Form C-103
(Revised 3-55)

NEW MEXICO OIL CONSERVATION COMMISSION
MISCELLANEOUS REPORTS ON WELLS
(Submit to appropriate District Office as per Commission Rule 1106)

COMPANY Amerada Petroleum Corporation - Box 706, - Eunice, New Mexico
(Address)

LEASE State JC"T" WELL NO. 1 UNIT E S 16 T 23-S R 36-E

DATE WORK PERFORMED 4-18-61- 4-25-61 POOL Jalmat

This is a Report of: (Check appropriate block)

- [ ] Beginning Drilling Operations
- [ ] Plugging
- [ ] Results of Test of Casing Shut-off
- [X] Remedial Work
- [ ] Other

Detailed account of work done, nature and quantity of materials used and results obtained.

3229' PBD -Squeezed 5½" casing perf. from 3280'-3300' w/50 sacks Reg. Incor cement, Max press 1200#, Min. Press 900# - Sandoil frac 5½" csg. perf. 3150'-3210' w/20,000 gallons of crude oil & 40,000# of 20-40 sand. Max press. 1800#, Min. press 1700#. Lane-Wells perforated 5½" casing from 3090'-3100' (10') 2 shots per ft. total 20 shots, type E bullets - Set 5½" x 2" Brown DuoPak Packer @ 3125', tubing @ 3135', PSI Nipple @ 3123' w/blanking plug. - Spotted 500 gal. of 15% Reg. acid on perf. 3090'-3100'- Sandoil frac 3090'-3100' w/10,000 gal. of oil & 10,000# of 20-40 sand, Max press. 2700#, Min press 1700#, pulled blanking tool & swabbed in.

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

Original Well Data:

DF Elev. 3469' TD 3610' PBD 3312' DOI Prod. Int. _____ Compl Date _____

Tbng. Dia 2-3/8" Tbng Depth 3345' Oil String Dia 5½" Oil String Depth 3700'

Perf Interval (s) 3150'-3210' & 3280'-3300' & 3330'-3350'

Open Hole Interval none Producing Formation (s) Yates - Seven Rivers

RESULTS OF WORKOVER:	BEFORE	AFTER
Date of Test		4-27-61
Oil Production, bbls. per day		
Gas Production, Mcf per day		
Water Production, bbls. per day		55.20
Gas-Oil Ratio, cu. ft. per bbl.		
Gas Well Potential, Mcf per day		723 MCF

Witnessed by B.A. Moore — Amerada Petroleum Corporation (Company)

OIL CONSERVATION COMMISSION

Name _____
Title _____
Date _____

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

Name B. A. Moore
Position Asst. Dist. Supt.
Company Amerada Petr. Corp.

DUPLICATE

NEW MEXICO OIL CONSERVATION COMMISSION

SHEET #1

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Jalmat Formation Yates - Seven Rivers County Lea

Initial ____ Annual ____ Special X Date of Test 4-24/29-60

Company Amerada Petroleum Corporation Lease State JC"T" Well No. 1

Unit B Sec. 16 Twp. 23-S Rge. 36-E Purchaser Permain Basin Pipeline Company

Casing 5.500" Wt. 15.5# I.D. 4.950" Set at 3700' Perf. 3150' To 3300'

Tubing 2-3/8" Wt. 4.7# I.D. 1.995" Set at 3282' Perf. 3279' To 3282'

Gas Pay: From 3150 To 3300 L 3279 xG 0.660 -GL 2164 Bar.Press. 13.2

Producing Thru: Casing ____ Tubing X Type Well Single

Single-Bradenhead-G. G. or G.O. Dual

Date of Completion: 1-23-51 Packer ____ Reservoir Temp. 879 Calculated

CO_2 = 0.58% N_2 = 1.67%

OBSERVED DATA

Tested Through (Prover) (~~Choke~~) (Meter) Type Taps Pipe

No.	Flow Data: (Prover) (Line) Size	Flow Data: (~~Choke~~) (Orifice) Size	Flow Data: Press. psig	Flow Data: Diff. h_w	Flow Data: Temp. °F.	Tubing Data: Press. psig	Tubing Data: Temp. °F.	Casing Data: Press. psig	Casing Data: Temp. °F.	Duration of Flow Hr.
SI						588.3		661.0		70.50
1.	2"	0.062	450.1		69	450.0	69			3.00
2.	2"	0.093	309.8		79	309.8	79			3.00
3.	2"	0.125	166.8		80	166.8	80			3.00
4.	2"	0.187	322.7		69	322.7	69			3.00
5.	2"	0.218	302.1		65	302.1	65			3.00

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w p_f}$	Pressure psia	Flow Temp. Factor F_t	Gravity Factor F_g	Compress. Factor F_{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	0.0827		463.3	0.9915	0.9535	1.048	38
2.	0.1820		323.0	0.9822	0.9535	1.029	57
3.	0.3418		180.0	0.9813	0.9535	1.015	58
4.	0.7851		335.9	0.9915	0.9535	1.034	258
5.	1.0834		315.3	0.9952	0.9535	1.031	334

PRESSURE CALCULATIONS

Gas Liquid Hydrocarbon Ratio ____ cf/bbl. Specific Gravity Separator Gas ____

Gravity of Liquid Hydrocarbons ____ deg. Specific Gravity Flowing Fluid ____

F_c 9.936 $(1-e^{-s})$ 0.138 P_c 674.2 P_c^2 454.5

No.	P_w / P_t (psia)	P_t^2	F_cQ	$(F_cQ)^2$	$(F_cQ)^2$ $(1-e^{-s})$	P_w^2	$P_c^2-P_w^2$	Cal. P_w	$\frac{P_w}{P_c}$
1.	463.3	214.6	.377	.142	.0196	214.6	239.9	463.3	0.687
2.	323.0	104.3	.566	.320	.0442	104.3	350.2	323.0	0.479
3.	180.0	32.40	.576	.332	.0458	32.4	422.1	180.0	0.267
4.	335.9	112.8	2.563	6.569	.9065	113.7	340.8	337.2	0.500
5.	315.3	99.41	3.318	11.009	1.5192	100.9	353.6	317.8	0.471

Absolute Potential: 204 MCFPD; n 1.00 Limited

COMPANY Amerada Petroleum Corporation

ADDRESS Drawer "D", Monument, New Mexico

AGENT and TITLE J. E. Snyder District Engineer

WITNESSED J. D. Horton - Well Tester

COMPANY Permian Basin Pipeline Company

REMARKS

First three flow rates logging, resulting slope from the 4th & 5th flow rates is in excess of 1.00; therefore a slope of 1.00 was drawn through the 20 hour flow rate data point to calculate the potential.
Casing pressure logging. Friction was calculated.

INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w), MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater. psia

P_w = Static wellhead working pressure as determined at the end of flow period. (Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressability factor.

n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t.