

NEW MEXICO OIL CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-122
Revised 9-1-65

Type Test ☒ Initial ☐ Annual ☐ Special		Test Date 11-8-74	
Company CORINE GRACE		Connection TO AIR	
Pool WILDCAT		Formation QUEEN SAND	
Completion Date 11-3-74		Total Depth 2181'	Plug Back TD 2160'
Csg. Size 5 1/2"		Wt. 4.7#	Set At 2181'
Tag. Size 2 3/8"		Wt. 4.7#	Set At 2100'
Perforations: From 2128' To 2136'		Perforations: From OPEN To END	
Well No. 1		Unit K	
Soc. 8		Twp. 15S	
Rge. 30E		County CHAVES	
State NEW MEXICO		Packer Set At 2070	
Producing Thru TUBING		Reservoir Temp. °F @ 2132	Mean Annual Temp. °F 60
Baro. Press. - P _a 13.2		Type Well - Single - Bradenhead - G.G. or G.O. Multiple SINGLE	
L 2132	H 2132	Gg 0.9099	% CO ₂ 0.095
% N ₂ 64.068		% H ₂ S -0-	
METER RUN POSITIVE CHOKES		Taps ---	

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.	Temp. °F	Press. p.s.i.g.	
1	POSITIVE CHOKE SIZE						705.0			
2	8/64"			619.0	---	50	619.0	50		
3	10/64"			563.0	---	50	563.0	50		30 MIN.
4	12/64"			515.0	---	50	515.0	50		30 MIN.
5	14/64"			465.0	---	50	465.0	50		30 MIN.

RATE OF FLOW CALCULATIONS							
NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1	0.2618	---	632.2	1.010	1.048	1.027	180
2	0.4173	---	576.2	1.010	1.048	1.025	261
3	0.6101	---	528.2	1.010	1.048	1.022	349
4	0.8419	---	478.2	1.010	1.048	1.020	435

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1	1.14	510	1.81	.948			0.9099	XXXXXX	554 *	282 *
2	1.04	510	1.81	.952						
3	0.95	510	1.81	.957						
4	0.86	510	1.81	.961						

NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²
1	399.7	668.2	446.5	120.8
2	332.0	627.2	393.4	173.9
3	279.0	586.2	343.6	223.7
4	228.7	537.2	288.6	278.7

(1) $\frac{P_r^2}{P_r^2 - P_s^2} = 2.036$

AOF = Q₁ $\left[\frac{P_r^2}{P_r^2 - P_s^2} \right]^n = 886$

(2) $\left[\frac{P_r^2}{P_r^2 - P_s^2} \right]^n = 2.036$

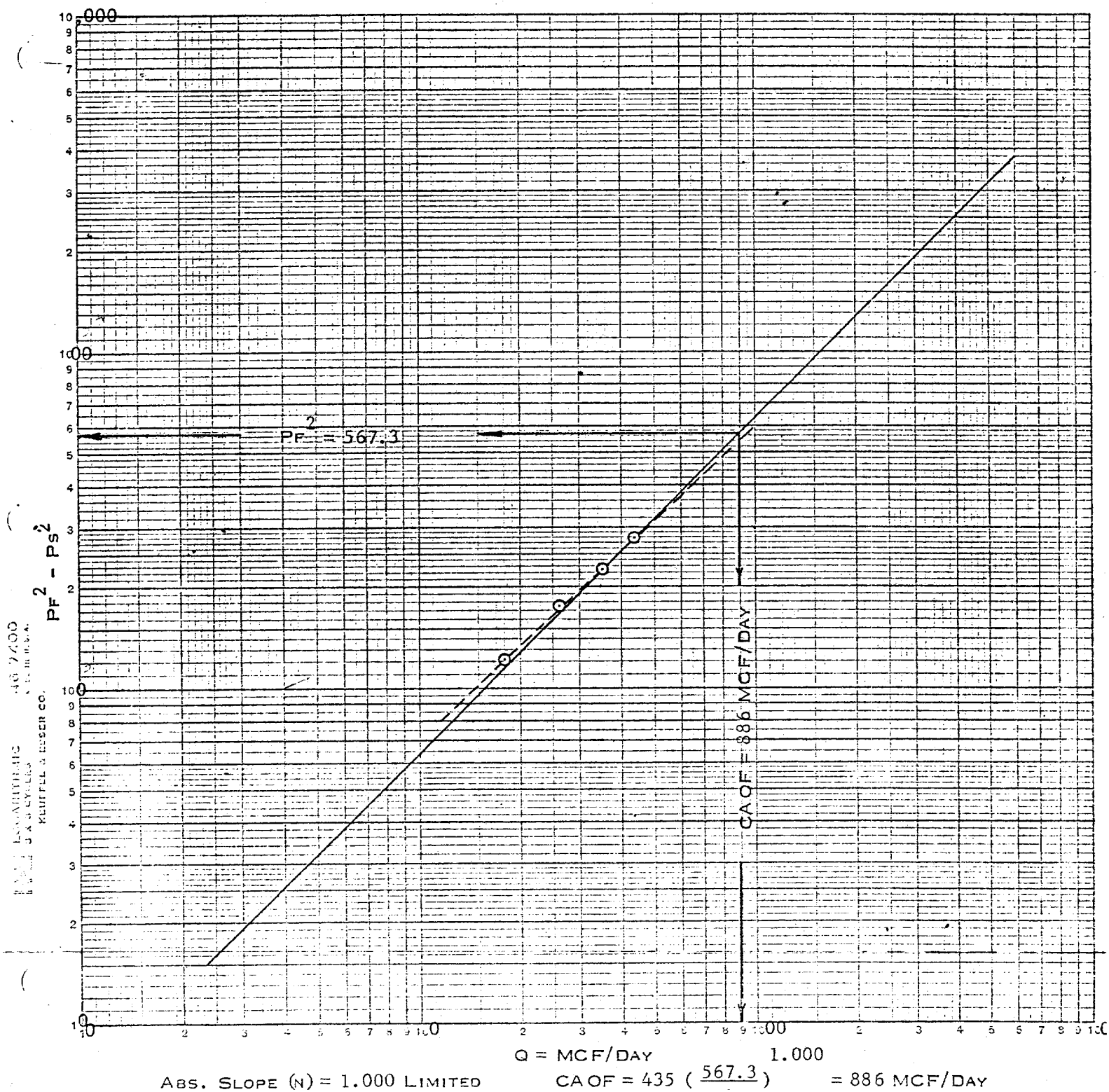
Absolute Open Flow	886	Mcfd @ 15.025	Angle of Slope θ	45.0°	Slope, n	1.000 LIMITED
--------------------	-----	---------------	------------------	-------	----------	---------------

Remarks: BOTTOM HOLE PRESSURES MEASURED WITH AMERADA GAUGE @ 2132'.
* N₂ CORRECTIONS ESTIMATED DUE TO PER CENT EXCEEDING TABLES.
GOOD POINT ALIGNMENT BUT JUST SLIGHTLY IN EXCESS OF 1.000.

Approved By Commission:	Conducted By:	Calculated By:	Checked By:
<i>[Signature]</i>	D. TYSON	R. WEST	

CORINE GRACE - POCO LOCO #1

11-8-74



TEST DATE: NOVEMBER 8, 1974

TEST DEPTH: 2132 FEET

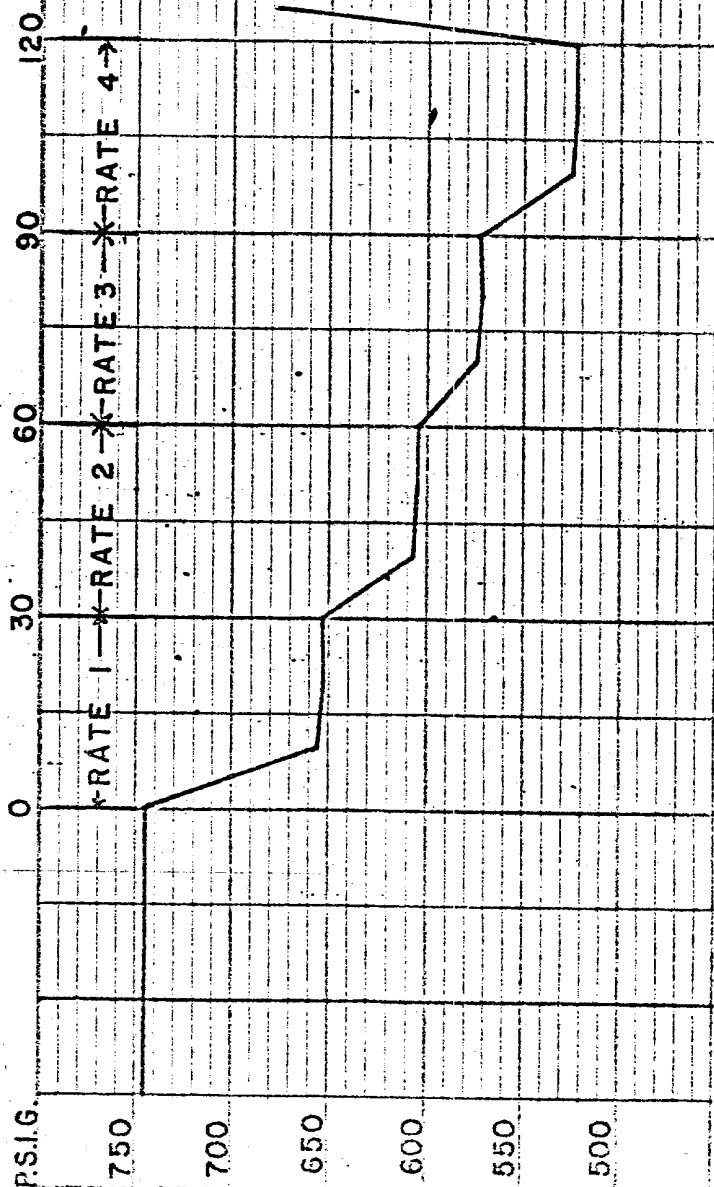
ELE. No.: 25549-N
RANGE: 0-1500#

CLOCK No.: 4052
RANGE: 0-12 Hr.

OPER.: D. TYSON

NOTE: SEE ATTACHED SHEET FOR TABULATION OF PRESSURE AND TIME.

TIME-IN-MINUTES



CORINNE GRACE

POCO LOCO NO.1

4-POINT BACK PRESSURE CURVE

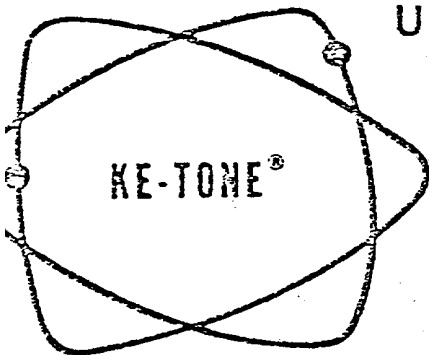
JOHN W. WEST ENGINEERING CO. HOBBS, NEW MEXICO
Date 11-12-74 Drawn by TYSON Scale: AS SHOWN

CORINNE GRACE
POCO LOCO #1
TABULATION OF PRESSURE & TIME

TEST CONDUCTED BY:
JOHN WEST ENGINEERING CO.

TEST DATE: NOVEMBER 8, 1974
TEST DEPTH: 2132 FEET
ELE. No.: 25549-N (0-1500#)
OPER.: D. TYSON

<u>DATE</u>	<u>TIME</u>	<u>CUM. HR./MIN.</u>	<u>P.S.I.G. @ 2132 FEET</u>
11-8-74	9:50 A.M.		740 GAUGE REACHED 2132'
	12:40 P.M.	00 HR. 00 MIN.	738 OPEN CHOKE RATE I
		00 10	656
		00 20	653
	1:10	00 30	655 END RATE I
	1:10	00 30	691 RATE II
		00 40	619
		00 50	612
	1:40	01 00	614 END RATE II
	1:40	01 00	651 RATE III
		01 10	576
		01 20	571
	2:10	01 30	573 END RATE III
	2:10	01 30	627 RATE IV
		01 40	527
		01 50	522
	2:40	02 00	524 END RATE IV
11-8-74	2:45 P.M.	02 05	678 GAUGE OUT END TEST



UNITED CHEMICAL CORPORATION

OF NEW MEXICO

P. O. BOX 1499

PHONE 393-7751

HOBBS, NEW MEXICO 88240

No. 3347

Run No. _____

Date of Run 11-11-74

Date Secured 11-8-74

CERTIFICATE OF ANALYSIS

Sample of CORINE GRACE - Robo Loco #1

Secured from John West Engineering Co.

412 N. DAL PASO

Hobbs, N.M.

Secured by _____

Time _____

Date _____

Sampling conditions _____

Press _____

Temp. _____

(SAND SPRINGS)

FRACTIONAL ANALYSIS

Percentage Composition

MOL %

LIQ. %

G.P.M.

Carbon Dioxide	<u>.095</u>		
Hydrogen	<u>64.088</u>		
Oxygen			
Hydrogen sulfide			
Hydrogen			
Ethane	<u>24.414</u>		
Propane	<u>6.545</u>		<u>1.746</u>
Isobutane	<u>3.255</u>		<u>.896</u>
Normal butane			
Isobutane	<u>.354</u>		<u>.116</u>
Normal butane	<u>.771</u>		<u>.242</u>
Pentanes			
Isopentane	<u>.142</u>		<u>.052</u>
Normal pentane	<u>.146</u>		<u>.053</u>
Hexanes	<u>.091</u>		<u>.037</u>
Isopentanes	<u>.119</u>		<u>.051</u>
TOTAL	<u>100.000</u>		<u>3.193</u>

Calc. Sp. Gr. 0.9099

Calc. A.P.I. _____

Calc. Vapor Press. _____

PSIA

Sp. Gr. _____

Mol. Wt. 26.45

LIQUID CONTENT (GAL./MCF)

Propane Calc. G.P.M. .896

Butanes Calc. G.P.M. .358

Pentanes Plus. G.P.M. .193

Ethane Calc. G.P.M. 1.746

_____ RVP Gasoline G.P.M.

B.T.U./Cu. Ft. @ 14.696 P.S.I.A.

Dry Basis

Wet Basis

Sulfur Analysis by Titration

Gr./100 Cu. Ft.

Hydrogen Sulfide

Mercaptans

Sulfides

Residual Sulfur

Total Sulfur

503

494

Analyzed by Alexia Ann Bryant

Checked by _____

Approved by _____

Additional Data and Remarks