

Sun Oil Well Cementing, Inc.

DRILL STEM TEST DATA

P.O. Box 169

Great Bend, Kansas 67530

Lease	Borell	Well No.	C-8	Date	8-31-80				
County	Ellsworth	Sec.	19	Twp.	14	Rng.	10	Elevation	
Company	L.G. Stephenson & Co. Inc.							Test No.	1
Contractor	Red Tiger Drlg. #4							Zone Tested	
Charge To	L. G. Stepenson & Co. Inc.							Ticket #	3869
Approved By	James W. Spellman							Tester	Richard Bowman

Initial Hydro Mud Press. 1053 P.S.I.

Initial Flow Press. 52 To 103 P.S.I. Initial Flow Period 60 Min.

Initial Shut-in Press. 393 P.S.I. Initial Shut-in 45 Min.

Final Flow Press. 113 To 154 P.S.I. Final Flow Period 60 Min.

Final Shut-in Press. 393 P.S.I. Final Shut-in 45 Min.

Final Hydro Mud Press. 1042 P.S.I. TIME TOOL OPEN 9:30 AM

Temperature 99

Mud Weight 9.8 Viscosity 38

Fluid Loss 156

Interval Tested 2055 To 2078

Top Packer Depth 2050 Surface Choke Size 3/8 Second 1/4

Bottom Packer Depth 2055 Bottom Choke Size 5/8

Total Depth 2078 Main Hole Size 7 7/8

Drill Pipe Size 4 1/2 FH Wt 4 1/2 XH Rubber Size 6 3/4

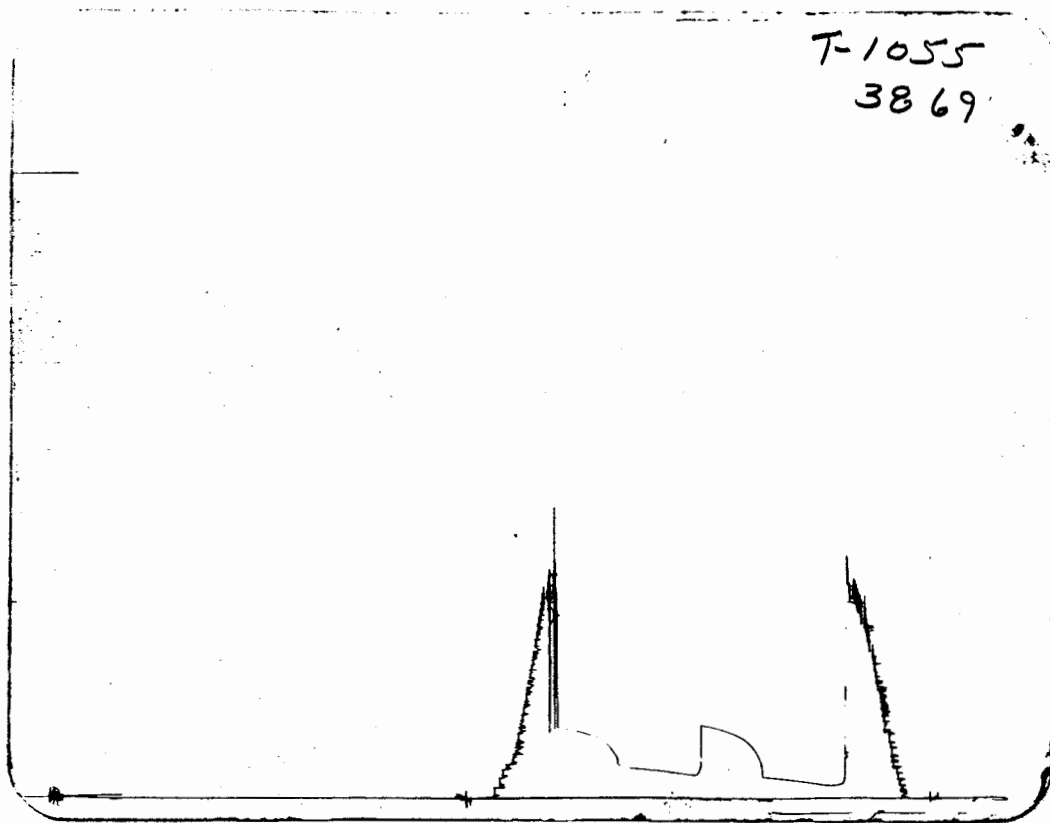
Drill Collar I.D. 2.25 Ft. Run

Blow Strong Blow Gas To Surface In 4 Min.

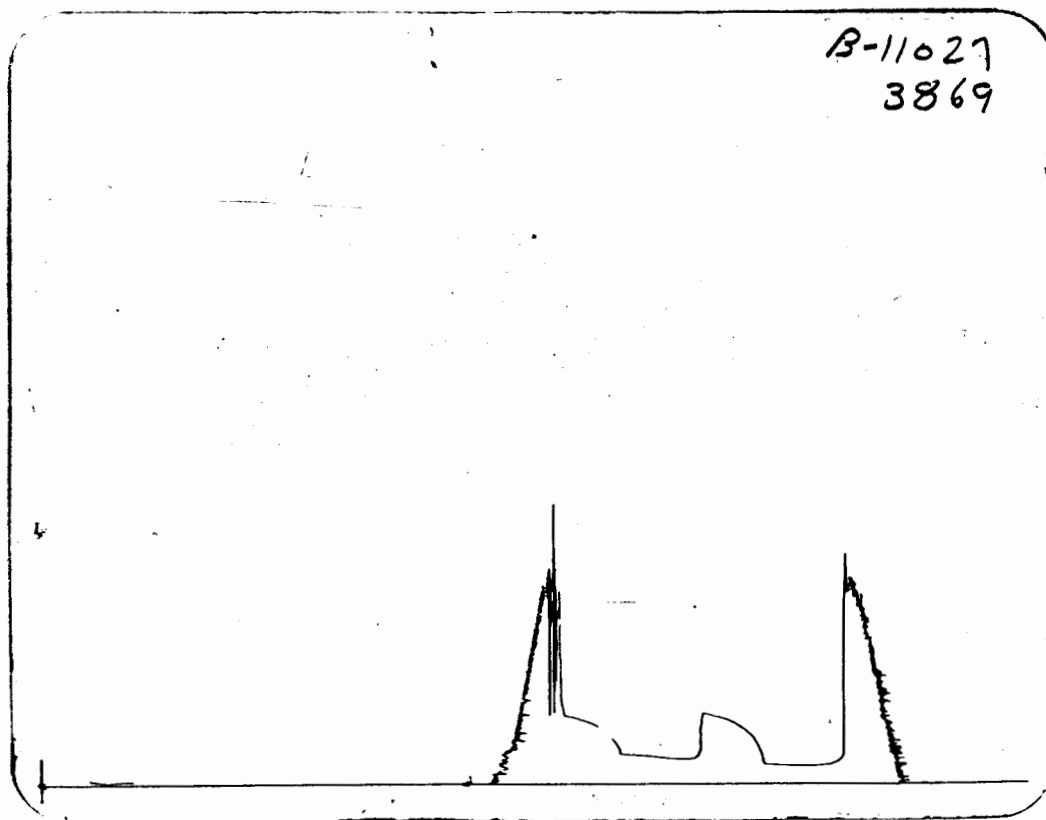
Recovery	10 Min. 20,900	40 Min. 10,100	Second	10 Min. 5,320	40 Min. 4,450
	20 Min. 16,700	50 Min. 9,450		20 Min. 5,050	50 Min. 4,450
	30 Min. 12,400	60 Min. 8,740		30 Min. 4,760	60 Min. 4,760

180' Oil Cut Gassy Mud
 120' Oil Cut Gassy Water
 60' Water
 360' Total Fluid

TOP



BOTTOM



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Great Bend, Kansas 67530

Lease Borell	Well No. C-8	Date 9-1-80
County Ellsworth Sec. 19	Twp. 14 Rng. 10	Elevation
Company L.G. Stephenson & Co. Inc.		Test No. 2
Contractor Red Tiger Drlg. #4		Zone Tested
Charge To L.G. Stephenson & Co. Inc.		Ticket # 3870
Approved By James W. Spellman		Tester Richard Bowman

Initial Hydro Mud Press. _____ P.S.I.

Initial Flow Press. _____ To _____ P.S.I. Initial Flow Period _____ Min.

Initial Shut-in Press. _____ P.S.I. Initial Shut-in _____ Min.

Final Flow Press. _____ To _____ P.S.I. Final Flow Period _____ Min.

Final Shut-in Press. _____ P.S.I. Final Shut-in _____ Min.

Final Hydro Mud Press. _____ P.S.I. TIME TOOL OPEN _____

Temperature _____

Mud Weight _____ Viscosity _____

Fluid Loss _____

Interval Tested 2137 To 2180

Top Packer Depth 2132 Surface Choke Size _____

Bottom Packer Depth 2137 Bottom Choke Size 5/8

Total Depth 2180 Main Hole Size 7 7/8

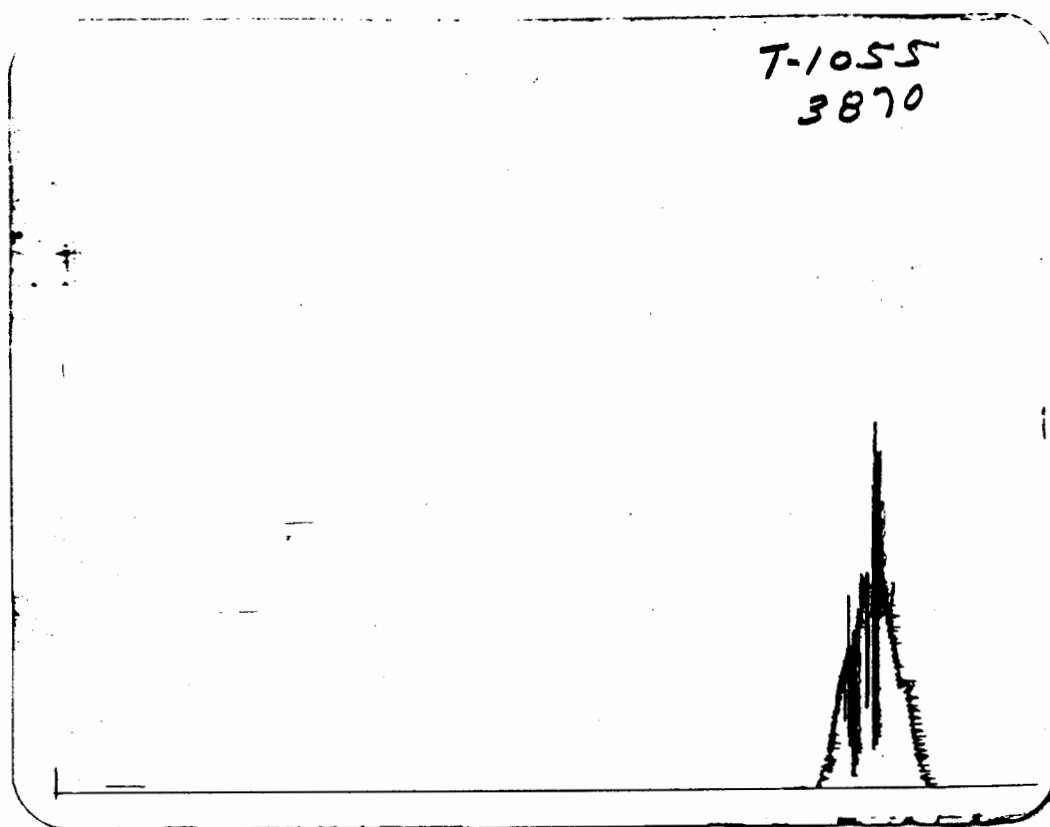
Drill Pipe Size 4½XH Wt 4½XH Rubber Size 6 3/4

Drill Collar I.D. 2.25 Ft. Run _____

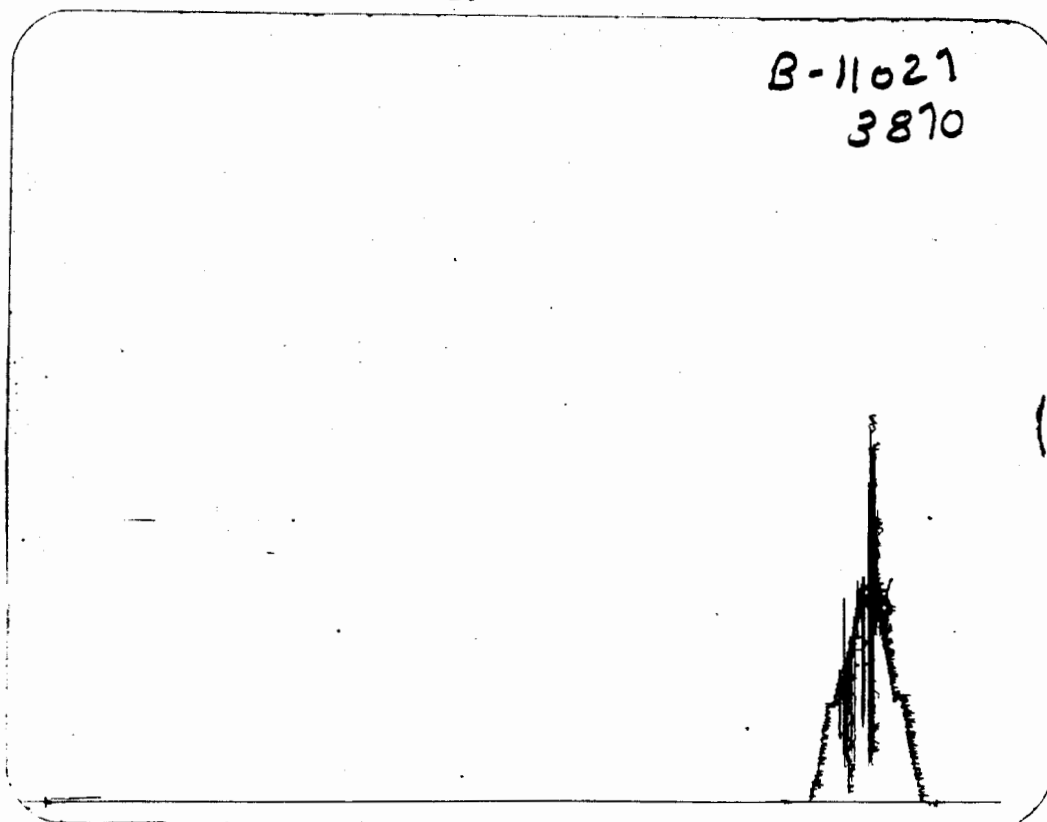
Blow Failed To Reach Bottom

Recovery 120' Off Bottom

TOP



BOTTOM



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DRILL STEM TEST DATA

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Great Bend, Kansas 67530

Lease	Borell	Well No.	C-8	Date	9-1-80
County	Ellsworth Sec. 19	Twp. 14	Rng. 10	Elevation	
Company	L.G. Stephenson & Co. Inc.			Test No.	3
Contractor	Red Tiger Drlg. #4			Zone Tested	Willard
Charge To	L.G. Stephenson & Co. Inc.			Ticket #	3871
Approved By	Jim Spellman			Tester	Steve Jenkins

Initial Hydro Mud Press. 1135 P.S.I.

Initial Flow Press. 61 To 61 P.S.I. Initial Flow Period 45 Min.

Initial Shut-in Press. 361 P.S.I. Initial Shut-in 45 Min.

Final Flow Press. 92 To 72 P.S.I. Final Flow Period 45 Min.

Final Shut-in Press. 361 P.S.I. Final Shut-in 45 Min.

Final Hydro Mud Press. 1125 P.S.I. TIME TOOL OPEN 7:50 Am

Temperature 99

Mud Weight 10.1 Viscosity 42

Fluid Loss 16

Interval Tested 2137 To 2180

Top Packer Depth 2132 Surface Choke Size

Bottom Packer Depth 2137 Bottom Choke Size 5/8

Total Depth 2180 Main Hole Size 7 7/8

Drill Pipe Size 4 1/2 XH Wt 4 1/2 XH Rubber Size 6 3/4

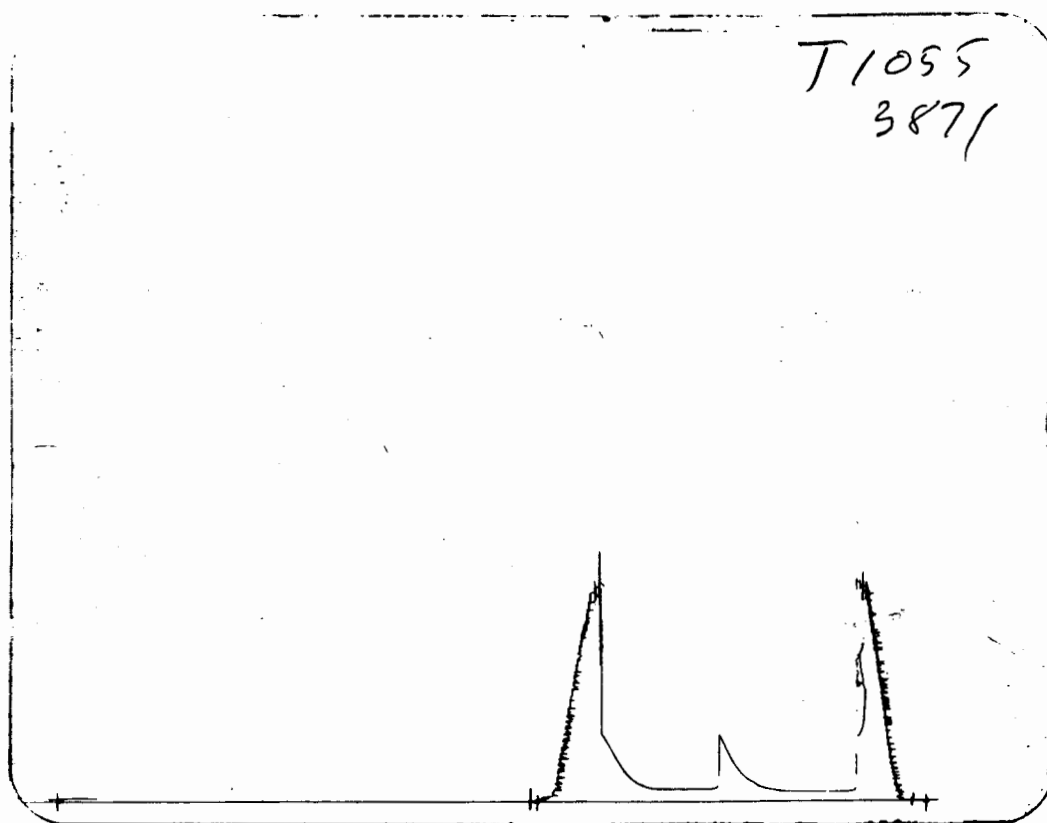
Drill Collar I.D. 2.25 Ft. Run

Blow 1st Opening : Weak Intermittant Blow 2nd Opening: Weak Blow

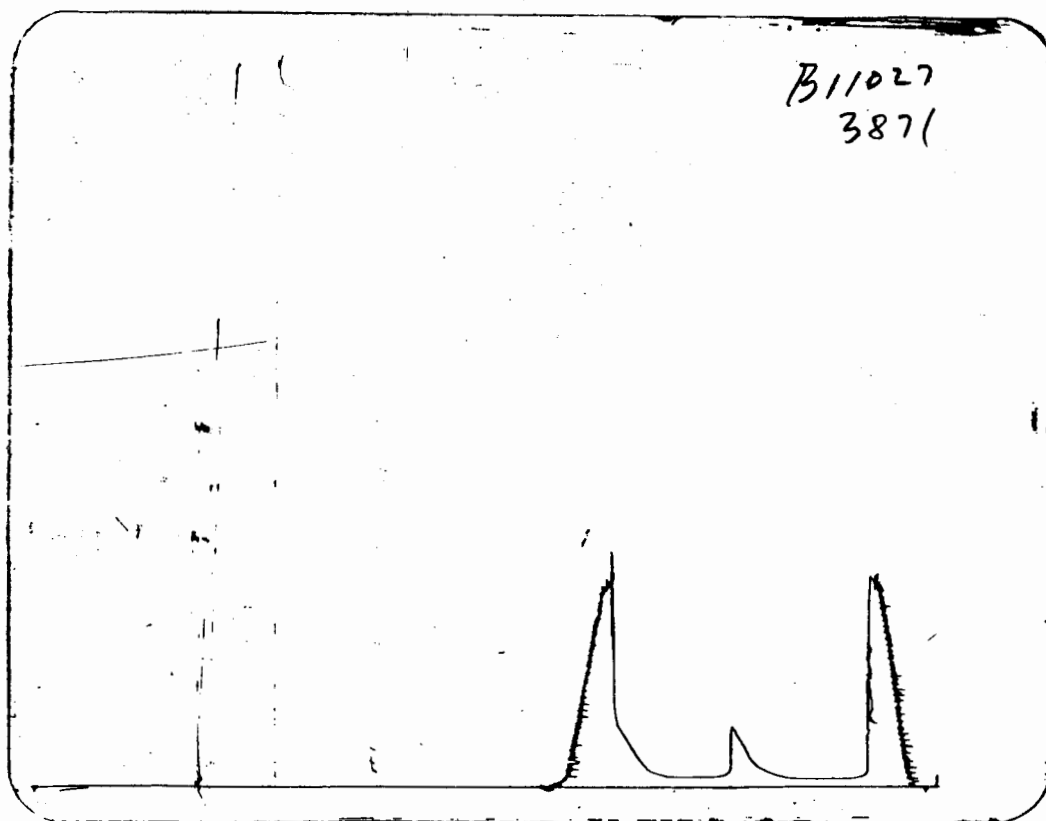
Recovery 60' Gassy Mud

Oil Spotted Mud On Tool.

TOP



BOTTOM



Sun Oil Well Cementing, Inc.

DRILL STEM TEST DATA

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Lease	Borell	Well No.	C-8	Date	9-2-80
County	Ellsworth	Sec.	19	Twp.	1 4 Rng. 10W
Company	L.G. Stephenson & Co. Inc.			Test No.	4
Contractor	Red Tiger Drlg. #4			Zone Tested	Topeka
Charge To	L.G. Stephenson & Co. Inc.			Ticket #	3872
Approved By	James W. Spellman			Tester	Steve Jenkins

Initial Hydro Mud Press. 1299 P.S.I.

Initial Flow Press. 68 To 68 P.S.I. Initial Flow Period 60 Min.

Initial Shut-in Press. 216 P.S.I. Initial Shut-in 45 Min.

Final Flow Press. 68 To 68 P.S.I. Final Flow Period 60 Min.

Final Shut-in Press. 268 P.S.I. Final Shut-in 45 Min.

Final Hydro Mud Press. 1289 P.S.I. TIME TOOL OPEN 7:50 AM

Temperature 99

Mud Weight Viscosity 43

Fluid Loss

Interval Tested 2410 To 2428

Top Packer Depth 2405 Surface Choke Size

Bottom Packer Depth 2410 Bottom Choke Size 5/8

Total Depth 2428 Main Hole Size 7 7/8

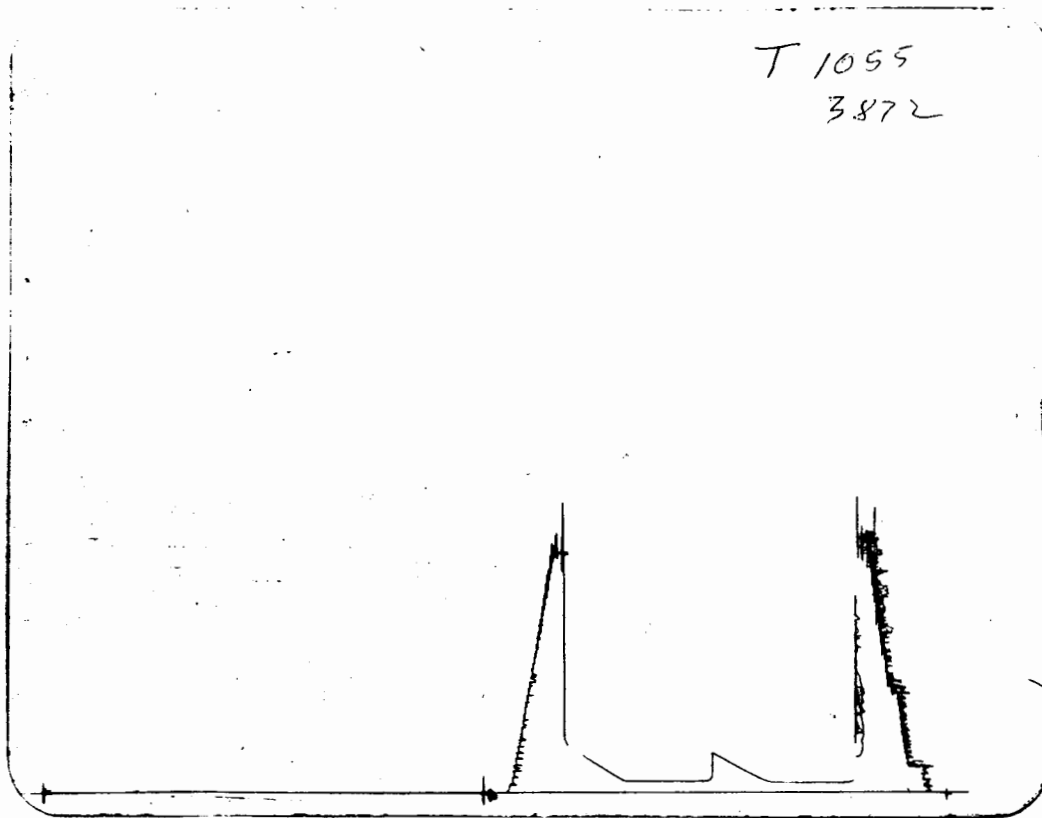
Drill Pipe Size 4 1/2 XH Wt 4 1/2 XH Rubber Size 6 3/4

Drill Collar I.D. 2.25 Ft. Run

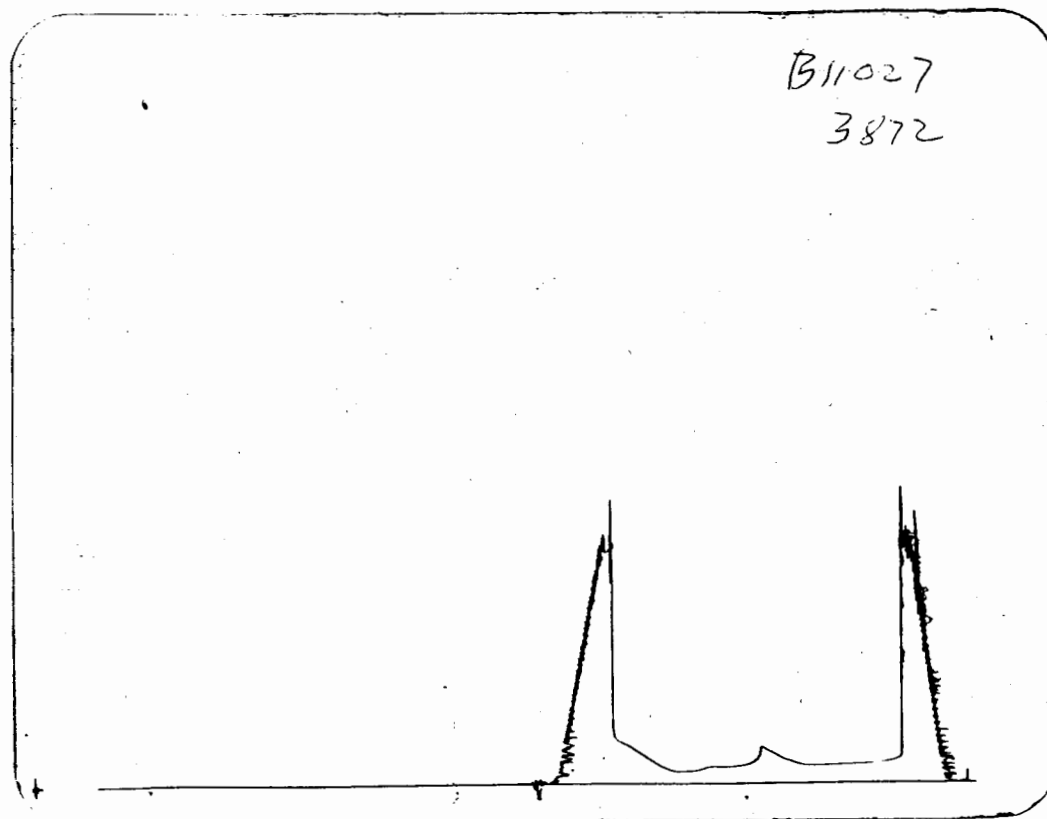
Blow 1st Opening Fair MC To Good Blow (8" Into Bucket) 2nd Opening Good Blow (6" Into Bucket)

Recovery 90' 0 Spt. Gas Cut Mud

TOP



BOTTOM



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DRILL STEM TEST DATA

P.O. Box 169

Great Bend, Kansas 67530

Lease	Borell	Well No.	C-8	Date	9-4-80
County	Ellsworth Sec. 19	Twp. 14	Rng. 10W	Elevation	
Company	L.G. Stephenson & Co. Inc.			Test No.	5
Contractor	Red Tiger Drlg. #4			Zone Tested	K.C.
Charge To	L.G. Stephenson & Co. Inc.			Ticket #	3873
Approved By	Jim Spellman			Tester	Steve Jenkins

Initial Hydro Mud Press. 1554 P.S.I.

Initial Flow Press. 41 To 51 P.S.I. Initial Flow Period 60 Min.

Initial Shut-in Press. 185 P.S.I. Initial Shut-in 45 Min.

Final Flow Press. 72 To 72 P.S.I. Final Flow Period 120 Min.

Final Shut-in Press. 185 P.S.I. Final Shut-in 45 Min.

Final Hydro Mud Press. 1544 P.S.I. TIME TOOL OPEN 2:00 AM

Temperature 100

Mud Weight Viscosity 44

Fluid Loss

Interval Tested 2790 To 2815

Top Packer Depth 2785 Surface Choke Size

Bottom Packer Depth 2790 Bottom Choke Size 5/8

Total Depth 2815 Main Hole Size 7 7/8

Drill Pipe Size 4 1/2 XH Wt 4 1/2 XH Rubber Size 6 3/4

Drill Collar I.D. 2.25 Ft. Run

Blow 1st Opening: Weak MC To Strong Blow in 12 Min. 2nd Opening : Strong Blow

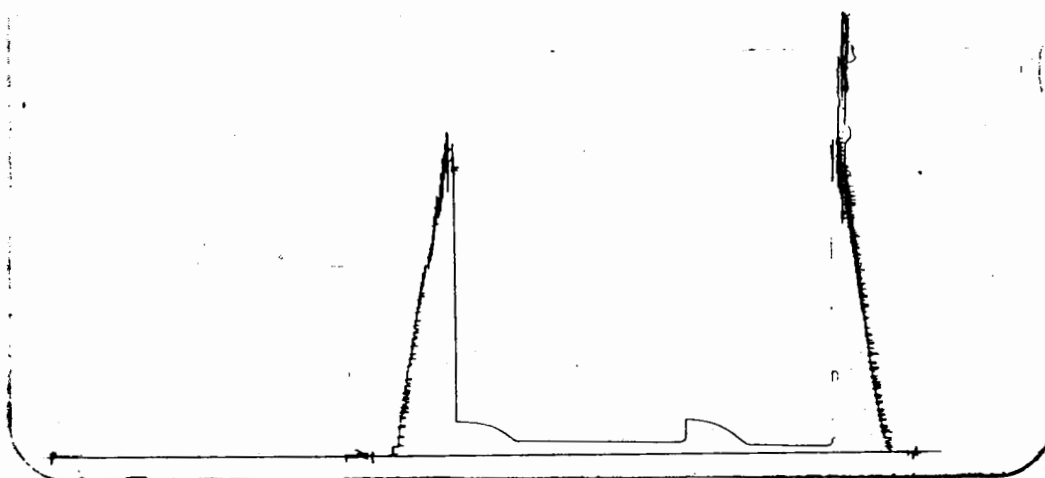
Recovery 900' Gas In Pipe Before Fluid Recovery

90' Gassy Heavy Oil Cut Mud

60' Gassy Muddy Oil

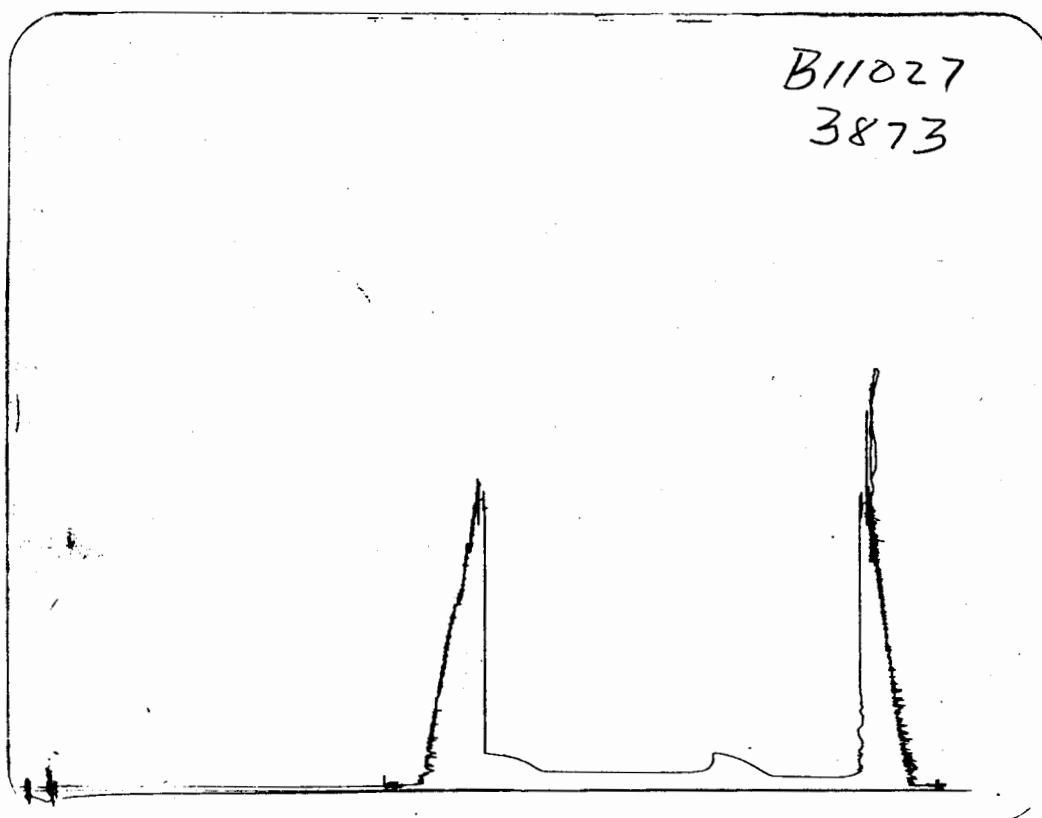
TOP

T 1055
3873



BOTTOM

B11027
3873



Sun Oil Well Cementing, Inc.

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Lease	Borell	Well No.	C-8	Date	9-4-80	
County	Ellsworth	Sec.	19	Twp.	14	
				Rng.	10W	
Company	L.G. Stephenson & Co. Inc.				Test No.	6
Contractor	Red Tiger Drlg. #4				Zone Tested	K.C.
Charge To	L.G. Stephenson & Co. Inc.				Ticket #	3874
Approved By	Jim Spellman				Tester	Steve Jenkins

Initial Hydro Mud Press. 1555 P.S.I.

Initial Flow Press. 72 To 233 P.S.I. Initial Flow Period 60 Min.

Initial Shut-in Press. 723 P.S.I. Initial Shut-in 45 Min.

Final Flow Press. 258 To 351 P.S.I. Final Flow Period 60 Min.

Final Shut-in Press. 714 P.S.I. Final Shut-in 45 Min.

Final Hydro Mud Press. 1545 P.S.I. TIME TOOL OPEN 5:25 PM

Temperature 108

Mud Weight 10.4 Viscosity 42

Fluid Loss 10.4

Interval Tested 2826 To 2866

Top Packer Depth 2821 Surface Choke Size

Bottom Packer Depth 2826 Bottom Choke Size 5/8

Total Depth 2866 Main Hole Size 7 7/8

Drill Pipe Size 4 1/2 XH Wt 4 1/2 XH Rubber Size 6 3/4

Drill Collar I.D. 2.25 Ft. Run

Blow 1st Opening: Weak MC To Strong Blow In 9 Min. 2nd Opening: Strong Blow

Recovery 200' Gas In Pipe Before Fluid Recovery

160' Gassy Oil Cut Mud (40% Oil 15 % Water)

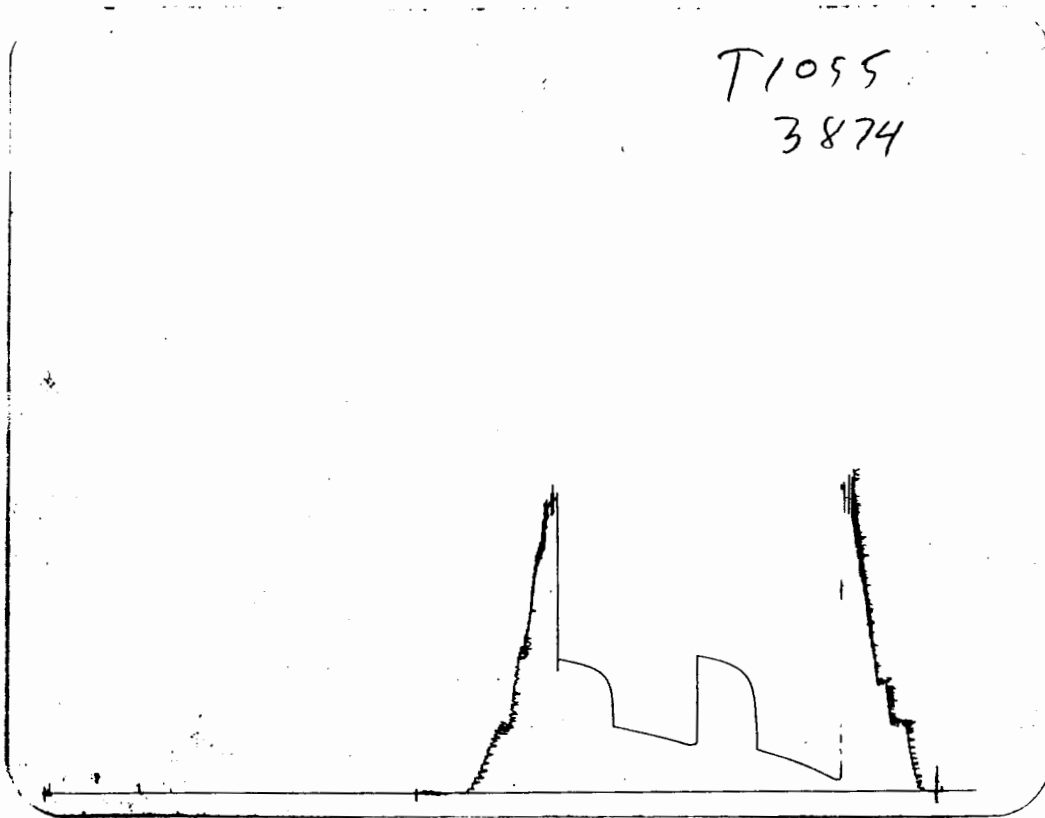
120' Gassy Oil Cut Watery Mud (12% Oil 40 % Water)

240' Gassy Slightly Oil Cut Water Mud

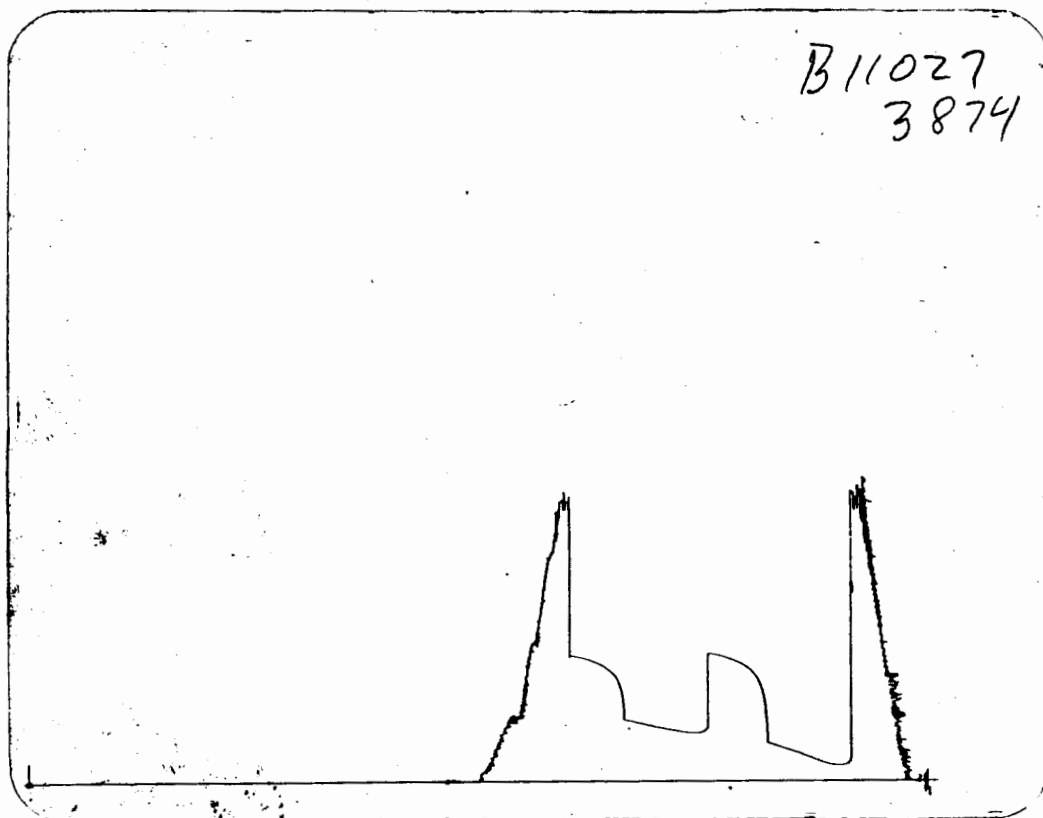
180' Gassy Slightly Oil Cut Water

700' Total Fluid

TOP



BOTTOM



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Lease	Borell	Well No.	C-8	Date	9-5-80
County	Ellsworth	Sec.	19	Twp.14	Rng. 10W
Company	L.G. Stephenson & Co. Inc.				Elevation
Contractor	Red Tiger Drlg. #4				Test No. 7
Charge To	L.G. Stephenson & Co. Inc.				Zone Tested K.C.
Approved By	James W. Spellman				Ticket # 3875
					Tester Steve Jenkins

Initial Hydro Mud Press. 1667 P.S.I.

Initial Flow Press. 82 To 495 P.S.I. Initial Flow Period 60 Min.

Initial Shut-in Press. 636 P.S.I. Initial Shut-in 45 Min.

Final Flow Press. 516 To 590 P.S.I. Final Flow Period 60 Min.

Final Shut-in Press. 640 P.S.I. Final Shut-in 45 Min.

Final Hydro Mud Press. 1657 P.S.I. TIME TOOL OPEN 6:00 AM

Temperature 109

Mud Weight 10.4 Viscosity 42

Fluid Loss 10.4

Interval Tested 2870 To 2886

Top Packer Depth 2865 Surface Choke Size

Bottom Packer Depth 2870 Bottom Choke Size 5/8

Total Depth 2886 Main Hole Size 7 7/8

Drill Pipe Size 4 1/2 XH Wt 4 1/2 XH Rubber Size 6 3/4

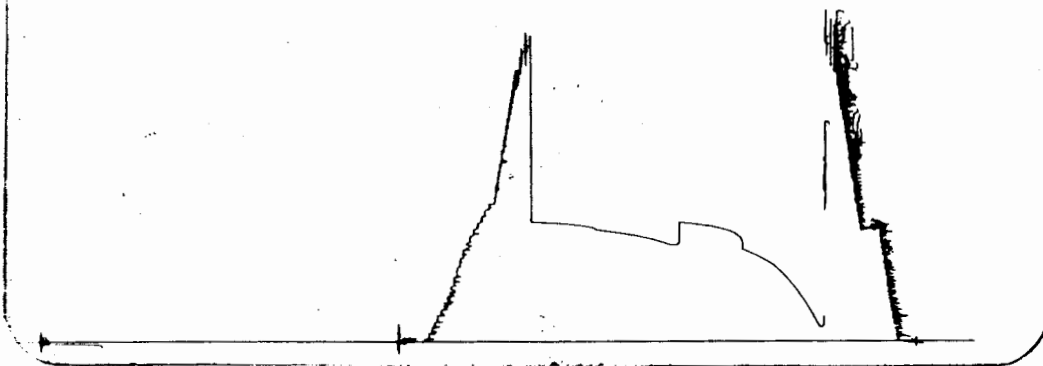
Drill Collar I.D. 2.25 Ft. Run

Blow 1st Opening: Weak MC To Strong Blow 2 Min. 2nd. Opening: Strong Blow

Recovery 120' Gas In Pipe Before Fluid Recovery
 180' Frothy Oil Cut Mud (25% Oil 34 % Water 10% Gas)
 180' Frothy Oil Cut Watery Mud (20% Oil 40% Water)
 300' Oil Cut Gassy Water (40% Gas 14% Oil 44% Water)
 180' Slighty oil & Gas Cut Water (. 8% Oil 80% Water)
 180' Gassy Water With Oil Scum
 240' Water Gassy
 1260' Total Fluid

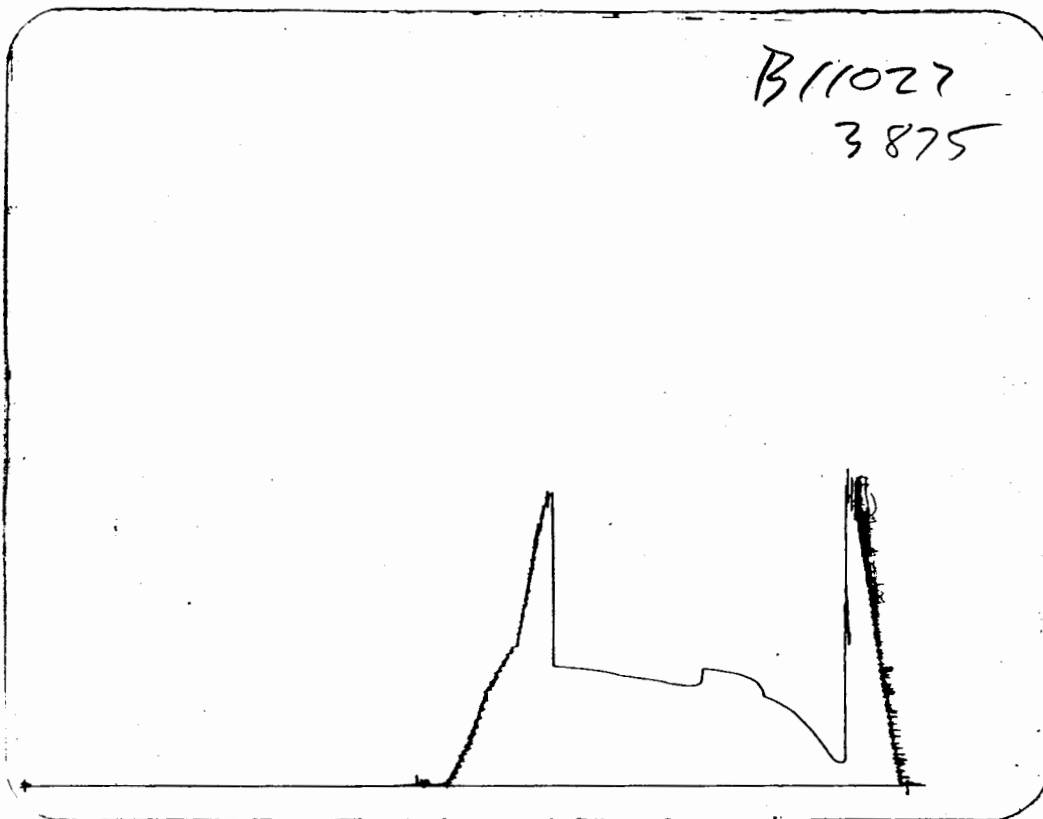
TOP

T1055
3875



BOTTOM

B11027
3875



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DRILL STEM TEST DATA

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Great Bend, Kansas 67530

Lease	Borell	Well No.	C-8	Date	9-6-80
County	Ellsworth	Sec.	19	Twp.	14
		Rng.	10W	Elevation	
Company	L.G. Stephenson & Co. Inc.			Test No.	8
Contractor	Red Tiger #4			Zone Tested	Swope
Charge To	L.G. Stephenson & Co. Inc.			Ticket #	4126
Approved By	Jim Spellman			Tester	Steve Jenkins

Initial Hydro Mud Press. 1718 P.S.I.

Initial Flow Press. 103 To 103 P.S.I. Initial Flow Period 30 Min.

Initial Shut-in Press. 636 P.S.I. Initial Shut-in 30 Min.

Final Flow Press. 113 To 103 P.S.I. Final Flow Period 30 Min.

Final Shut-in Press. 578 P.S.I. Final Shut-in 30 Min.

Final Hydro Mud Press. 1708 P.S.I. TIME TOOL OPEN 3:20 PM

Temperature 101

Mud Weight 10.4 Viscosity 40

Fluid Loss 13.2

Interval Tested 2978 To 3093

Top Packer Depth 2973 Surface Choke Size

Bottom Packer Depth 2978 Bottom Choke Size 5/8

Total Depth 3093 Main Hole Size 7 7/8

Drill Pipe Size 4 1/2 XH Wt 4 1/2 XH Rubber Size 6 3/4

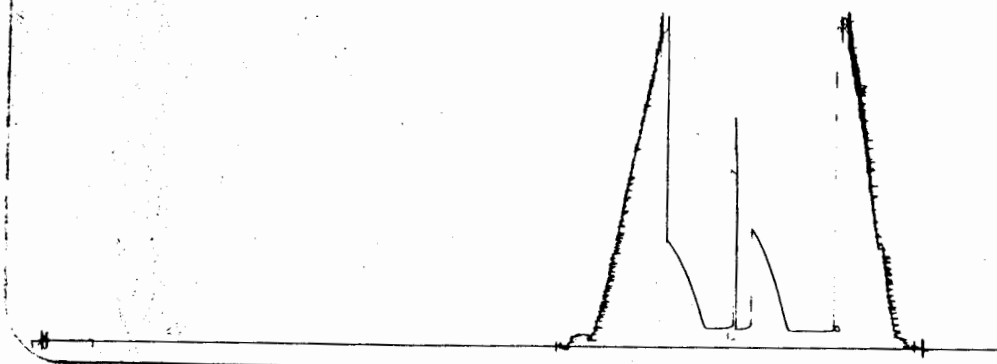
Drill Collar I.D. 2.25 Ft. Run

Blow 1st Opening: Very Weak Blow Deid 15 Min. 2nd. Opening: No Blow Flushed Tool
No Help.

Recovery 10' Oil Scum Mud

TOP

T 1055
4126



BOTTOM

B 11027
4126

