

NEW MEXICO OIL CONSERVATION COMMISSION

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS WELL

Form C-123
Revised 9-1-64

Type Test: ☐ Initial ☐ Annual ☒ Special				Test Date: 1-15-74	
Company: Lone Star Industries, Inc.				Connection: None	
Pool: Undesignated				Formation: Picture Cliff	
Completion Date:		Total Depth:		Plug Back TD:	
				Elevation:	
Form or Lease Name: Schalk '52'					
Csg. Size: 2 7/8 EUE	Wt. 6.50	d 2.441	Set At:	Perforations: From 3450-3515 To	Well No. 4
Perf. Size: None	Wt.:	d:	Set At:	Perforations: From To	Unit Sec. Twp. Rys.
Type Well - Single - Bradenhead - G.C. or G.O. Multiple: Single				Packer Set At:	
				County: San Juan	
Producing Thru Casing:		Reservoir Temp. °F: 138°s 3482		Mean Annual Temp. °F: 60	
				Baro. Press. - P _a : 12.0	
				State: New Mexico	
L 3482	H 3482	G _v .610	% CO ₂ :	% N ₂ :	% H ₂ S:
				Prover:	
				Meter Run:	
				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.		Temp. °F
1.	2"		3/32	1111		44	1111	44			1 Hr
2.	2		7/32	1104		46	1104	46			1 Hr
3.	2		1/4	1026		46	1026	46			1 Hr
4.	2		5/16	982		46	982	46			1 Hr
5.				884		48	884	48			1 Hr

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 _{sp}	Rate of Flow Q, Mscf
1.	.1410		1117	1.0137	1.2403	1.134	235
2.	.8393		1039	1.0137	1.2403	1.125	1290
3.	1.087		995	1.0137	1.2403	1.119	1592
4.	1.672		897	1.0117	1.2403	1.108	2185
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	None Produced	Vel./bbl.
1.	1.66	506	1.36	.777	A.P.I. Gravity of Liquid Hydrocarbons		Sec.
2.	1.55	506	1.36	.790	Specific Gravity Separator Gas	.610	XXXXXXXXXX
3.	1.48	506	1.36	.798	Specific Gravity Flowing Fluid	XXXXXX	
4.	1.34	508	1.37	.815	Critical Pressure	671	P.S.I.A. P.S.I.A.
5.					Critical Temperature	372	R

NO.	P _r ²	P _w	P _w ²	P _r ² - P _w ²
1.	1124	1141.5	1303	
2.		1075.8	1157	107
3.		1030.8	1062	202
4.		927.2	860	404
5.				

(1) $\frac{P_r^2}{P_r^2 - P_w^2} = \frac{1264}{404}$

AOF = 0 $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 3888$

(2) $\left[\frac{P_r^2}{P_r^2 - P_w^2} \right]^n = 1.17924$

Absolute Open Flow	3888	Mscf @ 15.025	Angle of Slope °	63.19°	Slope, n	.505
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Remarks:

Don Douglas &

Approved By: Commission:	Conducted By: Joe Roberson	Calculated By: H L Hagler	Checked By:
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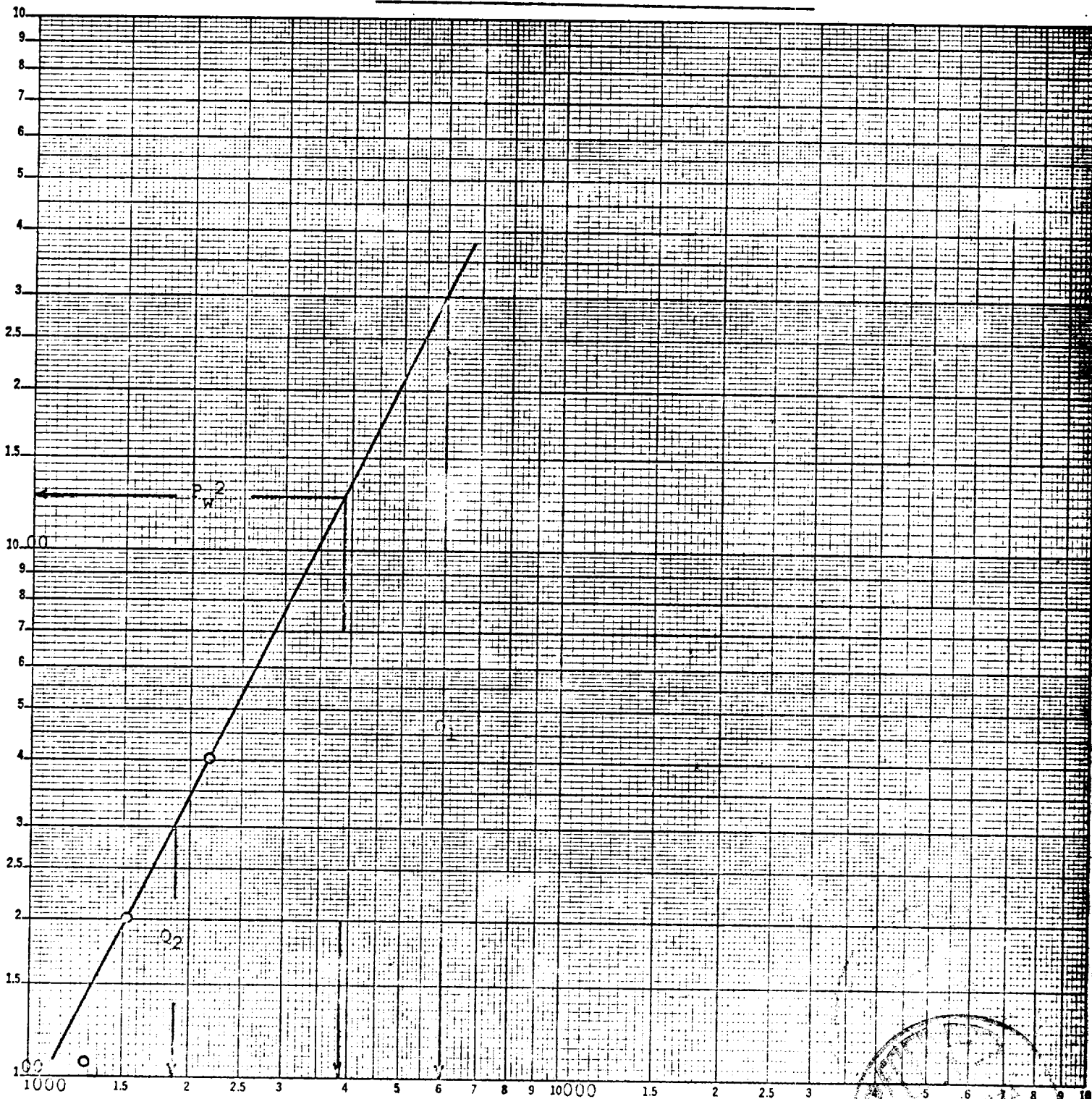
WEST TEXAS CONSULTING SERVICE, INC.



OPERATOR Lone Star Industries, Inc.
 LEASE Schalk '52'
 WELL NO. 4
 FIELD Undesignated
 COUNTY San Juan, New Mexico
 DATE 1-15-74

K&S LOGARITHMIC 46 7203
 2 X 2 CYCLES
 MADE IN U.S.A.
 KEUFFEL & ESSER CO.

$P_C^2 - P_W^2$



Q in Mcf/Day
 $\theta = 63.19^\circ$
 $n = .505$
 Absolute Open Flow = 3888 Mcf/Day



THOMAS S. SCHALK
618 FIRST WICHITA NATIONAL BANK BLDG.
WICHITA FALLS, TEXAS 76301

January 28, 1974

DRILLING and COMPLETION RECORD

Lone Star Industries - Schalk - 52-4

Drilling Contractor - Arapahoe Drilling Company

Location: 1312' F E L, 2058' F S L Sec. 24 29 N 5 W

Elevation: 6508 Gr 6520 K B

County: Rio Arriba, New Mexico

Producing Zone: Pictured Cliffs

Casing: 8-5/8 Surface @ 183' w/170 sx neat 2% CaCl
1/4# Flocele.
2-7/8 production string @ 3630 w/350 sx HOWCO
light 12¹/₂# Gilsonite per sx, 100 sx posmix 2% gel

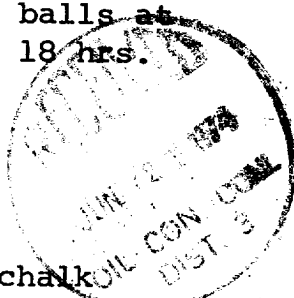
Hole Size: 7-7/8 to top of Pictured Cliffs 6-1/4 to T. D.

Logs: Schlumberger Compensated Formation Density Log
w/ Gamma Ray
Schlumberger Compensated Neutron - Formation Density
Log w/ Gamma Ray

Completion: Go International ran correlation Log and
perforated 1 hole per foot 3451-80, 3488-3515
Frac - Halliburton - 750 sx - 76,000 gallons w/WG-6
Formation broke @ 1900#, pumped 500 gal 15% HCL
ahead of frac. Started sand 1/2# per gallon @3200#
increased to 1# 3400#, shut in 900#, 5 min 800#
Dropped 10 balls 40,000 gallons 200# increase,
10 balls @ 53,000 gallons, no action, 10 balls at
64,000 gallons no action. Well shut in 18 hrs.

Well unloaded after swabbing.

Thomas S. Schalk





UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE*

(See other in-
structions on
reverse side)Form approved.
Budget Bureau No. 42-R355.5

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL:		OIL WELL ☐	GAS WELL ☒	DRY ☐	Other _____		
b. TYPE OF COMPLETION:		NEW WELL ☒	WORK OVER ☐	DEEP-EN ☐	PLUG BACK ☐	DIFF. RESVR. ☐	Other _____
2. NAME OF OPERATOR						5. LEASE DESIGNATION AND SERIAL NO.	
LONE STAR INDUSTRIES, INC.						NM - 4452	
3. ADDRESS OF OPERATOR						6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
JOHN E. SCHALK, P. O. BOX 2078, FARMINGTON, N.M.						7. UNIT AGREEMENT NAME	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*						8. FARM OR LEASE NAME	
At surface						SCHALK 52	
2058' FROM THE SOUTH LINE, 1312' FROM THE EAST LINE						9. WELL NO.	
At top prod. interval reported below						4	
SAME						10. FIELD, AND POOL, OR WILDCAT	
At total depth						PICTURED CLIFFS	
SAME						11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA	
14. PERMIT NO.						12. COUNTY OR PARISH	
2724						13. STATE	
DATE ISSUED						RIO ARriba NEW MEXICO	
11-16-73						18. ELEVATIONS (DF, REB, RT, GR, ETC.)*	
15. DATE SPUNDED		16. DATE T.D. REACHED		17. DATE COMPL. (Ready to prod.)		19. ELEV. CASINGHEAD	
12-14-73		12-21-73		1-08-74		6508' GR	
20. TOTAL DEPTH, MD & TVD		21. PLUG, BACK T.D., MD & TVD		22. IF MULTIPLE COMPL., HOW MANY*		23. INTERVALS DRILLED BY	
3640'						ROTARY TOOLS	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*						CABLE TOOLS	
3451' - 3515'						PICTURED CLIFFS	
26. TYPE ELECTRIC AND OTHER LOGS RUN						27. WAS DIRECTIONAL SURVEY MADE	
COMPENSATED FORMATION DENSITY LOG WITH GAMMA RAY						NO	
COMPENSATED NEUTRON FORMATION DENSITY LOG WITH GAMMA RAY						27. WAS WELL CORED	
28. CASING RECORD (Report all strings set in well)						NO	
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE	
8-5/8"		32#		182' KB		12-1/4"	
2-7/8"				3636.88			
						CEMENTING RECORD	
						170 SACKS CLASS "A"	
						450 SACKS 50/50 POSMIX	
						AMOUNT PULLED	
						NONE	
						NONE	
						NONE	
29. LINER RECORD						30. TUBING RECORD	
SIZE		TOP (MD)		BOTTOM (MD)		SIZE	
NONE						DEPTH SET (MD)	
						PACKER SET (MD)	
31. PERFORATION RECORD (Interval, size and number)						32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
3451' - 3480'						DEPTH INTERVAL (MD)	
3488' - 3515'						AMOUNT AND KIND OF MATERIAL USED	
1 SHOT PER FOOT						3451' - 3515'	
						75,000# SAND AND	
						96,000 GALLONS WATER	
33.* PRODUCTION							
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
-----		WAITING ON PIPE LINE				SHUT-IN	
DATE OF TEST		HOURS TESTED		CHOKE SIZE		PROD'N. FOR TEST PERIOD	
1-15-74		4		5/16		OIL—BBL.	
FLOW. TUBING PRESS.		CASING PRESSURE		CALCULATED 24-HOUR RATE		GAS—MCF.	
884						WATER—BBL.	
						OIL GRAVITY-API (CORR.)	
						3888 AOF	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)						TEST WITNESSED BY	
VENTED						JOE ROBERSON	
35. LIST OF ATTACHMENTS						OIL CON. CO. DIST.	
SEPARATOR & VENT LINE							
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records							
SIGNED		TITLE		AGENT		DATE	
John E. Schalk						6-17-74	

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

