

Office
 District I – (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II – (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III – (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV – (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM
 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

WELL API NO. 30-015-47400	
5. Indicate Type of Lease STATE ☒ FEE ☐	
6. State Oil & Gas Lease No. LG-2677-2	
7. Lease Name or Unit Agreement Name LIGHTFOOT 19 STATE COM	
8. Well Number	221H
9. OGRID Number	24010
10. Pool name or Wildcat WINCHESTER; BONE SPRING, WEST	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3501 GR	

SUNDRY NOTICES AND REPORTS ON WELLS

(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐

2. Name of Operator
V-F PETROLEUM INC

3. Address of Operator
P.O. BOX 1889 MIDLAND, TX 79702

4. Well Location

Unit Letter_P_: 1113 feet from the SOUTH line and 100 feet from the EAST line

Section 19 Township 19S Range 28E NMPM EDDY County

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
 TEMPORARILY ABANDON ☐ CHANGE PLANS ☒
 PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
 DOWNHOLE COMMINGLE ☐
 CLOSED-LOOP SYSTEM ☐
 OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
 COMMENCE DRILLING OPNS. ☐ P AND A ☐
 CASING/CEMENT JOB ☐
 OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

V-F PETROLEUM INC requests to change the BHL for the subject well as follows:

Permitted BHL: SWSW, 605 FSL & 100 FWL, Sec. 19, T19S – R28E

New Requested BHL: SWSE, 330 FSL & 2542 FEL, Sec. 24, T19S – R27E

Please see the attached updated documentation.

Spud Date:

12/1/21

Rig Release Date:

12/23/21

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Jason J. Lodge TITLE GEOLOGIST DATE 10/26/21

Type or print name JASON J. LODGE E-mail address: JASON@VFPETROLEUM.COM PHONE: 432-683-3344

For State Use Only

APPROVED BY: John Garcia TITLE Petroleum Engineer DATE 11/3/2021

Conditions of Approval (if any):

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, New Mexico 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-47400	Pool Code 97569	Pool Name WINCHESTER; BONE SPRING, WEST
Property Code 329325	Property Name LIGHTFOOT 19 STATE COM	Well Number 221H
OGRID No. 24010	Operator Name V-F PETROLEUM INC	Elevation 3501'

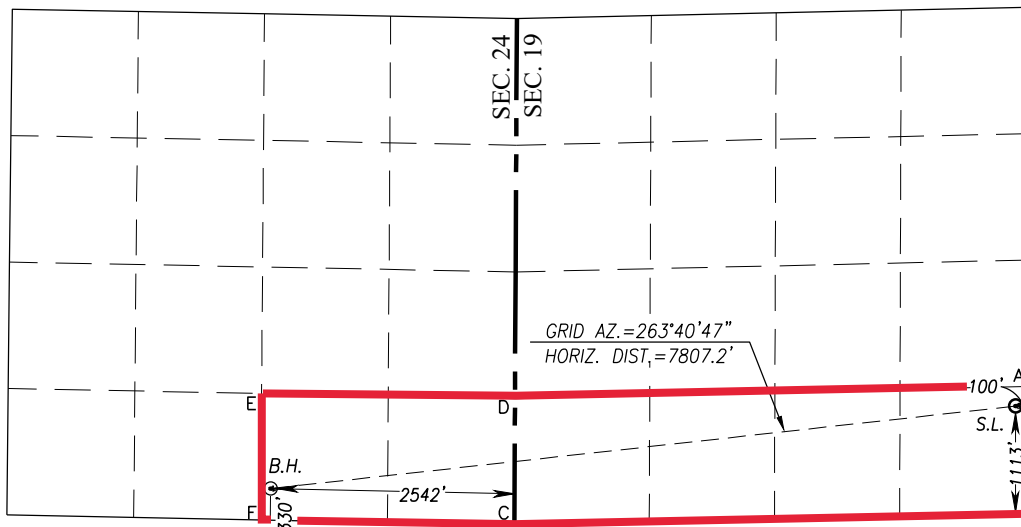
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	19	19-S	28-E		1113	SOUTH	100	EAST	EDDY

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
O	24	19-S	27-E		330	SOUTH	2542	EAST	EDDY
Dedicated Acres 243.11	Joint or Infill	Consolidation Code C	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



GEODETIC COORDINATES
NAD 27 NME
BOTTOM HOLE LOCATION
Y= 596309.8 N
X= 531333.9 E
LAT.=32.639317° N
LONG.=104.231542° W

CORNER COORDINATES TABLE
NAD 27 NME

A - Y= 597373.7 N, X= 539192.3 E
B - Y= 596058.2 N, X= 539188.8 E
C - Y= 595926.8 N, X= 533873.3 E
D - Y= 597246.2 N, X= 533880.0 E
E - Y= 597299.5 N, X= 531241.6 E
F - Y= 595981.9 N, X= 531231.4 E

GEODETIC COORDINATES
NAD 27 NME
SURFACE LOCATION
Y= 597168.9 N
X= 539091.7 E
LAT.=32.641656° N
LONG.=104.206337° W

GEODETIC COORDINATES
NAD 83 NME
BOTTOM HOLE LOCATION
Y= 596371.5 N
X= 572513.8 E
LAT.=32.639433° N
LONG.=104.232052° W

CORNER COORDINATES TABLE
NAD 83 NME

A - Y= 597435.6 N, X= 580372.2 E
B - Y= 596120.1 N, X= 580368.7 E
C - Y= 595988.6 N, X= 575053.2 E
D - Y= 597308.0 N, X= 575059.8 E
E - Y= 597361.3 N, X= 572421.4 E
F - Y= 596043.7 N, X= 572411.3 E

GEODETIC COORDINATES
NAD 83 NME
SURFACE LOCATION
Y= 597230.8 N
X= 580271.6 E
LAT.=32.641772° N
LONG.=104.206846° W

OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jason L. Lodge 10/26/21
Signature Date

Jason Lodge

Printed Name

Jason@vfpetroleum.com

E-mail Address

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.

FEBRUARY 12, 2019

Date of Survey
Signature & Seal of Professional Surveyor:

Ronald J. Eidson 08/30/2021
Certificate Number Gary G. Eidson 12641
Ronald J. Eidson 3239

LSL JWSC W.O.: 19.11.0125 JWSC W.O.: 21.13.0320

Petroleum, Inc.
 Project: Eddy County, NM
 Site: Sec 19-T19S-R28E
 Well: Lightfoot 19 State Com 221H
 Wellbore: Wellbore #1
 Plan: Plan #1 (Lightfoot 19 State Com 221H/Wellbore #1)

WELL DETAILS: Lightfoot 19 State Com 221H

Ground Elevation: 3501.0
 RKB Elevation: 3501+20 @ 3521.0ust
 Rig Name:

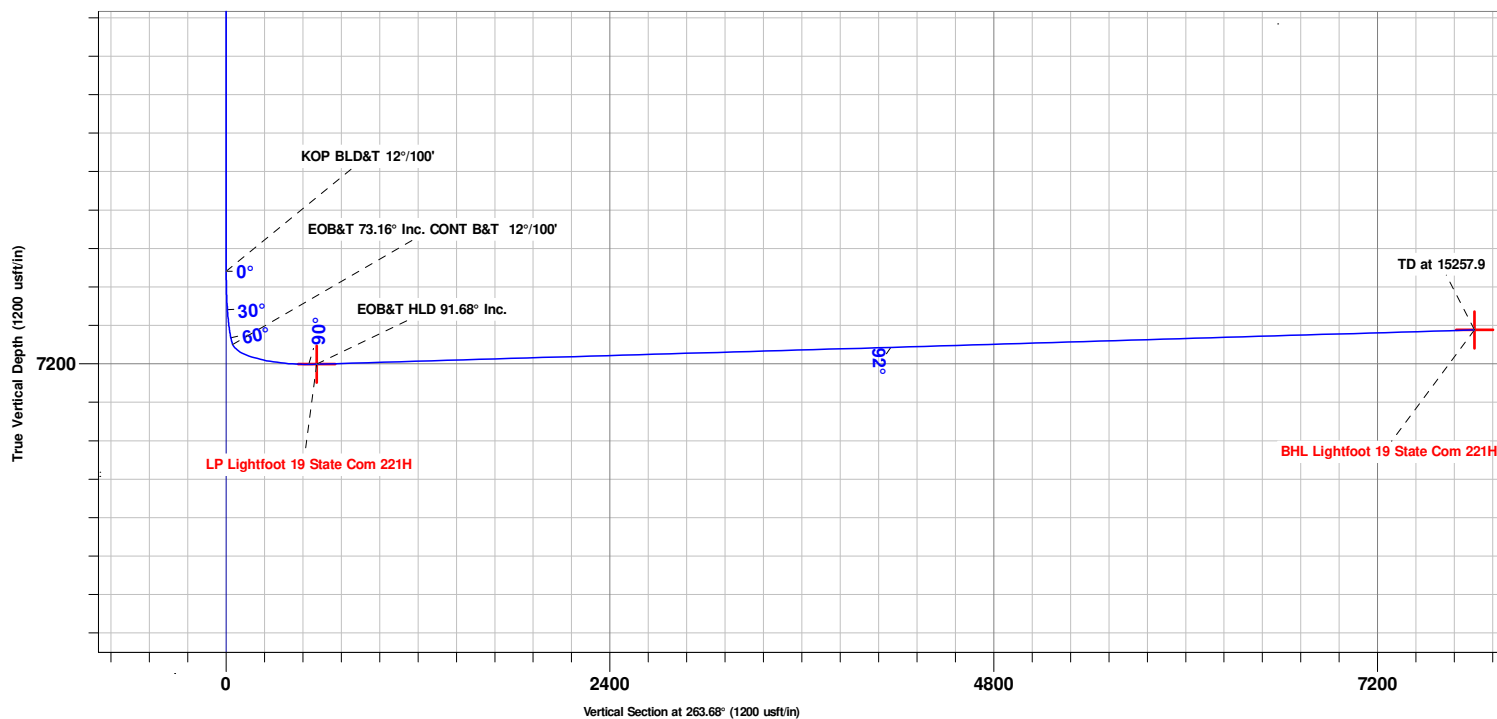
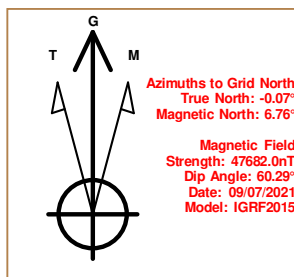
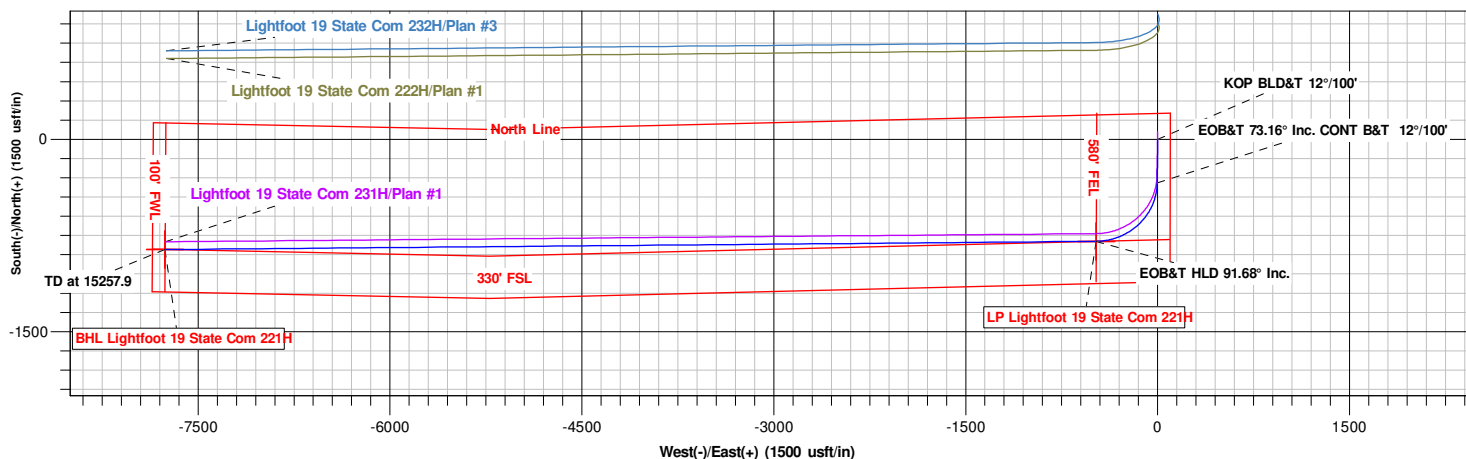
Northing Easting Latitude Longitude
 0.0 597230.80 580271.60 32° 38' 30.88" N 24.645 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
6623.0	0.00	0.00	6623.0	0.0	0.0	0.00	0.00	0.0
7232.7	73.16	180.63	7080.0	-339.1	-3.7	12.00	180.63	41.0
7977.7	91.68	269.50	7203.0	-795.5	-481.0	12.00	88.06	565.7
15257.9	91.68	269.50	6989.0	-859.3	-7757.8	0.00	0.00	7805.2

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BHL Lightfoot 19 State Com 221H	6989.0	-859.3	-7757.8	596371.50	572513.80	32° 38' 21.959 N	104° 13' 55.386 W	Point
LP Lightfoot 19 State Com 221H	7203.0	-795.5	-481.0	596435.30	579790.60	32° 38' 22.514 N	104° 12' 30.281 W	Point





V-F Petroleum, Inc.

Eddy County, NM

Sec 19-T19S-R28E

Lightfoot 19 State Com 221H

Wellbore #1

Plan: Plan #1

Standard Planning Report

07 September, 2021



Microsoft Planning Report

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Lightfoot 19 State Com 221H
Company:	V-F Petroleum, Inc.	TVD Reference:	3501+20 @ 3521.0usft
Project:	Eddy County, NM	MD Reference:	3501+20 @ 3521.0usft
Site:	Sec 19-T19S-R28E	North Reference:	Grid
Well:	Lightfoot 19 State Com 221H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project	Eddy County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Sec 19-T19S-R28E				
Site Position:		Northing:	598,207.90 usft	Latitude:	32° 38' 40.049 N	
From:	Map	Easting:	580,274.30 usft	Longitude:	104° 12' 24.599 W	
Position Uncertainty:		0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.07 °

Well	Lightfoot 19 State Com 221H					
Well Position	+N/-S	-977.1 usft	Northing:	597,230.80 usft	Latitude:	32° 38' 30.380 N
	+E/-W	-2.7 usft	Easting:	580,271.60 usft	Longitude:	104° 12' 24.645 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,501.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	09/07/21	6.82	60.29	47,682.03222880

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	263.68

Plan Survey Tool Program	Date	09/07/21		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	15,257.9	Plan #1 (Wellbore #1)	MWD
				OWSG MWD - Standard

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,623.0	0.00	0.00	6,623.0	0.0	0.0	0.00	0.00	0.00	0.00	
7,232.7	73.16	180.63	7,080.0	-339.1	-3.7	12.00	12.00	0.00	180.63	
7,977.7	91.68	269.50	7,203.0	-795.5	-481.0	12.00	2.49	11.93	88.06	LP Lightfoot 19 State
15,257.9	91.68	269.50	6,989.0	-859.3	-7,757.8	0.00	0.00	0.00	0.00	BHL Lightfoot 19 Stat



Microsoft
Planning Report

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Lightfoot 19 State Com 221H
Company:	V-F Petroleum, Inc.	TVD Reference:	3501+20 @ 3521.0usft
Project:	Eddy County, NM	MD Reference:	3501+20 @ 3521.0usft
Site:	Sec 19-T19S-R28E	North Reference:	Grid
Well:	Lightfoot 19 State Com 221H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00



Microsoft
Planning Report

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Lightfoot 19 State Com 221H
Company:	V-F Petroleum, Inc.	TVD Reference:	3501+20 @ 3521.0usft
Project:	Eddy County, NM	MD Reference:	3501+20 @ 3521.0usft
Site:	Sec 19-T19S-R28E	North Reference:	Grid
Well:	Lightfoot 19 State Com 221H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,623.0	0.00	0.00	6,623.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP BLD&T 12°/100'									
6,625.0	0.24	180.63	6,625.0	0.0	0.0	0.0	12.00	12.00	0.00
6,650.0	3.24	180.63	6,650.0	-0.8	0.0	0.1	12.00	12.00	0.00
6,675.0	6.24	180.63	6,674.9	-2.8	0.0	0.3	12.00	12.00	0.00
6,700.0	9.24	180.63	6,699.7	-6.2	-0.1	0.7	12.00	12.00	0.00
6,725.0	12.24	180.63	6,724.2	-10.9	-0.1	1.3	12.00	12.00	0.00
6,750.0	15.24	180.63	6,748.5	-16.8	-0.2	2.0	12.00	12.00	0.00
6,775.0	18.24	180.63	6,772.4	-24.0	-0.3	2.9	12.00	12.00	0.00
6,800.0	21.24	180.63	6,796.0	-32.4	-0.4	3.9	12.00	12.00	0.00
6,825.0	24.24	180.63	6,819.0	-42.1	-0.5	5.1	12.00	12.00	0.00
6,850.0	27.24	180.63	6,841.5	-52.9	-0.6	6.4	12.00	12.00	0.00
6,875.0	30.24	180.63	6,863.5	-65.0	-0.7	7.9	12.00	12.00	0.00
6,900.0	33.24	180.63	6,884.7	-78.1	-0.9	9.5	12.00	12.00	0.00
6,925.0	36.24	180.63	6,905.3	-92.4	-1.0	11.2	12.00	12.00	0.00
6,950.0	39.24	180.63	6,925.0	-107.7	-1.2	13.0	12.00	12.00	0.00
6,975.0	42.24	180.63	6,944.0	-124.0	-1.4	15.0	12.00	12.00	0.00
7,000.0	45.24	180.63	6,962.0	-141.3	-1.5	17.1	12.00	12.00	0.00
7,025.0	48.24	180.63	6,979.2	-159.5	-1.7	19.3	12.00	12.00	0.00
7,050.0	51.24	180.63	6,995.3	-178.5	-2.0	21.6	12.00	12.00	0.00
7,075.0	54.24	180.63	7,010.4	-198.4	-2.2	24.0	12.00	12.00	0.00
7,100.0	57.24	180.63	7,024.5	-219.1	-2.4	26.5	12.00	12.00	0.00
7,125.0	60.24	180.63	7,037.5	-240.5	-2.6	29.1	12.00	12.00	0.00
7,150.0	63.24	180.63	7,049.3	-262.5	-2.9	31.8	12.00	12.00	0.00
7,175.0	66.24	180.63	7,060.0	-285.1	-3.1	34.5	12.00	12.00	0.00
7,200.0	69.24	180.63	7,069.5	-308.2	-3.4	37.3	12.00	12.00	0.00
7,225.0	72.24	180.63	7,077.7	-331.8	-3.6	40.1	12.00	12.00	0.00
7,232.7	73.16	180.63	7,080.0	-339.1	-3.7	41.0	12.00	12.00	0.00
EOB&T 73.16° Inc. CONT B&T 12°/100'									
7,250.0	73.24	182.80	7,085.0	-355.7	-4.2	43.4	12.00	0.47	12.53
7,275.0	73.40	185.93	7,092.2	-379.6	-6.0	47.8	12.00	0.63	12.51
7,300.0	73.60	189.05	7,099.3	-403.3	-9.2	53.5	12.00	0.82	12.49
7,325.0	73.85	192.16	7,106.3	-426.9	-13.6	60.5	12.00	1.00	12.46
7,350.0	74.15	195.27	7,113.2	-450.3	-19.3	68.7	12.00	1.18	12.42
7,375.0	74.49	198.37	7,119.9	-473.3	-26.2	78.2	12.00	1.36	12.38
7,400.0	74.87	201.45	7,126.5	-496.0	-34.5	88.8	12.00	1.53	12.34
7,425.0	75.30	204.52	7,133.0	-518.2	-43.9	100.7	12.00	1.70	12.29
7,450.0	75.76	207.59	7,139.2	-540.0	-54.5	113.6	12.00	1.86	12.24
7,475.0	76.26	210.63	7,145.3	-561.1	-66.3	127.7	12.00	2.01	12.19
7,500.0	76.80	213.67	7,151.1	-581.7	-79.3	142.8	12.00	2.16	12.14



Microsoft Planning Report

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Lightfoot 19 State Com 221H
Company:	V-F Petroleum, Inc.	TVD Reference:	3501+20 @ 3521.0usft
Project:	Eddy County, NM	MD Reference:	3501+20 @ 3521.0usft
Site:	Sec 19-T19S-R28E	North Reference:	Grid
Well:	Lightfoot 19 State Com 221H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,525.0	77.38	216.69	7,156.7	-601.6	-93.3	159.0	12.00	2.30	12.08
7,550.0	77.99	219.69	7,162.0	-620.8	-108.4	176.1	12.00	2.44	12.03
7,575.0	78.63	222.69	7,167.1	-639.3	-124.5	194.1	12.00	2.57	11.97
7,600.0	79.31	225.67	7,171.9	-656.9	-141.6	213.1	12.00	2.69	11.92
7,625.0	80.01	228.63	7,176.4	-673.6	-159.6	232.8	12.00	2.80	11.86
7,650.0	80.73	231.58	7,180.5	-689.4	-178.6	253.4	12.00	2.90	11.81
7,675.0	81.48	234.52	7,184.4	-704.2	-198.3	274.6	12.00	3.00	11.76
7,700.0	82.25	237.45	7,187.9	-718.1	-218.8	296.5	12.00	3.09	11.71
7,725.0	83.05	240.37	7,191.1	-730.9	-240.0	319.0	12.00	3.17	11.67
7,750.0	83.86	243.28	7,194.0	-742.6	-261.9	342.1	12.00	3.24	11.63
7,775.0	84.68	246.18	7,196.5	-753.2	-284.4	365.6	12.00	3.30	11.59
7,800.0	85.52	249.07	7,198.6	-762.7	-307.4	389.5	12.00	3.36	11.56
7,825.0	86.37	251.95	7,200.4	-771.0	-331.0	413.8	12.00	3.40	11.54
7,850.0	87.23	254.83	7,201.8	-778.1	-354.9	438.4	12.00	3.44	11.51
7,875.0	88.10	257.70	7,202.8	-784.1	-379.1	463.1	12.00	3.47	11.50
7,900.0	88.97	260.58	7,203.4	-788.8	-403.7	488.1	12.00	3.49	11.49
7,925.0	89.84	263.45	7,203.7	-792.3	-428.4	513.0	12.00	3.50	11.48
7,950.0	90.72	266.32	7,203.6	-794.5	-453.3	538.0	12.00	3.50	11.48
7,975.0	91.59	269.19	7,203.1	-795.5	-478.3	563.0	12.00	3.49	11.48
7,977.7	91.68	269.50	7,203.0	-795.5	-481.0	565.7	12.00	3.48	11.49
EOB&T HLD 91.68° Inc.									
8,000.0	91.68	269.50	7,202.3	-795.7	-503.3	587.8	0.00	0.00	0.00
8,100.0	91.68	269.50	7,199.4	-796.6	-603.2	687.3	0.00	0.00	0.00
8,200.0	91.68	269.50	7,196.5	-797.4	-703.2	786.7	0.00	0.00	0.00
8,300.0	91.68	269.50	7,193.5	-798.3	-803.1	886.2	0.00	0.00	0.00
8,400.0	91.68	269.50	7,190.6	-799.2	-903.1	985.6	0.00	0.00	0.00
8,500.0	91.68	269.50	7,187.6	-800.1	-1,003.0	1,085.0	0.00	0.00	0.00
8,600.0	91.68	269.50	7,184.7	-801.0	-1,103.0	1,184.5	0.00	0.00	0.00
8,700.0	91.68	269.50	7,181.8	-801.8	-1,203.0	1,283.9	0.00	0.00	0.00
8,800.0	91.68	269.50	7,178.8	-802.7	-1,302.9	1,383.4	0.00	0.00	0.00
8,900.0	91.68	269.50	7,175.9	-803.6	-1,402.9	1,482.8	0.00	0.00	0.00
9,000.0	91.68	269.50	7,172.9	-804.5	-1,502.8	1,582.2	0.00	0.00	0.00
9,100.0	91.68	269.50	7,170.0	-805.3	-1,602.8	1,681.7	0.00	0.00	0.00
9,200.0	91.68	269.50	7,167.1	-806.2	-1,702.7	1,781.1	0.00	0.00	0.00
9,300.0	91.68	269.50	7,164.1	-807.1	-1,802.7	1,880.6	0.00	0.00	0.00
9,400.0	91.68	269.50	7,161.2	-808.0	-1,902.6	1,980.0	0.00	0.00	0.00
9,500.0	91.68	269.50	7,158.3	-808.8	-2,002.6	2,079.5	0.00	0.00	0.00
9,600.0	91.68	269.50	7,155.3	-809.7	-2,102.5	2,178.9	0.00	0.00	0.00
9,700.0	91.68	269.50	7,152.4	-810.6	-2,202.5	2,278.3	0.00	0.00	0.00
9,800.0	91.68	269.50	7,149.4	-811.5	-2,302.4	2,377.8	0.00	0.00	0.00
9,900.0	91.68	269.50	7,146.5	-812.3	-2,402.4	2,477.2	0.00	0.00	0.00
10,000.0	91.68	269.50	7,143.6	-813.2	-2,502.3	2,576.7	0.00	0.00	0.00
10,100.0	91.68	269.50	7,140.6	-814.1	-2,602.3	2,676.1	0.00	0.00	0.00
10,200.0	91.68	269.50	7,137.7	-815.0	-2,702.2	2,775.5	0.00	0.00	0.00
10,300.0	91.68	269.50	7,134.7	-815.9	-2,802.2	2,875.0	0.00	0.00	0.00
10,400.0	91.68	269.50	7,131.8	-816.7	-2,902.2	2,974.4	0.00	0.00	0.00
10,500.0	91.68	269.50	7,128.9	-817.6	-3,002.1	3,073.9	0.00	0.00	0.00
10,600.0	91.68	269.50	7,125.9	-818.5	-3,102.1	3,173.3	0.00	0.00	0.00
10,700.0	91.68	269.50	7,123.0	-819.4	-3,202.0	3,272.8	0.00	0.00	0.00
10,800.0	91.68	269.50	7,120.0	-820.2	-3,302.0	3,372.2	0.00	0.00	0.00
10,900.0	91.68	269.50	7,117.1	-821.1	-3,401.9	3,471.6	0.00	0.00	0.00
11,000.0	91.68	269.50	7,114.2	-822.0	-3,501.9	3,571.1	0.00	0.00	0.00
11,100.0	91.68	269.50	7,111.2	-822.9	-3,601.8	3,670.5	0.00	0.00	0.00
11,200.0	91.68	269.50	7,108.3	-823.7	-3,701.8	3,770.0	0.00	0.00	0.00



Microsoft Planning Report

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Lightfoot 19 State Com 221H
Company:	V-F Petroleum, Inc.	TVD Reference:	3501+20 @ 3521.0usft
Project:	Eddy County, NM	MD Reference:	3501+20 @ 3521.0usft
Site:	Sec 19-T19S-R28E	North Reference:	Grid
Well:	Lightfoot 19 State Com 221H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,300.0	91.68	269.50	7,105.3	-824.6	-3,801.7	3,869.4	0.00	0.00	0.00	
11,400.0	91.68	269.50	7,102.4	-825.5	-3,901.7	3,968.8	0.00	0.00	0.00	
11,500.0	91.68	269.50	7,099.5	-826.4	-4,001.6	4,068.3	0.00	0.00	0.00	
11,600.0	91.68	269.50	7,096.5	-827.2	-4,101.6	4,167.7	0.00	0.00	0.00	
11,700.0	91.68	269.50	7,093.6	-828.1	-4,201.5	4,267.2	0.00	0.00	0.00	
11,800.0	91.68	269.50	7,090.6	-829.0	-4,301.5	4,366.6	0.00	0.00	0.00	
11,900.0	91.68	269.50	7,087.7	-829.9	-4,401.4	4,466.1	0.00	0.00	0.00	
12,000.0	91.68	269.50	7,084.8	-830.7	-4,501.4	4,565.5	0.00	0.00	0.00	
12,100.0	91.68	269.50	7,081.8	-831.6	-4,601.4	4,664.9	0.00	0.00	0.00	
12,200.0	91.68	269.50	7,078.9	-832.5	-4,701.3	4,764.4	0.00	0.00	0.00	
12,300.0	91.68	269.50	7,075.9	-833.4	-4,801.3	4,863.8	0.00	0.00	0.00	
12,400.0	91.68	269.50	7,073.0	-834.3	-4,901.2	4,963.3	0.00	0.00	0.00	
12,500.0	91.68	269.50	7,070.1	-835.1	-5,001.2	5,062.7	0.00	0.00	0.00	
12,600.0	91.68	269.50	7,067.1	-836.0	-5,101.1	5,162.2	0.00	0.00	0.00	
12,700.0	91.68	269.50	7,064.2	-836.9	-5,201.1	5,261.6	0.00	0.00	0.00	
12,800.0	91.68	269.50	7,061.3	-837.8	-5,301.0	5,361.0	0.00	0.00	0.00	
12,900.0	91.68	269.50	7,058.3	-838.6	-5,401.0	5,460.5	0.00	0.00	0.00	
13,000.0	91.68	269.50	7,055.4	-839.5	-5,500.9	5,559.9	0.00	0.00	0.00	
13,100.0	91.68	269.50	7,052.4	-840.4	-5,600.9	5,659.4	0.00	0.00	0.00	
13,200.0	91.68	269.50	7,049.5	-841.3	-5,700.8	5,758.8	0.00	0.00	0.00	
13,300.0	91.68	269.50	7,046.6	-842.1	-5,800.8	5,858.2	0.00	0.00	0.00	
13,400.0	91.68	269.50	7,043.6	-843.0	-5,900.7	5,957.7	0.00	0.00	0.00	
13,500.0	91.68	269.50	7,040.7	-843.9	-6,000.7	6,057.1	0.00	0.00	0.00	
13,600.0	91.68	269.50	7,037.7	-844.8	-6,100.6	6,156.6	0.00	0.00	0.00	
13,700.0	91.68	269.50	7,034.8	-845.6	-6,200.6	6,256.0	0.00	0.00	0.00	
13,800.0	91.68	269.50	7,031.9	-846.5	-6,300.6	6,355.5	0.00	0.00	0.00	
13,900.0	91.68	269.50	7,028.9	-847.4	-6,400.5	6,454.9	0.00	0.00	0.00	
14,000.0	91.68	269.50	7,026.0	-848.3	-6,500.5	6,554.3	0.00	0.00	0.00	
14,100.0	91.68	269.50	7,023.0	-849.2	-6,600.4	6,653.8	0.00	0.00	0.00	
14,200.0	91.68	269.50	7,020.1	-850.0	-6,700.4	6,753.2	0.00	0.00	0.00	
14,300.0	91.68	269.50	7,017.2	-850.9	-6,800.3	6,852.7	0.00	0.00	0.00	
14,400.0	91.68	269.50	7,014.2	-851.8	-6,900.3	6,952.1	0.00	0.00	0.00	
14,500.0	91.68	269.50	7,011.3	-852.7	-7,000.2	7,051.5	0.00	0.00	0.00	
14,600.0	91.68	269.50	7,008.3	-853.5	-7,100.2	7,151.0	0.00	0.00	0.00	
14,700.0	91.68	269.50	7,005.4	-854.4	-7,200.1	7,250.4	0.00	0.00	0.00	
14,800.0	91.68	269.50	7,002.5	-855.3	-7,300.1	7,349.9	0.00	0.00	0.00	
14,900.0	91.68	269.50	6,999.5	-856.2	-7,400.0	7,449.3	0.00	0.00	0.00	
15,000.0	91.68	269.50	6,996.6	-857.0	-7,500.0	7,548.8	0.00	0.00	0.00	
15,100.0	91.68	269.50	6,993.6	-857.9	-7,599.9	7,648.2	0.00	0.00	0.00	
15,200.0	91.68	269.50	6,990.7	-858.8	-7,699.9	7,747.6	0.00	0.00	0.00	
15,257.9	91.68	269.50	6,989.0	-859.3	-7,757.8	7,805.2	0.00	0.00	0.00	
TD at 15257.9										



Microsoft

Planning Report

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Lightfoot 19 State Com 221H
Company:	V-F Petroleum, Inc.	TVD Reference:	3501+20 @ 3521.0usft
Project:	Eddy County, NM	MD Reference:	3501+20 @ 3521.0usft
Site:	Sec 19-T19S-R28E	North Reference:	Grid
Well:	Lightfoot 19 State Com 221H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting		
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude
BHL Lightfoot 19 State C - plan hits target center - Point	0.00	0.00	6,989.0	-859.3	-7,757.8	596,371.50	572,513.80	32° 38' 21.959 N	104° 13' 55.386 W
LP Lightfoot 19 State Cc - plan hits target center - Point	0.00	0.00	7,203.0	-795.5	-481.0	596,435.30	579,790.60	32° 38' 22.514 N	104° 12' 30.281 W

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,623.0	6,623.0	0.0	0.0	KOP BLD&T 12°/100'
7,232.7	7,080.0	-339.1	-3.7	EOB&T 73.16° Inc. CONT B&T 12°/100'
7,977.7	7,203.0	-795.5	-481.0	EOB&T HLD 91.68° Inc.
15,257.9	6,989.0	-859.3	-7,757.8	TD at 15257.9

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

COMMENTS

Action 57965

COMMENTS

Operator: V-F PETROLEUM INC P.O. Box 1889 Midland, TX 79702	OGRID: 24010
	Action Number: 57965
	Action Type: [C-103] NOI Change of Plans (C-103A)

COMMENTS

Created By	Comment	Comment Date
kpickford	KP GEO Review 11/2/2021	11/2/2021

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

CONDITIONS

Action 57965

CONDITIONS

Operator: V-F PETROLEUM INC P.O. Box 1889 Midland, TX 79702	OGRID: 24010
	Action Number: 57965
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Adhere to previous NMOCD Conditions of Approval	11/2/2021