Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM138868

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.:

8. Lease Name and Well No.: PHANTOM BANK 31 FED 561H

2. Name of Operator: FLAT CREEK RESOURCES LLC

9. API Well No.: 30-015-53701

3a. Address: 777 Main Street, Suite 3600, Fort Worth, TX 76102

3b. Phone No. *(include area code)*: (817) 310-8570

10. Field and Pool, or Exploratory: WILDCAT G-015 S263001O/BONE SPRI

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: NWNW / 550 FNL / 350 FWL / LAT 32.004658 / LONG -103.807788

At proposed prod. zone: LOT 1 / 1050 FNL / 30 FWL / LAT 32.003047 / LONG -103.826025

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 32/T26S/R31E/NMP

14. Distance in miles and direction from nearest town or post office*: 22 miles

12. County or Parish: EDDY

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 350 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 264.48

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 30 feet

19. Proposed Depth: 10163 feet / 15753 feet

20. BLM/BIA Bond No. in file: FED: NMB001675

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3129 feet

22. Approximate date work will start*: 09/01/2022

23. Estimated duration: 90 days

24. Attachments

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

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

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	BRIAN WOOD / Ph: (817) 310-8570	05/16/2022

Title: President

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	CODY LAYTON / Ph: (575) 234-5959	03/23/2023

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

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

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

Dean R McClure

04/13/2023

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 03/23/2023

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-53701	98319 97814	WC 015 G06 S242630A BONE SPRING

[4] Property Code	[5] Property Name	[6] Well Number
333919	PHANTOM BANK 31 FED	561H

[7] OGRID No.	[8] Operator Name	[9] Elevation
374034	FLAT CREEK RESOURCES, LLC	3129'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	32	26 SOUTH	31 EAST, N.M.P.M.		550'	NORTH	350'	WEST	EDDY

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L1	31	26 SOUTH	31 EAST, N.M.P.M.		1050'	SOUTH	30'	WEST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
264.48			

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.

[16]

PROPOSED LAST TAKE POINT		
X=	657,476'	NAD 27
Y=	365,160'	
LAT.	32.002922° N	
LONG.	103.825325° W	
X=	698,663'	NAD83/86
Y=	365,217'	
LAT.	32.003047° N	
LONG.	103.825799° W	

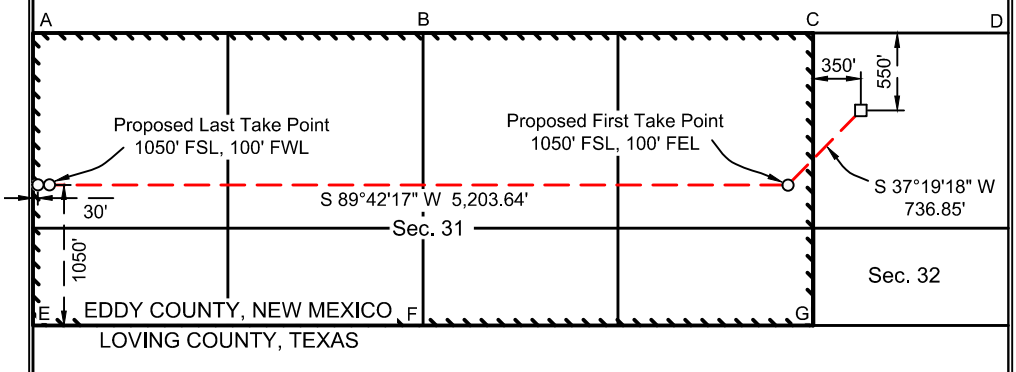
PROPOSED FIRST TAKE POINT		
X=	662,609'	NAD 27
Y=	365,187'	
LAT.	32.002927° N	
LONG.	103.808764° W	
X=	703,796'	NAD83/86
Y=	365,244'	
LAT.	32.003053° N	
LONG.	103.809238° W	

PROPOSED BOTTOM HOLE LOCATION		
X=	657,406'	NAD 27
Y=	365,160'	
LAT.	32.002922° N	
LONG.	103.825550° W	
X=	698,593'	NAD83/86
Y=	365,217'	
LAT.	32.003047° N	
LONG.	103.826025° W	

CORNER COORDINATES TABLE (NAD 27)

A - Y=366245.06, X=657370.11
B - Y=366283.60, X=660040.51
C - Y=366321.04, X=662703.16
D - Y=366332.89, X=665368.25
E - Y=364109.66, X=657381.51
F - Y=364123.23, X=660052.17
G - Y=364137.17, X=662715.32

PHANTOM BANK 31 FED NO. 561H WELL		
X=	663,056'	NAD 27
Y=	365,773'	
LAT.	32.004532° N	
LONG.	103.807314° W	
X=	704,243'	NAD83/86
Y=	365,830'	
LAT.	32.004658° N	
LONG.	103.807788° W	
ELEV.	+3129'	NAVD88



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Rodney Littleton 1/5/23
Signature Date

Rodney Littleton
Printed Name

rodney.littleton@flatcreekresources.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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

04/13/2022
Date of Survey

Signature and Seal of Professional Surveyor:

STEVEN M. COLEMAN NEW MEXICO 22921 PROFESSIONAL SURVEYOR
01/04/2023

Certificate Number

State of New Mexico
Energy, Minerals and Natural Resources
Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Flat Creek Resources, LLC **OGRID:** 374034 **Date:** 03 / 31 / 2023

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Phantom Bank 31 Fed 511H		D-32-T26S-R31E	520' FNL 350' FWL	800	3800	3000
Phantom Bank 31 Fed 561H		D-32-T26S-R31E	550' FNL 350' FWL	800	3800	3000

IV. Central Delivery Point Name: Phantom Bank Battery [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Phantom Bank 31 Fed 511H		October 5, 2023	Nov 30, 2023	January 1, 2024	January 30, 2024	Feb 5, 2024
Phantom Bank 31 Fed 561H		October 6, 2023	Dec 10, 2023	January 1, 2024	January 30, 2024	Feb 5, 2024

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

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

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

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature:	Rodney Littleton
Printed Name:	Rodney Littleton
Title:	VP of Operations
E-mail Address:	rodney.littleton@flatcreekresources.com
Date:	March 31, 2023
Phone:	817-310-8578

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. SEPARATION EQUIPMENT

Flat Creek Resources, LLC, has installed:

- four 48” OD x 15’, 500#, 3 phase separators
- one 96” OD x 20’, 250# heater treater
- four 750 BBL water tanks
- three 750 BBL oil tanks
- one 15’6” x 30’, 1000 BBL gun barrel
- one 72” OD x 15’ gas scrubber
- one vapor recovery tower
- one vapor recovery unit
- vapor recovery piping for oil and water tanks

System is designed to capture 120% of the expected gas volume from separation all the way through the vapor recovery equipment.

VII. OPERATIONAL PRACTICES

NMAC 19.15.27.8 (A) Venting & Flaring of Natural Gas

1. Flat Creek Resources will comply with NMAC 19.15.27.8 – venting and flaring of gas during drilling, completion, or production that constitutes waste as defined in 19.15.2 is banned.

NMAC 19.15.27.8 (B) Venting & Flaring During Drilling

1. Flat Creek will combust gas if technically feasible during drilling operations using best industry practices.
2. A flare stack with a 100% capacity for expected volume will be set on the pad greater than 100 feet from the nearest well head and storage tank.
3. In an emergency, Flat Creek will vent the gas in order to avoid substantial impact. Flat Creek will report vented or flared gas to the NMOCD.

NMAC 19.15.27.8 (C) Venting & Flaring During Completion or Recompletion

1. Facilities will be built and ready from the first day of flowback.
2. Test separator will properly separate gas and liquids. Temporary test separator will be used initially to process volumes. In addition, separator will be tied into flowback tanks which will be tied into the gas processing equipment for sale down a pipeline.
3. Should the facility not be ready to process gas or the gas does not meet quality standards then the flowback will be delayed until the facility and pipeline are ready.

NMAC 19.15.27.8 (D) Venting & Flaring During Production

Flat Creek will not vent or flare natural gas except:

1. During and emergency or malfunction.
2. To unload or clean-up liquid holdup in a well to atmospheric pressure, provided
    a. Flat Creek does not vent after the well achieves a stabilized rate and pressure
    b. Flat Creek will be on-site while unloading liquids by manual purging and take all reasonable actions to achieve a stabilized rate and pressure as soon as possible
    c. Flat Creek will optimize the system to minimize gas venting if the well is equipped with a plunger lift or auto control system
    d. Best management practices will be used during downhole well maintenance
3. During the following activities unless prohibited
    a. Gauging or sampling a storage tank or low-pressure production vessel
    b. Loading out liquids from a storage tank
    c. Repair and maintenance
    d. Normal operations of a gas-activated pneumatic controller or pump
    e. Normal operation of a storage tank but not including venting from a thief hatch
    f. Normal operation of a dehydration units
    g. Normal operations of compressors, engines, turbines, valves, flanges, & connectors
    h. During bradenhead, packer leakage test, or production test lasting less than 24 hours
    i. When natural gas does not meet the gathering line specifications

j. Commissioning of pipelines, equipment, or facilities only for as long as necessary to purge introduced impurities

NMAC 19.15.27.8 (E) Performance Standards

1. Flat Creek used a safety factor to design the separation and storage equipment. The equipment will be routed toa vapor recovery system and uses a flare as back up to startup, shutdown, maintenance, or malfunction of the VRU system.
2. Flat Creek will install a flare that will handle the full volume of vapors from the facility in case of VRU failure. It will have an auto-ignition system.
3. Flare stacks will be appropriately sized and designed to ensure proper combustion efficiency
    a. Flare stacks installed or replaced will be equipped with an automatic ignitor or continuous pilot.
    b. Flare stacks will be located greater than 100 feet from well head and storage tanks and securely anchored
4. Flat Creek will conduct an AVO inspection on all components for leaks and defects every week.
5. Flat Creek will make and keep records of AVO inspection available to the NMOCD for at least 5 years.
6. Flat Creek may use a remote or automated monitoring technology to detect leaks and releases in lieu of AVO inspections with prior NMOCD approval.
7. Facilities will be designed to minimize waste.
8. Flat Creek will resolve emergencies as promptly as possible.

NMAC 19.15.27.8 (F) Measuring or Estimating Vented and Flared Natural Gas

1. Flat Creek will have meters on both the low pressure and high-pressure sides of the flares. Volumes will be recorded in the SCADA system.
2. Flat Creek will install equipment to measure the volume of flared natural gas that has an average production of greater than 60 MCFD.
3. Flat Creek's measuring equipment will conform to industry standards.
4. Measurement system will be designed such that it cannot be bypassed except for inspections and servicing the meters.
5. Flat Creek will estimate the volume of vented or flared gas using a methodology that can be independently verified if metering is not practicable due to low flow rate or pressure.
6. Flat Creek will estimate the volume of vented and/or flared gas based on the results of an annual GOR test for wells that do not require measuring equipment reported on form C-116.
7. Flat Creek will install measuring equipment whenever the NMOCD determines that metering is necessary.

VIII. BEST MANAGEMENT PRACTICES

Flat Creek Resources, LLC, will minimize venting during maintenance by:

1. System will be designed and operated to route storage tank and process equipment emissions to the VRU. If the VRU is not operable, then the vapors will be routed to the flare.
2. Scheduling maintenance for multiple tasks to minimize the need for blowdowns.
3. After completion of maintenance, gas will be flared until it meets pipeline specifications.

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report
03/23/2023

APD ID: 10400085356
Submission Date: 05/16/2022

Operator Name: FLAT CREEK RESOURCES LLC

Well Name: PHANTOM BANK 31 FED
Well Number: 561H

Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
8616819	QUATERNARY	3129	0	0	OTHER : Caliche	USEABLE WATER	N
8616820	RUSTLER ANHYDRITE	2293	836	836	ANHYDRITE	NONE	N
8616821	TOP SALT	1619	1510	1510	SALT	NONE	N
8616822	BASE OF SALT	-464	3593	3593	SALT	NONE	N
8616823	LAMAR	-664	3793	3793	LIMESTONE	NATURAL GAS, OIL	N
8616824	BELL CANYON	-702	3831	3831	SANDSTONE	NATURAL GAS, OIL	N
8616825	CHERRY CANYON	-1619	4748	4760	SANDSTONE	NATURAL GAS, OIL	N
8616828	BRUSHY CANYON	-2966	6095	6130	SANDSTONE	NATURAL GAS, OIL	N
8616826	BONE SPRING LIME	-4581	7710	7768	LIMESTONE	NATURAL GAS, OIL	N
8616827	UPPER AVALON SHALE	-4933	8062	8120	SHALE	NATURAL GAS, OIL	N
8616818	AVALON SAND	-5225	8354	8412	OTHER, SHALE : Lower	NATURAL GAS, OIL	N
8616829	BONE SPRING 1ST	-5573	8702	8760	SANDSTONE	NATURAL GAS, OIL	N
8616830	BONE SPRING 2ND	-5890	9019	9088	SHALE	NATURAL GAS, OIL	N
8616831	BONE SPRING 2ND	-6200	9329	9388	SANDSTONE	NATURAL GAS, OIL	N
8617598	BONE SPRING 3RD	-6674	9803	9860	SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Operator Name: FLAT CREEK RESOURCES LLC

Well Name: PHANTOM BANK 31 FED **Well Number:** 561H

Pressure Rating (PSI): 10M **Rating Depth:** 20000

Equipment: A 20,000', 10,000 psi BOP stack will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer, and an annular preventer (5000-psi WP). Both units will be hydraulically operated, and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top.
Requesting Variance? YES

Variance request: Variance is requested to use a co-flex line between the BOP and choke manifold instead of using a 4" OD steel line.
Testing Procedure: All BOPE will be tested in accordance with Onshore Oil & Gas Order 2. 1. Use water to test BOPs. 2. Make up test assembly (test plug) and set in the wellhead profile. Ensure the casing valve is left open. Monitor the casing valve outlet while testing for potential leak past the test plug. 3. Circulate through the choke/kill lines, choke manifold, standpipe manifold, and valves to ensure that all lines are full of water. This will prevent pressure drop (compression) while testing. 4. Line up test unit and test rams, valves and lines as per the chart below. 5. Pressure tests must be low and high, respectively, and the pressure should stabilize with minimum bleed off within 10 minutes. If a test plug is utilized, no bleed-off of pressure is acceptable. For a test not utilizing a test plug, if a decline in pressure of more than 10 percent in 30 minutes occurs, the test shall be considered to have failed. Pressure should be recorded on a chart recorder (add scale to be use) 6. Any equipment that does not pass the pressure test must be reported to the drilling supervisor. Equipment must be repaired and retested. 7. Continue with pressure testing until all equipment has been tested as per the specific rig requirements. 8. Rig down test assembly. 9. All tests and drills to be recorded in the drilling log.

Choke Diagram Attachment:

Choke_Diagram_v2_20230119091756.pdf

BOP Diagram Attachment:

BOP_10M_20220514113246.pdf

BOP_Wellhead_Testing_v2_20230119091808.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	950	0	950	3129	2179	950	J-55	54.5	BUTT	1.125	1.125	DRY	1.6	DRY	1.6
2	INTERMEDIATE	12.25	10.75	NEW	NON API	N	0	3700	0	3700	3129	-571	3700	J-55	45.5	OTHER - BTC-SC	1.125	1.125	DRY	1.6	DRY	1.6
3	INTERMEDIATE	9.875	7.625	NEW	API	N	0	9690	0	9632	3129	-6503	9690	OTHER	29.7	BUTT	1.125	1.125	DRY	1.6	DRY	1.6
4	PRODUCTION	6.75	5.5	NEW	NON API	N	0	15753	0	10163	3129	-7034	15753	OTHER	20	OTHER - TCBC-HT-SC	1.125	1.125	DRY	1.6	DRY	1.6

Operator Name: FLAT CREEK RESOURCES LLC

Well Name: PHANTOM BANK 31 FED **Well Number:** 561H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Worksheet_v2_20230119091845.pdf

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

10.75_Casing_Spec_Special_Clearance_0.400_J55_Casing_03072022_20230119091932.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Worksheet_v2_20230119091948.pdf

Casing ID: 3 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Worksheet_v2_20230119092018.pdf

Operator Name: FLAT CREEK RESOURCES LLC

Well Name: PHANTOM BANK 31 FED **Well Number:** 561H

Casing Attachments

Casing ID: 4 **String** PRODUCTION

Inspection Document:

Spec Document:

5.5_Casing_Spec_Special_Clearance_TCBC_HT_5.9_OD_20220514112817.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Design_Worksheet_v2_20230119092046.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	650	520	1.68	12.8	874	100	35/65 Poz-Premium C	5% bwow Sodium chloride + 6% bentonite gel + 0.4% CPT-503P + 0.125 lbs/sk Dura fiber
SURFACE	Tail		650	950	340	1.34	14.8	456	100	Class C	1% Calcium chloride + 0.25 lb/sk cellophane flake
INTERMEDIATE	Lead		0	3000	445	1.68	12.8	748	35	35/65 Poz-Premium C	5% bwow Sodium chloride + 6% bentonite gel + 0.4% CPT-503P + 0.125 lbs/sk Dura fiber
INTERMEDIATE	Tail		3000	3700	120	1.74	1.5	209	35	Class C	1% calcium chloride + 4% bentonite gel + 0.4% CPT-503P + 0.125 lbs/sk Dura fiber
INTERMEDIATE	Lead		0	7500	775	2.82	10.4	2186	35	Class C	10% bwoc light weight bead + 5% silica fume alternative + 0.2% suspension aid + 0.3% fluid loss additive + 0.3% dispersant + 0.2% cement retarder

Operator Name: FLAT CREEK RESOURCES LLC

Well Name: PHANTOM BANK 31 FED **Well Number:** 561H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		7500	9690	450	1.42	13.5	639	35	35/65 Poz Premium H	0.2% CPT-23
PRODUCTION	Lead		0	7500	260	2.82	10.4	733	15	Class C	10% bwoc light weight bead + 5% silica fume alternative + 0.2% suspension aid + 0.3% fluid loss additive + 0.3% dispersant + 0.2% cement retarder
PRODUCTION	Tail		7500	15753	560	1.42	13.2	795	15	35/65 Poz-Premium H	0.2% CPT-23

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials (e. g., barite, bentonite, LCM) to maintain mud properties and meet minimum lost circulation and weight increase requirements will always be kept on site.
Describe the mud monitoring system utilized: An electronic pit volume totalizer (PVT) mud system will monitor pit volumes for gains or losses, flow rate, pump pressures, and stroke rate.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	950	OTHER : Fresh Water Spud Mud	8.4	8.4							
950	3700	OTHER : Brine Water	10	10							
3700	9690	OTHER : Cut Brine	8.7	8.7							

Operator Name: FLAT CREEK RESOURCES LLC

Well Name: PHANTOM BANK 31 FED **Well Number:** 561H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
9690	15753	OTHER : Cut Brine	8.7	8.7							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Production tests include Gama Ray log and resistivity log. No open and cased hole logs are planned at this time.

List of open and cased hole logs run in the well:

GAMMA RAY LOG,POROSITY-RESISTIVITY LOG,

Coring operation description for the well:

No coring operation is planned.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4356 **Anticipated Surface Pressure:** 2120

Anticipated Bottom Hole Temperature(F): 169

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Phantom_H2S_Plan_20220514113027.pdf

Operator Name: FLAT CREEK RESOURCES LLC

Well Name: PHANTOM BANK 31 FED **Well Number:** 561H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Phantom_561H_Horizontal_Plan_20220514113037.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Phantom_561H_Anticollision_Report_20220514113112.pdf
Wellhead_Diagram_4string_20220514113128.pdf
Choke_Hose_Certs_v2_RDC_20230119092544.pdf
Phantom_561H_Drill_Plan_v3_20230131082614.pdf

Other Variance attachment:

FLAT CREEK RESOURCES

Well: Phantom Bank 31 Fed Com No. 561H
Site: Phantom Bank 31 Fed Com
Project: Eddy County, New Mexico NAD27 NM
Design: rev0

TRUE Directional Services, LLC

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect	Annotation
1	0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	
2	3800.00	0.00	0.000	3800.00	0.00	0.00	0.00	0.00	KOP Begin 2°/100' build
3	4350.00	11.00	130.000	4346.63	-33.83	40.32	2.00	-40.15	Begin 11.00° tangent
4	4450.00	11.00	130.000	4444.79	-46.10	54.94	0.00	-54.70	Begin 2°/100' build/turn
5	4990.16	11.50	187.649	4976.14	-132.85	87.34	2.00	-86.66	Begin 11.50° tangent
6	6982.87	11.50	187.649	6928.85	-526.60	34.46	0.00	-31.76	Begin 2°/100' drop
7	7557.88	0.00	0.000	7500.00	-583.60	26.81	2.00	-23.82	Begin vertical hold
8	9748.03	0.00	0.000	9690.15	-583.60	26.81	0.00	-23.82	Begin 10°/100' build
9	10659.28	91.12	269.706	10263.00	-586.60	-557.39	10.00	560.39	Begin 91.12° lateral
10	15683.32	91.12	269.706	10164.37	-612.36	-5580.40	0.00	5583.47	LTP 15683.32 MD 10164.37 TVD
11	15753.08	91.12	269.706	10163.00	-612.72	-5650.15	0.00	5653.22	PBHL/TD 15753.08 MD 10163.00 TVD

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Depth Reference: RKB=3129-+26.5 @ 3155.50ft

Northing	Easting	Latitude	Longitude
365772.614	663056.185	32.004532000	-103.807314000

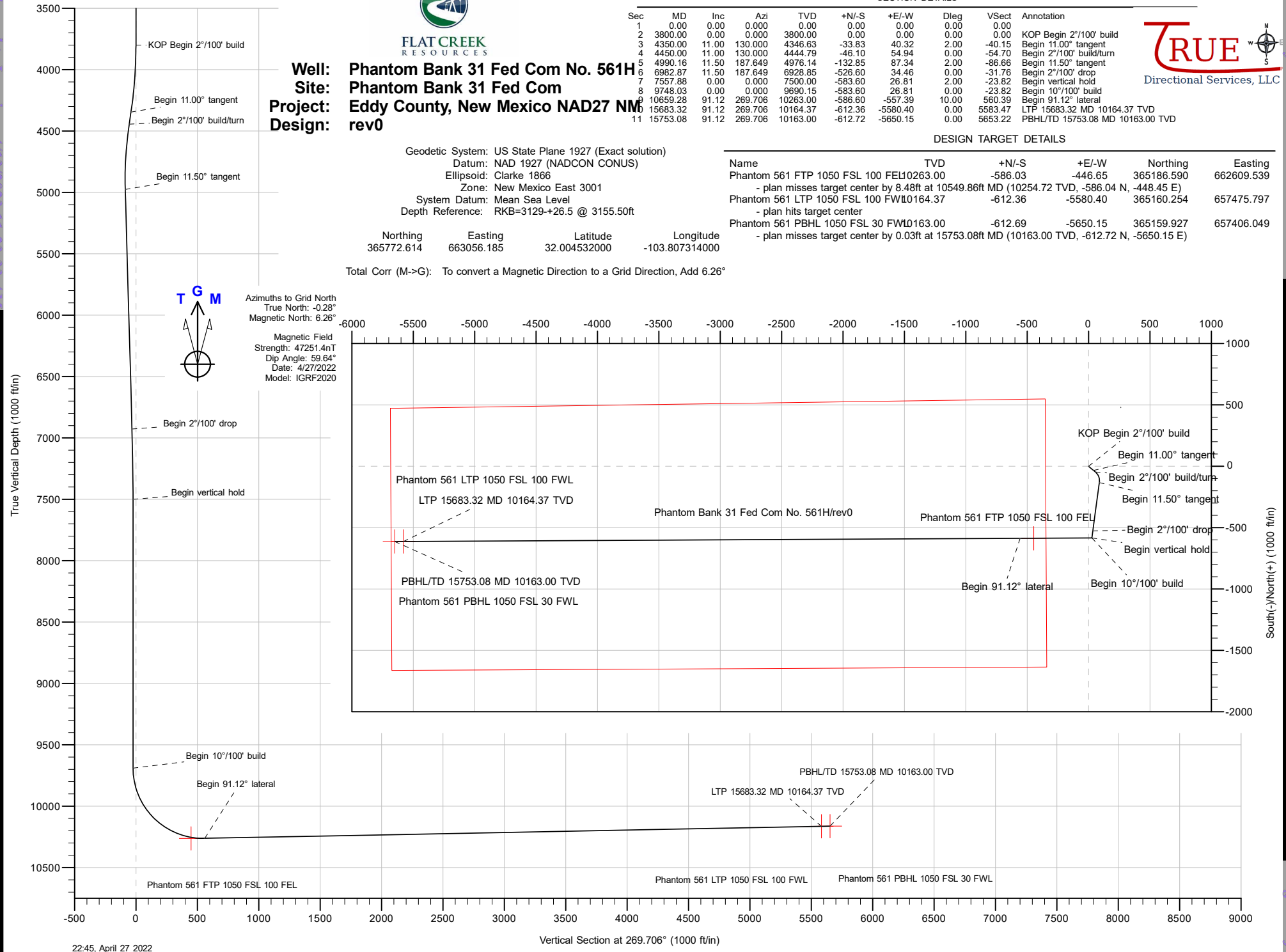
Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Add 6.26°

Azimuths to Grid North
True North: -0.28°
Magnetic North: 6.26°

Magnetic Field
Strength: 47251.4nT
Dip Angle: 59.64°
Date: 4/27/2022
Model: IGRF2020

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
Phantom 561 FTP 1050 FSL 100 FEL	10263.00	-586.03	-446.65	365186.590	662609.539
- plan misses target center by 8.48ft at 10549.86ft MD (10254.72 TVD, -586.04 N, -448.45 E)					
Phantom 561 LTP 1050 FSL 100 FWL	10164.37	-612.36	-5580.40	365160.254	657475.797
- plan hits target center					
Phantom 561 PBHL 1050 FSL 30 FWL	10163.00	-612.69	-5650.15	365159.927	657406.049
- plan misses target center by 0.03ft at 15753.08ft MD (10163.00 TVD, -612.72 N, -5650.15 E)					

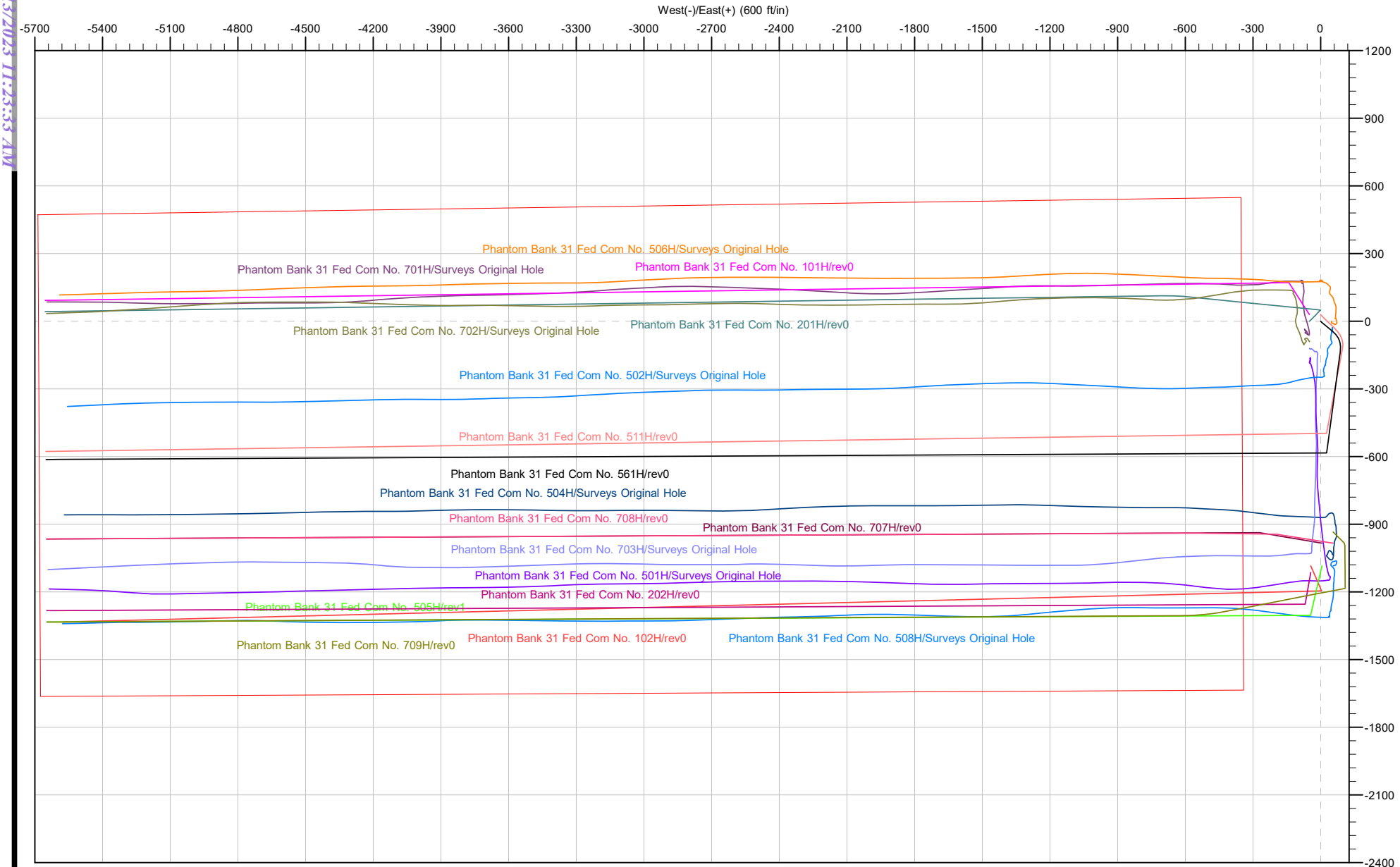


22:45, April 27 2022

FLAT CREEK RESOURCES

Well: Phantom Bank 31 Fed Com No. 561H
Site: Phantom Bank 31 Fed Com
Project: Eddy County, New Mexico NAD27 NM
Design: rev0

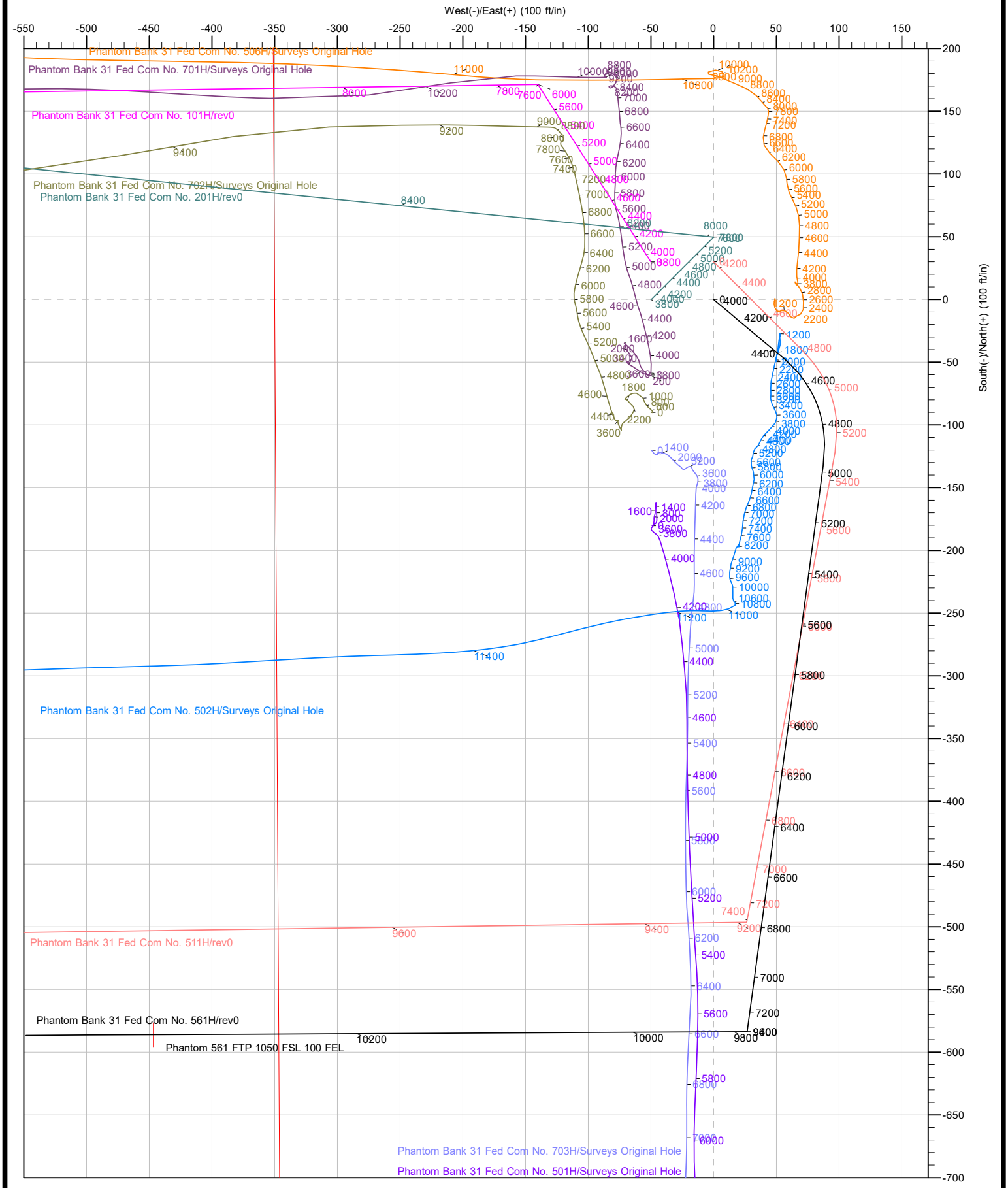
TRUE Directional Services, LLC



FLAT CREEK RESOURCES

Well: Phantom Bank 31 Fed Com No. 561H
Site: Phantom Bank 31 Fed Com
Project: Eddy County, New Mexico NAD27 NM
Design: rev0

TRUE Directional Services, LLC



FLAT CREEK RESOURCES

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	**TVD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Project:	Eddy County, New Mexico NAD27 NM	**MD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Site:	Phantom Bank 31 Fed Com	**North Reference:**	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project Eddy County, New Mexico NAD27 NM

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Phantom Bank 31 Fed Com

Site Position:		**Northing:**	365,652.329 usft	**Latitude:**	32.004202000
From:	Lat/Long	**Easting:**	663,006.861 usft	**Longitude:**	-103.807475000
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "		

Well Phantom Bank 31 Fed Com No. 561H, Surf loc: 550 FNL 350 FWL Section 32-T26S-R31E

Well Position	**+N/-S**	0.00 ft	**Northing:**	365,772.613 usft	**Latitude:**	32.004532000
	+E/-W	0.00 ft	**Easting:**	663,056.185 usft	**Longitude:**	-103.807314000
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,129.00 ft
Grid Convergence:		0.28 °				

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	4/27/2022	6.54	59.64	47,251.43937625

Design rev0

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	269.706

Plan Survey Tool Program **Date** 4/27/2022

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	15,753.08	rev0 (Original Hole)	MWD	
				OWSG MWD - Standard	

FLAT CREEK RESOURCES

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	**TVD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Project:	Eddy County, New Mexico NAD27 NM	**MD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Site:	Phantom Bank 31 Fed Com	**North Reference:**	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,800.00	0.00	0.000	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,350.00	11.00	130.000	4,346.63	-33.83	40.32	2.00	2.00	0.00	130.00	
4,450.00	11.00	130.000	4,444.79	-46.10	54.94	0.00	0.00	0.00	0.00	
4,990.16	11.50	187.649	4,976.14	-132.85	87.34	2.00	0.09	10.67	116.03	
6,982.87	11.50	187.649	6,928.85	-526.60	34.46	0.00	0.00	0.00	0.00	
7,557.88	0.00	0.000	7,500.00	-583.60	26.81	2.00	-2.00	0.00	180.00	
9,748.03	0.00	0.000	9,690.15	-583.60	26.81	0.00	0.00	0.00	0.00	
10,659.28	91.12	269.706	10,263.00	-586.60	-557.39	10.00	10.00	-9.91	269.71	
15,683.32	91.12	269.706	10,164.37	-612.36	-5,580.40	0.00	0.00	0.00	0.00	Phantom 561 LTP 10
15,753.08	91.12	269.706	10,163.00	-612.72	-5,650.15	0.00	0.00	0.00	0.00	Phantom 561 PBHL 1

FLAT CREEK RESOURCES

Planning Report

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Project:	Eddy County, New Mexico NAD27 NM	**MD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Site:	Phantom Bank 31 Fed Com	**North Reference:**	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.000	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.000	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.000	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.000	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.000	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.000	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.000	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.000	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.000	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.000	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.000	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.000	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.000	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.000	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.000	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.000	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.000	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.000	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.000	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.000	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.000	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.000	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.000	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.000	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.000	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.000	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.000	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.000	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.000	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.000	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.000	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.000	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.000	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.000	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 2°/100' build									
3,900.00	2.00	130.000	3,899.98	-1.12	1.34	-1.33	2.00	2.00	0.00
4,000.00	4.00	130.000	3,999.84	-4.49	5.35	-5.32	2.00	2.00	0.00
4,100.00	6.00	130.000	4,099.45	-10.09	12.02	-11.97	2.00	2.00	0.00
4,200.00	8.00	130.000	4,198.70	-17.92	21.36	-21.27	2.00	2.00	0.00
4,300.00	10.00	130.000	4,297.47	-27.98	33.34	-33.20	2.00	2.00	0.00
4,350.00	11.00	130.000	4,346.63	-33.83	40.32	-40.15	2.00	2.00	0.00
Begin 11.00° tangent									
4,400.00	11.00	130.000	4,395.71	-39.97	47.63	-47.42	0.00	0.00	0.00
4,450.00	11.00	130.000	4,444.79	-46.10	54.94	-54.70	0.00	0.00	0.00
Begin 2°/100' build/turn									
4,500.00	10.60	134.891	4,493.91	-52.41	61.85	-61.58	2.00	-0.80	9.78
4,600.00	10.05	145.638	4,592.30	-66.10	73.29	-72.95	2.00	-0.55	10.75
4,700.00	9.87	157.177	4,690.80	-81.21	81.54	-81.12	2.00	-0.17	11.54

FLAT CREEK RESOURCES

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	**TVD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Project:	Eddy County, New Mexico NAD27 NM	**MD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Site:	Phantom Bank 31 Fed Com	**North Reference:**	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,800.00	10.10	168.659	4,789.29	-97.70	86.59	-86.09	2.00	0.22	11.48
4,900.00	10.69	179.261	4,887.66	-115.58	88.43	-87.84	2.00	0.60	10.60
4,990.16	11.50	187.649	4,976.14	-132.85	87.34	-86.66	2.00	0.90	9.30
Begin 11.50° tangent									
5,000.00	11.50	187.649	4,985.78	-134.79	87.08	-86.39	0.00	0.00	0.00
5,100.00	11.50	187.649	5,083.78	-154.55	84.43	-83.63	0.00	0.00	0.00
5,200.00	11.50	187.649	5,181.77	-174.31	81.78	-80.88	0.00	0.00	0.00
5,300.00	11.50	187.649	5,279.76	-194.07	79.12	-78.12	0.00	0.00	0.00
5,400.00	11.50	187.649	5,377.75	-213.83	76.47	-75.37	0.00	0.00	0.00
5,500.00	11.50	187.649	5,475.75	-233.59	73.81	-72.61	0.00	0.00	0.00
5,600.00	11.50	187.649	5,573.74	-253.35	71.16	-69.86	0.00	0.00	0.00
5,700.00	11.50	187.649	5,671.73	-273.11	68.51	-67.10	0.00	0.00	0.00
5,800.00	11.50	187.649	5,769.72	-292.87	65.85	-64.35	0.00	0.00	0.00
5,900.00	11.50	187.649	5,867.72	-312.63	63.20	-61.59	0.00	0.00	0.00
6,000.00	11.50	187.649	5,965.71	-332.39	60.55	-58.84	0.00	0.00	0.00
6,100.00	11.50	187.649	6,063.70	-352.15	57.89	-56.09	0.00	0.00	0.00
6,200.00	11.50	187.649	6,161.69	-371.91	55.24	-53.33	0.00	0.00	0.00
6,300.00	11.50	187.649	6,259.69	-391.67	52.59	-50.58	0.00	0.00	0.00
6,400.00	11.50	187.649	6,357.68	-411.43	49.93	-47.82	0.00	0.00	0.00
6,500.00	11.50	187.649	6,455.67	-431.19	47.28	-45.07	0.00	0.00	0.00
6,600.00	11.50	187.649	6,553.66	-450.95	44.62	-42.31	0.00	0.00	0.00
6,700.00	11.50	187.649	6,651.66	-470.70	41.97	-39.56	0.00	0.00	0.00
6,800.00	11.50	187.649	6,749.65	-490.46	39.32	-36.80	0.00	0.00	0.00
6,900.00	11.50	187.649	6,847.64	-510.22	36.66	-34.05	0.00	0.00	0.00
6,982.87	11.50	187.649	6,928.85	-526.60	34.46	-31.76	0.00	0.00	0.00
Begin 2°/100' drop									
7,000.00	11.16	187.649	6,945.64	-529.93	34.02	-31.30	2.00	-2.00	0.00
7,100.00	9.16	187.649	7,044.07	-547.41	31.67	-28.86	2.00	-2.00	0.00
7,200.00	7.16	187.649	7,143.05	-561.47	29.78	-26.90	2.00	-2.00	0.00
7,300.00	5.16	187.649	7,242.47	-572.10	28.35	-25.42	2.00	-2.00	0.00
7,400.00	3.16	187.649	7,342.20	-579.29	27.39	-24.42	2.00	-2.00	0.00
7,500.00	1.16	187.649	7,442.13	-583.02	26.89	-23.90	2.00	-2.00	0.00
7,557.88	0.00	0.000	7,500.00	-583.60	26.81	-23.82	2.00	-2.00	0.00
Begin vertical hold									
7,600.00	0.00	0.000	7,542.12	-583.60	26.81	-23.82	0.00	0.00	0.00
7,700.00	0.00	0.000	7,642.12	-583.60	26.81	-23.82	0.00	0.00	0.00
7,800.00	0.00	0.000	7,742.12	-583.60	26.81	-23.82	0.00	0.00	0.00
7,900.00	0.00	0.000	7,842.12	-583.60	26.81	-23.82	0.00	0.00	0.00
8,000.00	0.00	0.000	7,942.12	-583.60	26.81	-23.82	0.00	0.00	0.00
8,100.00	0.00	0.000	8,042.12	-583.60	26.81	-23.82	0.00	0.00	0.00
8,200.00	0.00	0.000	8,142.12	-583.60	26.81	-23.82	0.00	0.00	0.00
8,300.00	0.00	0.000	8,242.12	-583.60	26.81	-23.82	0.00	0.00	0.00
8,400.00	0.00	0.000	8,342.12	-583.60	26.81	-23.82	0.00	0.00	0.00
8,500.00	0.00	0.000	8,442.12	-583.60	26.81	-23.82	0.00	0.00	0.00
8,600.00	0.00	0.000	8,542.12	-583.60	26.81	-23.82	0.00	0.00	0.00
8,700.00	0.00	0.000	8,642.12	-583.60	26.81	-23.82	0.00	0.00	0.00
8,800.00	0.00	0.000	8,742.12	-583.60	26.81	-23.82	0.00	0.00	0.00
8,900.00	0.00	0.000	8,842.12	-583.60	26.81	-23.82	0.00	0.00	0.00
9,000.00	0.00	0.000	8,942.12	-583.60	26.81	-23.82	0.00	0.00	0.00
9,100.00	0.00	0.000	9,042.12	-583.60	26.81	-23.82	0.00	0.00	0.00
9,200.00	0.00	0.000	9,142.12	-583.60	26.81	-23.82	0.00	0.00	0.00
9,300.00	0.00	0.000	9,242.12	-583.60	26.81	-23.82	0.00	0.00	0.00
9,400.00	0.00	0.000	9,342.12	-583.60	26.81	-23.82	0.00	0.00	0.00

FLAT CREEK RESOURCES

Planning Report

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	**TVD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Project:	Eddy County, New Mexico NAD27 NM	**MD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Site:	Phantom Bank 31 Fed Com	**North Reference:**	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,500.00	0.00	0.000	9,442.12	-583.60	26.81	-23.82	0.00	0.00	0.00
9,600.00	0.00	0.000	9,542.12	-583.60	26.81	-23.82	0.00	0.00	0.00
9,700.00	0.00	0.000	9,642.12	-583.60	26.81	-23.82	0.00	0.00	0.00
9,748.03	0.00	0.000	9,690.15	-583.60	26.81	-23.82	0.00	0.00	0.00
Begin 10°/100' build									
9,750.00	0.20	269.706	9,692.12	-583.60	26.81	-23.81	10.00	10.00	0.00
9,800.00	5.20	269.706	9,742.05	-583.61	24.45	-21.46	10.00	10.00	0.00
9,850.00	10.20	269.706	9,791.59	-583.65	17.76	-14.76	10.00	10.00	0.00
9,900.00	15.20	269.706	9,840.35	-583.70	6.77	-3.78	10.00	10.00	0.00
9,950.00	20.20	269.706	9,887.97	-583.78	-8.42	11.42	10.00	10.00	0.00
10,000.00	25.20	269.706	9,934.08	-583.88	-27.71	30.70	10.00	10.00	0.00
10,050.00	30.20	269.706	9,978.34	-584.00	-50.94	53.94	10.00	10.00	0.00
10,100.00	35.20	269.706	10,020.40	-584.14	-77.94	80.94	10.00	10.00	0.00
10,150.00	40.20	269.706	10,059.95	-584.29	-108.51	111.50	10.00	10.00	0.00
10,200.00	45.20	269.706	10,096.69	-584.47	-142.40	145.40	10.00	10.00	0.00
10,250.00	50.20	269.706	10,130.33	-584.66	-179.37	182.37	10.00	10.00	0.00
10,300.00	55.20	269.706	10,160.62	-584.86	-219.13	222.13	10.00	10.00	0.00
10,350.00	60.20	269.706	10,187.33	-585.08	-261.38	264.37	10.00	10.00	0.00
10,400.00	65.20	269.706	10,210.26	-585.31	-305.79	308.79	10.00	10.00	0.00
10,450.00	70.20	269.706	10,229.23	-585.54	-352.03	355.03	10.00	10.00	0.00
10,500.00	75.20	269.706	10,244.09	-585.79	-399.76	402.76	10.00	10.00	0.00
10,550.00	80.20	269.706	10,254.74	-586.04	-448.59	451.59	10.00	10.00	0.00
10,600.00	85.20	269.706	10,261.10	-586.29	-498.17	501.17	10.00	10.00	0.00
10,650.00	90.20	269.706	10,263.10	-586.55	-548.11	551.12	10.00	10.00	0.00
10,659.28	91.12	269.706	10,263.00	-586.60	-557.39	560.39	10.00	10.00	0.00
Begin 91.12° lateral									
10,700.00	91.12	269.706	10,262.20	-586.81	-598.10	601.11	0.00	0.00	0.00
10,800.00	91.12	269.706	10,260.24	-587.32	-698.08	701.09	0.00	0.00	0.00
10,900.00	91.12	269.706	10,258.27	-587.83	-798.06	801.07	0.00	0.00	0.00
11,000.00	91.12	269.706	10,256.31	-588.34	-898.04	901.05	0.00	0.00	0.00
11,100.00	91.12	269.706	10,254.35	-588.86	-998.02	1,001.03	0.00	0.00	0.00
11,200.00	91.12	269.706	10,252.38	-589.37	-1,098.00	1,101.01	0.00	0.00	0.00
11,300.00	91.12	269.706	10,250.42	-589.88	-1,197.98	1,200.99	0.00	0.00	0.00
11,400.00	91.12	269.706	10,248.46	-590.40	-1,297.96	1,300.97	0.00	0.00	0.00
11,500.00	91.12	269.706	10,246.49	-590.91	-1,397.94	1,400.95	0.00	0.00	0.00
11,600.00	91.12	269.706	10,244.53	-591.42	-1,497.92	1,500.93	0.00	0.00	0.00
11,700.00	91.12	269.706	10,242.57	-591.93	-1,597.90	1,600.91	0.00	0.00	0.00
11,800.00	91.12	269.706	10,240.60	-592.45	-1,697.88	1,700.90	0.00	0.00	0.00
11,900.00	91.12	269.706	10,238.64	-592.96	-1,797.86	1,800.88	0.00	0.00	0.00
12,000.00	91.12	269.706	10,236.68	-593.47	-1,897.84	1,900.86	0.00	0.00	0.00
12,100.00	91.12	269.706	10,234.71	-593.98	-1,997.82	2,000.84	0.00	0.00	0.00
12,200.00	91.12	269.706	10,232.75	-594.50	-2,097.80	2,100.82	0.00	0.00	0.00
12,300.00	91.12	269.706	10,230.79	-595.01	-2,197.77	2,200.80	0.00	0.00	0.00
12,400.00	91.12	269.706	10,228.83	-595.52	-2,297.75	2,300.78	0.00	0.00	0.00
12,500.00	91.12	269.706	10,226.86	-596.04	-2,397.73	2,400.76	0.00	0.00	0.00
12,600.00	91.12	269.706	10,224.90	-596.55	-2,497.71	2,500.74	0.00	0.00	0.00
12,700.00	91.12	269.706	10,222.94	-597.06	-2,597.69	2,600.72	0.00	0.00	0.00
12,800.00	91.12	269.706	10,220.97	-597.57	-2,697.67	2,700.70	0.00	0.00	0.00
12,900.00	91.12	269.706	10,219.01	-598.09	-2,797.65	2,800.68	0.00	0.00	0.00
13,000.00	91.12	269.706	10,217.05	-598.60	-2,897.63	2,900.66	0.00	0.00	0.00
13,100.00	91.12	269.706	10,215.08	-599.11	-2,997.61	3,000.64	0.00	0.00	0.00
13,200.00	91.12	269.706	10,213.12	-599.63	-3,097.59	3,100.63	0.00	0.00	0.00
13,300.00	91.12	269.706	10,211.16	-600.14	-3,197.57	3,200.61	0.00	0.00	0.00
13,400.00	91.12	269.706	10,209.19	-600.65	-3,297.55	3,300.59	0.00	0.00	0.00

FLAT CREEK RESOURCES

Planning Report

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Company:	Flat Creek Resources, LLC	**TVD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Project:	Eddy County, New Mexico NAD27 NM	**MD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Site:	Phantom Bank 31 Fed Com	**North Reference:**	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,500.00	91.12	269.706	10,207.23	-601.16	-3,397.53	3,400.57	0.00	0.00	0.00
13,600.00	91.12	269.706	10,205.27	-601.68	-3,497.51	3,500.55	0.00	0.00	0.00
13,700.00	91.12	269.706	10,203.30	-602.19	-3,597.49	3,600.53	0.00	0.00	0.00
13,800.00	91.12	269.706	10,201.34	-602.70	-3,697.47	3,700.51	0.00	0.00	0.00
13,900.00	91.12	269.706	10,199.38	-603.22	-3,797.45	3,800.49	0.00	0.00	0.00
14,000.00	91.12	269.706	10,197.42	-603.73	-3,897.42	3,900.47	0.00	0.00	0.00
14,100.00	91.12	269.706	10,195.45	-604.24	-3,997.40	4,000.45	0.00	0.00	0.00
14,200.00	91.12	269.706	10,193.49	-604.75	-4,097.38	4,100.43	0.00	0.00	0.00
14,300.00	91.12	269.706	10,191.53	-605.27	-4,197.36	4,200.41	0.00	0.00	0.00
14,400.00	91.12	269.706	10,189.56	-605.78	-4,297.34	4,300.39	0.00	0.00	0.00
14,500.00	91.12	269.706	10,187.60	-606.29	-4,397.32	4,400.37	0.00	0.00	0.00
14,600.00	91.12	269.706	10,185.64	-606.81	-4,497.30	4,500.36	0.00	0.00	0.00
14,700.00	91.12	269.706	10,183.67	-607.32	-4,597.28	4,600.34	0.00	0.00	0.00
14,800.00	91.12	269.706	10,181.71	-607.83	-4,697.26	4,700.32	0.00	0.00	0.00
14,900.00	91.12	269.706	10,179.75	-608.34	-4,797.24	4,800.30	0.00	0.00	0.00
15,000.00	91.12	269.706	10,177.78	-608.86	-4,897.22	4,900.28	0.00	0.00	0.00
15,100.00	91.12	269.706	10,175.82	-609.37	-4,997.20	5,000.26	0.00	0.00	0.00
15,200.00	91.12	269.706	10,173.86	-609.88	-5,097.18	5,100.24	0.00	0.00	0.00
15,300.00	91.12	269.706	10,171.90	-610.39	-5,197.16	5,200.22	0.00	0.00	0.00
15,400.00	91.12	269.706	10,169.93	-610.91	-5,297.14	5,300.20	0.00	0.00	0.00
15,500.00	91.12	269.706	10,167.97	-611.42	-5,397.12	5,400.18	0.00	0.00	0.00
15,600.00	91.12	269.706	10,166.01	-611.93	-5,497.10	5,500.16	0.00	0.00	0.00
15,683.32	91.12	269.706	10,164.37	-612.36	-5,580.40	5,583.47	0.00	0.00	0.00
LTP 15683.32 MD 10164.37 TVD									
15,700.00	91.12	269.706	10,164.04	-612.45	-5,597.07	5,600.14	0.00	0.00	0.00
15,753.08	91.12	269.706	10,163.00	-612.72	-5,650.15	5,653.22	0.00	0.00	0.00
PBHL/TD 15753.08 MD 10163.00 TVD									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Phantom 561 PBHL 105	0.00	0.000	10,163.00	-612.69	-5,650.15	365,159.926	657,406.049	32.002922000	-103.825550000
- plan misses target center by 0.03ft at 15753.08ft MD (10163.00 TVD, -612.72 N, -5650.15 E)									
- Point									
Phantom 561 LTP 1050	0.00	0.000	10,164.37	-612.36	-5,580.40	365,160.254	657,475.797	32.002922000	-103.825325000
- plan hits target center									
- Point									
Phantom 561 FTP 1050	0.00	0.000	10,263.00	-586.03	-446.65	365,186.590	662,609.539	32.002927000	-103.808764000
- plan misses target center by 8.48ft at 10549.86ft MD (10254.72 TVD, -586.04 N, -448.45 E)									
- Point									

FLAT CREEK RESOURCES

Planning Report

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Project:	Eddy County, New Mexico NAD27 NM	**MD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Site:	Phantom Bank 31 Fed Com	**North Reference:**	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
3,800.00	3,800.00	0.00	0.00	KOP Begin 2°/100' build
4,350.00	4,346.63	-33.83	40.32	Begin 11.00° tangent
4,450.00	4,444.79	-46.10	54.94	Begin 2°/100' build/turn
4,990.16	4,976.14	-132.85	87.34	Begin 11.50° tangent
6,982.87	6,928.85	-526.60	34.46	Begin 2°/100' drop
7,557.88	7,500.00	-583.60	26.81	Begin vertical hold
9,748.03	9,690.15	-583.60	26.81	Begin 10°/100' build
10,659.28	10,263.00	-586.60	-557.39	Begin 91.12° lateral
15,683.32	10,164.37	-612.36	-5,580.40	LTP 15683.32 MD 10164.37 TVD
15,753.08	10,163.00	-612.72	-5,650.15	PBHL/TD 15753.08 MD 10163.00 TVD

FLAT CREEK RESOURCES

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	**TVD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Project:	Eddy County, New Mexico NAD27 NM	**MD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Site:	Phantom Bank 31 Fed Com	**North Reference:**	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Project Eddy County, New Mexico NAD27 NM

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Phantom Bank 31 Fed Com

Site Position:		**Northing:**	365,652.329 usft	**Latitude:**	32.004202000
From:	Lat/Long	**Easting:**	663,006.861 usft	**Longitude:**	-103.807475000
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "		

Well Phantom Bank 31 Fed Com No. 561H, Surf loc: 550 FNL 350 FWL Section 32-T26S-R31E

Well Position	**+N/-S**	0.00 ft	**Northing:**	365,772.613 usft	**Latitude:**	32.004532000
	+E/-W	0.00 ft	**Easting:**	663,056.185 usft	**Longitude:**	-103.807314000
Position Uncertainty		0.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,129.00 ft
Grid Convergence:						

Wellbore Original Hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	4/27/2022	6.54	59.64	47,251.43937625

Design rev0

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	269.706

Plan Survey Tool Program **Date**

	Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	15,753.08	rev0 (Original Hole)		

FLAT CREEK RESOURCES

Planning Report - Geographic

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Project:	Eddy County, New Mexico NAD27 NM	**MD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Site:	Phantom Bank 31 Fed Com	**North Reference:**	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,800.00	0.00	0.000	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,350.00	11.00	130.000	4,346.63	-33.83	40.32	2.00	2.00	0.00	130.00	
4,450.00	11.00	130.000	4,444.79	-46.10	54.94	0.00	0.00	0.00	0.00	
4,990.16	11.50	187.649	4,976.14	-132.85	87.34	2.00	0.09	10.67	116.03	
6,982.87	11.50	187.649	6,928.85	-526.60	34.46	0.00	0.00	0.00	0.00	
7,557.88	0.00	0.000	7,500.00	-583.60	26.81	2.00	-2.00	0.00	180.00	
9,748.03	0.00	0.000	9,690.15	-583.60	26.81	0.00	0.00	0.00	0.00	
10,659.28	91.12	269.706	10,263.00	-586.60	-557.39	10.00	10.00	-9.91	269.71	
15,683.32	91.12	269.706	10,164.37	-612.36	-5,580.40	0.00	0.00	0.00	0.00	Phantom 561 LTP 10
15,753.08	91.12	269.706	10,163.00	-612.72	-5,650.15	0.00	0.00	0.00	0.00	Phantom 561 PBHL 1

FLAT CREEK RESOURCES

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	**TVD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Project:	Eddy County, New Mexico NAD27 NM	**MD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Site:	Phantom Bank 31 Fed Com	**North Reference:**	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.000	0.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
100.00	0.00	0.000	100.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
200.00	0.00	0.000	200.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
300.00	0.00	0.000	300.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
400.00	0.00	0.000	400.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
500.00	0.00	0.000	500.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
600.00	0.00	0.000	600.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
700.00	0.00	0.000	700.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
800.00	0.00	0.000	800.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
900.00	0.00	0.000	900.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
1,000.00	0.00	0.000	1,000.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
1,100.00	0.00	0.000	1,100.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
1,200.00	0.00	0.000	1,200.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
1,300.00	0.00	0.000	1,300.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
1,400.00	0.00	0.000	1,400.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
1,500.00	0.00	0.000	1,500.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
1,600.00	0.00	0.000	1,600.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
1,700.00	0.00	0.000	1,700.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
1,800.00	0.00	0.000	1,800.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
1,900.00	0.00	0.000	1,900.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
2,000.00	0.00	0.000	2,000.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
2,100.00	0.00	0.000	2,100.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
2,200.00	0.00	0.000	2,200.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
2,300.00	0.00	0.000	2,300.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
2,400.00	0.00	0.000	2,400.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
2,500.00	0.00	0.000	2,500.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
2,600.00	0.00	0.000	2,600.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
2,700.00	0.00	0.000	2,700.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
2,800.00	0.00	0.000	2,800.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
2,900.00	0.00	0.000	2,900.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
3,000.00	0.00	0.000	3,000.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
3,100.00	0.00	0.000	3,100.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
3,200.00	0.00	0.000	3,200.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
3,300.00	0.00	0.000	3,300.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
3,400.00	0.00	0.000	3,400.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
3,500.00	0.00	0.000	3,500.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
3,600.00	0.00	0.000	3,600.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
3,700.00	0.00	0.000	3,700.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
3,800.00	0.00	0.000	3,800.00	0.00	0.00	365,772.613	663,056.185	32.004532000	-103.807314000
KOP Begin 2°/100' build									
3,900.00	2.00	130.000	3,899.98	-1.12	1.34	365,771.492	663,057.521	32.004528899	-103.807309705
4,000.00	4.00	130.000	3,999.84	-4.49	5.35	365,768.128	663,061.530	32.004519598	-103.807296825
4,100.00	6.00	130.000	4,099.45	-10.09	12.02	365,762.526	663,068.207	32.004504109	-103.807275377
4,200.00	8.00	130.000	4,198.70	-17.92	21.36	365,754.693	663,077.542	32.004482451	-103.807245385
4,300.00	10.00	130.000	4,297.47	-27.98	33.34	365,744.638	663,089.525	32.004454650	-103.807206888
4,350.00	11.00	130.000	4,346.63	-33.83	40.32	365,738.781	663,096.505	32.004438456	-103.807184463
Begin 11.00° tangent									
4,400.00	11.00	130.000	4,395.71	-39.97	47.63	365,732.648	663,103.813	32.004421500	-103.807160983
4,450.00	11.00	130.000	4,444.79	-46.10	54.94	365,726.516	663,111.121	32.004404544	-103.807137504
Begin 2°/100' build/turn									
4,500.00	10.60	134.891	4,493.91	-52.41	61.85	365,720.204	663,118.033	32.004387101	-103.807115305
4,600.00	10.05	145.638	4,592.30	-66.10	73.29	365,706.512	663,129.473	32.004349307	-103.807078617
4,700.00	9.87	157.177	4,690.80	-81.21	81.54	365,691.407	663,137.723	32.004307675	-103.807052241
4,800.00	10.10	168.659	4,789.29	-97.70	86.59	365,674.909	663,142.773	32.004262256	-103.807036210

FLAT CREEK RESOURCES

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	**TVD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Project:	Eddy County, New Mexico NAD27 NM	**MD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Site:	Phantom Bank 31 Fed Com	**North Reference:**	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,900.00	10.69	179.261	4,887.66	-115.58	88.43	365,657.039	663,144.616	32.004213104	-103.807030544
4,990.16	11.50	187.649	4,976.14	-132.85	87.34	365,639.767	663,143.528	32.004165639	-103.807034327
Begin 11.50° tangent									
5,000.00	11.50	187.649	4,985.78	-134.79	87.08	365,637.823	663,143.267	32.004160298	-103.807035200
5,100.00	11.50	187.649	5,083.78	-154.55	84.43	365,618.063	663,140.613	32.004106015	-103.807044070
5,200.00	11.50	187.649	5,181.77	-174.31	81.78	365,598.303	663,137.959	32.004051732	-103.807052941
5,300.00	11.50	187.649	5,279.76	-194.07	79.12	365,578.544	663,135.306	32.003997449	-103.807061811
5,400.00	11.50	187.649	5,377.75	-213.83	76.47	365,558.784	663,132.652	32.003943166	-103.807070682
5,500.00	11.50	187.649	5,475.75	-233.59	73.81	365,539.025	663,129.999	32.003888883	-103.807079552
5,600.00	11.50	187.649	5,573.74	-253.35	71.16	365,519.265	663,127.345	32.003834600	-103.807088422
5,700.00	11.50	187.649	5,671.73	-273.11	68.51	365,499.506	663,124.692	32.003780317	-103.807097293
5,800.00	11.50	187.649	5,769.72	-292.87	65.85	365,479.746	663,122.038	32.003726033	-103.807106163
5,900.00	11.50	187.649	5,867.72	-312.63	63.20	365,459.986	663,119.384	32.003671750	-103.807115034
6,000.00	11.50	187.649	5,965.71	-332.39	60.55	365,440.227	663,116.731	32.003617467	-103.807123904
6,100.00	11.50	187.649	6,063.70	-352.15	57.89	365,420.467	663,114.077	32.003563184	-103.807132774
6,200.00	11.50	187.649	6,161.69	-371.91	55.24	365,400.708	663,111.424	32.003508901	-103.807141645
6,300.00	11.50	187.649	6,259.69	-391.67	52.59	365,380.948	663,108.770	32.003454618	-103.807150515
6,400.00	11.50	187.649	6,357.68	-411.43	49.93	365,361.188	663,106.116	32.003400335	-103.807159385
6,500.00	11.50	187.649	6,455.67	-431.19	47.28	365,341.429	663,103.463	32.003346051	-103.807168256
6,600.00	11.50	187.649	6,553.66	-450.95	44.62	365,321.669	663,100.809	32.003291768	-103.807177126
6,700.00	11.50	187.649	6,651.66	-470.70	41.97	365,301.910	663,098.156	32.003237485	-103.807185996
6,800.00	11.50	187.649	6,749.65	-490.46	39.32	365,282.150	663,095.502	32.003183202	-103.807194866
6,900.00	11.50	187.649	6,847.64	-510.22	36.66	365,262.390	663,092.848	32.003128919	-103.807203737
6,982.87	11.50	187.649	6,928.85	-526.60	34.46	365,246.016	663,090.649	32.003083934	-103.807211088
Begin 2°/100' drop									
7,000.00	11.16	187.649	6,945.64	-529.93	34.02	365,242.681	663,090.202	32.003074773	-103.807212585
7,100.00	9.16	187.649	7,044.07	-547.41	31.67	365,225.203	663,087.854	32.003026758	-103.807220431
7,200.00	7.16	187.649	7,143.05	-561.47	29.78	365,211.140	663,085.966	32.002988126	-103.807226743
7,300.00	5.16	187.649	7,242.47	-572.10	28.35	365,200.510	663,084.538	32.002958923	-103.807231515
7,400.00	3.16	187.649	7,342.20	-579.29	27.39	365,193.325	663,083.573	32.002939184	-103.807234741
7,500.00	1.16	187.649	7,442.13	-583.02	26.89	365,189.594	663,083.072	32.002928934	-103.807236416
7,557.88	0.00	0.000	7,500.00	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
Begin vertical hold									
7,600.00	0.00	0.000	7,542.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
7,700.00	0.00	0.000	7,642.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
7,800.00	0.00	0.000	7,742.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
7,900.00	0.00	0.000	7,842.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
8,000.00	0.00	0.000	7,942.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
8,100.00	0.00	0.000	8,042.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
8,200.00	0.00	0.000	8,142.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
8,300.00	0.00	0.000	8,242.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
8,400.00	0.00	0.000	8,342.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
8,500.00	0.00	0.000	8,442.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
8,600.00	0.00	0.000	8,542.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
8,700.00	0.00	0.000	8,642.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
8,800.00	0.00	0.000	8,742.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
8,900.00	0.00	0.000	8,842.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
9,000.00	0.00	0.000	8,942.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
9,100.00	0.00	0.000	9,042.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
9,200.00	0.00	0.000	9,142.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
9,300.00	0.00	0.000	9,242.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
9,400.00	0.00	0.000	9,342.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
9,500.00	0.00	0.000	9,442.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
9,600.00	0.00	0.000	9,542.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676

FLAT CREEK RESOURCES

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	**TVD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Project:	Eddy County, New Mexico NAD27 NM	**MD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Site:	Phantom Bank 31 Fed Com	**North Reference:**	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,700.00	0.00	0.000	9,642.12	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
9,748.03	0.00	0.000	9,690.15	-583.60	26.81	365,189.015	663,082.994	32.002927342	-103.807236676
Begin 10°/100' build									
9,750.00	0.20	269.706	9,692.12	-583.60	26.81	365,189.015	663,082.991	32.002927342	-103.807236687
9,800.00	5.20	269.706	9,742.05	-583.61	24.45	365,189.003	663,080.639	32.002927341	-103.807244275
9,850.00	10.20	269.706	9,791.59	-583.65	17.76	365,188.968	663,073.944	32.002927336	-103.807265871
9,900.00	15.20	269.706	9,840.35	-583.70	6.77	365,188.912	663,062.958	32.002927328	-103.807301312
9,950.00	20.20	269.706	9,887.97	-583.78	-8.42	365,188.834	663,047.763	32.002927317	-103.807350328
10,000.00	25.20	269.706	9,934.08	-583.88	-27.71	365,188.735	663,028.477	32.002927303	-103.807412545
10,050.00	30.20	269.706	9,978.34	-584.00	-50.94	365,188.616	663,005.244	32.002927286	-103.807487490
10,100.00	35.20	269.706	10,020.40	-584.14	-77.94	365,188.477	662,978.243	32.002927266	-103.807574593
10,150.00	40.20	269.706	10,059.95	-584.29	-108.51	365,188.321	662,947.679	32.002927244	-103.807673191
10,200.00	45.20	269.706	10,096.69	-584.47	-142.40	365,188.147	662,913.784	32.002927219	-103.807782533
10,250.00	50.20	269.706	10,130.33	-584.66	-179.37	365,187.957	662,876.816	32.002927192	-103.807901787
10,300.00	55.20	269.706	10,160.62	-584.86	-219.13	365,187.753	662,837.057	32.002927162	-103.808030046
10,350.00	60.20	269.706	10,187.33	-585.08	-261.38	365,187.536	662,794.810	32.002927131	-103.808166334
10,400.00	65.20	269.706	10,210.26	-585.31	-305.79	365,187.309	662,750.395	32.002927097	-103.808309612
10,450.00	70.20	269.706	10,229.23	-585.54	-352.03	365,187.071	662,704.150	32.002927063	-103.808458792
10,500.00	75.20	269.706	10,244.09	-585.79	-399.76	365,186.827	662,656.429	32.002927027	-103.808612737
10,550.00	80.20	269.706	10,254.74	-586.04	-448.59	365,186.576	662,607.593	32.002926989	-103.808770276
10,600.00	85.20	269.706	10,261.10	-586.29	-498.17	365,186.322	662,558.016	32.002926952	-103.808930210
10,650.00	90.20	269.706	10,263.10	-586.55	-548.11	365,186.066	662,508.072	32.002926913	-103.809091322
10,659.28	91.12	269.706	10,263.00	-586.60	-557.39	365,186.018	662,498.798	32.002926906	-103.809121241
Begin 91.12° lateral									
10,700.00	91.12	269.706	10,262.20	-586.81	-598.10	365,185.809	662,458.082	32.002926875	-103.809252587
10,800.00	91.12	269.706	10,260.24	-587.32	-698.08	365,185.297	662,358.103	32.002926797	-103.809575111
10,900.00	91.12	269.706	10,258.27	-587.83	-798.06	365,184.784	662,258.123	32.002926718	-103.809897635
11,000.00	91.12	269.706	10,256.31	-588.34	-898.04	365,184.271	662,158.144	32.002926639	-103.810220159
11,100.00	91.12	269.706	10,254.35	-588.86	-998.02	365,183.758	662,058.165	32.002926559	-103.810542683
11,200.00	91.12	269.706	10,252.38	-589.37	-1,098.00	365,183.245	661,958.186	32.002926477	-103.810865207
11,300.00	91.12	269.706	10,250.42	-589.88	-1,197.98	365,182.732	661,858.207	32.002926396	-103.811187730
11,400.00	91.12	269.706	10,248.46	-590.40	-1,297.96	365,182.220	661,758.227	32.002926313	-103.811510254
11,500.00	91.12	269.706	10,246.49	-590.91	-1,397.94	365,181.707	661,658.248	32.002926229	-103.811832778
11,600.00	91.12	269.706	10,244.53	-591.42	-1,497.92	365,181.194	661,558.269	32.002926145	-103.812155302
11,700.00	91.12	269.706	10,242.57	-591.93	-1,597.90	365,180.681	661,458.290	32.002926060	-103.812477826
11,800.00	91.12	269.706	10,240.60	-592.45	-1,697.88	365,180.168	661,358.311	32.002925974	-103.812800350
11,900.00	91.12	269.706	10,238.64	-592.96	-1,797.86	365,179.656	661,258.331	32.002925887	-103.813122874
12,000.00	91.12	269.706	10,236.68	-593.47	-1,897.84	365,179.143	661,158.352	32.002925799	-103.813445398
12,100.00	91.12	269.706	10,234.71	-593.98	-1,997.82	365,178.630	661,058.373	32.002925711	-103.813767922
12,200.00	91.12	269.706	10,232.75	-594.50	-2,097.80	365,178.117	660,958.394	32.002925622	-103.814090446
12,300.00	91.12	269.706	10,230.79	-595.01	-2,197.77	365,177.604	660,858.414	32.002925532	-103.814412970
12,400.00	91.12	269.706	10,228.83	-595.52	-2,297.75	365,177.091	660,758.435	32.002925441	-103.814735494
12,500.00	91.12	269.706	10,226.86	-596.04	-2,397.73	365,176.579	660,658.456	32.002925349	-103.815058019
12,600.00	91.12	269.706	10,224.90	-596.55	-2,497.71	365,176.066	660,558.477	32.002925256	-103.815380543
12,700.00	91.12	269.706	10,222.94	-597.06	-2,597.69	365,175.553	660,458.498	32.002925163	-103.815703067
12,800.00	91.12	269.706	10,220.97	-597.57	-2,697.67	365,175.040	660,358.518	32.002925069	-103.816025591
12,900.00	91.12	269.706	10,219.01	-598.09	-2,797.65	365,174.527	660,258.539	32.002924974	-103.816348115
13,000.00	91.12	269.706	10,217.05	-598.60	-2,897.63	365,174.015	660,158.560	32.002924878	-103.816670639
13,100.00	91.12	269.706	10,215.08	-599.11	-2,997.61	365,173.502	660,058.581	32.002924781	-103.816993163
13,200.00	91.12	269.706	10,213.12	-599.63	-3,097.59	365,172.989	659,958.602	32.002924684	-103.817315687
13,300.00	91.12	269.706	10,211.16	-600.14	-3,197.57	365,172.476	659,858.622	32.002924585	-103.817638211
13,400.00	91.12	269.706	10,209.19	-600.65	-3,297.55	365,171.963	659,758.643	32.002924486	-103.817960736
13,500.00	91.12	269.706	10,207.23	-601.16	-3,397.53	365,171.450	659,658.664	32.002924386	-103.818283260
13,600.00	91.12	269.706	10,205.27	-601.68	-3,497.51	365,170.938	659,558.685	32.002924286	-103.818605784

FLAT CREEK RESOURCES

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	**TVD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Project:	Eddy County, New Mexico NAD27 NM	**MD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Site:	Phantom Bank 31 Fed Com	**North Reference:**	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
13,700.00	91.12	269.706	10,203.30	-602.19	-3,597.49	365,170.425	659,458.706	32.002924184	-103.818928308
13,800.00	91.12	269.706	10,201.34	-602.70	-3,697.47	365,169.912	659,358.726	32.002924082	-103.819250832
13,900.00	91.12	269.706	10,199.38	-603.22	-3,797.45	365,169.399	659,258.747	32.002923978	-103.819573357
14,000.00	91.12	269.706	10,197.42	-603.73	-3,897.42	365,168.886	659,158.768	32.002923874	-103.819895881
14,100.00	91.12	269.706	10,195.45	-604.24	-3,997.40	365,168.374	659,058.789	32.002923770	-103.820218405
14,200.00	91.12	269.706	10,193.49	-604.75	-4,097.38	365,167.861	658,958.809	32.002923664	-103.820540929
14,300.00	91.12	269.706	10,191.53	-605.27	-4,197.36	365,167.348	658,858.830	32.002923557	-103.820863454
14,400.00	91.12	269.706	10,189.56	-605.78	-4,297.34	365,166.835	658,758.851	32.002923450	-103.821185978
14,500.00	91.12	269.706	10,187.60	-606.29	-4,397.32	365,166.322	658,658.872	32.002923342	-103.821508502
14,600.00	91.12	269.706	10,185.64	-606.81	-4,497.30	365,165.809	658,558.893	32.002923233	-103.821831026
14,700.00	91.12	269.706	10,183.67	-607.32	-4,597.28	365,165.297	658,458.913	32.002923123	-103.822153551
14,800.00	91.12	269.706	10,181.71	-607.83	-4,697.26	365,164.784	658,358.934	32.002923013	-103.822476075
14,900.00	91.12	269.706	10,179.75	-608.34	-4,797.24	365,164.271	658,258.955	32.002922901	-103.822798599
15,000.00	91.12	269.706	10,177.78	-608.86	-4,897.22	365,163.758	658,158.976	32.002922789	-103.823121124
15,100.00	91.12	269.706	10,175.82	-609.37	-4,997.20	365,163.245	658,058.997	32.002922676	-103.823443648
15,200.00	91.12	269.706	10,173.86	-609.88	-5,097.18	365,162.733	657,959.017	32.002922562	-103.823766172
15,300.00	91.12	269.706	10,171.90	-610.39	-5,197.16	365,162.220	657,859.038	32.002922447	-103.824088697
15,400.00	91.12	269.706	10,169.93	-610.91	-5,297.14	365,161.707	657,759.059	32.002922332	-103.824411221
15,500.00	91.12	269.706	10,167.97	-611.42	-5,397.12	365,161.194	657,659.080	32.002922216	-103.824733746
15,600.00	91.12	269.706	10,166.01	-611.93	-5,497.10	365,160.681	657,559.101	32.002922098	-103.825056270
15,683.32	91.12	269.706	10,164.37	-612.36	-5,580.40	365,160.254	657,475.797	32.002922000	-103.825325000
LTP 15683.32 MD 10164.37 TVD									
15,700.00	91.12	269.706	10,164.04	-612.45	-5,597.07	365,160.168	657,459.121	32.002921980	-103.825378794
15,753.08	91.12	269.706	10,163.00	-612.72	-5,650.15	365,159.896	657,406.049	32.002921917	-103.825550000
PBHL/TD 15753.08 MD 10163.00 TVD									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Phantom 561 PBHL 105	0.00	0.000	10,163.00	-612.69	-5,650.15	365,159.926	657,406.049	32.002922000	-103.825550000
- plan misses target center by 0.03ft at 15753.08ft MD (10163.00 TVD, -612.72 N, -5650.15 E)									
- Point									
Phantom 561 LTP 1050	0.00	0.000	10,164.37	-612.36	-5,580.40	365,160.254	657,475.797	32.002922000	-103.825325000
- plan hits target center									
- Point									
Phantom 561 FTP 1050	0.00	0.000	10,263.00	-586.03	-446.65	365,186.590	662,609.539	32.002927000	-103.808764000
- plan misses target center by 8.48ft at 10549.86ft MD (10254.72 TVD, -586.04 N, -448.45 E)									
- Point									

FLAT CREEK RESOURCES

Planning Report - Geographic

Database:	DB_Feb2822	**Local Co-ordinate Reference:**	Well Phantom Bank 31 Fed Com No. 561H
Company:	Flat Creek Resources, LLC	**TVD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Project:	Eddy County, New Mexico NAD27 NM	**MD Reference:**	RKB=3129-+26.5 @ 3155.50ft
Site:	Phantom Bank 31 Fed Com	**North Reference:**	Grid
Well:	Phantom Bank 31 Fed Com No. 561H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Original Hole		
Design:	rev0		

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
3,800.00	3,800.00	0.00	0.00	KOP Begin 2°/100' build
4,350.00	4,346.63	-33.83	40.32	Begin 11.00° tangent
4,450.00	4,444.79	-46.10	54.94	Begin 2°/100' build/turn
4,990.16	4,976.14	-132.85	87.34	Begin 11.50° tangent
6,982.87	6,928.85	-526.60	34.46	Begin 2°/100' drop
7,557.88	7,500.00	-583.60	26.81	Begin vertical hold
9,748.03	9,690.15	-583.60	26.81	Begin 10°/100' build
10,659.28	10,263.00	-586.60	-557.39	Begin 91.12° lateral
15,683.32	10,164.37	-612.36	-5,580.40	LTP 15683.32 MD 10164.37 TVD
15,753.08	10,163.00	-612.72	-5,650.15	PBHL/TD 15753.08 MD 10163.00 TVD

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Flat Creek Resources LLC**
LEASE NO.:	**NMNM138868**
LOCATION:	Section 32, T.26 S., R.31 E., NMPM
COUNTY:	Eddy County, New Mexico

WELL NAME & NO.:	**Phantom Bank 31 Fed Com 101H**
SURFACE HOLE FOOTAGE:	520'/N & 300'/W
BOTTOM HOLE FOOTAGE	380'/N & 30'/W
ATS/API ID:	**ATS-22-1252**
APD ID:	**10400085329**
Sundry ID:	**N/A**

WELL NAME & NO.:	**Phantom Bank 31 Fed Com 102H**
SURFACE HOLE FOOTAGE:	550'/S & 300'/W
BOTTOM HOLE FOOTAGE	430'/S & 30'/W
ATS/API ID:	**ATS-22-1251**
APD ID:	**10400085332**
Sundry ID:	**N/A**

WELL NAME & NO.:	**Phantom Bank 31 Fed Com 201H**
SURFACE HOLE FOOTAGE:	550'/N & 300'/W
BOTTOM HOLE FOOTAGE	430'/N & 30'/W
ATS/API ID:	**ATS-22-1250**
APD ID:	**10400085341**
Sundry ID:	**N/A**

WELL NAME & NO.:	**Phantom Bank 31 Fed Com 202H**
SURFACE HOLE FOOTAGE:	520'/S & 300'/W
BOTTOM HOLE FOOTAGE	380'/S & 30'/W
ATS/API ID:	**ATS-22-1249**
APD ID:	**10400085342**
Sundry ID:	**N/A**

WELL NAME & NO.:	**Phantom Bank 31 Fed Com 511H**
SURFACE HOLE FOOTAGE:	520'/N & 350'/W
BOTTOM HOLE FOOTAGE	1050'/N & 30'/W
ATS/API ID:	**ATS-22-1264**
APD ID:	**10400085351**
Sundry ID:	**N/A**

 Approval Date: 03/23/2023

WELL NAME & NO.:	**Phantom Bank 31 Fed Com 561H**
SURFACE HOLE FOOTAGE:	550'/N & 350'/W
BOTTOM HOLE FOOTAGE	1050'/S & 30'/W
ATS/API ID:	**ATS-22-1265**
APD ID:	**10400085356**
Sundry ID:	**N/A**

COA

H2S	☐ Yes	☒ No	
Potash	☒ None	☐ Secretary	☐ R-111-P
Cave/Karst Potential	☐ Low	☒ Medium	☐ High
Cave/Karst Potential	☐ Critical		
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	☐ Conventional	☐ Multibowl	☒ Both
Wellhead Variance	☐ Diverter		
Other	☑ 4 String	☐ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Cementing	☐ Contingency Cement Squeeze	☐ EchoMeter	☐ Primary Cement Squeeze
Special Requirements	☐ Water Disposal	☐ COM	☐ Unit
Special Requirements	☐ Batch Sundry		
Special Requirements Variance	☐ Break Testing	☐ Offline Cementing	☐ Casing Clearance

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1150 feet** (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **10-3/4** inch intermediate casing is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **10-3/4** intermediate casing shoe shall be **5000 (5M)** psi.

c. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7-5/8** inch intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

a. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

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

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

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

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin

 Approval Date: 03/23/2023

after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

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

LVO 3/3/2023

Hydrogen Sulfide Drilling

Operations Plan

Flat Creek Resources

1 H2S safety instructions to the following:

- Characteristics of H2S
- Physical effects and hazards
- Principal and operation of H2S detectors, warning system and briefing areas
- Evacuation procedures, routes and first aid
- Proper use of safety equipment & life support systems
- Essential personnel meeting medical evaluation criteria will receive additional training on the proper use of 30min pressure demand air packs

2 H2S Detection and Alarm Systems:

- H2S sensor/detectors to be located on the drilling rig floor, in the base of the sub structure / cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary
- An audio alarm system will be installed on the derrick floor and in the doghouse

3 Windsocks and / Wind Streamers:

- Windsocks at mud pit area should be high enough to be visible
- Windsock on the rig floor and / top of doghouse should be high enough to be visible

4 Condition Flags and Signs:

- Warning sign on access road to location
- Flags to be displayed on sign at entrance to location
    - Green Flag – Normal Safe Operation Condition
    - Yellow Flag – Potential Pressure and Danger
    - Red Flag – Danger (H2S present in dangerous concentrations) Only H2S trained personnel admitted on location

5 Well Control Equipment:

- See Drilling Operations Plan Schematics

6 Communication:

- While working under masks chalkboards will be used for communications
- Hand signals will be used where chalk board is inappropriate
- Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7 Drilling Stem Testing:

- No DST cores are planned at this time

8 Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubulars good and other mechanical equipment

9 If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H2S scavengers if necessary

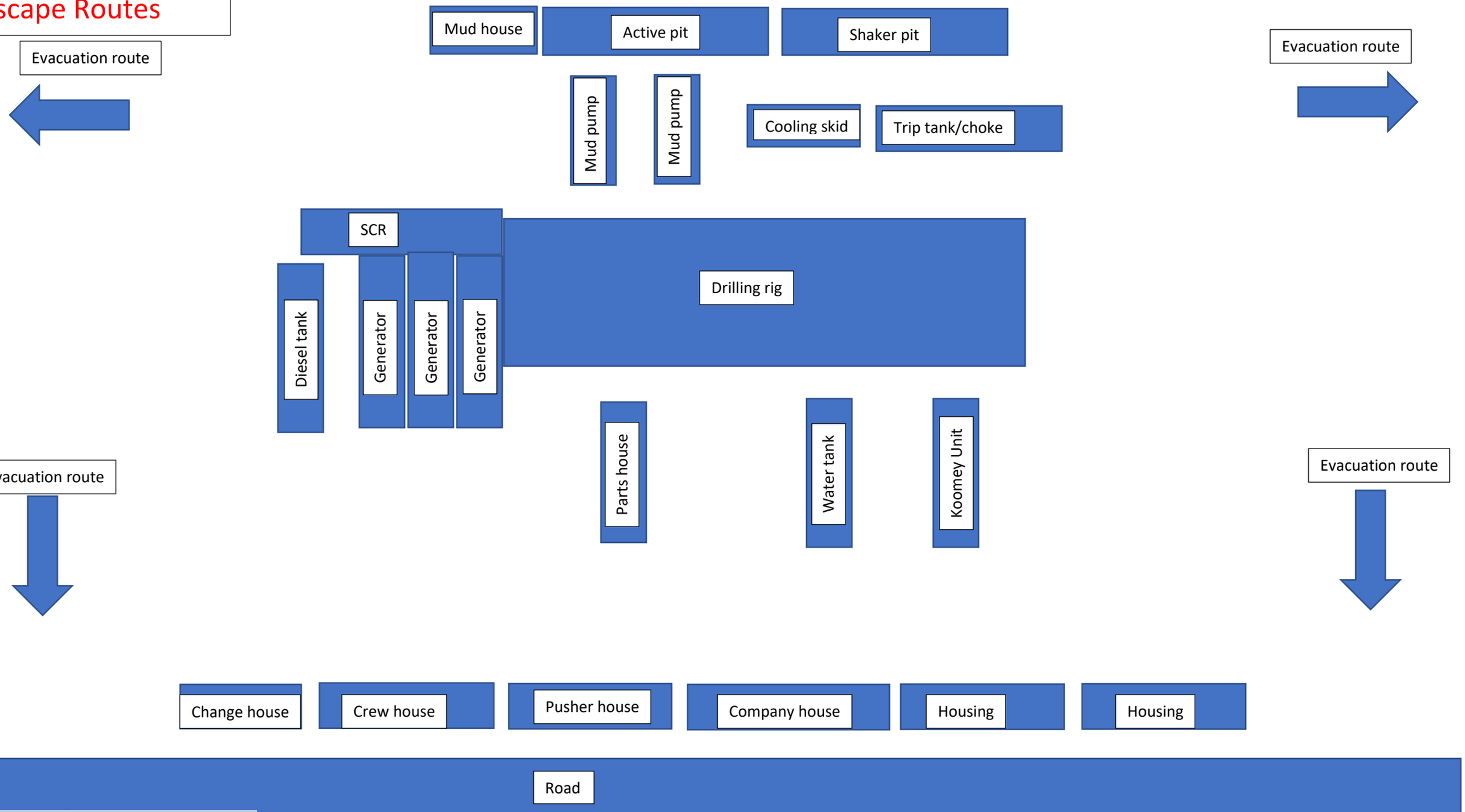
11 Emergency Contacts

Emergency Contacts		
Carlsbad Police Department	575.887.7551	911
Carlsbad Medical Center	575.887.4100	911
Eddy County Fire Service	575.628.5450	911
Eddy County Sherriff	575.887.7551	911
Lea County Fire Service	575.391.2983	911
Lea County Sherriff	575.396.3611	911
Jal Police Department	575.395.2121	911
Jal Fire Department	575.395.2221	911
Flat Creek Resources	817.731.4100	

Wellsite Layout

Escape Routes

Evacuation routes will depend on current wind direction



H2S Radius Map
1 & 2 Mile

26S 30E

26S 31E

Eddy

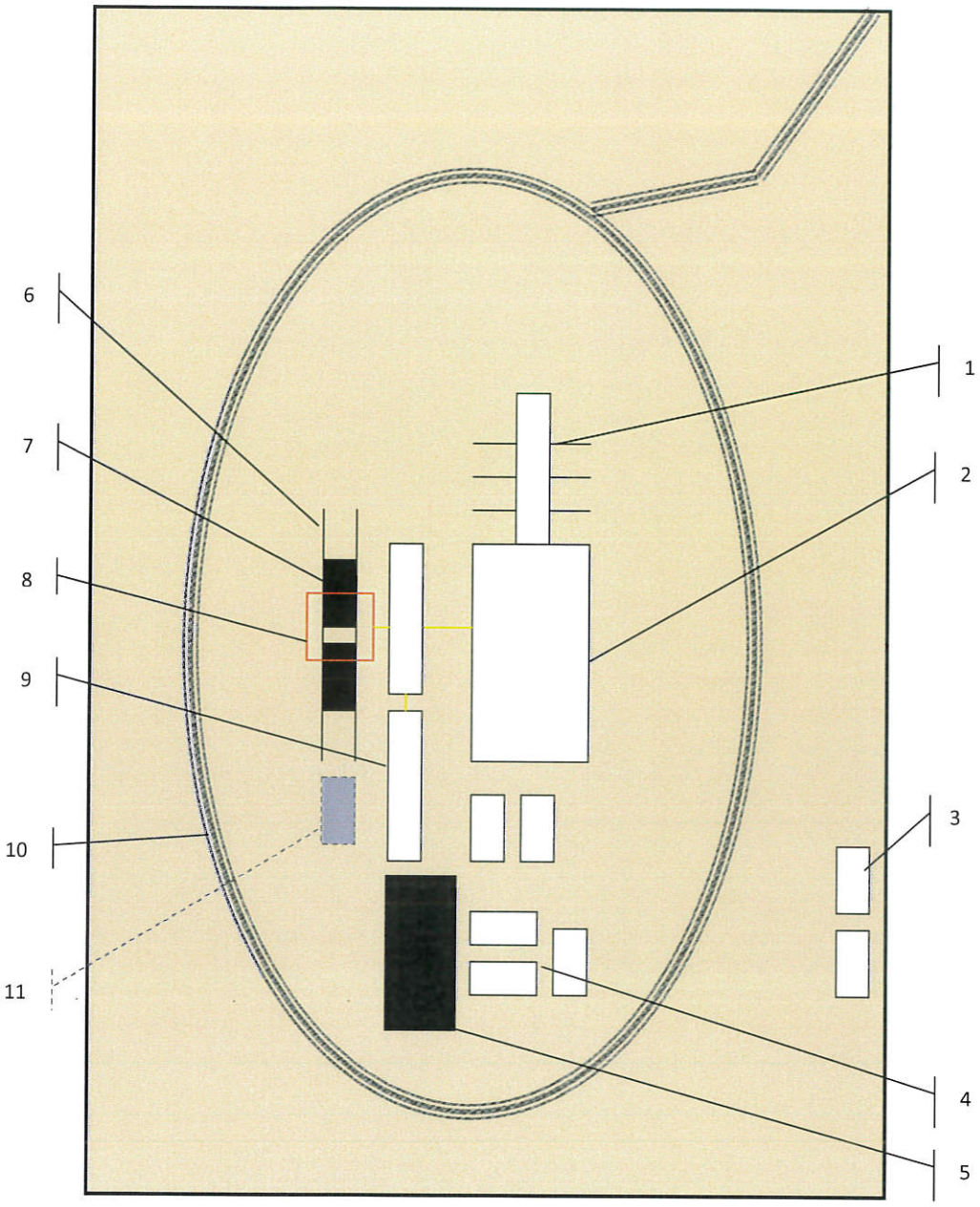
Loving

BLK 56 T1

BLK 55 T1

Phantom SHL
Phantom Pad
Buffers
1 mile
2 mile
Section / TX Survey
County
TX Block
TX Survey

FLAT CREEK RESOURCES



Schematic Closed Loop Drilling Rig*

1. Pipe Rack
2. Drill Rig
3. House Trailers/ Offices
4. Generator/Fuel/Storage
5. Overflow-Frac Tank
6. Skids
7. Roll Offs
8. Hopper or Centrifuge
9. Mud Tanks
10. Loop Drive
11. Generator (only for use with centrifuge)

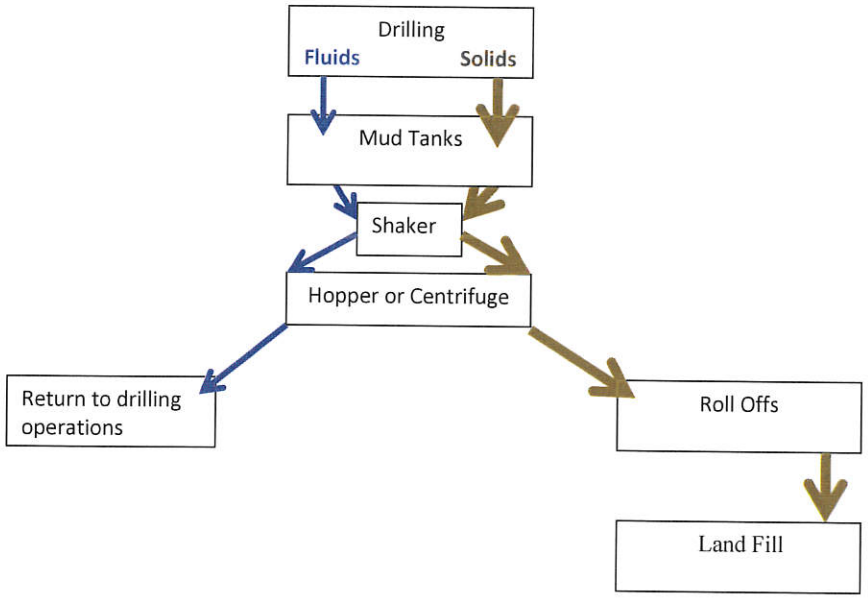
*Not drawn to scale: Closed loop system requires at least 30 feet beyond mud tanks. Ideally 60 feet would be available

Above: Centrifugal Closed Loop System

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

Closed Loop Drilling System: Mud tanks to right (1)
Hopper in air to settle out solids (2)
Water return pipe (3)
Shaker between hopper and mud tanks (4)
Roll offs on skids (5)

Flow Chart for Drilling Fluids and Solids



Photos Courtesy of Gandy Corporation Oil Field Service

PERMITS WEST, INC.
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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

CONDITIONS

Action 202968

CONDITIONS

Operator: Flat Creek Resources, LLC 777 Main St. Fort Worth, TX 76102	OGRID: 374034
	Action Number: 202968
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
dmcclure	Notify OCD 24 hours prior to casing & cement	4/13/2023
dmcclure	Will require a File As Drilled C-102 and a Directional Survey with the C-104	4/13/2023
dmcclure	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	4/13/2023
dmcclure	Cement is required to circulate on both surface and intermediate1 strings of casing	4/13/2023
dmcclure	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	4/13/2023