

ACID ENGINEERS, Inc.

TREATMENT REPORT

Great Bend, Kansas

Invoice No. 14670 Station _____ Date May 29, 19 68

Owner Glen Rupe Lease Titus Well No. 1

Pool _____ County Edwards State Kansas

Loc. 4-26-19W Formation Mississippi

Pipe Data—		Perforating Data—		Production—	
T.D. <u>4901</u>	P.B. <u>4732</u>	Shots/Ft. <u>4 slots</u>		OK MAX	
Csg. Size <u>4½" OD</u>	Wt. <u>9½#</u>	From <u>4725</u>	To <u>4732</u>	Present <u>1,300 MCF Gas.</u>	
Csg. Depth <u>4900</u>	Sks. Cement _____	From _____	To _____	Previous Treatments	
Tbg. Size <u>2" EUE</u>	Depth _____	From _____	To _____	<u>500 gallon acid.</u>	
Packer Type _____	Annulus Vol. <u>53 bbl.</u>	From _____	To _____		
Csg. Vol. _____	Tbg. Vol. <u>18 bbl.</u>	From _____	To _____		

Detailed Record of Treatment

Materials Used

Quan.	Type	Quan.	Type
2,000 gallon	SME 7½% Acid		
5 gallon	C-20		

Fluids Used

Acid	48 bbl.
Breakdown	10 bbl.
Frac	
Flush	53 bbl.

Time	Pressure		Bbbs. of Fluid			Remarks
	Csg.	Tbg.	Out of Tanks	In Form.	Inj. Rate	
	600	250				start water w/C-20 down ann.
	500	500	10			10 bbl. water in, start acid
	400	1200	58			2,000 gal. acid in, start treated water flush
3:52	600	1400	63			acid on bottom, speed pump
3:55	1000	1900	78	15	3	pressure start break, speed pump
4:02	650	1800	116	48	4½	all acid in formation complete
	400	1700				immediate pressure drop
4:03	300	1600				1 minute pressure drop
4:04	150	1500				2 minute pressure drop
4:05	50	1500				3 minute pressure drop
4:06	vac	1500				4 minute pressure drop
						let set till csg. collar is welded.

Arrival Date 5-29-68 Time 1:00 Left Location: Date 5-29-68 Time 5:00 Round Trip Miles 120

(See Reverse Side for Additional Treatment Remarks)

Equipment Used

Name	Unit No.	Name	Unit No.
King	141,226		
Strunk	394		

Treatment Resume

Avg. Inj. Rate	<u>3-3/4</u>	BPM
Avg. Trt. Press.	<u>800</u>	psi
Hydraulic HP Used		
Total Fluid Pumped	<u>116 bbl.</u>	
Maximum Pressure	<u>1,000</u>	psi
Minimum Pressure	<u>650</u>	psi
I. S. I. P.	<u>400</u>	psi

Owner's Representative _____

Station Manager _____

J. D. Strunk
Service Engineer

ACID ENGINEERS, Inc.

TREATMENT REPORT

Invoice No. 14668 Station Great Bend, Kansas Date May 27, 19 68

Owner Glen Rupe Lease Titus Well No. 1

Pool _____ County Edwards State Kansas

Loc. 4-26-19W Formation Mississippi

Pipe Data—		Perforating Data—		Production—	
T.D. <u>4901</u>	P.B. <u>4830</u>	Shots/Ft. <u>4 slots</u>		Oil _____	Water _____
Csg. Size <u>4½" OD</u>	Wt. <u>9½#</u>	From _____	To _____	Present _____	
Csg. Depth <u>4900</u>	Sks. Cement _____	From <u>4725</u>	To <u>4732</u>	Previous Treatments	
Tbg. Size <u>2" EUE</u>	Depth <u>4732</u>	From _____	To _____	<u>new well</u>	
Packer Type _____	Annulus Vol. <u>53 bbl.</u>	From _____	To _____		
Csg. Vol. _____	Tbg. Vol. <u>18 bbl.</u>	From _____	To _____		

Detailed Record of Treatment

Materials Used

Quan.	Type	Quan.	Type
8,500#	R-20/40 Sand		
1	Sand Jet Tool w/4 Ports		
500 gallon	SME 7½% Acid		
5 gallon	C-20 Foam Agent		

Fluids Used

Acid	12 bbl.
Breakdown	
xxx ann.	53 bbl.
Flush	18 bbl.
total	83 bbl.

Time	Csg. Pressure	Tbg. Pressure	Bbbs. of Fluid		Inj. Rate	Remarks
			Out of Tanks	In Form.		
6:00						hole loaded with water, spot jet tool to
6:20						sand jet at 4732, start water down tubing
6:23		1800	12			hole circulating, stop, drop ball in tubing
6:26						start pump ball down with water
6:29		2400	30	6		ball down, establish rate
6:31		3150	40	5		jets open, start sand 1#/gal.
6:35		3100	60	5		sand going out jets, start slots
6:37		3150	70	5		move tubing up slowly
7:11		3100	240	5		8,500# sand in, start flush
7:16		3150	260	5		sand clear of jets, slots comp. up to 4725
7:19						start pump down ann. to clean hole
7:23	1400		284	6		ball out, start lower tubing
7:53	1100		404			hole clean to 4761'; stop
						spot tubing to wash acid @ 4732'

Arrival Date 5-27-68 Time 11:30 AM Location: Date 5-27-68 Time 9:30 PM Round Trip Miles 120

(See Reverse Side for Additional Treatment Remarks)

(OVER)

Equipment Used

Name	Unit No.	Name	Unit No.
Wente	146-228		
Donnie	117-216		
Strunk	394		

Treatment Resume

Avg. Inj. Rate	5	BPM
Avg. Trt. Press.	3,150	psi
Hydraulic HP Used	387	
Total Fluid Pumped	512 bbl.	
Maximum Pressure	3,200	psi
Minimum Pressure	3,100	psi
I. S. I. P.		psi

Glen Rupe

Owner's Representative

J. D. Strunk

Station Manager

J. D. Strunk

Service Engineer

ACID ENGINEERS, Inc.

TREATMENT REPORT

Invoice No. _____ Station Great Bend Date August 21, 1969

Owner Glen Rupe Lease Titus Well No. 1

Pool _____ County Edwards State Kansas

Loc. 4-26-19W Formation Mississippi

Pipe Data—		Perforating Data—		Production—	
T.D. _____	P.B. _____	Slots/R. Slots _____		Oil _____	Water _____
Csg. Size <u>4 1/2" O.D.</u>	Wt. _____	From <u>3730</u>	To <u>3735</u>	Present _____	
Csg. Depth <u>4900</u>	Sks. Cement _____	From _____	To _____	Previous Treatments	
Tbg. Size <u>X</u>	Depth _____	From _____	To _____	<u>2000 gal. Acid</u>	
Packer Type _____	Annulus Vol. _____	From _____	To _____		
Csg. Vol. <u>76 BBL.</u>	Tbg. Vol. _____	From _____	To _____		

Detailed Record of Treatment

Materials Used

Quan.	Type	Quan.	Type
2400 gal.	S-15% Acid		
20 gal.	C-20		
150 lb.	G-7		
5000 lb.	R 20/40 sand		

Fluids Used:

Acid _____
Breakdown _____
Frac <u>Gel Acid-288Bbl.</u>
Flush <u>Water 100Bbl.</u>

Time	Pressure		Bbbs. of Fluid			Remarks
	Csg.	Tbg.	Out of Tanks	In Form.	Inj. Rate	
						Split Acid w/water to make 12000 gal.
						Pre-Gel & Add C-20
4:45						Start Gel Acid down csg.
4:56	400		50			Csg. Loaded EST Rate
4:57	600		60	10	10	Feeding start sand 1/2#P.G.
5:05	700		140	90	10	Sand on form. Increasing sand slight
5:19	750		288	238	10 1/2	5000# Sand in 12000 gal. G ^E 1, start flush
5:29	850		388	338	10	100 BBL water flush in
	600					Immediate Press. Drop Complete
5:30	500					1 Min. Press. Drop
5:31	400					2 Min. Press. Drop
5:34	300					5 Min. Press. Drop
5:39	200					10 Min. Press. Drop
5:49	0					20 Min. Press. Drop

Arrival Date 8-21-69 Time 11 AM Left Location: Date 8-21-69 Time 6 PM Round Trip Miles 104

(See Reverse Side for Additional Treatment Remarks)

Equipment Used

Name	Unit No.	Name	Unit No.
Bob	146,228		
Bill	125		
Tom	117,230		
Jim	399		

Treatment Resume

Avg. Inj. Rate	<u>10.3</u>	BPM
Avg. Trt. Press.	<u>750</u>	psi
Hydraulic HP Used	<u>189</u>	
Total Fluid Pumped	<u>388 Bbl</u>	
Maximum Pressure	<u>850</u>	psi
Minimum Pressure	<u>600</u>	psi
I. S. I. P.	<u>600</u>	psi

J. D. Strunk

Station Manager

J. D. Strunk

Service Engineer

Owner's Representative

