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

Form C-101
Revised July 18, 2013

NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 06 2017
RECEIVED

☐ AMENDED REPORT

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

1. Operator Name and Address	2. OGRID Number
Percussion Petroleum Operating, LLC 919 Milam St., Suite 2475, Houston, TX 77002	371755
	3. API Number 30-015-44383

4. Property Code	5. Property Name	6. Well No.
	Goodman 22	2H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
C	22	19S	25E		847	NORTH	2044	WEST	EDDY

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
C	23	19S	25E		970	NORTH	2677	WEST	EDDY

9. Pool Information

Pool Name	Pool Code
N. SEVEN RIVERS; GLORIETA-YESO	97565

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
N	O	R	P	3472'
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	8465'	YESO	SILVER OAK DRILLING	10/15/17

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water

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

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
SURFACE	12.25	9.625	36	1,215'	600	SURFACE
PRODUCTION	8.75	5.5	17	8,465'	2250	SURFACE

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
13 5/8" Double-Ram, Annular	5,000 psi	250 low/ 3000 high	Shaffer

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.** Signature: Patrick Wales	OIL CONSERVATION DIVISION Approved By: Raymond W. Dudany
Printed name: Patrick Wales	Title: Geologist
Title: Drilling Engineer	Approved Date: 9-6-17 Expiration Date: 8-17-19
E-mail Address: pwales@totalenergyservices.us	
Date: 9/6/2017 Phone: 432-682-1598	Conditions of Approval Attached Change SHL Footage.

NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 06 2017
RECEIVED

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DISTRICT IV
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State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1226 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	Pool Code	Pool Name

Property Code	Property Name	Well Number
	GOODMAN 22	2H
OGRID No.	**Operator Name**	**Elevation**
	PERCUSSION PETROLEUM OPERATING, LLC	3472'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	FEET from the	North/South line	FEET from the	East/West line	County
C	22	19 S	25 E		847	NORTH	2044	WEST	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
C	23	19 S	25 E		970	NORTH	2677	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

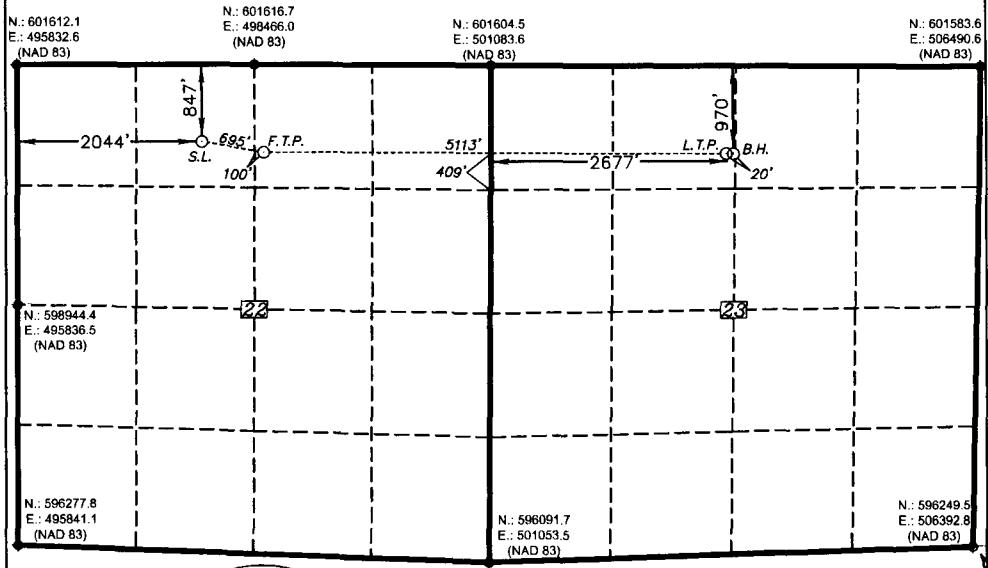
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

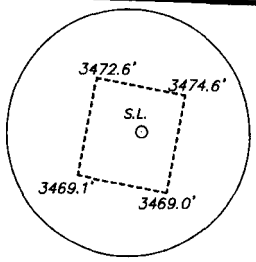
SURFACE LOCATION
Lat – N 32.651463°
Long – W 104.474539°
NMSPCE– N 600762.2
E 497877.7
(NAD-83)

FIRST TAKE POINT
970' FNL & 2516' FEL
Lat – N 32.651147°
Long – W 104.472313°
NMSPCE– N 600646.3
E 498562.7
(NAD-83)

LAST TAKE POINT
970' FNL & 2597' FWL
Lat – N 32.651104°
Long – W 104.455700°
NMSPCE– N 600624.4
E 503675.6
(NAD-83)

PROPOSED BOTTOM HOLE LOCATION
Lat – N 32.651104°
Long – W 104.455441°
NMSPCE– N 600624.1
E 503755.6
(NAD-83)





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.

Signature Date

Printed Name

Email 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 supervison, and that the same is true and correct to the best of my belief.

Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

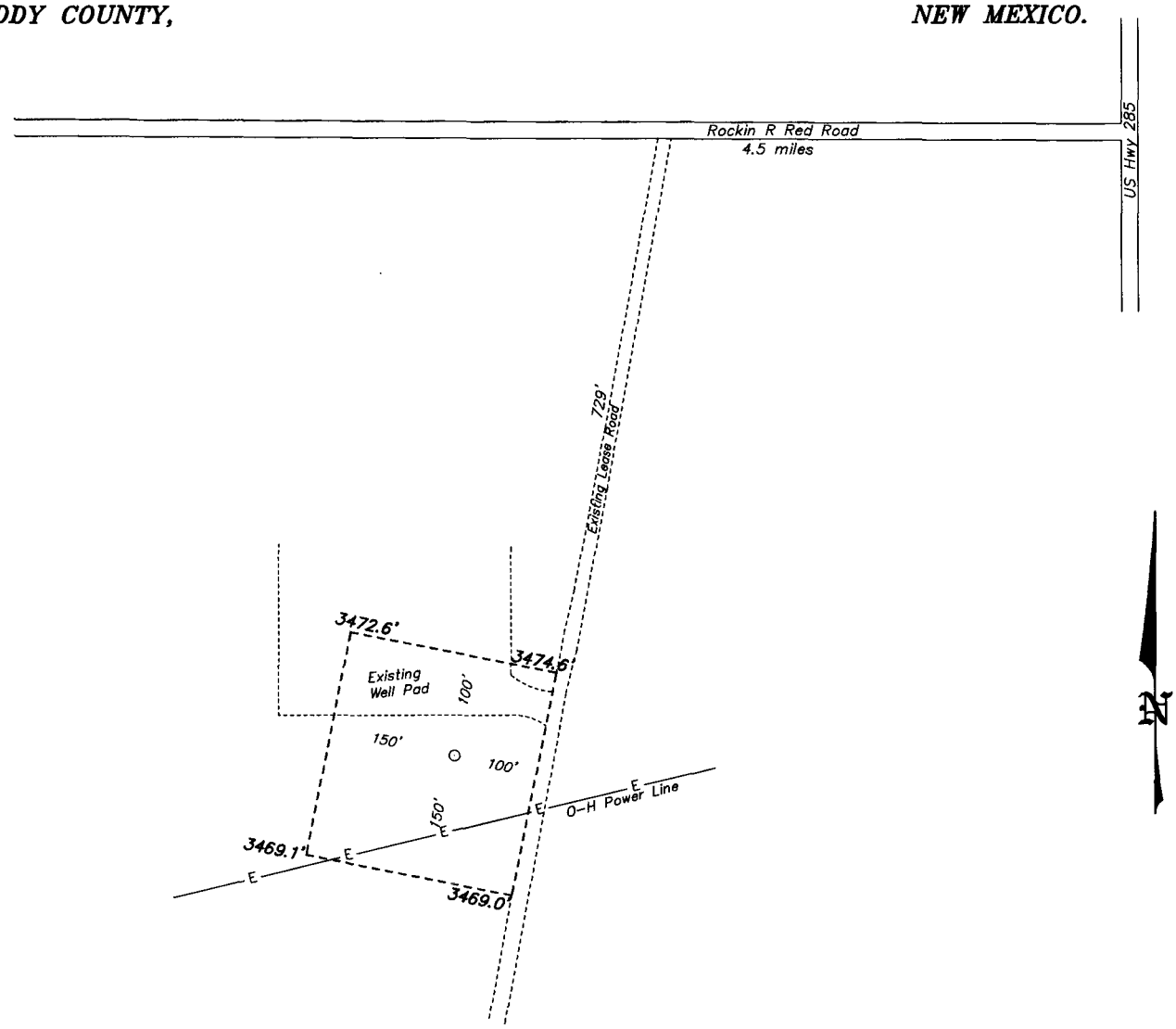
Certificate Number Gary L. Jones 7977

BASIN SURVEYS

0' 1000' 2000' 3000' 4000'
SCALE: 1" = 2000'
WO Num.: 33182

SECTION 22, TOWNSHIP 19 SOUTH, RANGE 25 EAST, N.M.P.M.,

EDDY COUNTY, **NEW MEXICO.**



PERCUSSION PETROLEUM OPERATING, LLC
GOODMAN 22 #2H
ELEV. - 3472'

Lat - N 32.651463°
Long - W 104.474539°
NMSPCE- N 600762.2
E 497877.7
(NAD-83)

ARTESIA, NM IS ±13 MILES TO THE NORTHEAST OF LOCATION.

200 0 200 400 FEET

SCALE: 1" = 200'

Directions to Location:

FROM US 285 AND COUNTY ROAD 23 GO WEST ON COUNTY ROAD 23 FOR 4.5 MILES TO LEASE ROAD. THEN GO SOUTHWEST 503 FEET ON LEASE ROAD TO PROPOSED WELL PAD.

PERCUSSION PETROLEUM OPERATING, LLC

REF: GOODMAN 22 #2H / WELL PAD TOPO

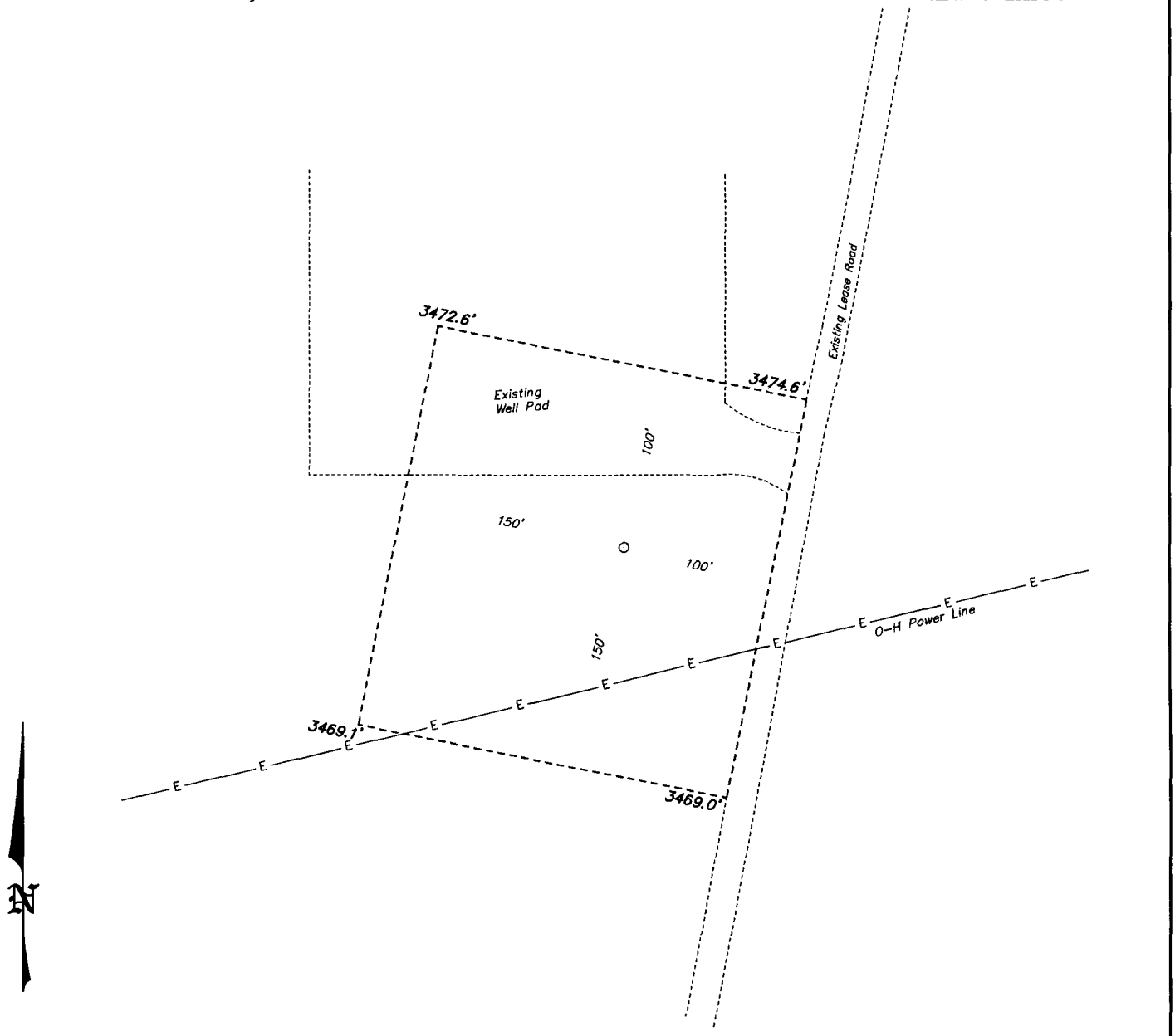
THE GOODMAN 22 #2H LOCATED 847' FROM THE NORTH LINE AND 2044' FROM THE WEST LINE OF SECTION 22, TOWNSHIP 19 SOUTH, RANGE 25 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: 33182 | Drawn By: K GOAD | Date: 08-01-2017 | Survey Date: 07-31-2017 | Sheet 1 of 1 Sheets

SECTION 22, TOWNSHIP 19 SOUTH, RANGE 25 EAST, N.M.P.M.,

EDDY COUNTY, ***NEW MEXICO.***



100 0 100 200 FEET

SCALE: 1" = 100'

PERCUSSION PETROLEUM OPERATING, LLC

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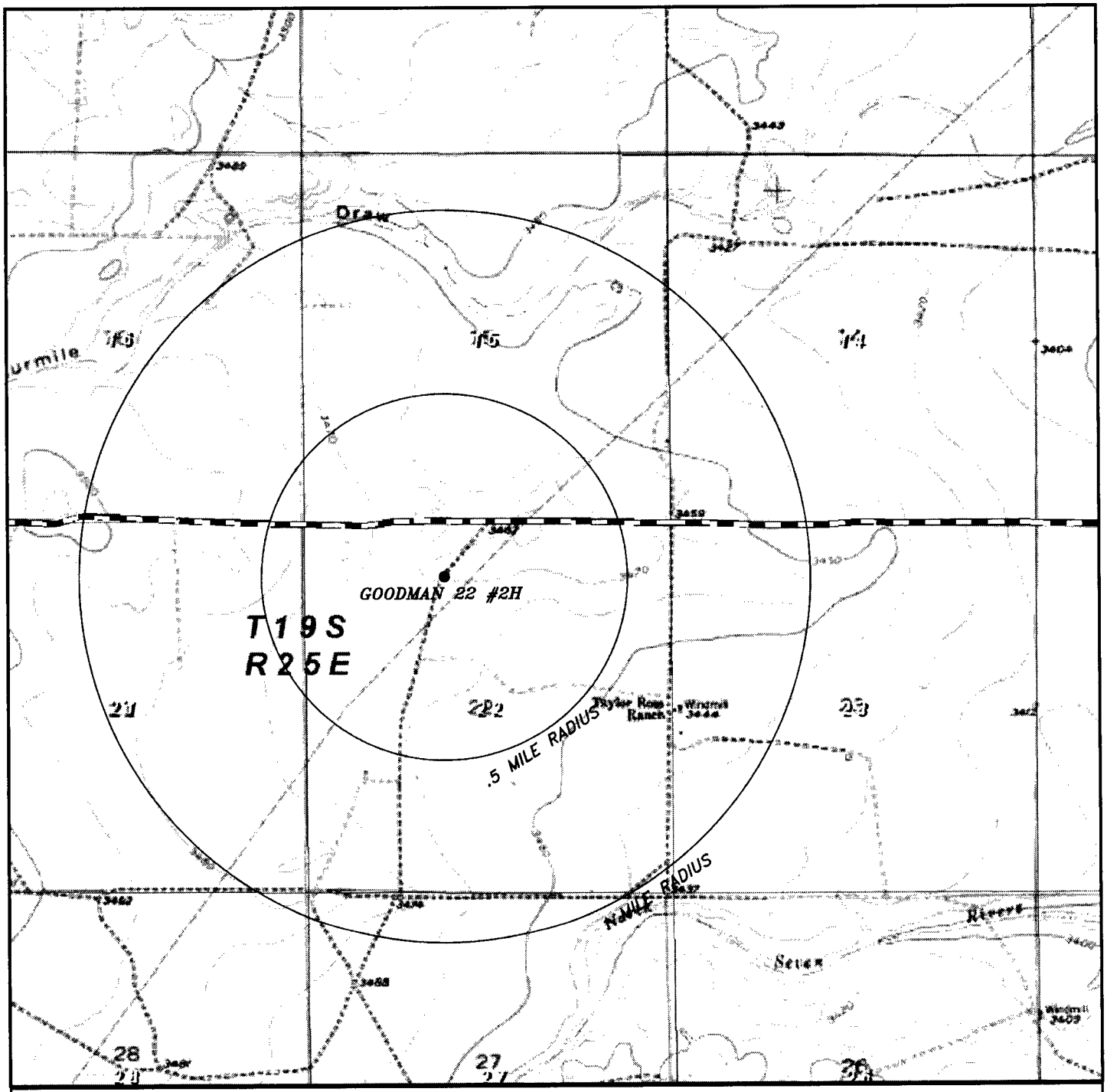

GOODMAN 22 #2H
Located 847' FNL and 2044' FWL
Section 22, Township 19 South, Range 25 East,
N.M.P.M., Eddy County, New Mexico.

basin surveys
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(575) 392-2206 - Fax
basinsurveys.com

0' 1000' 2000' 3000' 4000'
SCALE: 1" = 2000'

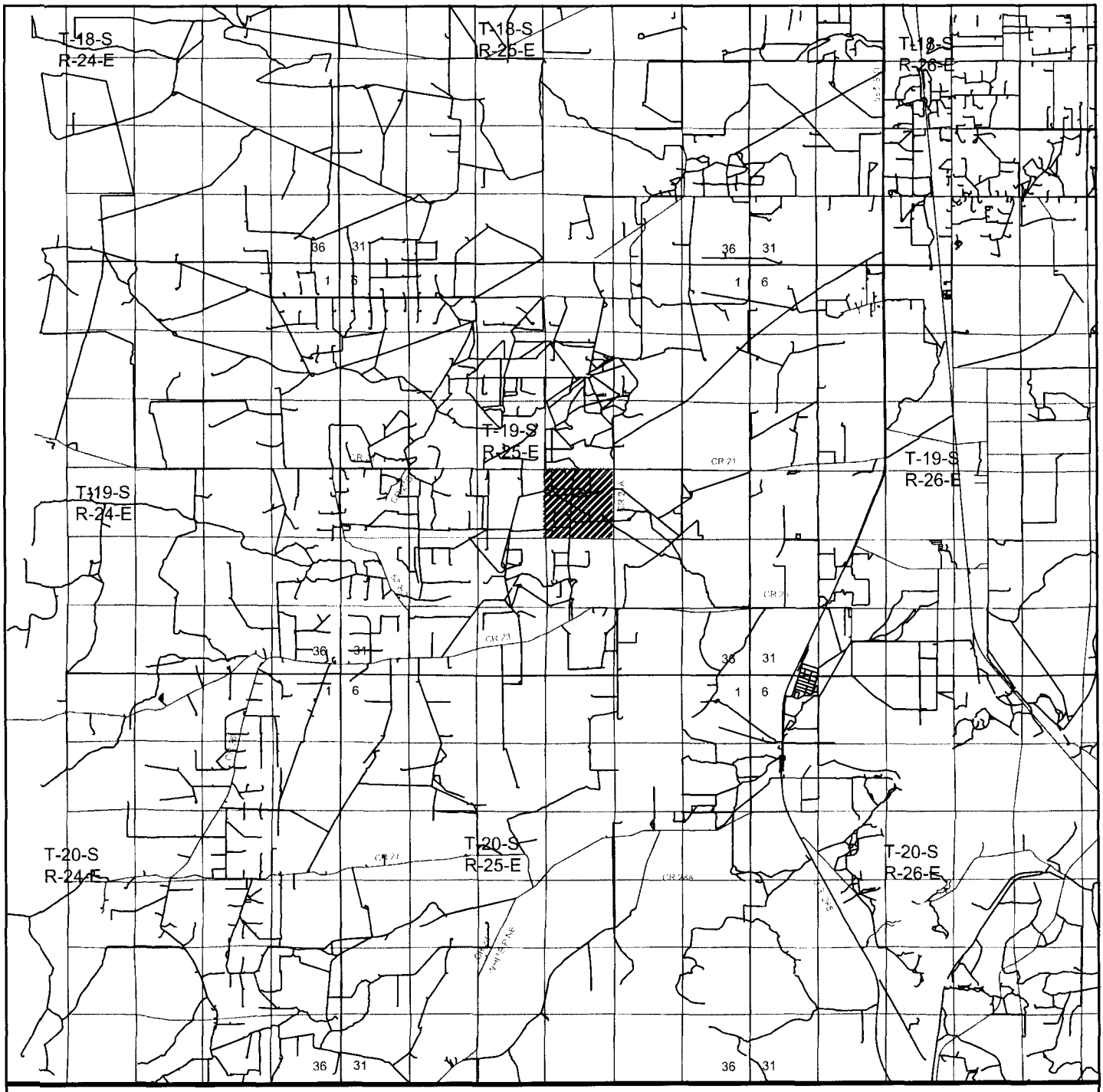
W.O. Number: KJG 33182

Survey Date: 07-31-2017

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

N

PERCUSSION PETROLEUM OPERATING, LLC



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0 1 MI 2 MI 3 MI 4 MI
SCALE: 1" = 2 MILES

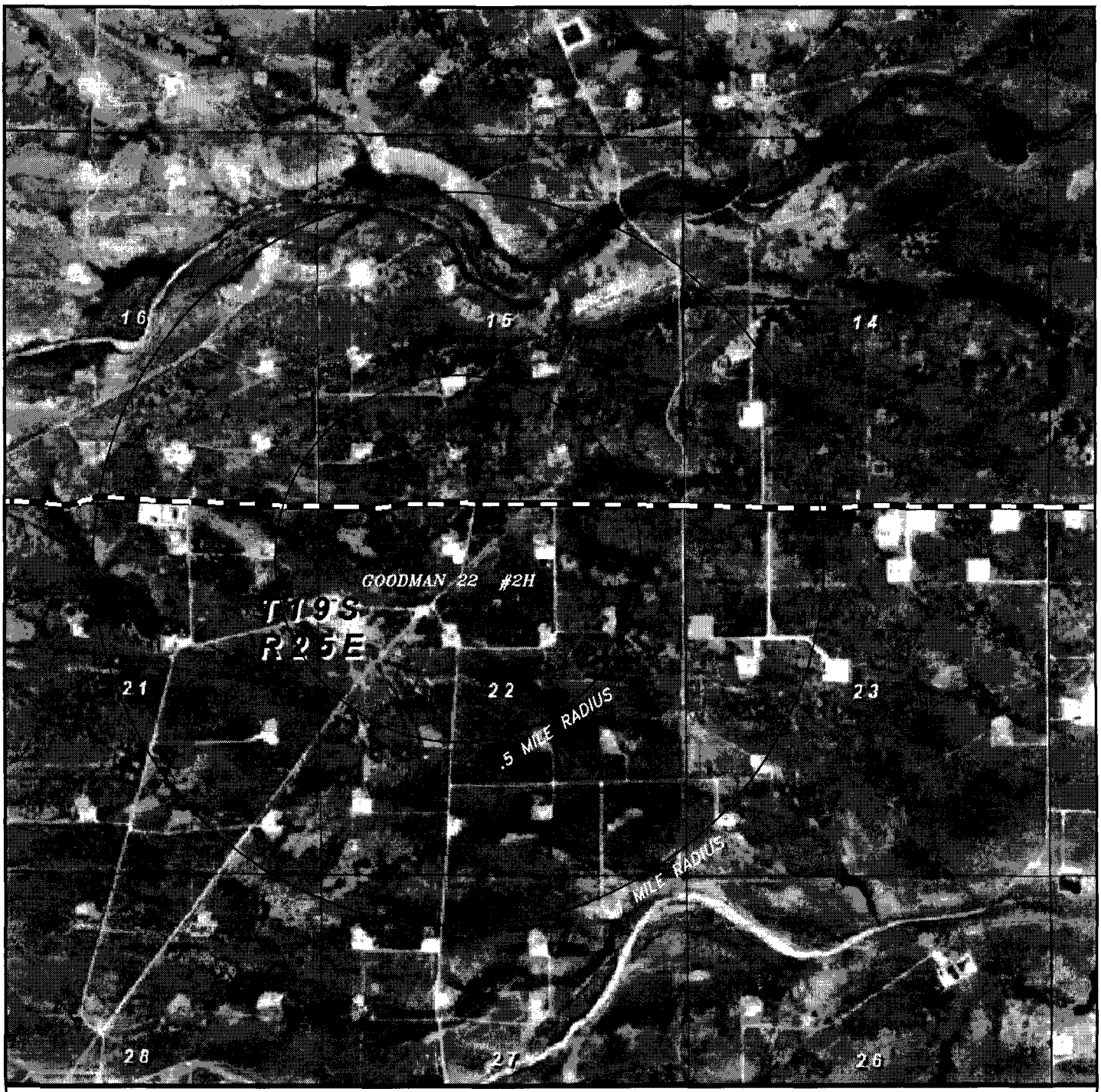
W.O. Number: KJG 33182

Survey Date: 07-31-2017

YELLOW TINT – USA LAND
BLUE TINT – STATE LAND
NATURAL COLOR – FEE LAND

N

PERCUSSION PETROLEUM OPERATING, LLC



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0' 1000' 2000' 3000' 4000'
SCALE: 1" = 2000'

W.O. Number: KJG 33182

Survey Date: 07-31-2017

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

N

PERCUSSION PETROLEUM OPERATING, LLC

PERCUSSION PETROLEUM LLC

Percussion Petroleum, LLC

Eddy County, NM
Goodman 22
2H

OH

Plan: Plan #3

Standard Planning Report

04 August, 2017

WELLBENDERS DIRECTIONAL SERVICES LLC

PERCUSSION PETROLEUM LLC

Company: Percussion Petroleum, LLC
Project: Eddy County, NM
Site: Goodman 22
Well: 2H
Wellbore: OH
Rig: NA
Design: Plan #3 / 9:39, August 04 2017

WELLBENDERS DIRECTIONAL SERVICES LLC

PROJECT DETAILS: Eddy County, NM

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

TOTAL CORRECTION

Magnetic North is 7.47° East of Grid North (Magnetic Convergence)

WELL DETAILS: 2H

RKB=25' @ 3497.00usft (NA)
3472.00

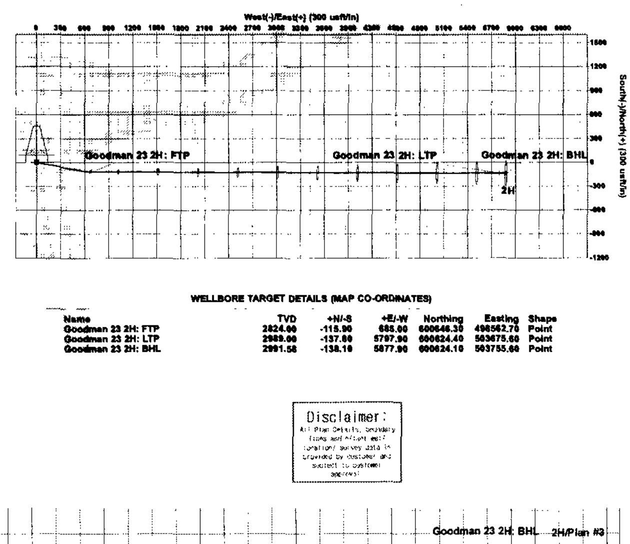
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	600762.20	497877.70	32.651463	-104.474539

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2246.79	0.00	0.00	2246.79	0.00	0.00	0.00	0.00
3	3128.28	88.15	100.33	2819.45	-99.45	545.45	10.00	545.88
4	3168.28	88.15	100.33	2820.74	-106.62	584.79	0.00	585.25
5	3269.10	88.15	90.25	2824.00	-115.90	685.00	10.00	685.50
6	8384.71	88.15	90.25	2989.00	-137.80	5797.90	0.00	5798.45
7	8464.75	88.15	90.25	2991.58	-138.14	5877.90	0.00	5878.45

Azimuths to Grid North
True North: 0.08°
Magnetic North: 7.47°

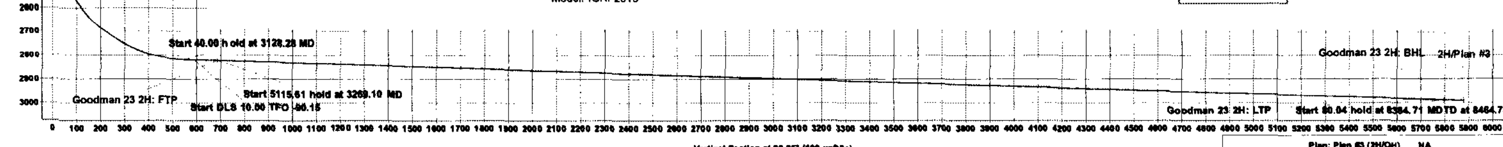
Magnetic Field
Strength: 48086.0snT
Dip Angle: 60.31°
Date: 7/12/2017
Model: IGRF2015



WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Goodman 23 2H: FTP	2824.00	-115.90	685.00	600646.30	498562.70	Point
Goodman 23 2H: LTP	2989.00	-137.80	5797.90	600624.40	503675.60	Point
Goodman 23 2H: BHL	2991.58	-138.10	5877.90	600624.10	503755.60	Point

Disclaimer:
All Plan Details, boundary lines and offset well locations/ survey data is provided by customer and subject to customer approval.



Plan: Plan #3 (2H/OH) NA

Created By: Daniel Benn Date: 9:39, August 04 2017

Database:	WBDS_SQL_2	**Local Co-ordinate Reference:**	Well 2H
Company:	Percussion Petroleum, LLC	**TVD Reference:**	RKB=25' @ 3497.00usft (NA)
Project:	Eddy County, NM	**MD Reference:**	RKB=25' @ 3497.00usft (NA)
Site:	Goodman 22	**North Reference:**	Grid
Well:	2H	**Survey Calculation Method:**	*Minimum Curvature*
Wellbore:	OH		
Design:	Plan #3		

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 Goodman 22

Site Position:		**Northing:**	601,029.41 usft	**Latitude:**	32.652199
From:	Lat/Long	**Easting:**	498,211.10 usft	**Longitude:**	-104.473457
Position Uncertainty:	0.00 usft	**Slot Radius:**	13.200 in	**Grid Convergence:**	-0.08 °

Well 2H

Well Position	**+N/-S**	-267.21 usft	**Northing:**	600,762.20 usft	**Latitude:**	32.651463
	+E/-W	-333.40 usft	**Easting:**	497,877.70 usft	**Longitude:**	-104.474539
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	3,472.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/12/2017	7.39	60.31	48,086.01588493

Design Plan #3

Audit Notes:

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

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	90.25

Plan Survey Tool Program Date 8/4/2017

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	8,464.75	Plan #3 (OH)	MWD+IGRF	
				OWSG MWD + IGRF or WM	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,246.79	0.00	0.00	2,246.79	0.00	0.00	0.00	0.00	0.00	0.00	
3,128.28	88.15	100.33	2,819.45	-99.45	545.45	10.00	10.00	0.00	100.33	
3,168.28	88.15	100.33	2,820.74	-106.62	584.79	0.00	0.00	0.00	0.00	
3,269.10	88.15	90.25	2,824.00	-115.90	685.00	10.00	0.00	-10.01	-90.15	Goodman 23 2H: F
8,384.71	88.15	90.25	2,989.00	-137.80	5,797.90	0.00	0.00	0.00	0.00	Goodman 23 2H: L
8,464.75	88.15	90.25	2,991.58	-138.14	5,877.90	0.00	0.00	0.00	0.00	Goodman 23 2H: B

Database:	WBDS_SQL_2	**Local Co-ordinate Reference:**	Well 2H
Company:	Percussion Petroleum, LLC	**TVD Reference:**	RKB=25' @ 3497.00usft (NA)
Project:	Eddy County, NM	**MD Reference:**	RKB=25' @ 3497.00usft (NA)
Site:	Goodman 22	**North Reference:**	Grid
Well:	2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,246.79	0.00	0.00	2,246.79	0.00	0.00	0.00	0.00	0.00	0.00
2,250.00	0.32	100.33	2,250.00	0.00	0.01	0.01	10.00	10.00	0.00
2,300.00	5.32	100.33	2,299.92	-0.44	2.43	2.43	10.00	10.00	0.00
2,350.00	10.32	100.33	2,349.44	-1.66	9.12	9.13	10.00	10.00	0.00
2,400.00	15.32	100.33	2,398.18	-3.65	20.03	20.05	10.00	10.00	0.00
2,450.00	20.32	100.33	2,445.77	-6.40	35.08	35.11	10.00	10.00	0.00
2,500.00	25.32	100.33	2,491.84	-9.87	54.15	54.20	10.00	10.00	0.00
2,550.00	30.32	100.33	2,536.04	-14.06	77.10	77.16	10.00	10.00	0.00
2,600.00	35.32	100.33	2,578.05	-18.92	103.76	103.84	10.00	10.00	0.00
2,650.00	40.32	100.33	2,617.53	-24.42	133.91	134.01	10.00	10.00	0.00
2,700.00	45.32	100.33	2,654.20	-30.51	167.33	167.46	10.00	10.00	0.00
2,750.00	50.32	100.33	2,687.76	-37.15	203.77	203.93	10.00	10.00	0.00
2,800.00	55.32	100.33	2,717.96	-44.30	242.95	243.14	10.00	10.00	0.00
2,850.00	60.32	100.33	2,744.58	-51.89	284.57	284.80	10.00	10.00	0.00
2,900.00	65.32	100.33	2,767.41	-59.86	328.32	328.57	10.00	10.00	0.00
2,950.00	70.32	100.33	2,786.28	-68.16	373.85	374.15	10.00	10.00	0.00
3,000.00	75.32	100.33	2,801.05	-76.73	420.83	421.16	10.00	10.00	0.00
3,050.00	80.32	100.33	2,811.59	-85.49	468.90	469.27	10.00	10.00	0.00
3,100.00	85.32	100.33	2,817.84	-94.39	517.69	518.09	10.00	10.00	0.00
3,128.28	88.15	100.33	2,819.45	-99.45	545.45	545.88	10.00	10.00	0.00
3,168.28	88.15	100.33	2,820.74	-106.62	584.79	585.25	0.00	0.00	0.00
3,200.00	88.14	97.16	2,821.76	-111.44	616.12	616.60	10.00	-0.02	-10.01
3,250.00	88.15	92.16	2,823.38	-115.50	665.91	666.41	10.00	0.01	-10.01
3,269.10	88.15	90.25	2,824.00	-115.90	685.00	685.50	10.00	0.03	-10.01
3,300.00	88.15	90.25	2,825.00	-116.03	715.88	716.38	0.00	0.00	0.00
3,400.00	88.15	90.25	2,828.22	-116.46	815.83	816.33	0.00	0.00	0.00
3,500.00	88.15	90.25	2,831.45	-116.89	915.78	916.28	0.00	0.00	0.00
3,600.00	88.15	90.25	2,834.67	-117.32	1,015.72	1,016.23	0.00	0.00	0.00
3,700.00	88.15	90.25	2,837.90	-117.74	1,115.67	1,116.17	0.00	0.00	0.00
3,800.00	88.15	90.25	2,841.12	-118.17	1,215.62	1,216.12	0.00	0.00	0.00
3,900.00	88.15	90.25	2,844.35	-118.60	1,315.56	1,316.07	0.00	0.00	0.00

Database:	WBDS_SQL_2	**Local Co-ordinate Reference:**	Well 2H
Company:	Percussion Petroleum, LLC	**TVD Reference:**	RKB=25' @ 3497.00usft (NA)
Project:	Eddy County, NM	**MD Reference:**	RKB=25' @ 3497.00usft (NA)
Site:	Goodman 22	**North Reference:**	Grid
Well:	2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,000.00	88.15	90.25	2,847.57	-119.03	1,415.51	1,416.02	0.00	0.00	0.00
4,100.00	88.15	90.25	2,850.80	-119.46	1,515.46	1,515.97	0.00	0.00	0.00
4,200.00	88.15	90.25	2,854.03	-119.89	1,615.41	1,615.91	0.00	0.00	0.00
4,300.00	88.15	90.25	2,857.25	-120.31	1,715.35	1,715.86	0.00	0.00	0.00
4,400.00	88.15	90.25	2,860.48	-120.74	1,815.30	1,815.81	0.00	0.00	0.00
4,500.00	88.15	90.25	2,863.70	-121.17	1,915.25	1,915.76	0.00	0.00	0.00
4,600.00	88.15	90.25	2,866.93	-121.60	2,015.19	2,015.71	0.00	0.00	0.00
4,700.00	88.15	90.25	2,870.15	-122.03	2,115.14	2,115.65	0.00	0.00	0.00
4,800.00	88.15	90.25	2,873.38	-122.45	2,215.09	2,215.60	0.00	0.00	0.00
4,900.00	88.15	90.25	2,876.60	-122.88	2,315.04	2,315.55	0.00	0.00	0.00
5,000.00	88.15	90.25	2,879.83	-123.31	2,414.98	2,415.50	0.00	0.00	0.00
5,100.00	88.15	90.25	2,883.05	-123.74	2,514.93	2,515.45	0.00	0.00	0.00
5,200.00	88.15	90.25	2,886.28	-124.17	2,614.88	2,615.39	0.00	0.00	0.00
5,300.00	88.15	90.25	2,889.51	-124.59	2,714.82	2,715.34	0.00	0.00	0.00
5,400.00	88.15	90.25	2,892.73	-125.02	2,814.77	2,815.29	0.00	0.00	0.00
5,500.00	88.15	90.25	2,895.96	-125.45	2,914.72	2,915.24	0.00	0.00	0.00
5,600.00	88.15	90.25	2,899.18	-125.88	3,014.66	3,015.19	0.00	0.00	0.00
5,700.00	88.15	90.25	2,902.41	-126.31	3,114.61	3,115.13	0.00	0.00	0.00
5,800.00	88.15	90.25	2,905.63	-126.73	3,214.56	3,215.08	0.00	0.00	0.00
5,900.00	88.15	90.25	2,908.86	-127.16	3,314.51	3,315.03	0.00	0.00	0.00
6,000.00	88.15	90.25	2,912.08	-127.59	3,414.45	3,414.98	0.00	0.00	0.00
6,100.00	88.15	90.25	2,915.31	-128.02	3,514.40	3,514.93	0.00	0.00	0.00
6,200.00	88.15	90.25	2,918.53	-128.45	3,614.35	3,614.87	0.00	0.00	0.00
6,300.00	88.15	90.25	2,921.76	-128.88	3,714.29	3,714.82	0.00	0.00	0.00
6,400.00	88.15	90.25	2,924.98	-129.30	3,814.24	3,814.77	0.00	0.00	0.00
6,500.00	88.15	90.25	2,928.21	-129.73	3,914.19	3,914.72	0.00	0.00	0.00
6,600.00	88.15	90.25	2,931.44	-130.16	4,014.14	4,014.66	0.00	0.00	0.00
6,700.00	88.15	90.25	2,934.66	-130.59	4,114.08	4,114.61	0.00	0.00	0.00
6,800.00	88.15	90.25	2,937.89	-131.02	4,214.03	4,214.56	0.00	0.00	0.00
6,900.00	88.15	90.25	2,941.11	-131.44	4,313.98	4,314.51	0.00	0.00	0.00
7,000.00	88.15	90.25	2,944.34	-131.87	4,413.92	4,414.46	0.00	0.00	0.00
7,100.00	88.15	90.25	2,947.56	-132.30	4,513.87	4,514.40	0.00	0.00	0.00
7,200.00	88.15	90.25	2,950.79	-132.73	4,613.82	4,614.35	0.00	0.00	0.00
7,300.00	88.15	90.25	2,954.01	-133.16	4,713.76	4,714.30	0.00	0.00	0.00
7,400.00	88.15	90.25	2,957.24	-133.58	4,813.71	4,814.25	0.00	0.00	0.00
7,500.00	88.15	90.25	2,960.46	-134.01	4,913.66	4,914.20	0.00	0.00	0.00
7,600.00	88.15	90.25	2,963.69	-134.44	5,013.61	5,014.14	0.00	0.00	0.00
7,700.00	88.15	90.25	2,966.92	-134.87	5,113.55	5,114.09	0.00	0.00	0.00
7,800.00	88.15	90.25	2,970.14	-135.30	5,213.50	5,214.04	0.00	0.00	0.00
7,900.00	88.15	90.25	2,973.37	-135.72	5,313.45	5,313.99	0.00	0.00	0.00
8,000.00	88.15	90.25	2,976.59	-136.15	5,413.39	5,413.94	0.00	0.00	0.00
8,100.00	88.15	90.25	2,979.82	-136.58	5,513.34	5,513.88	0.00	0.00	0.00
8,200.00	88.15	90.25	2,983.04	-137.01	5,613.29	5,613.83	0.00	0.00	0.00
8,300.00	88.15	90.25	2,986.27	-137.44	5,713.24	5,713.78	0.00	0.00	0.00
8,384.71	88.15	90.25	2,989.00	-137.80	5,797.90	5,798.45	0.00	0.00	0.00
8,400.00	88.15	90.25	2,989.49	-137.87	5,813.18	5,813.73	0.00	0.00	0.00
8,464.75	88.15	90.25	2,991.58	-138.14	5,877.90	5,878.45	0.00	0.00	0.00

Database:	WBDS_SQL_2	**Local Co-ordinate Reference:**	Well 2H
Company:	Percussion Petroleum, LLC	**TVD Reference:**	RKB=25' @ 3497.00usft (NA)
Project:	Eddy County, NM	**MD Reference:**	RKB=25' @ 3497.00usft (NA)
Site:	Goodman 22	**North Reference:**	Grid
Well:	2H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

Design Targets

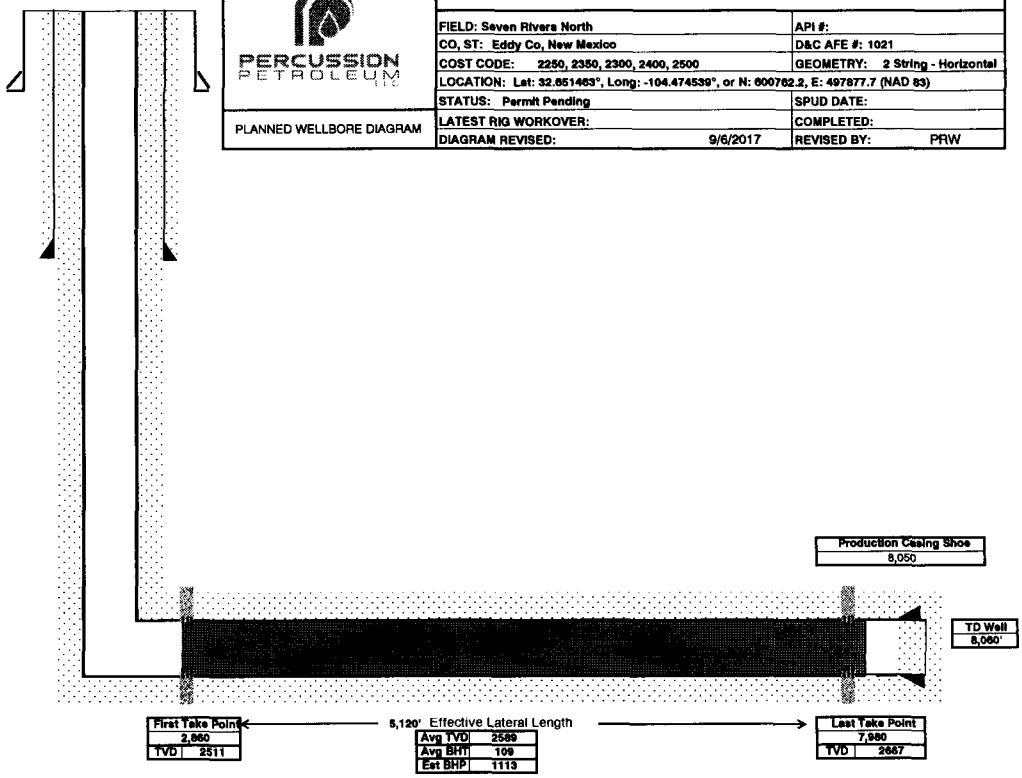
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Goodman 23 2H: FTP - plan hits target center - Point	0.00	0.00	2,824.00	-115.90	685.00	600,646.30	498,562.70	32.651147	-104.472313
Goodman 23 2H: LTP - plan hits target center - Point	0.00	0.00	2,989.00	-137.80	5,797.90	600,624.40	503,675.60	32.651104	-104.455701
Goodman 23 2H: BHL - plan misses target center by 0.04usft at 8464.75usft MD (2991.58 TVD, -138.14 N, 5877.90 E) - Point	0.00	0.00	2,991.58	-138.10	5,877.90	600,624.10	503,755.60	32.651104	-104.455441

Depth	Hole Size	Casing Data	Lithology	Fluid	Cement
90'		20" 94# H-40		8.4 ppg FW Gel and Gel/LCM Sweeps	Ready-Mix @ Surface
1,213'	12 1/4	9 5/8" 36# J-55 STC	San Andes Top @ 813'	8.3-9.2 ppg FW Cut Brine Gel Sweeps and LCM Pills as needed	TOC @ Surface 100% Excess
8,060'	8 3/4	5 1/2" 17# L-80 BTC	Glorieta Top @ 2,438' TVD Yeso Top @ 2,574' TVD	8.3-9.2 ppg FW Cut Brine Gel Sweeps and LCM Pills as needed (only acid soluable LCM)	TOC @ Surface 50% Excess

PERCUSSION PETROLEUM

PLANNED WELLBORE DIAGRAM

Goodman 2H	
FIELD: Seven Rivers North	API #:
CO, ST: Eddy Co, New Mexico	D&C AFE #: 1021
COST CODE: 2250, 2350, 2300, 2400, 2500	GEOMETRY: 2 String - Horizontal
LOCATION: Lat: 32.651463°, Long: -104.474539°, or N: 600762.2, E: 497877.7 (NAD 83)	
STATUS: Permit Pending	SPUD DATE:
LATEST RIG WORKOVER:	COMPLETED:
DIAGRAM REVISED: 9/6/2017	REVISED BY: PRW



-813' KB

ESTIMATED FORMATION TOPS / LITHOLOGY: **3,459'** **Ground Level** **25' RKB**

Formation	TVD	SS	Lithology
San Andes	813'	2646	Dolomite
Glorieta	2,438'	1021	Silty Dolomite
Yeso	2,574'	885	Dolomite
Tubb	3,180'	279	Dolomite

PERCUSSION PETROLEUM LLC

Percussion Petroleum Operating, LLC

Well:		Goodman 2H
Location:	**SHL**	Section 22, T19S, R25E, 847 FNL, 2044 FWL Lat: 32.651463° N, Long: -104.474539° W State Plane NME-3001: N: 600762.2, E: 497877.7
	BHL	Section 23, T19S, R25E, 970 FNL, 2677 FWL Lat: 32.651104° N, Long: -104.455441°W State Plane NME-3001: N: 600624.1, E: 503755.6
County:		Eddy
State:		New Mexico
Rig:		Silver Oak Drilling
Spud Date:		Oct-17
AFE Number:		1064
True Vertical Depth:		2992' ft
Total Measured Depth:		8465' ft
Elevation:		GL = 3,475' KB= 25'
Directions:		From the intersection of Highway 285 and Rockin R Red Road go west approximately 3.5 miles turn left (south) onto lease road.

Prepared By:	Lelan J Anders
Operations Manager:	Lelan J Anders
Engineering:	Lelan J Anders
Exploration:	C.J. Lipinski
Land:	Josh Grisham

DRILLING PROGRAM

CASING DEPTHS:

9-5/8" 32# J-55 LT&C set at **1,213 ft** inside
12 1/4 open hole, cemented to surface

5 1/2" 17# L-80 BT&C set at **8,465 ft** inside
8 3/4 open hole, cemented to surface

POTENTIAL PROBLEMS:

0' - 1213'	Gravel, Red Beds and Water Sands. Seepage and loses. Tight hole.
1213' - TD	Hole cleaning, seepage, and loses.

MUD PROGRAM:

Interval	Mud Type	Mud Weight	Viscosity	Water Loss	Plastic Viscosity	Yield Point
0' - 1213'	FW / Gel	8.4 - 9.2 PPG	36 - 42	NC	3 - 5	5 - 7
	Paper and gel sweeps to clean hole					
1213' - KOP'	FW / Cut Brine	8.3 - 9.2 PPG	28 - 30	NC	1	1
	Gel sweeps to clean hole and LCM pills for loss circulation. Raise vis to 34 - 40 if needed.					
KOP' - TD'	Cut Brine	8.6 - 9.2 PPG	29 - 32	10 - 12	4 - 5	6 - 10

Salt gel sweeps to clean hole and LCM pill for loss circulation. Only acid soluble LCM below surface casing. Increase vis to 34 - 40 if needed. If drag becomes a problem add Surfac PG. Drill curve and lateral section with XCD Polymer / Cut Brine / Starch system.
Drill as close to pressure balanced as possible.
Estimated BHP for the Yeso formation is 1100 psi.

Mud additions to be coordinated through PPO representative.
This program is only a guide and hole conditions will dictate mud system requirements and changes.

ESTIMATED FORMATION TOPS / LITHOLOGY: **3,475'** **Ground Level** **25' RKB**

Formation	MD	TVD	SS	Lithology
San Andes		829	2646	Dolomite
Glorieta		2454	1021	Silty Dolomite
Yeso		2590	885	Dolomite
Tubb		3196	279	Dolomite

DRILL STEM TEST: None

MUD LOGGING: A one man mud logging unit will be in service prior to spudding well to total depth. Samples in the lateral/pay will be taken every 10'. Mud logger will assist in picking surface casing point. Only authorized personnel will be allowed access to mud logging unit. Mud logger will be in contact with C.J. Lipinski. EOL at 100' FSL is a h line. Cut short to 120' FSL to avoid crossing hard line. Do not exceed without approval from Lelan J Anders, Operations Manager. Drilling Foreman is to be notified of changes in drilling parameters.

ELECTRIC LINE LOGS None

DIRECTIONAL SURVEYS: Straight hole specifications. Maximum deviation from vertical shall be no more than 3° inclination.
We will directionally drill according to the well plan in order to hit our intended landing zone.
We will drill as per directional plan to ~100 ft from lease line enabling us to locate our FTP 330' FSL.
We will run 5 1/2" casing with 2 jt shoe track to TD and cement in place. Our LTP will be 330' FNL.
See directional plan for more details.
THIS IS A HORIZONTAL WELL WITH EXTREMELY TIGHT TOLERANCES. KEEP LELAN ANDEF AND CJ LIPINSKI INFORMED WITH ANY PROBLEMS MAINTAINING TARGET.

Straight Hole Specifications

Well Depth Feet	Maximum Distance Between Surveys	Maximum Deviati From Vertical
0' - 100'		3°
100' - 2,000'	MWD and Motor thru this section of hole.*	10°
2,000' - TD	MWD and Motor thru this section of hole.	

* Depending on directional plan. If vertical hole is used to 1800' MD (surface casing point) then min d minimum distance between surverys will be 250' MD 3° max deviation from vertical

WELLHEAD EQUIP:
9-5/8" Casing 9-5/8" 3M x 11" 3M SOW
5 1/2" Casing 11" 5M x 7-1/16" 10M Tubing Head

CASING DESIGN:

9-5/8" CASING

9-5/8" Shoe
1 Jt 9-5/8" 36# J-55 STC
9-5/8" Insert Float
9-5/8" 36# J-55 STC To Surface

Casing Burst: 3,520 psi
Casing Collapse: 2,020 psi
Casing Tensile: 394,000 lbs

CASING SAFETY FACTORS

	API Recommended Safety Factor	Actual Safety Factor	Scenerio	External Fluids	Internal Fluids
Collapse:	1.125	3.30	Lost Circulation	Mud	None
Burst:	1.125	1.46	Plug Bump	Cement + 2000 psi applied pressure	Mud/Water
Tensile:	1.8	2.80	100k Overpull	Mud	Mud

CENTRALIZER PLACEMENT
Stop collar 10 feet above shoe with centralizer. One on first collar and every forth collar to surface, or as required by the BLM.

5 1/2" CASING

5 1/2" Shoe
2 Jts 5 1/2" 17# L80 BTC
5 1/2" Float Collar

Casing Burst: 7,740 psi
Casing Collapse: 6,280 psi
Casing Tensile: 348,000 lbs

5 1/2" 17# L80 BTC Casing To Surface

CASING SAFETY FACTORS

	API Recommended Safety Factor	Actual Safety Factor	Scenerio	External Fluids	Internal Fluids
Collapse:	1.125	3.75	Lost Circulation	Mud	None
Burst:	1.125	2.47	Plug Bump	Cement + 2000 psi applied pressure	Mud/Water
Tensile:	1.8	2.29	100k Overpull	Mud	Mud

CENTRALIZER PLACEMENT

Stop collar 10 feet above shoe with centralizer. One on first collar and every 10 collars to 1200 feet with one centralizer in 9-5/8" casing, or as required by the BLM.

REQUIREMENTS FOR ALL CASING:

Long string casing to be hydro tested before leaving yard.
Thread lock Float Shoe and joint connection between float equipment.
Unload and visually inspect casing, arranging on racks in order of running.
Strap all casing as it is unloaded, threads off. Count all joints on location.
Clean and inspect threads, drift, redope.
Check all casing markings and threads for correctness.
Check crossovers and crossover collars. Have back up collars.
Rope off and mark all casing not to be used.
PPO representative to supervise all casing operations.
Torque casing to optimal value.

CEMENT SCHEDULE:

9-5/8" CASING

Annular Volume: **379.9** cubic ft

Lead Cement: **605.2 sks** Class "C" + 2% CaCl + 0.25 pps Celloflake
Weight 14.8 ppg, Yield 1.32 cfs, Mix Water 6.3 gps.
These volumes based on circulating cement to surface plus 100% excess
If cement does not circulate 1 inch cement to surface.

5 1/2" CASING

Annular Volume: **2158.3** cubic ft

Lead Cement: **494.9 sks** 65/65/6 Class "C"+ 6% gel + 5% salt + 0.25pps Celloflake + 0.2% C41-
Weight 12.6 ppg, Yield 1.97 cfs, Mixing Water 10.84 gps
Tail Cement: **1727.3 sks** Class "C" + 2% CaCl + 0.25pps Celloflake
Weight 14.8 ppg, Yield 1.32 cfs, Mix Water 6.3 gps.
These volumes based on circulating cement to surface plus 50% excess

REQUIREMENTS FOR ALL CEMENT:

Have cement supervisor independently check cement volumes and displacement volumes.
Collect and identify cement sample from each pod.
Minimize out of hole time. Have cement head already installed on casing joint etc.
Run casing at a smooth even pace being certain not to break down well bore.
Plan for unexpected events, plug doesn't bump at target volume, pump or lift pressures off, etc.
Do not over pump displacement volume.
Ensure plug dropped behind good cement. Chase plug with 10 bbls of sugar water.
Weigh cement samples and take wet samples throughout job.

Run material balance at end of each job to ensure water and cement volumes used confirm was mixed at proper weight as designated.

DRILLING PROCEDURE

1. Build road and location as per rig requirements. Install Conductor to 90 ft. (THIS IS A CLOSED LOOP MUD SYSTEM)

2. Notify OCD (Artesia District 2) of rig moving in and tentative spud date.

3. Move in and rig up drill rig. Install valve in conductor pipe. Rig up closed loop system.

4. Order float equipment, Texas Pattern Guide Shoe, centralizers, and 9-5/8" casing to location. Visually inspect casing and arrange on racks in order of running. Rope off and mark all casing not to be used. Count all joints. Strap casing as it is unloaded (THREADS OFF). Inspect casing and check all casing markings and threads for correctness. Inspect and clean threads, redope, and drift casing. Closely inspect any crossover joints and have back up crossover collars on location. PPO supervisor to oversee all casing inspections, drifting, strapping, etc.

5. Drill 12-1/4" hole with fresh water Native Spud Mud to TD of surface hole interval. BHA 12-1/4" bit, bit sub, 12" OD stabilizer, 1- 8" drill collar, 12" OD stabilizer, 6 - 8" drill collars and 9 - 6" drill collars. Directional surveys as per DD and MWD company to stay on well plan to TD of surface hole.

6. Notify OCD of TD and cement job.

7. Pump 2 high vis sweeps and circulate hole clean prior to pulling out of hole.

8. Pull out of hole and record any tight spots on IADC report. SLM out of hole. Make sure cement crew will be on location and rigged up before casing is on bottom prior to starting out of hole. Keep hole full.

9. Rig up casing crew and run 9-5/8" casing per casing design. Fill casing every 5 joints and circulate one joint off bottom. Run centralizers per design or as required by NMOCD. Wash to bottom if necessary.

10. Rig up cementers and test lines to 2000 psi. Have cement supervisor INDEPENDENTLY check cement volumes and displacement volumes. Collect and identify cement sample from each pod. Minimize out of hole time.

11. Circulate casing for 3 casing volumes minimum or until hole cleans up. While circulating hold final job meeting with cement company going over cement volumes, mixing water requirements, displacement volumes, pump pressure and rates, and contingency plans for unexpected events (i.e. plug does not bump at theoretical displacement volume etc.). Add 100% excess to calculated cement volume required. Don't over displace. Top out cement to surface with 1" tubing IF necessary.

12. Pump 20 barrels fresh water spacer ahead and pump cement volume per cement design for 9-5/8" casing and PPO representative. Bump plug to 500 psi over pump pressure. Drop plug in good cement. Record cement to surface on IADC report.

13. Hang casing in full tension. Close cement head for 8 hours.

14. WOC 8 hours before cutting off and 24 hours before drilling out per NMOCD rules.

15. Cut off casing and install 9-5/8" 3M x 11" 3M SOW A-section.

16. Nipple up BOP and test to 500 psi low and 3000 psi high with an independent test company before drilling out.

17. Pick up 8-3/4" bit, and directional drilling BHA. Trip in hole, tag cement and record on IADC report. Test casing to 1000 psi. Drill out float collar and float shoe with fresh water / cut brine 8.3 - 9.2 ppg to a depth Increase mud vis to 30-34 for hole cleaning and samples if needed. Mud program is a guide and hole conditions will dictate mud system requirements or changes. All mud additions will be coordinated through PPO representative.

18. Order float equipement, guide shoe, centralizers, and 5 1/2" casing to location. Check for proper size, type, and thread of casing.

Visually inspect casing and arrange on racks in order of running. Rope off and mark all casing not to be used. Count all joints. Strap casing as it is unloaded (THREADS OFF). Inspect casing and check all casing markings and threads for correctness. Inspect and clean threads, redope, and drift casing. Closely inspect any crossover joints and have back up crossover collars on location. PPO supervisor to oversee all casing inspections, drifting, strapping, etc. Casing to be hydro tested before leaving yard. Make sure there are a minimum of 2 marker joints in the string (on at KOP and one mid way through planned lateral

19. Drill curve and lateral section with XCD Polymer / Cut Brine / Starch System. Increase viscosity as needed using oil and LF-24 to help keep hole slick to TMD if needed. Mud program is a guide and hole conditions will dictate mud system requirements or changes. All mud additions will be coordinated through PPO representative. Drilling breaks and hole problems will be coordinated with drilling foreman and Engineer. Artesia and Houston offices will be advised daily or as needed.

20. Notify NMOCD of TD and cement job.

21. Pump high vis sweep and circulate hole clean.

22. Pull out of hole and record any tight spots on IADC report. SLM out of hole. Make sure cement crew will be on location and rigged up before casing is on bottom prior to starting out of hole. Keep hole full.

23. Rig up casing crew and run 5 1/2" casing per casing design. Fill casing every 10 joints and circulate casing at bottom of 9-5/8" casing and 1 joint off bottom. Run centralizers per design or as required by the NMOCD. Wash to bottom if necessary. Record any fill on IADC report.

24. Rig up cementers and test lines to 2000 psi. Have cement supervisor INDEPENDENTLY check cement volumes and displacement volumes. Collect and identify cement sample from each pod. Minimize out of hole time.

25. Circulate casing on bottom for 6 times casing volume minimum or until hole cleans up. While circulating hold final job meeting with cement company going over cement volumes, mixing water requirements, displacement volumes, pump pressure and rates, and contingency plans for unexpected events (i.e. plug does not bump at theoretical displacement volume etc.). Add 50% excess for cement volumes required. Don't over displace.

26. Pump 20 barrels fresh water spacer ahead and pump cement volume per cement design for 5 1/2" casing and PPO representative. Bump plug to 500 psi over pump pressure. Drop plug behind good cement. Chase plug with 10 bbls sugar water or as directed by Record cement to surface on IADC report.

27. Hang casing in nminimum tension needed for pack off on wellhead. Close cement head for 8 hours.

28. WOC 8 hours before cutting off per BLM rules.

29. Nipple down BOP's and cut off casing and install 7" 10M x 11" 3M tubing head with 2 x 1-13/16" valves on one side and blind ca and BR plug on other side. Install with a blind flange and needle valve for completions.

30. Clean and jet pits. Release rig.

31. MAKE SURE LOCATION IS CLEAN BEFORE YOU LEAVE!!

REQUIREMENTS

1. All drill pipe and drill collars to be inspected by PPO representative and a total count of all joints on location.
2. Long string to be hydro tested before leaving yard.
3. Check all casing on location. Threads, size and weight.
4. All casing to be torqued to optimal torque.
5. All shoe tracks to be thread locked.
6. Mud Logger will tell what footage to catch samples.
7. Keep bit record and grade bits.
8. Check all float equipment for correct size and threads.
9. Sign and keep copies of field tickets to turn in to office.
10. Notify all State and Federal offices of events and record in morning report. (Date / Time / Name Of Person Talked To).
11. Check and make sure all bond coating and centralizers are in proper places.
12. PPO supervisor to be sure all casing tallies are correctly done.
13. PPO supervisor to check and ensure drill pipe tally is correct.
14. Record release dates of equipment on location.
15. Pre job safety meeting with all companies before job begins.
16. On rig floor when picking up BHA and making up float equipment.
17. Witness all testing and cement jobs.
18. Make sure that everything that is reported on IADC is correct.
19. Make sure all mud is correctly mixed by rig crews.
20. All accidents to be reported to office ASAP and a accident form sent in to office within 24 hours.
21. All trash is off location and lease road is clean at all times.
22. All records are kept as TIGHT HOLE and are not released.
23. Well record is sealed and sent to Artesia Office or is delivered to PPO supervisor to Artesia Office.

VENDOR LIST

COMPANY	SERVICE	CONTACT NAME	CONTACT NUMBER
TBD	Drilling Rig		
TBD	Directional Company		

TBD	Mud
TBD	Cement
NA	DST
TBD	PVT's & Rig Monitor
TBD	Mud Logging
TBD	Conductor
TBD	Closed Loop System
TBD	Casing Crew & LD Machine
TBD	Location & Road
TBD	Stabilizers
TBD	Float Equipment
TBD	Open Hole Logging
TBD	H2S Equipment
TBD	Location & Trash Trailers
TBD	Living Quarters
TBD	Welder
TBD	Forklift & Trucking
TBD	Water
TBD	Rotating Head

PERSONNEL LIST

TBD, Drilling Foreman
Cell

Lelan J Anders, Engineering/Operations
Office 713-429-1291
Cell 281-908-1752

C.J. Lipinski, Geology
Office 713-429-5282
Cell 262-894-2811

Josh Grisham, Land
Office 713-589-2337
Cell 979-417-6858

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original to Appropriate District Office

NM OIL CONSERVATION
ARTESIA DISTRICT
SEP 06 2017
RECEIVED

GAS CAPTURE PLAN

Date: 9/6/2017

☐ Original

Operator & OGRID No.: Percussion Petroleum Operating, LLC (371755)

☑ Amended - Reason for Amendment: Revised surface hole location

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Goodman 22 #2H		Lot C, Sec. 22, T19S, R25E	847' FNL 2044' FWL		Flared	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to DCP Midstream and will be connected to DCP Midstream low/high pressure gathering system located in Eddy County, New Mexico. It will require 2,000' of pipeline to connect the facility to low/high pressure gathering system. Percussion Petroleum provides (periodically) to DCP Midstream a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Percussion Petroleum and DCP Midstream have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP Midstream Processing Plant located in Sec. 22, Twn. 19S, Rng. 25E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on DCP Midstream system at that time. Based on current information, it is Percussion Petroleum's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines