

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31, 1991

5. LEASE DESIGNATION AND SERIAL NO.

NNNM41645

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

NNNM72243

8. FARM OR LEASE NAME, WELL NO.

Federal 13 Com No. 2

9. API WELL NO.

30-015-33344

10. FIELD AND POOL, OR WILDCAT

White City; Penn (Gas)

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Sec 13 T-25S- R-26E

12. COUNTY OR PARISH
Eddy13. STATE
NM

1a. TYPE OF WELL:

OIL WELL ☐ GAS WELL ☒ DRY ☐ Other

b. TYPE OF COMPLETION:

NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. REMV. ☐ Other

2. NAME OF OPERATOR

Gruy Petroleum Management Co.

3. ADDRESS AND TELEPHONE NO.

P O Box 140907 Irving Tx. 75014-0907

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface 1565' FSL & 1400' FWL

At top prod. interval reported below

At total depth

ACCEPTED FOR RECORD

ALEXIS C. SWOBODA
PETROLEUM ENGINEER

14. PERMIT NO.

DATE ISSUED

15. DATE SPUDDED

07-26-04

16. DATE T.D. REACHED

08-16-04

17. DATE COMPL. (Ready to prod.)

12-07-04

18. ELEVATIONS (DF, RKB, RT, OR, ETC.)*

3237' GR

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD

12310'

21. PLUG, BACK T.D., MD & TVD

12200'

22. IF MULTIPLE COMPL., HOW MANY*

23. INTERVALS DRILLED BY

All

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

10732' - 11232' White City; Penn (Gas)

25. WAS DIRECTIONAL SURVEY MADE

Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN

Dual Spaced Neutron GRL, Dual Laterolog Micro-SFL, Cement Bond Log

27. WAS WELL CORED

No

28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13-3/8" J-55	54.5 #	213'	17-1/2"	250 sx Prem Plus circ 68 sx	
10-3/4" J-55/N-80	45.5 #	2031'	12-1/4"	300 sx IntC/Prem circ 127 sx	
7-5/8" NS110/P110	26#	10020'	9-7/8"	1585 sx Int H/IntC/Prem TOC 4528'	
4-1/2" HCP-110	11.6#	12310'	7"	485 sx SupH TOC 7200'	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8"	11153'	11153'

31. PERFORATION RECORD (Interval, size and number)

11576' - 11178' 6 SPF 162 HOLES UP TUBING

11224' - 11232' 6 SPF 48 HOLES UP TUBING

10732' - 10739' 6 SPF 42 HOLES UP CASING

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
11576' - 11788'	41832 gal foam CO2 / 72500# 18-40 Versaprop
11224' - 11232'	25000 gal foam CO2 / 15375# 18/40 Versaprop
10732' - 10739'	2000 gal 15% NEFE & 75 7/8" RCNBS / 7% KCL

33.*

PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
12-07-04		Flowing				Producing	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BSL.	GAS—MCF.	WATER—BSL.	GAS-OIL RATIO
12-11-04	24 hours	48/64"	→	-0-	1052	61	-0-
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BSL.	GAS—MCF.	WATER—BSL.	OIL GRAVITY-API (CORR.)	
800	1100	→	-0-	1052	61	-0- RECEIVED	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Sold

TEST WITNESSED BY

JAN 20 2005

35. LIST OF ATTACHMENTS

NM C-122, Electric logs and Deviation Report

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

Natalie Krueger

TITLE

Regulatory Analyst

DATE January 14, 2005

*(See Instructions and Spaces for Additional Data on Reverse Side)

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.

38. GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH
Bone Springs	5100'	
Wolfcamp	8562'	
Penn	10120'	
Strawn	10310'	
Atoka	10532'	
Morrow	11190'	

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-33344	Pool Code 87280	Pool Name White City; Penn (Gas)
Property Code	Property Name FEDERAL COM 13	Well Number 2
OGRID No. 162683	Operator Name GRUY PETROLEUM MANAGEMENT COMPANY	Elevation 3237'

Surface Location

UL or lot No. K	Section 13	Township 25 S	Range 26 E	Lot Idn	Feet from the 1565	North/South line SOUTH	Feet from the 1400	East/West line WEST	County EDDY
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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
Dedicated Acres 640	Joint or Infill Y	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

	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. <i>Zeno Farris</i> Signature Zeno Farris Printed Name Manager Operations Admin Title January 14, 2005 Date 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. JANUARY 23, 2004 Date Surveyed Signature & Seal of Professional Surveyor GARY E. EDSON NEW MEXICO 2/2/04 04.11.001 Certificate No. GARY EDSON 12641
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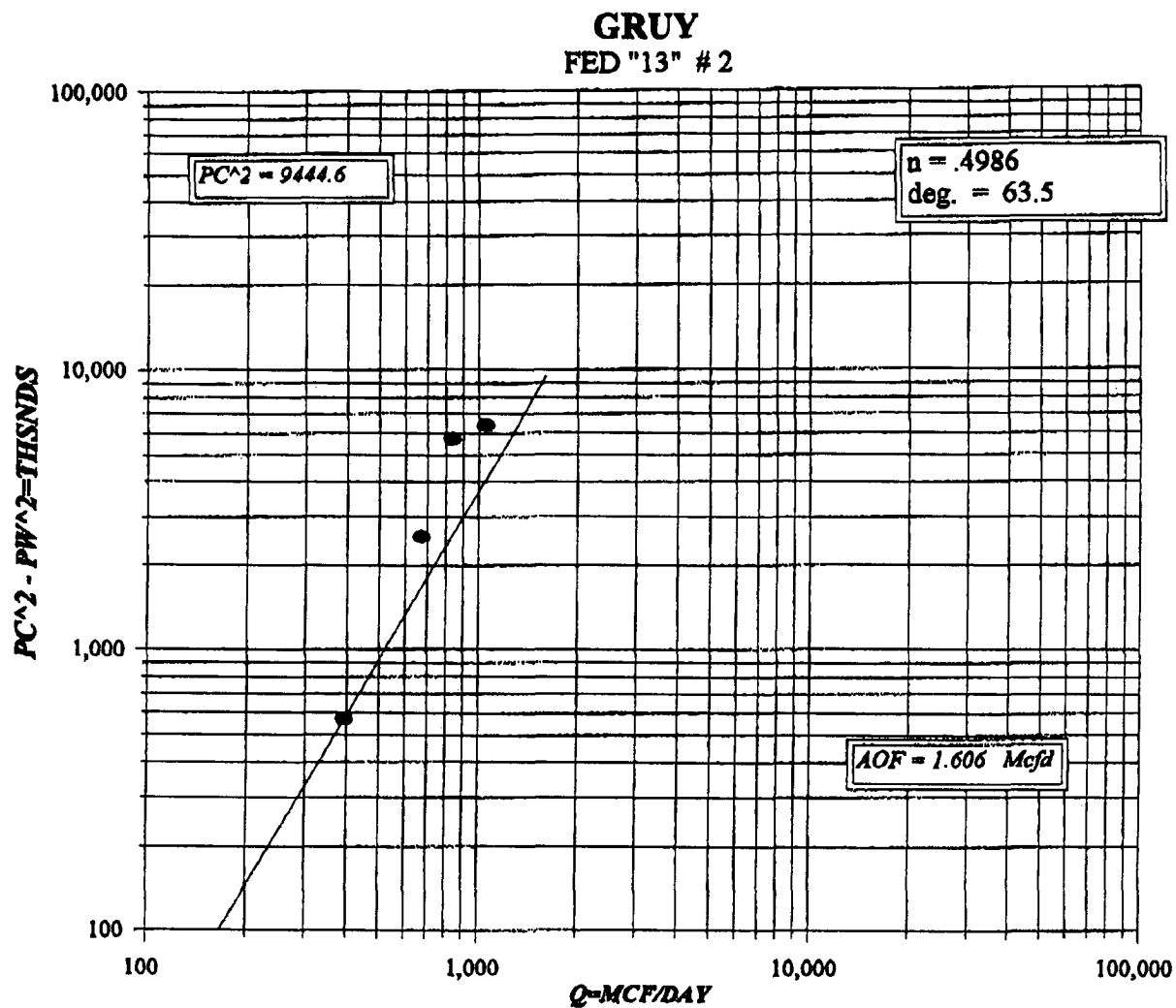
Submit in duplicate to
appropriate district office.
See Rule 401 & Rule 1122

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-122
Revised October, 1999

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Operator GRUY				Lease or Unit Name FED 13			
Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 12/11/2004		Well No. 2	
Completion Date 11/6/2004		Total Depth 12310		Plug Back TD 12200		Elevation	
Csg. Size 4 1/2	WL 13.5	d 3.92	Set At 12310	Perforations: From: 11224 To: 11776	County EDDY		
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 11.153	Perforations: From: To:	Pool		
Type Well-Single-Bradenhead-G.G. or G.O. Multiple MULTIPLE				Packer Set At 11153		Formation MORROW	
Producing Thru TUBING		Reservoir Temp. 185.5		Mean Annual Temp. 60		Baro. Press.-P _a 13.2	
Connection SALES							
L. 11154	H. 11154	Q _g 0.619	%CO ₂ 5.987	%N ₂ 0.36	%H ₂ S 0	Prover 0	Meter Run 2.067
						Taps FLG	
FLOW DATA				TUBING DATA		CASING DATA	
No.	Prover Line Size	Orifice x Size	Press p.s.i.g.	Diff. h _w	Temp.	Press p.s.i.g.	Temp.
SI							
1	2.067 X 1.000		489	7.2	66	2965	
2	2.067 X 1.000		508	19.7	54	2613	
3	2.067 X 1.000		516	30.8	68	1914	
4	2.067 X 1.000		520	48	68	1727	
5							
RATE OF FLOW CALCULATIONS							
No.	COEFFICIENT (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress Factor F _{pv}	Rate of Flow Q, Mcfd
1							396
2							676
3	TOTAL	FLOW	METER				839
4							1,052
5							
No.	P _r	Temp. R	T _r	Z	Gas Liquid Hydrocarbon Ratio N/A Mol' bbl.		
1					A.P.I. Gravity of Liquid Hydrocarbons N/A Deg.		
2	TOTAL	FLOW	METER		Specific Gravity Separator Gas 0.619 XXXXXXXX		
3					Specific Gravity Flowing Fluid XXXXXX N/A		
4					Critical Pressure 694 P.S.I.A. N/A P.S.I.A.		
5					Critical Temperature 347 R. N/A R		
P _o 3073.2 P _w 9444.6							
No.	P _i ²	P _w	P _w ²	P _o ² -P _w ²	(1) $\frac{P_o^2}{P_o^2 - P_w^2} = 1.481$ (2) $\left[\frac{P_o^2}{P_o^2 - P_w^2} \right]^n = 4.056$		
1		2979.1	8875.1	569.5	$AOF = Q \left[\frac{P_o^2}{P_o^2 - P_w^2} \right]^n = 1.606$		
2		2629.1	6912.3	2532.3			
3		1933.3	3737.5	5707			
4		1750.8	3065.3	6379.2			
5							
Absolute Open Flow 2				Mcfd @ 15.025		Angle of Slope (°) 63.5	
						Slope, n: 0.4986	
Remarks: NO LIQUID MADE DURING TEST.							
Approved By Division:		Conducted By: PRO WELL TESTING		Calculated By: MERV BUECKER		Checked By: BM	



COMPANY : GRUY PET		LEASE : FED 13		WELL NO. : 2		Pc = 3073.2		Pc2 = 9444.8	
UNIT :		SECTION :		TOWN&SHIF :		P12 = 8889.7		Pw = 2878.1	
L : 11154		H : 11154		L/H : 1		Q/GMIX : 0.816		DATE : 12/11/04	
%CO2 : 8.987		%N2 : 0.36		H2S : 0.018231		RANGE :		3714.1	
d : 1.988		Fr : 0.018231		GM : 8893.2				1633.3	
								3028.5	
VOL 1 : 398		P8IA 1 : 2878.2		RESV.TEMP : 185.5		Pc2-Pw2 = 888.5		Pw2 = 8875.1	
VOL 2 : 878		P8IA 2 : 2828.2		SHUT-IN PRF = 3073.2		2532.3		8812.3	
VOL 3 : 838		P8IA 3 : 1827.2				8707.0		3737.5	
VOL 4 : 1052		P8IA 4 : 1740.2				8979.2		3085.3	
		PCR : 894				n = 0.488			
		TOR : 347				Pc2/(Pc2-Pw2) = 16.584			
LINE		RATE 1		RATE 2		RATE 3		RATE 4	
		'1ST		'2ND		'1ST		'2ND	
1	QM	0.398	0.398	0.878	0.878	0.838	0.838	1.052	1.052
2	TW	534	534	534	534	534	534	534	534
3	TS	845.5	845.5	845.5	845.5	845.5	845.5	845.5	845.5
4	T	589.8	589.8	589.8	589.8	589.8	589.8	589.8	589.8
5	PR (est)	4.28	4.28	3.78	3.78	2.78	2.78	2.51	2.51
6	Z (est)	0.848	0.848	0.848	0.848	0.848	0.848	0.848	0.848
7	TZ	500.8	500.8	497.0	497.0	500.1	497.0	503.4	499.0
8	GH/TZ	13.789	13.543	13.889	13.753	13.785	13.688	13.694	13.819
9	es	1.878	1.882	1.882	1.875	1.877	1.882	1.871	1.878
10	I-S	0.403	0.398	0.408	0.403	0.404	0.408	0.402	0.404
11	PI	2878.2	2878.2	2828.2	2828.2	1827.2	1827.2	1740.2	1740.2
12	P12 /1000	8889.7	8889.7	8889.9	8889.9	3714.1	3714.1	3028.5	3028.5
13	Fr	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231	0.018231
14	FomPYTZ	9.127	9.280	9.081	9.138	9.117	9.082	9.177	9.088
15	FoQm	9.81	9.87	8.13	8.18	7.85	7.80	8.86	8.57
16	L/H(FoQm)2	13.1	13.5	37.8	38.2	58.8	57.8	93.2	91.8
17	Pw	5.288235	5.377345	15.21583	15.37483	23.81588	23.4386	37.43392	37.034254
18	Pw2	8874.9	8875.1	8812.1	8812.3	3737.7	3737.5	3085.7	3085.3
19	P2	14873.5	14747.7	11627.4	11577.2	6287.8	6287.1	5123.3	5145.8
20	P8	3858.8	3840.3	3409.8	3402.5	2503.5	2507.4	2283.5	2288.4
21	P	3417.4	3409.2	3018.1	3014.4	2215.4	2217.3	2001.8	2004.3
22	Pr	4.82	4.91	4.25	4.34	3.18	3.18	2.88	2.88
23	Tr	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
24	Z	0.848	0.848	0.850	0.850	0.843	0.843	0.848	0.848
								FORM C122-D	

Dec 13 04 11:30a

equilin trucking



Laboratory Services, Inc.

2608 West Marland
Hobbs, New Mexico 88240

Telephone: (505) 397-3713

FOR: Pro Well Testing & Wireline
P.O. Box 791
Hobbs, New Mexico 88241

SAMPLE:
IDENTIFICATION Fed. 13 #2
COMPANY: Gruy Petroleum
LEASE:
PLANT:

SAMPLE DATA: DATE SAMPLED 12/11/04
ANALYSIS DATE: 12/13/04
PRESSURE - PSIG 488
SAMPLE TEMP. °F
ATMOS. TEMP. °F 62

GAS (XX) LIQUID ()
SAMPLED BY: Merv Buecker
ANALYSIS BY: Vickie Biggs

REMARKS:

COMPONENT ANALYSIS

COMPONENT	MOL PERCENT	GPM
Hydrogen Sulfide (H2S)		
Nitrogen (N2)	0.360	
Carbon Dioxide (CO2)	5.987	
Methane (C1)	92.597	
Ethane (C2)	0.968	0.256
Propane (C3)	0.098	0.027
I-Butane (IC4)	0.000	0.000
N-Butane (NC4)	0.000	0.000
I-Pentane (IC5)	0.000	0.000
N-Pentane (NC5)	0.000	0.000
Hexane Plus (C6+)	0.000	
	100.000	0.283

BTU/CU.FT. - DRY 955
AT 14.650 DRY 952
AT 14.650 WET 936
AT 14.73 DRY 957
AT 14.73 WET 940

SPECIFIC GRAVITY -
CALCULATED 0.619
MEASURED

MOLECULAR WT. 17.0196

OPERATOR: MAGNUM HUNTER RESOURCES, dba GRUY PETROLEUM
WELL/LEASE: FED COM 13 #2
COUNTY: EDDY, NM

080-0025

STATE OF NEW MEXICO
DEVIATION REPORT

214	1/2	6,562	1/2
417	1 1/4	6,798	2
600	3/4	6,878	2 1/2
884	3/4	6,988	3
1,043	3/4	7,032	2 1/2
1,265	1/2	7,120	2
1,583	2 1/2	7,279	1 1/2
1,711	2 1/2	7,469	1/2
1,838	1	7,661	1/2
2,030	1	7,978	1
2,265	1/2	8,200	1
2,543	1/2	8,307	1
2,893	1	8,740	1/2
3,219	1/2	8,994	1 1/2
3,536	1/2	9,408	1/2
3,854	1/2	9,631	1/2
4,171	1/2	9,864	1 1/2
4,807	1/2	11,315	1 3/4
5,125	1	11,975	1
5,506	2 1/2		
5,536	3		
5,602	2 1/2		
5,697	2 1/2		
5,789	1 1/2		
5,885	1 1/2		
6,012	1 1/2		
6,138	1 1/2		
6,332	1/2		

By: _____

STATE OF TEXAS
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on this 6th day of October, 2004, by Steve Moore on behalf of Patterson-UTi Drilling Company LP, LLLP.

Notary Public for Midland County, Texas

My Commission Expires: 8/23/2007

