylawgr oup.com, and the Applica-tion is on behalf of Silver-back Operating II, LLC, whose address is 19707 West IH 10, Suite 201, San Anto-nio, Texas, 78257. Applica-tion of Silverback Operating II, LLC for Compulsory Pool-II, LLC for Compulsory Pool-ing, Eddy County, New Mexico. Applicant seeks an order pooling all uncommitted interests in the Penasco Draw SA-Yeso Formation underlying a 320-acre, more or less, standard horizontal spacing unit comprised of the N/2 Section 9, Township 19 South, Range 25 East, NMPM Eddy County, New Mexico ("Unit"). The Unit will be dedicated to the fol-lowing wells. Will be dedicated to the fol-lowing wells: a) Morrison Unit #101H well ("101H Well"), which will be hori-zontally drilled from a sur-face hole location in the NW4 NW4 of Section 10, Tawarbie 10 South Banga Township 19 South, Range 25 East, being approximate-ly 501 feet FNL, and approxi-mately 1,330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximate-

ly 1,000 feet FNL, and approximately 100 feet FWL; b) the Morrison Unit #102H well ("102H Well"), which will be horizontally drilled will be horizontally drilled from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, being ap-proximately 521 feet FNL, and approximately 1,330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9 Township 19 Section 9, Township 19 South, Range 25 East, being approximately 1,000 feet FNL, and approximately 100 feet FWL; c) the Morrison Unit #103H well ("103H Well"), which will be hori-zontally drilled from a surface hole located in the SW4 Tace noie located in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximate-ly 2,418 feet FNL, and ap-proximately 729 feet FWL, to a bottom hole location in to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximate-ly 1,660 feet FNL, and ap-proximately 100 feet FWL; and d) the Morrison Unit #104H well ("104H Well"), which will be horizontally drilled from a surface hole located in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, being South, Range 25 East, being approximately 2,438 feet FNL, and approximately 729 feet FWL, to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 2,320 feet PNL, and approximately 2,520 feet FNL, and approximately 100 feet FWL. The 101H Well, 102H Well, 103H Well, and 104H Well are referred to collectively herein as the "Wells." The completed in-"Wells." Wells Wells will be terval of the Wells will be orthodox. Also, to be con-sidered will be the cost of drilling and completing the Wells and the allocation of the cost, the designation of Applicant as the operator of the Wells, and a 200% charge for the risk involved in drilling and completing the Wells. The Wells are located approximately 20 miles South of Artesia, New Mexico. #5640893, Current Argus,

#5640893, Current Argus, Mar. 24, 2023

## EXHIBIT A-7 Well Proposal Letter

#### VIA CERTIFIED MAIL/ RETURN RECEIPT AND E-MAIL

Sally Kvansicka (sallyk@forl.com)



Page 119 of 165

FASKEN OIL AND RANCH, LTD. 601 HOLIDAY HILL ROAD MIDLAND, TEXAS 79707

ATTN: Ms. Sally Kvansicka – Land Manager

RE: Horizontal Well Proposals Silverback Operating II, LLC: Morrison #101H, Morrison #102H, Morrison #103H, Morrison #104H N/2 of Section 9-T19S-R25E Eddy County, New Mexico

Dear Working Interest Owner,

Silverback Operating II, LLC ("SILVERBACK"), an affiliate of Silverback New Mexico, LLC, hereby proposes to drill and complete the **Morrison #101H**, **Morrison #102H**, **Morrison #103H and Morrison #104H** wells to the approximate total vertical depths as referenced below as horizontal Yeso wells (the "Subject Wells") at the following proposed locations (subject to change upon staking and survey).

#### Morrison #101H - Horizontal Yeso Well. Eddy County. NM

- Proposed First Take Point 340' FNL & 100' FEL, Section 9, T19S-R25E
- Proposed Bottom Hole Location 340' FNL & 100' FWL, Section 9, T19S-R25E
- PROJECTED MD/TVD: 8,600' / 3,000'; Lateral Length: ~4,900'

#### Morrison #102H - Horizontal Yeso Well. Eddy County. NM

- Proposed First Take Point 1,000' FNL & 100' FEL, Section 9, T19S-R25E
- Proposed Bottom Hole Location 1,000' FNL & 100' FWL, Section 9, T19S-R25E
- PROJECTED MD/TVD: 8,600' / 3,000'; Lateral Length: ~4,900'

19707 IH 10 West, Suite 201, San Antonio, Texas 78257-1748 Phone: (405) 312-3930 Email: lcoshow@silverbackexp.com

#### Morrison #103H- Horizontal Yeso Well. Eddy County. NM

- Proposed First Take Point 1,660' FNL & 100' FEL, Section 9, T19S-R25E
- Proposed Bottom Hole Location 1,660' FNL & 100' FWL, Section 9, T19S-R25E
- PROJECTED MD/TVD: 8,600' / 3,000'; Lateral Length: ~4,900'

#### Morrison #104H- Horizontal Yeso Well. Eddy County. NM

- Proposed First Take Point 2,320' FNL & 100' FEL, Section 9, T19S-R25E
- Proposed Bottom Hole Location 2,320' FNL & 100' FWL, Section 9, T19S-R25E
- PROJECTED MD/TVD: 8,600' / 3,000'; Lateral Length: ~4,900'

SILVERBACK proposes to form a Drilling Spacing Unit ("DSU") covering the N/2 of Section 9, T19S-R25E, Eddy County, New Mexico, containing 320.00 acres of land, more or less, from the surface to the base of the Yeso formation. In this 320.00-acre DSU covering the N/2 of Section 9, SILVERBACK plans to drill the **Morrison #101H, Morrison #102H, Morrison #103H and Morrison #104H** wells.

It is known that the proposed DSU lands are governed by one (1) existing Joint Operating Agreement covering the proposed depths and lands herein. Joint Operating Agreement dated November 1, 2013 ("JOA 2013"), covers the NW/4 of Section 9 from the surface of the earth down to 3,000' and between Yates Petroleum Corporation, as Operator (SILVERBACK current Operator) and Fasken Land and Minerals, Ltd. et als, as Non-Operators (covers Marshall API #1 & #4, Patrick API #2 wells). SILVERBACK owns the balance of the remaining 200.00 Net Acres in the S/2 of Section 23 outside the 120.00 Net Acres covered by the JOA 1984.

It is SILVERBACK'S desire and request that the current JOA 2013 working interest partners, including, SILVERBACK, execute a ratification/amendment/extension/adoption document ("Amended Agreement") to the JOA 2013 wherein this document/agreement extends and covers all of the N/2 of Section 9 as to any horizontal well drilled in the N/2 of Section 9 going forward only. This is a much easier alternative over sending out a new Operating Agreement to basically the partners covering all of the S/2 of Section 9 when the other 160.00 Net Acres being added to the JOA 2013 is owned by basically some of the same WI owners, adding some Spur Energy Partners Holdings, LLC (NE/4), the current Operator under the JOA 2013 and proposed the wells to be drilled. We have enclosed a Revised Exhibit "A" to the JOA 2013 that shows the updated contract area, current interest owners, addresses, leases, etc. that would be added and included as an exhibit to an Amended Agreement SILVERBACK can provide under separate cover. This

Revised Exhibit "A" calculates in a "50/50" tract participation factor that will be modified based on the amount of perforated interval in the NE/4 and NW/4.

The AFEs are an estimate only and those parties electing to participate in the Subject Wells shall be responsible for their share of actual well costs, whether more or less than those shown on the enclosed AFEs.

SILVERBACK respectfully requests that you select one (1) of the following four (4) options regarding your interest in each of the proposed wells:

- **Option 1:** Participate in the drilling and completion of the proposed well under terms and conditions under JOA 2013; or
- **Option 2:** Not participate in the proposed well (an election of "Non-Consent"); or
- Option 3 Term Assignment: Assign/Lease your leasehold/unleased mineral working interest in the N/2 of Section 9, T19S-R25E, exclusive of existing wellbores, to SILVERBACK through a term assignment and/or lease with a primary term of one (1) year and as long thereafter as production is obtained in paying quantities, and a bonus consideration of \$750 per net mineral acre, delivering a 75% net revenue interest (limited to the surface to the base of the Yeso formation) reserving an ORRI equal to the difference between existing leasehold burdens of record and 25%, proportionally reduced; or
- Option 4 Assignment: Assign/Lease your leasehold/unleased working interest in the N/2 Section 9, T19S-R25E, exclusive of existing wellbores, to SILVERBACK for a bonus consideration of \$ 1,500 per net mineral acre, delivering an 75% leasehold net revenue interest (all rights owned) reserving an ORRI equal to the difference between existing leasehold burdens of record and 25%, proportionally reduced.

Should you elect **Option 1** or **Option 2**, said election will be pursuant to the terms and conditions of governing operating agreement (JOA 2013). In the event you elect to assign/lease your leasehold/unleased interest under the terms outlined above in **Option 3** - **Term Assignment**, or **Option 4** - **Assignment**, please so indicate by signing the enclosed Assignment Election page. Upon receipt, SILVERBACK will submit an Assignment and/or Lease to you for your review and execution.

SILVERBACK looks forward to working with you on this matter. However, if an agreement cannot be reached within thirty (30) days of the receipt date of this proposal, please be advised SILVERBACK may apply to the New Mexico Oil Conservation Division for additional Compulsory Pooling of any uncommitted interest owners into a spacing unit for the proposed wells.

Please indicate your elections as to each of the Subject Wells in the spaces provided below and execute and return one (1) copy of this letter (together with a signed copy of each AFE for any well(s) you elect to participate in) to the undersigned within thirty (30) days of receipt of this proposal in the self-addressed stamped envelope provided.

Should you have any questions regarding this proposal, please contact Larry K. Coshow at 405-312-3930 or lcoshow@silverbackexp.com. Thank you very much for your assistance and cooperation.

Sincerely,

#### SILVERBACK NEW MEXICO, LLC

Larry K. Coshow, CPL Contract Landman

Enclosures Exhibit "A" AFEs

#### Morrison #101H

**Option 1)** The undersigned elects to participate in the drilling and completion of the **Morrison #101H** well and has no objection to drilling of said Well and agrees to the formation of the DSU and to the terms of the existing operating agreement as detailed in this proposal, with the cost and maintenance of all surface facilities, including any shared well pads, being reapportioned between each well drilled in the DSU.

**Option 2)** The undersigned elects not to participate in the drilling and completion of the **Morrison #101H** but has no objection to drilling of said well and agrees to the formation of the DSU by SILVERBACK.

Should you elect to participate, please also indicate your Well Insurance election below and your approval to a ratification/amendment/extension/adoption document ("Amended Agreement") to the JOA 2013. If you elect to obtain individual Well Insurance coverage, please provide SILVERBACK with a copy of your Certificate of Insurance.

#### Well Insurance:

\_\_\_\_\_\_. The undersigned requests Well Insurance coverage provided by Silverback Energy Partners.

\_\_\_\_\_\_ The undersigned elects to obtain individual Well Insurance coverage.

The undersigned agrees to SILVERBACK'S proposed ratification /amendment/extension/adoption document ("Amended Agreement") to the JOA 2013. Please forward formal agreement for review and execution.

Agreed to and Accepted this \_\_\_\_\_day of \_\_\_\_\_, 2022.

By: \_\_\_\_\_

Name:\_\_\_\_\_

Title:

#### Morrison #102H

**Option 1)** The undersigned elects to participate in the drilling and completion of the **Morrison #102H** well and has no objection to drilling of said well and agrees to the formation of the DSU and to the terms of the existing operating agreements and/or pooling orders as detailed in this proposal, with the cost and maintenance of all surface facilities, including any shared well pads, being reapportioned between each well drilled in the DSU.

**Option 2)** The undersigned elects not to participate in the drilling and completion of the **Morrison #102H but** has no objection to drilling of said Well and agrees to the formation of the DSU by SILVERBACK.

Should you elect to participate, please also indicate your Well Insurance election below and your approval to a ratification/amendment/extension/adoption document ("Amended Agreement") to the JOA 2013. If you elect to obtain individual Well Insurance coverage, please provide SILVERBACK with a copy of your Certificate of Insurance.

#### Well Insurance:

\_\_\_\_\_\_. The undersigned requests Well Insurance coverage provided by Silverback Energy Partners.

\_\_\_\_\_ The undersigned elects to obtain individual Well Insurance coverage.

\_\_\_\_\_ The undersigned agrees to SILVERBACK'S proposed ratification /amendment/extension/adoption document ("Amended Agreement") to the JOA 2013. Please forward formal agreement for review and execution.

Agreed to and Accepted this \_\_\_\_day of \_\_\_\_\_, 2022.

#### Company/Individual: \_\_\_\_\_

By: \_\_\_\_\_

Name:\_\_\_\_\_

Title:

#### Morrison #103H

**Option 1)** The undersigned elects to participate in the drilling and completion of the **Morrison #103H** well and has no objection to drilling of said well and agrees to the formation of the DSU and to the terms of the existing operating agreements and/or pooling orders as detailed in this proposal, with the cost and maintenance of all surface facilities, including any shared well pads, being reapportioned between each well drilled in the DSU.

**Option 2)** The undersigned elects not to participate in the drilling and completion of the **Morrison #103H**, but has no objection to drilling of said Well and agrees to the formation of the DSU by SILVERBACK

Should you elect to participate, please also indicate your Well Insurance election below and your approval to a ratification/amendment/extension/adoption document ("Amended Agreement") to the JOA 2013. If you elect to obtain individual Well Insurance coverage, please provide SILVERBACK with a copy of your Certificate of Insurance.

#### Well Insurance:

\_\_\_\_ The undersigned requests Well Insurance coverage provided by Silverback Energy Partners.

\_\_\_\_\_\_ The undersigned elects to obtain individual Well Insurance coverage.

The undersigned agrees to SILVERBACK'S proposed ratification /amendment/extension/adoption document ("Amended Agreement") to the JOA 2013. Please forward formal agreement for review and execution.

Agreed to and Accepted this \_\_\_\_day of \_\_\_\_\_, 2022.

Company/Individual: \_\_\_\_\_\_

Ву: \_\_\_\_\_

Name:	_

#### Morrison #104H

**Option 1)** The undersigned elects to participate in the drilling and completion of the **Morrison #104H** well and has no objection to drilling of said well and agrees to the formation of the DSU and to the terms of the existing operating agreements and/or pooling orders as detailed in this proposal, with the cost and maintenance of all surface facilities, including any shared well pads, being reapportioned between each well drilled in the DSU.

**Option 2)** The undersigned elects not to participate in the drilling and completion of the **Morrison #104H**, but has no objection to drilling of said Well and agrees to the formation of the DSU by SILVERBACK

Should you elect to participate, please also indicate your Well Insurance election below and your approval to a ratification/amendment/extension/adoption document ("Amended Agreement") to the JOA 2013. If you elect to obtain individual Well Insurance coverage, please provide SILVERBACK with a copy of your Certificate of Insurance.

#### Well Insurance:

\_\_\_\_\_ The undersigned requests Well Insurance coverage provided by Silverback Energy Partners.

\_\_\_\_\_\_ The undersigned elects to obtain individual Well Insurance coverage.

\_\_\_\_\_ The undersigned agrees to SILVERBACK'S proposed ratification /amendment/extension/adoption document ("Amended Agreement") to the JOA 2013. Please forward formal agreement for review and execution.

Agreed to and Accepted this \_\_\_\_day of \_\_\_\_\_, 2022.

#### Company/Individual: \_\_\_\_\_

By:	

Name:\_\_\_\_\_

Title:

## **EXHIBIT A-8 CHRONOLOGY OF MORRISON CONTACTS**

.

#### EXHIBIT "A-8" Case No. 23424 Silverback Operating II, LLC - Applicant

#### STATE OF NEW MEXICO

#### APPLICATION OF SILVERBACK OPERATING II, LLC FOR

CASE NO. 23424

#### NOTICE LETTER CHART

Company / Individual WI Owner WI		Notice Letter Sent	Return / Received	STATUS	
Spur Energy Partners Holdings, LLC 9655 Katy Freeway, Suite 500 Houston, Texas 77024	6.250%	10/6/22			
Graham Family Investments, LLC P.O. Box 1835 Roswell, New Mexico 88202-1835	4.167%	9/27/22	9/27/2022 - sent well proposal letter via certifed mail; received green card receipt dated 9/29/2022; one (1) e-mail exchange; leased interest to Spur in NE/4; elected to not participate with JOA interest in NW/4		
OXY Y-1 Company Five Greeway Plaza, Suite 110 Houston, Texas 77046	1.107%	9/27/22	9/27/2022 - sent well proposal letter via certifed mail; green card receipt dated 10/1/2022; no election response to date; e- mailed ratification agreement 3/9/2023		
Balwick Limited Partnership P.O. Box 52336 Midland, Texas 79710-2336	0.868%	9/27/22	9/27/2022 - sent well proposal letter via certifed mail; green card receipt dated 10/3/2022; one (1) e-mail exchange; received one (1) letter electing to participate; e-mailed ratification agreement 3/9/2023		
Lodewick, LLC 3305 Wentwood Dallas, Texas 75225	1.736%	9/27/22	9/27/2022 - sent well proposal letter via certifed mail; green card receipt dated 9/28/2022; thirteen(13) e-mails; 5-6 phone calls		
	14.128%	TOTAL AMO	OUNT BEING POOLED CASE NO. 23424		
Silverback Operating II, LLC	55.338%				

liverback Operating II, LLC 55.338%

## EXHIBIT B AFFIDAVIT OF NATE GILBERTSON

#### STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

#### APPLICATION OF SILVERBACK OPERATING II, LLC, FOR A HORIZONTAL SPACING UNIT AND COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO

Case No. 23424

#### SELF-AFFIRMED STATEMENT OF NATHANIEL GILBERTSON

Nathaniel Gilbertson, of lawful age and being first duly sworn, declares as follows:

 My name is Nathaniel Gilbertson, and I am employed by Silverback Operating II, LLC ("Silverback") as a petroleum geologist.

2. I have previously testified before the Oil Conservation Division ("Division") as an expert witness in petroleum geology. My credentials have been made a matter of record and I have been recognized by the Division as an expert witness.

3. I am familiar with the application filed by Silverback in this case, and I have conducted a geologic study of the Yeso formation underlying the subject area, including the Penasco Draw SA-Yeso Formation, which is designated as an oil pool (Pool Code 50270).

4. The initial targets for Silverback's proposed Morrison Unit wells in Section 9 of T19S-R25E are the Penasco Draw SA-Yeso Formation, which is an interval within the Yeso formation.

5. **Silverback Exhibit B-1** is a base map that shows the location of the proposed horizontal well spacing unit, the path of the proposed/drilled wellbores and offsetting wellbores. Marked on the map is the location of the four wells in Cross Section A-A' of Exhibit B-3. These wells penetrate the targeted interval, are of good quality, and are representative of the geology in the subject area.

6. **Silverback Exhibit B-2** is a subsea structure map of the top of the Glorieta/Yeso with a 25-foot contour interval. The Yeso formation structure is dipping to the east-southeast. The formation appears consistent across the proposed spacing unit. I do not observe any faulting, pinchouts, or other geologic impediments to horizontal drilling within the proposed spacing unit. This map also shows line B-B' which is depicted in a gun barrel diagram in Exhibit B-4 and line C-C' which is depicted in a lateral trajectory cross-section in Exhibit B-5.

7. **Silverback Exhibit B-3** is a structural cross-section that I prepared with data from open-hole logs collected over the target formation in the representative wells denoted from A to A' (Exhibit B-1). For each well in the cross-section, the exhibit shows the following logs: gamma ray, deep resistivity, neutron porosity and bulk density. The targeted zone for each well is labeled and marked on the cross-section. The logs in the cross-section demonstrate that the targeted zones are continuous and consistent through the proposed spacing unit.

8. **Silverback Exhibit B-4** is a gun barrel diagram from B to B' illustrating Silverback's intended development in the Yeso formation across the proposed spacing unit. Each proposed or existing well is identified relative to the different intervals within the Yeso formation.

9. Silverback Exhibit B-5 is a West to East lateral trajectory cross-section illustrating Silverback's intended development in the Yeso formation across the proposed spacing unit.

10. Silverback has procedures in place to assess the risk of damaging existing vertical wells and the risk of existing wellbores acting as conduits for completion fluids to reach the surface during hydraulic fracturing operations. These procedures are reviewed and enhanced continually based on observations and data from on-going operations.

11. Silverback has examined the Division's records for each well in the proposed Horizontal Spacing Unit and reviewed the drilling, completion, recompletion(s) and abandonment

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of those wellbores. Based on the information recorded with the Division, Silverback has estimated the risk of hydraulic fracture fluids communicating with each wellbore and the ability to contain any communication within that wellbore. Based on the risk assessment Silverback has determined necessary pre-operation preparation for each operated wellbore, including, but not limited to, shutting-in producing wells, plugging and abandoning high-risk wellbores, and modifying or skipping completion stages in close proximity to offset wellbores. Operated wells are monitored during hydraulic fracturing operations and design changes, including, but not limited to, reducing pump-rate, ending stages early and removing stages if offset wells exhibit unexpected pressure increases. Silverback personnel visually monitor plugged and abandoned wellbores on reclaimed locations during hydraulic fracturing operations for any potential signs of communication. Silverback provides 30-day notice prior to commencing hydraulic fracturing operations to operators of any wellbore within the proposed Horizontal Spacing Unit.

12. **Silverback Exhibit B-6** illustrates the existing wellbores within the proposed Horizontal Spacing Unit. The total depth drilled, as reported to the Division, is listed below each well symbol. Wellbores drilled sufficiently deep to penetrate the top of the Yeso Formation are noted with a red box around the well symbol.

13. There are active and inactive/plugged wells within the planned Horizontal Spacing Unit that have a total depth sufficient to penetrate the top of the Yeso Formation. All the active wells have been recompleted in the Yeso formation. Silverback is the operator of the active wells and is evaluating them for plugging, in accordance with the Division's requirements, prior to starting hydraulic fracturing operations. Silverback intends to not complete portions of laterals that are adjacent to the plugged and abandoned wells along with the remaining active wellbores. It is my opinion that Silverback's intended development poses low risk for damage to existing

wellbores and reduced risk of existing well bores acting as a conduit for completion fluids to reach the surface during hydraulic fracturing operations, enabling Silverback to be a prudent operator in this area of the Yeso formation.

14. In my opinion, the East-West orientation of the proposed wells in the preferred orientation for horizontal well development in this area and is appropriate to efficiently and effectively develop the subject acreage.

15. Based on my geologic study of the area, the targeted interval underlying the proposed spacing unit is suitable for development by horizontal wells and tracts comprising the proposed spacing unit with contribute more or less equally to the production of the wells.

16. The granting of this application is in the best interest of conservation, the prevention of waste and the protection of correlative rights and will avoid the drilling of unnecessary wells.

17. Silverback Exhibits B-1 through B-6 were either prepared by me or compiled under my direction and supervision.

18. The foregoing is true to the best of my knowledge and belief.

[Signature page follows]

#### Signature page of Self-Affirmed Statement of Nathaniel Gilbertson:

I understand that this Self-Affirmed Statement will be used as written testimony before the Division in Case No. 23424 and affirm that my testimony herein is true and correct, to the best of my knowledge and belief and made under penalty of perjury under the laws of the State of New Mexico.

Nathaniel Gilbertson

<u>April 3, 2023</u> Date Signed

## EXHIBIT B-1 Morrison HSU Basemap

### Received by OCD: 4/5/2023 12:53:32 PM Exhibit B-1: Morrison HSU Basemap

(Case No. 23424)



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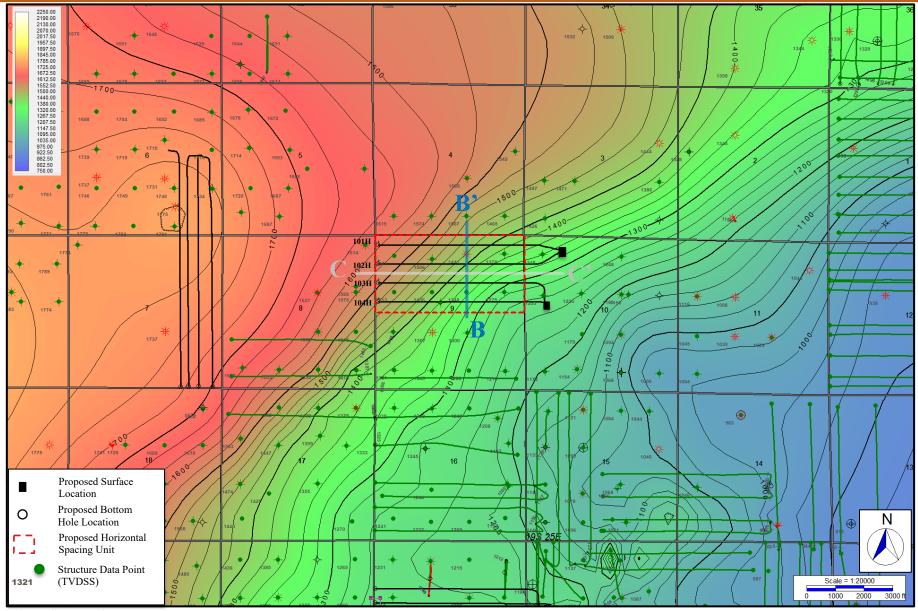
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## EXHIBIT B-2 Morrison Structure Map

### **Received by OCD: 4/5/2023 12:53:32 PM Exhibit B-2: Structure Map: Glorieta (TVDSS)**



(Case No. 23424)



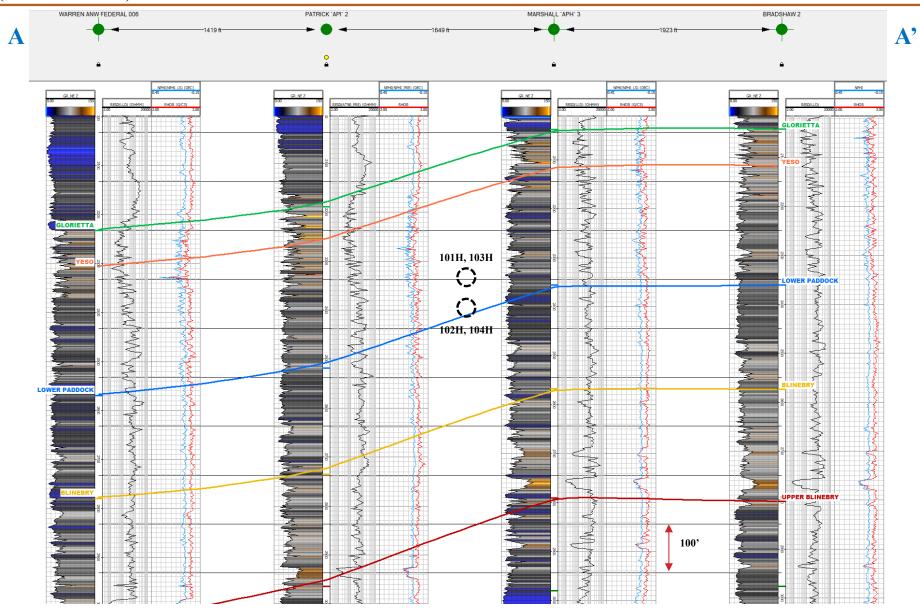
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## EXHIBIT B-3 STRUCTURAL CROSS SECTION A-A' (TVDSS)

### Received by OCD: 4/5/2023 12:53:32 PM Exhibit B-3: Structural Cross Section A – A' (TVDSS)



(Case No. 23424)



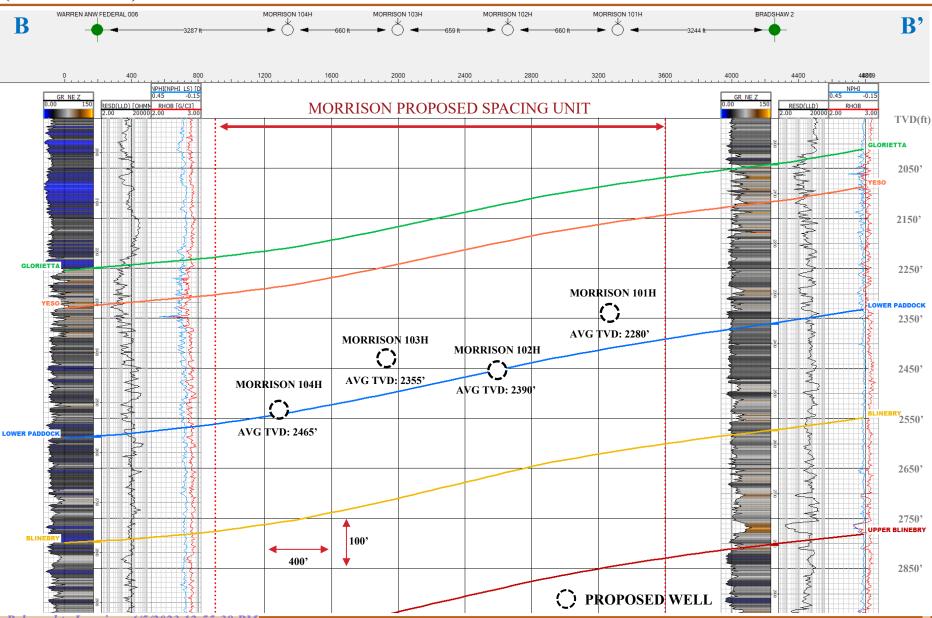
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## EXHIBIT B-4 Gun Barrel Diagram B-B' (TVD)

### Received by OCD: 4/5/2023 12:53:32 PM Exhibit B-4: Gun Barrel Diagram B-B' (TVD)



(Case No. 23424)



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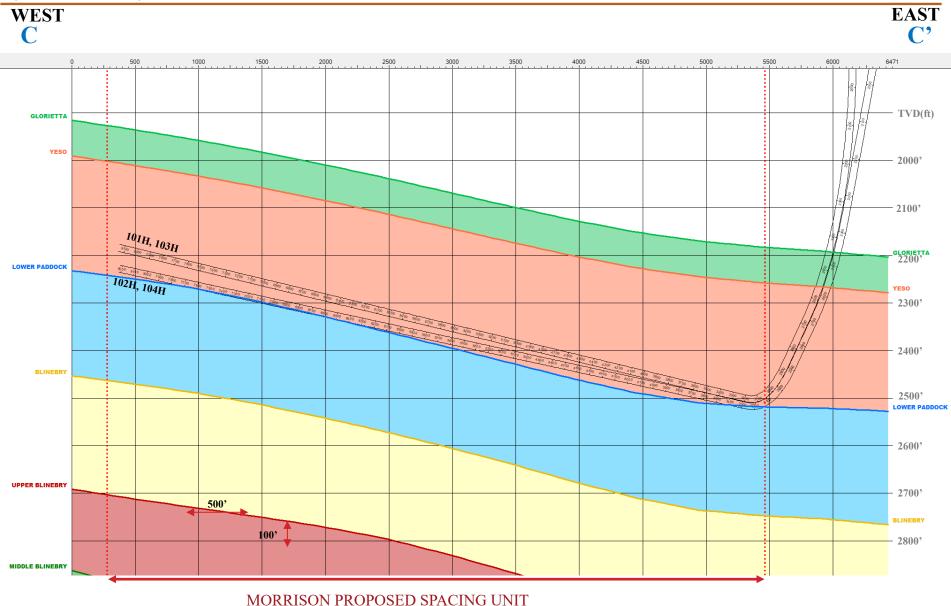
# TAB 6

## EXHIBIT B-5 Proposed Well Trajectories C-C' (TVD)

### **Received by OCD: 4/5/2023 12:53:32 PM Exhibit B-5: Proposed Well Trajectories C-C' (TVD)**

(TVD) SILVERBACK EXPLORATION

#### (Case No. 23424)

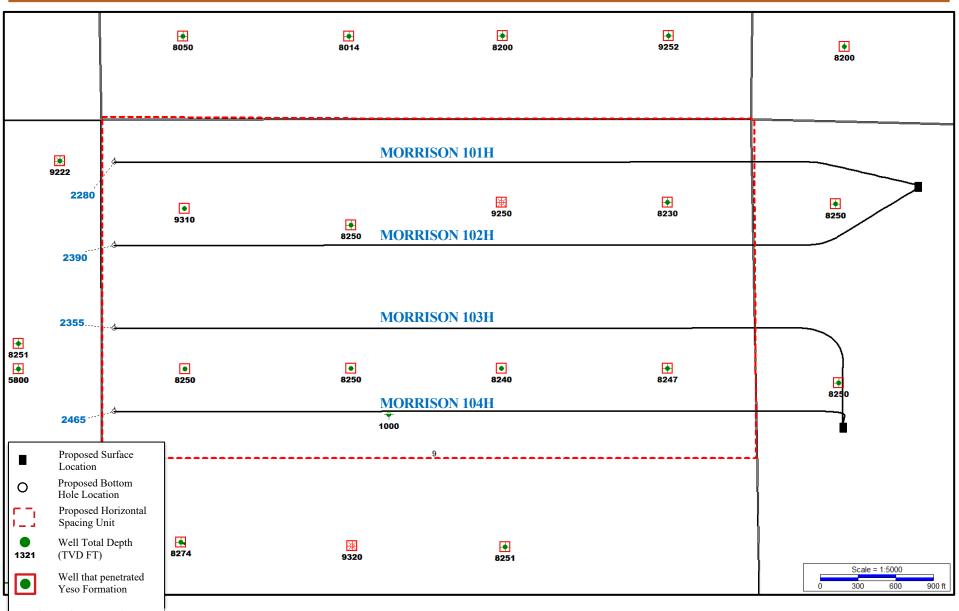


## EXHIBIT B-6 EXISTING WELLS IN PROPOSED HSU

### Received by OCD: 4/5/2023 12:53:32 PM Exhibit B-6: Existing wells in proposed HSU



(Case No. 23424)



## **EXHIBIT C AFFIDAVIT OF BEN HOLLIDAY**

### STATE OF NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

### APPLICATION OF SILVERBACK, LLC FOR COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO

CASE NO. 23424

#### **AFFIDAVIT**

## STATE OF TEXAS § COUNTY OF BEXAR §

I, Benjamin B. Holliday, attorney for SILVERBACK OPERATING II, LLC. ("Silverback"), the Applicant in the above-captioned matters, being first duly sworn, states the following:

I caused notice of the applications to be sent by certified mail through the United States Postal Service on March 13, 2023, to all the interest owners sought to be pooled in these proceedings. Evidence of mailing to all such owners is attached hereto as Exhibit "C-1." Out of an abundance of caution, notice was also directed to all such owners by publication in the Carlsbad Current Argus on March 24, 2023, which is reflected in the Affidavit of Publication attached hereto as Exhibit "C-2." Exhibit "C-2" demonstrates to my satisfaction that those owners who did not receive personal notice through the certified mailing were properly served by publication.

Silverback has conducted a good faith, diligent effort to find the names and correct addresses for the interest owners entitled to received notice of the Applications filed herein.

[Remainder of the page intentionally left blank.]

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BENJAMIN B. HOLLIDAY Counsel for Silverback Operating II, LLC

SUBSCRIBED AND SWORN to before me this day of April, 2023.

mendez

Notary Public, State of Texas

CHRISTINA MENDEZ Notary Public, State of Texas Comm. Expires 04-19-2025 Notary ID 4238408

## EXHIBIT C-1 Certified Mail Receipts

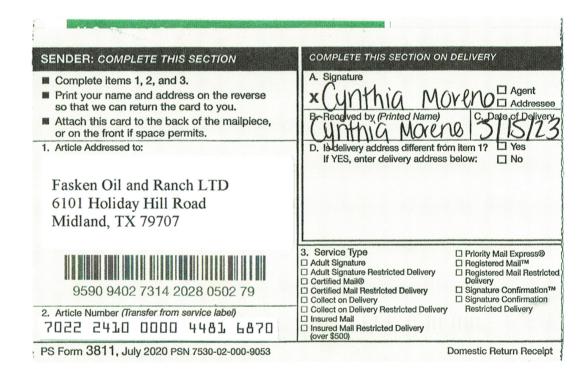
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Exhibit C-1

Silverback Exploration II							
Case No. 23424 – Application of Silverback Operating II, LLC for Compulsory Pooling, Eddy County, NM – Morrison Units 101H, 102H, 103H and 104H Wells April 6, 2023 Hearing WORKING INTEREST PARTY(IES)							
Fasken Oil and Ranch LTD	March 13, 2023	7022 2410 0000 4481 6870	Delivered	03/15/2023			
6101 Holiday Hill Road				Green card			
Midland, TX 79707				received.			
Spur Energy Partners Holdings, LLC	March 13, 2023	7022 2410 0000 4481 6887	Delivered	03/12/2023			
9655 Katy Freeway, Suite 500				Green card			
Houston, TX 77024				received.			
Toles Company	March 13, 2023	7022 2410 0000 4481 6894	Delivered	03/16/2023			
P.O. Box 1300				Green card			
Roswell, NM 88202-1300				received.			
Graham Family Investments, LLC	March 13, 2023	7022 2410 0000 4481 6900	Delivered	03/16/2023			
P.O. Box 1835				Green card			
Roswell, NM 88202-1835				received.			
Sharbro Energy, LLC	March 13, 2023	7022 2410 0000 4481 6917	Delivered	03/16/2023			
P.O. Box 840				Green card			
Artesia, NM 88211-0840				received.			
Vladin, LLC	March 13, 2023	7022 2410 0000 4481 6924	Delivered	03/16/2023			
P.O. Box 100				Green card			
Artesia, NM 88211-0100				received.			
Marshall & Winston, Inc.	March 13, 2023	7022 2410 0000 4481 6931	Delivered	03/16/2023			
P.O. Box 50880				Green card			
Midland, TX 79710-0880				received.			
Oxy Y 1 Company	March 13, 2023	7022 2410 0000 4481 6948	Delivered	03/16/2023			
5 Greenway Plaza, Suite 110				Green card			
Houston, TX 77046				received.			

Balwick Limited Partnership	March 13, 2023	7022 2410 0000 4481 6955	Delivered	03/21/2023
P.O. Box 52336				Green card
Midland, TX 79710-2336				received.
Lodewick, LLC	March 13, 2023	7022 2410 0000 4481 6962	Delivered	03/16/2023
3305 Wentwood				Green card
Dallas, TX 75225				received.





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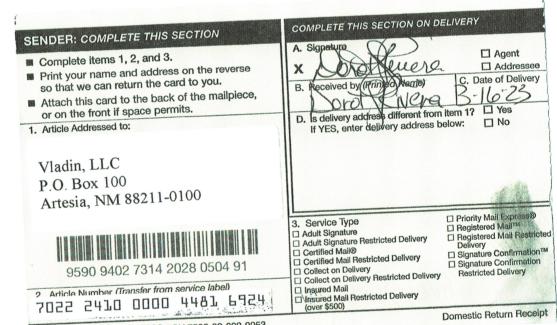




Signature     Signature     A     Signature     A     Signature     A     Signature     Signatu	Agent Addressee C. Date of Delivery item 1? Ves below: No
Service Type Adult Signature Adult Signature Restricted Delivery Certified Mail® Certified Mail Restricted Delivery Collect on Delivery Restricted Delivery Insured Mail Insured Mail Restricted Delivery (over \$500)	<ul> <li>□ Priority Mail Express@</li> <li>□ Registered Mail™</li> <li>□ Registered Mail Restricte Delivery</li> <li>□ Signature Confirmation™</li> <li>□ Signature Confirmation Restricted Delivery</li> </ul>
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PS Form 3811, July 2020 PSN 7530-02-000-9053





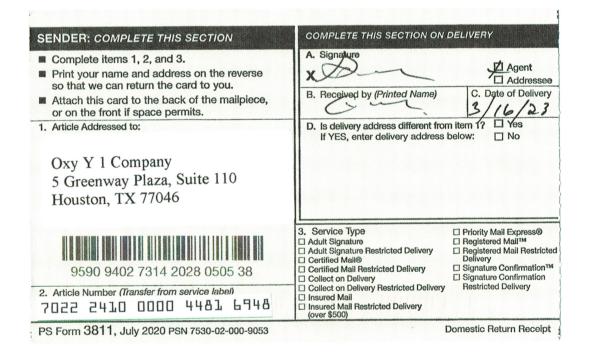
PS Form 3811, July 2020 PSN 7530-02-000-9053





PS Form 3811, July 2020 PSN 7530-02-000-9053



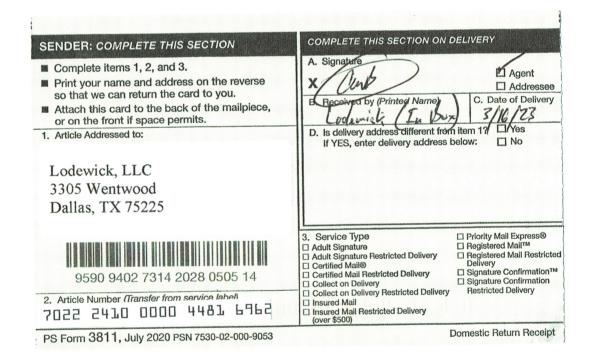




A. Signature X Char Constant B. Received by (Printed Name D. Is delivery address different from If YES, enter delivery address b	□ Agent □ Addressee ↓ C. Date of Delivery ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ helow: □ No
Service Type     Adult Signature     Adult Signature     Adult Signature Restricted Delivery     Certified Mail®     Certified Mail Restricted Delivery     Collect on Delivery     Collect on Delivery Restricted Delivery     Insured Mail     Insured Mail Restricted Delivery	<ul> <li>Priority Mail Express®</li> <li>Registered Mail™</li> <li>Registered Mail™</li> <li>Registered Mail Restricter Delivery</li> <li>Signature Confirmation™</li> <li>Signature Confirmation</li> <li>Restricted Delivery</li> </ul>
	B. Received by (Printed Name) D. Is delivery address different from If YES, enter delivery address b  3. Service Type Adult Signature Adult Signature Restricted Delivery Certified Mail® Collect on Delivery

PS Form 3811, July 2020 PSN 7530-02-000-9053





## EXHIBIT C-2 NEWSPAPER AFFIDAVIT BY PUBLICATION

## **Carlsbad Current Argus.**

Affidavit of Publication Ad # 0005640893 This is not an invoice

#### HOLLIDAY ENERGY LAW GROUP 4040 BROADWAY ST, SUITE 350

#### SAN ANTONIO, TX 78209

I, a legal clerk of the **Carlsbad Current Argus**, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof in editions dated as follows:

03/24/2023

Legal Clerk

Subscribed and sworn before me this March 24, 2023:

State of WI, County of Brown NOTARY PUBLIC

My commission expires

KATHLEEN ALLEN Notary Public State of Wisconsin

Ad # 0005640893 PO #: 5640893 # of Affidavits1

This is not an invoice

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This is to notify the follow-This is to notify the follow-ing entities, individuals, their heirs, personal repre-sentatives, trustees, succes-sors or assigns, and any oth-er uncommitted mineral owners: Fasken Oil and Ranch LTD; Spur Energy Partners Holdings, LLC; Toles Company; Graham Family Investments, LLC; Sharbro Energy, LLC; Vladin, LLC; Marshall & Winston, Inc.; Oxy Y 1 Company; Balwick Limited Partnership; and Lodewick, LLC. Case No. 23424, Application of Silver-23424, Application of Silver-23424, Application of Silver-back Operating II, LLC for the Compulsory Pooling of the N/2 Section 9, Township 19 South, Range 25 East Ed-dy County, New Mexico, as to the Penasco Draw SA-Vace Formation is not for Yeso Formation is set for hearing on Thursday, April 6, 2023 at 8:15 a.m. before a Division Examiner at the New Mexico Oil Conserva-tion Division. Hearing may be viewed online by going to https://www.emrd.nm.g ov/ocd/hearing-info/. Appliov/ocd/hearing-info/. Appli-cant's attorney is Benjamin Holliday, Holliday Energy Law Group, 4040 Broadway, Suite 350, San Antonio, TX 78209, ben@theenergylawgr oup.com, and the Applica-tion is on behalf of Silver-back Operating II, LLC, whose address is 19707 West IH 10, Suite 201, San Anto-nio, Texas, 78257. Applica-tion of Silverback Operating II, LLC for Compulsory Pool-II, LLC for Compulsory Pool-ing, Eddy County, New Mexico. Applicant seeks an order pooling all uncommitted interests in the Penasco Draw SA-Yeso Formation underlying a 320-acre, more or less, standard horizontal spacing unit comprised of the N/2 Section 9, Township 19 South, Range 25 East, NMPM Eddy County, New Mexico ("Unit"). The Unit will be dedicated to the fol-lowing wells. Will be dedicated to the fol-lowing wells: a) Morrison Unit #101H well ("101H Well"), which will be hori-zontally drilled from a sur-face hole location in the NW4 NW4 of Section 10, Tawarbie 10 South Banga Township 19 South, Range 25 East, being approximate-ly 501 feet FNL, and approxi-mately 1,330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximate-

ly 1,000 feet FNL, and approximately 100 feet FWL; b) the Morrison Unit #102H well ("102H Well"), which will be horizontally drilled will be horizontally drilled from a surface hole location in the NW4 NW4 of Section 10, Township 19 South, Range 25 East, being ap-proximately 521 feet FNL, and approximately 1,330 feet FWL, to a bottom hole location in the NW4 NW4 of Section 9 Township 19 Section 9, Township 19 South, Range 25 East, being approximately 1,000 feet FNL, and approximately 100 feet FWL; c) the Morrison Unit #103H well ("103H Well"), which will be hori-zontally drilled from a surface hole located in the SW4 Tace noie located in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, being approximate-ly 2,418 feet FNL, and ap-proximately 729 feet FWL, to a bottom hole location in to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximate-ly 1,660 feet FNL, and ap-proximately 100 feet FWL; and d) the Morrison Unit #104H well ("104H Well"), which will be horizontally drilled from a surface hole located in the SW4 NW4 of Section 10, Township 19 South, Range 25 East, being South, Range 25 East, being approximately 2,438 feet FNL, and approximately 729 feet FWL, to a bottom hole location in the SW4 NW4 of Section 9, Township 19 South, Range 25 East, being approximately 2,320 feet PNL, and approximately 2,520 feet FNL, and approximately 100 feet FWL. The 101H Well, 102H Well, 103H Well, and 104H Well are referred to collectively herein as the "Wells." The completed in-"Wells." Wells Wells will be terval of the Wells will be orthodox. Also, to be con-sidered will be the cost of drilling and completing the Wells and the allocation of the cost, the designation of Applicant as the operator of the Wells, and a 200% charge for the risk involved in drilling and completing the Wells. The Wells are located approximately 20 miles South of Artesia, New Mexico. #5640893, Current Argus,

#5640893, Current Argus, Mar. 24, 2023