

P. O. BOX 1030

HOBBS, NEW MEXICO 88240

SUBMIT IN DUPLICATE*

Form approved.
Budget Bureau No. 42-R255.5.UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY(See other in-
structions on
reverse side)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other ☐		5. LEASE DESIGNATION AND SERIAL NO. NM 82799			
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other ☐		6. IF INDIAN, ALLOTTEE OR TRIBE NAME			
2. NAME OF OPERATOR Oryx Energy Company		7. UNIT AGREEMENT NAME			
3. ADDRESS OF OPERATOR P. O. Box 1861, Midland, Texas 79702		8. FARM OR LEASE NAME Grama Ridge-Federal			
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface D, 1046' FNL & 1273' FWL At top prod. interval reported below At total depth		9. WELL NO. 2			
Case No. 9913		10. FIELD AND POOL, OR WILDCAT Grama Ridge-Morrow Gas			
14. PERMIT NO. Order No. R-9163		11. SEC. T., R., M., OR BLOCK AND SURVEY OR AREA 9, T-22-S, R-34-E			
DATE ISSUED 4-27-90		12. COUNTY OR PARISH Lea			
15. DATE SPUDDED 5-24-90		13. STATE New Mexico			
16. DATE T.D. REACHED 7-10-90		19. ELEV. CASINGHEAD			
17. DATE COMPL. (Ready to prod.) 7-12-90		18. ELEVATIONS (DF, EKB, RT, GE, ETC.)* 3592.3' GR			
20. TOTAL DEPTH, MD & TVD 13,375		21. PLUG, BACK T.D., MD & TVD 13,320'			
22. IF MULTIPLE COMPL., HOW MANY*		23. INTERVALS DRILLED BY ROTARY TOOLS ☒ CABLE TOOLS ☐			
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 12,725' - 12,922' Morrow		25. WAS DIRECTIONAL SURVEY MADE No.			
26. DEPTH ELECTRIC AND OTHER LOGS RUN CSL-DIL, DSN-SDL, Cmt Bond Log		27. WAS WELL CORRED Yes			
29. CASING RECORD (Report all strings set in well)					
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)	
13 3/8"		54.5#		1740'	
9 5/8"		36#		5000'	
7"		26#		11,772'	
HOLE SIZE		CEMENTING RECORD		AMOUNT FULLED	
17 1/2"		1635 SXS "C"		300 SXS	
12 1/4"		1850 SXS "C"		25 SXS	
8 3/4"		975 SXS "H"		TOC 6000' T.S.	
30. TUBING RECORD					
SIZE		TOP (MD)		BOTTOM (MD)	
4 1/2"		11,541'		13,366'	
SCREEN (MD)		SACKS CEMENT*		PACKER SET (MD)	
		240		12,622'	
31. PERFORATION RECORD (Interval, size and number) 12,725'-12,922'', 6 JSPF, 186 holes, Morrow					
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.					
DEPTH INTERVAL (MD)		AMOUNT AND KIND OF MATERIAL USED			
		None			
33. PRODUCTION					
DATE FIRST PRODUCTION 8-2-90		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing		WELL STATUS (Producing or shut-in) Prod.	
DATE OF TEST 8-9-90		HOURS TESTED 4-pt.		CHOKE SIZE 18/64"	
FLOW, TUBING PRESS.		CASING PRESSURE		CALCULATED 24-HOUR RATE	
3994		0		91	
DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Sold		GAS—MCF. 23,855		WATER—BBL. 0	
LIST OF ATTACHMENTS C-122 & Curve, Inclination Report, 3160-5, P-4		OIL GRAVITY-API (CORR.) 51		TEST WITNESSED BY	
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.		SIGNED <u>Maria L. Perez</u>		TITLE <u>Proration Analyst</u>	
		DATE <u>8-17-90</u>			

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

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, of both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

Grama Ridge - Federal #2

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OF POROSITY AND CONTENTS THEREOF; CORDED INTERVALS; AND AERIAL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTS, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES				38. GEOLOGIC MARKERS		
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	MEAS. DEPTH	FEET VERT. DEPTH
Morrow	12,722	12,767	Gas	Rustler	1,715	
Morrow	12,910	12,921	Gas	Yates	3,888	
Rotary	Sidewall	Cores:		Bone Spring	8,494	
	12,725		Sandstone, dolomitic	2nd Bone Spring	10,116	
	12,743		Sandstone	3rd Bone Spring	10,613	
	12,765		Sandstone, dolomitic	Wolfcamp	11,190	
	12,911		Sandstone	Atoka	11,952	
	12,920		Sandstone	Morrow	12,544	
	12,996		Sandstone			
	13,034		Sandstone			
	13,054		Sandstone, calcitic			
	13,279					

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENTP. O. BOX 2088
SANTA FE, NEW MEXICO 87501Form C-122
Revised 10-1-78

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 8/9/90		API 30-025-30884	
Company Oryx Energy Company				Connection El Paso Natural Gas Company			
Pool Grama Ridge - Morrow Gas				Formation Morrow		Unit	
Completion Date 7/12/90		Total Depth 13,375		Plug Back TD 13,320		Elevation 3592.4GL	
Farm or Lease Name Grama Ridge Federal							
Coq. Size 4 1/2	Wt. 11.6	d 4.000	Set At 13,366	Perforations: From 12,725 To 12,922		Well No. 2	
Trg. Size 2 7/8 2 3/8	Wt. 6.5 4.7	d 2.441 1.995	Set At 11000 12,622	Perforations: From Open To Ended		Unit Sec. Twp. Rge. D 9 22s 34e	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single				Packer Set At 12,624		County Lea	
Producing Thru Tubing		Reservoir Temp. °F 180 @ 12,500		Mean Annual Temp. °F 60°		State New Mexico	
L -	H -	Gg 0.589	% CO ₂ 0.44	% N ₂ 0.46	% H ₂ S -	Prover -	Meter Run 3.068
						Taps FLG	

FLOW DATA						TUBING DATA		CASING DATA		Duration of Flow	
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g. DWT	Temp. °F	Press. p.s.i.g.		Temp. °F
SI							4311	60	PACKER		72 hours
1.	3.068	9/64	1.500	767	8	107	4284				1.0 hr.
2.	3.068	11/64	1.500	784	23	98	4232				1.0 hr.
3.	3.068	14/64	1.500	801	50	76	4149				1.0 hr.
4.	3.068	18/64	1.500	840	96	57	3994				1.0 hr.
5.											

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mscf/d
1	11.13	79.00	780.2	0.9577	1.303	1.045	1147
2	11.13	135.41	797.2	0.9653	1.303	1.049	1989
3	11.13	201.77	814.2	0.9850	1.303	1.059	3052
4	11.13	286.19	853.2	1.003	1.303	1.071	4458
5							

NO.	P _t	Temp. °F	T _g	Z	Gas-Liquid Hydrocarbon Ratio	Mcf/cu ft.
1	1.16	567	1.62	0.916	261	
2	1.19	558	1.59	0.908	51	
3	1.21	536	1.53	0.891		
4	1.27	517	1.48	0.872		
5						

NO.	P _t	P _w	P _t ²	P _w ²	P _t ² - P _w ²
1	5699.2*	32480.9	32480.9	32480.9	0
1	5659.2	32026.5	32026.5	32026.5	454.4
2	5611.2	31485.6	31485.6	31485.6	995.3
3	5535.2	30638.4	30638.4	30638.4	1842.5
4	5423.2	29411.1	29411.1	29411.1	3069.8
5					

(1) $\frac{P_t^2}{P_t^2 - P_w^2} = 10.581$

AOF = Q $\left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 23,855$

(2) $\left[\frac{P_t^2}{P_t^2 - P_w^2} \right]^n = 5.351$

Absolute Open Flow	23,855	Mcf/d @ 15.025	Angle of Slope @	54° 35'	Slope, n	0.711
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Remarks: * Bottom hole pressures @ 12823' (-9231) used for pressure calculations
Well produced 1.7 BBLs/Condensate in 4.0 hours.

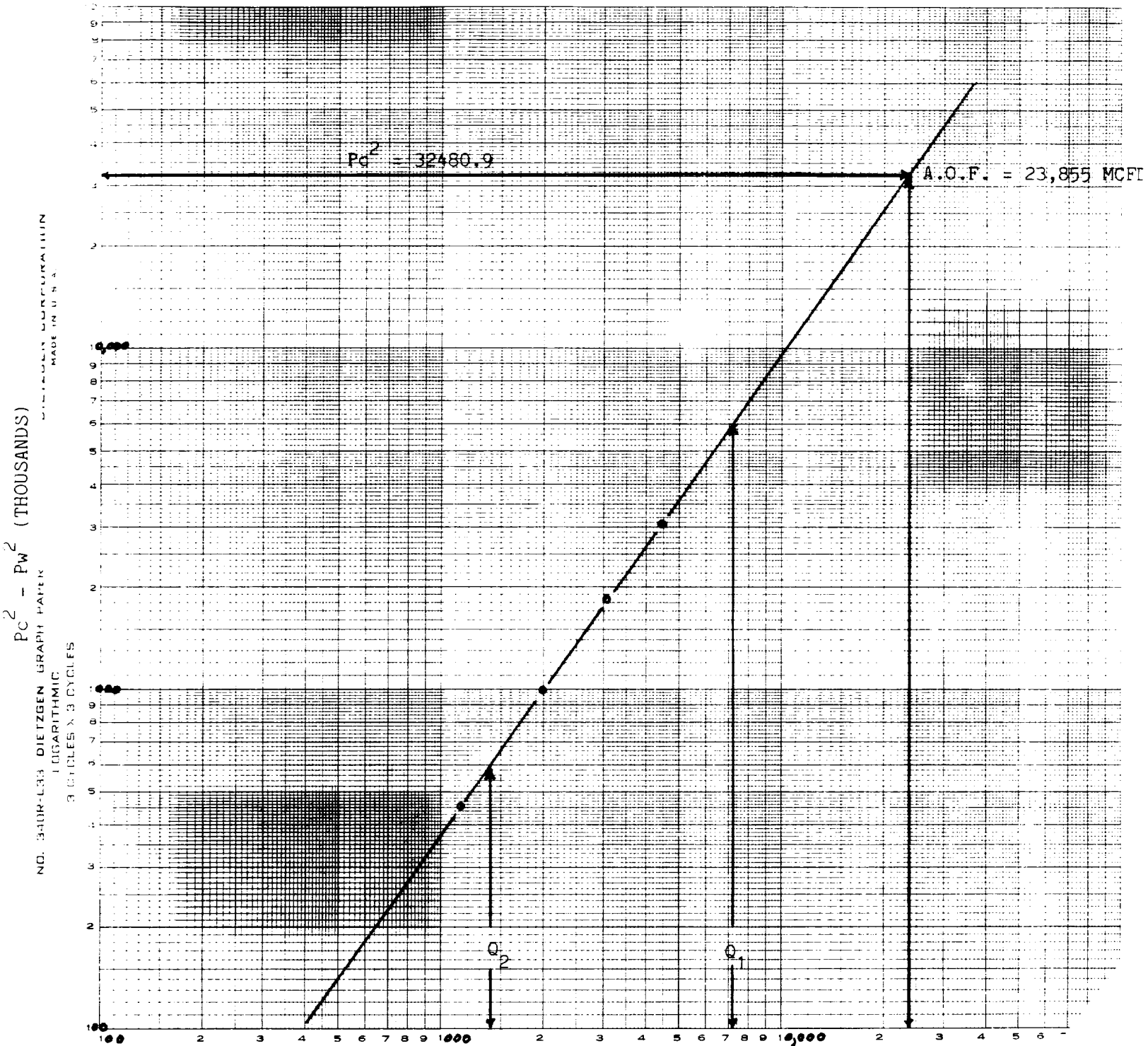
Approved By Division	Conducted By: Jarrel Services, Inc.	Calculated By: D. Dickerson	Checked By: <i>[Signature]</i> D. Dickerson
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RECEIVED

AUG 22 1990

HOUSE OFFICE

Co: ny: Oryx Energy Inc.
 Well: Grama Ridge Federal, No. 2
 Location: D 9 22s 34e
 County: Lea
 Date: August 9, 1990



$Q = \text{MCFD}$

$Q_1 = 7200 \text{ MCFD}; \text{Log } Q_1 = 3.857332$

$Q_2 = 1400 \text{ MCFD}; \text{Log } Q_2 = 3.146128$

$\frac{3.857332 - 3.146128}{3.146128 - 3.146128} = 0.711$