

First Flow	30	Minutes	 BOMIN TESTING BOX 782 LIBERAL, KANSAS	Date	8-25-77	LOCATION	
First CIP	60	Minutes		Ticket No.	6632		
Second Flow	60	Minutes		DISTRICT	Liberal, KS		
Second CIP	120	Minutes		Kind of Job	Open Hole		
Depth Top Gauge	4631	Ft.	Blanked Off	no	CONTRACTOR	Zenith Drilling Rig 6	1-33-31 C N W - N W
Recorder No.	6014	12	Hr. Clock	HOLE & TOOL DATA			
Pressure Readings	Field	Office Corrected	Elevation	2765	Top Packer Depth	4621	
Initial Hydro Mud Pressure	A-2448	2348	Total Depth	4676	Bottom Packer Depth	4626	
First Flow	B-34-51	17-21	Casing or Hole Size	7 7/8	Size & Type Wall Packer	6 3/4 BT	FIELD
First CIP	C-171	182	Liner or Rathole Size		Size Bottom Choke	1/2	
Second Flow	D-51-51	31-31	Interval Tested	4626-4676	Size Surface Choke	1"	
Second CIP	E-256	264	Formation Tested	Judy	ID & Length Drill Collars	2 1/4 X 528 4" H-90	
Final Hydro Mud Pressure	F-2347	2298	Est. Gauge Depth Temp.	116	Size Drill Pipe	4 1/2 FH	1
Depth Bottom Gauge	4675	Ft.	Blanked Off	Yes	MUD DATA Weight	9.4	
Recorder No.	2825	24	Hr. Clock	All depths measured from	No. Folders Reproduced	7	
Pressure Readings	Field	Office Corrected	REMARKS: Open tool 30 min initial flow				
Initial Hydro Mud Pressure			with no blow. Bypassed after 10 min.				COUNTY
First Flow			No blow. Close tool 60 min for ICIP.				
First CIP			Open tool 60 min for final flow with				
Second Flow			no blow. Close tool 120 min for				
Second CIP			FCIP.				Seward
Final Hydro Mud Pressure							
Recovered	5	Feet of Drilling mud					STATE
Recovered		Feet of					
Recovered		Feet of					
Recovered		Feet of					
Witnessed By	Dave Floyd						KS
Amount-Type of Cushion							
Tester	Archie Farrand						

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GREAT BEND
Division Office

Headrick
Lease Name
1
Well No.
1
Test No.
Petroleum Inc.
Lease Owner
Liberal, KS
Owners District

1-33-31 C N W - N W

BOTTOM HOLE SAMPLER ANALYSIS

Date 8-25-77 Ticket No. 6632
 Company Petroleum, Inc.
 Lease Headrick Well No. 1 State Kansas County Seward
 Interval Tested 4626-4676 Net Pay _____ BHT 116
 Recovery 5 feet drilling mud

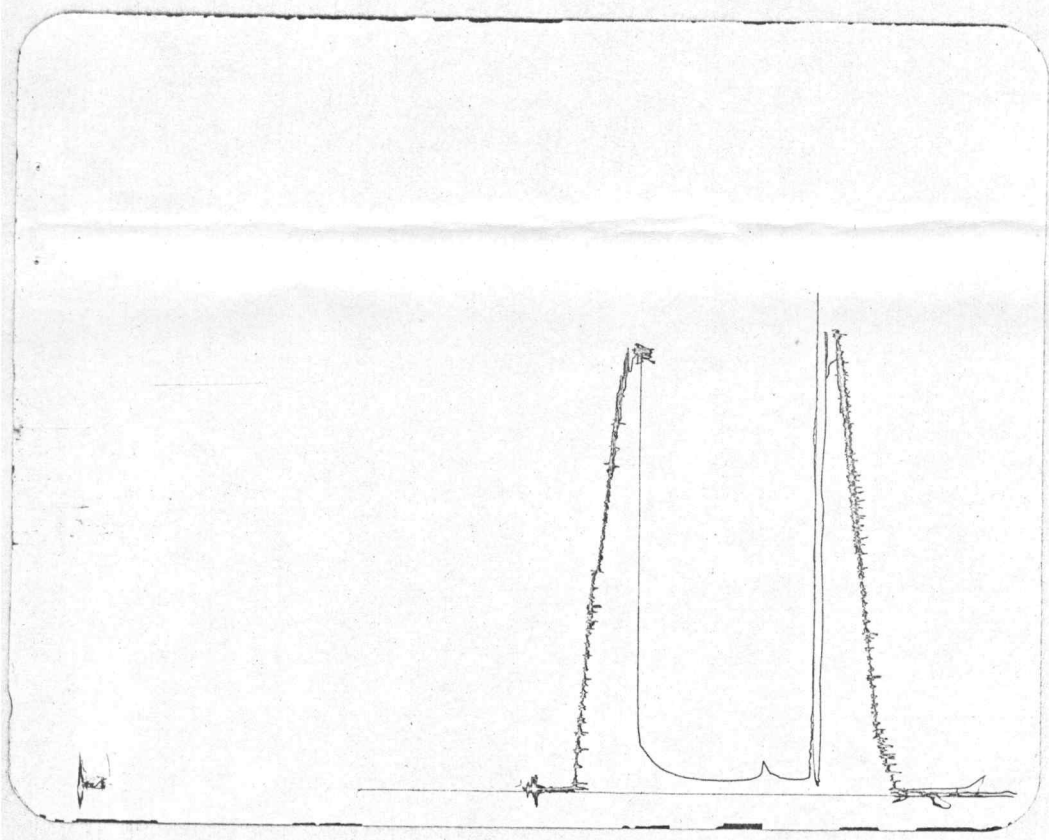
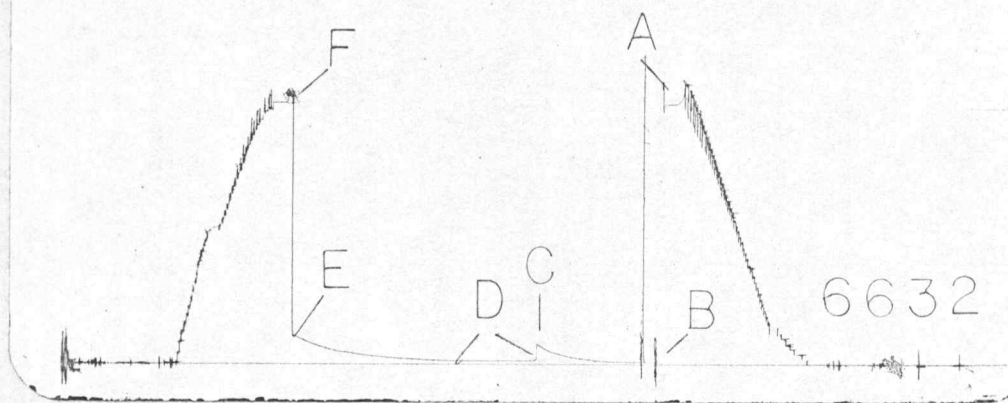
Chamber Pressure 35 psig _____

SAMPLER RECOVERY:

Total volume of fluid recovered 1700 CC
 Oil _____ CC
 Water 1700 CC
 Mud _____ CC
 Total volume of gas recovered _____ CF
 Gravity of oil _____ API @ _____ ° F
 Specific gravity of water _____ @ _____ ° F
 Chloride content 19,000 PPM as NA CL
 Resistivity of water _____ @ _____ ° F
 Resistivity of mud .3 @ 80 ° F
 Ph 8

PIT MUD FILTRATE:

Resistivity .28 @ 82 ° F
 Chloride content 19,500 PPM as NA CL



First Flow	30	Minutes	 BOMIN TESTING BOX 782 LIBERAL, KANSAS	Date	8-29-77
First CIP	60	Minutes		Ticket No.	6635
Second Flow	60	Minutes		DISTRICT	Liberal, KS
Second CIP	120	Minutes		Kind of Job	Open Hole
Depth Top Gauge	5515	Ft.	Blanked Off	No	CONTRACTOR Zenith Drilling Rig 6
Recorder No.	6014	12	Hr. Clock		HOLE & TOOL DATA
Pressure Readings	Field	Office Corrected			Elevation 2760 Top Packer Depth 5500
Initial Hydro Mud Pressure	A-2699	2676			Total Depth 5527 Bottom Packer Depth 5505
First Flow	B-34-51	17-24			Casing or Hole Size 7 7/8 Size & Type Wall Packer 6 3/4 BT
First CIP	C-136	123			Liner or Rathole Size Size Bottom Choke 1/2
Second Flow	D-51-51	27-31			Interval Tested 5505-5527 Size Surface Choke 1"
Second CIP	E-393	387			Formation Tested Atoka ID & Length 2 1/4 x 528 Drill Collars 4" H-90
Final Hydro Mud Pressure	F-2632	2629			Est. Gauge Depth Temp. 126 Size Drill Pipe 4 1/2 FH
Depth Bottom Gauge	5526	Ft.	Blanked Off	Yes	MUD DATA Weight 9.1 Viscosity 46
Recorder No.	2825	24	Hr. Clock		All depths measured from K.B. No. Folders Reproduced 7
Pressure Readings	Field	Office Corrected			REMARKS: Open tool 30 min for initial
Initial Hydro Mud Pressure					flow with good blow increasing to
First Flow					strong. No gas to surface. Close
First CIP					tool 60 min for ICIP. Open tool 60
Second Flow					min for final flow with good steady
Second CIP					blow. Gassy blow to surface in 30
Final Hydro Mud Pressure					min. Not enough for measurement.
Close tool 120 min for FCIP.					
Recovered	18	Feet of	oil & gas cut mud		
Recovered		Feet of			
Recovered		Feet of			
Recovered		Feet of			
Witnessed By	Dave Floyd				SEP 8 1977
Amount-Type of Cushion		Tester	Archie Farrand		GREAT BEND Division Office

 Headrick
 Lease Name

 1
 Well No.

 2
 Test No.

 Petroleum Inc.
 Lease Owner

 Liberal, KS
 Owners District

LOCATION 1-33-31W 2 NW-NW

FIELD S / Kismet

COUNTY Seward

STATE Kansas

5505-5527

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BOTTOM HOLE SAMPLER
ANALYSIS

Date 8-29-77 Ticket No. 6635
Company Petroleum, Inc.
Lease Headrick Well No. 1 State Kansas County Seward
Interval Tested 5505-5527 Net Pay _____ BHT 126
Recovery 18 feet of oil & gas cut mud

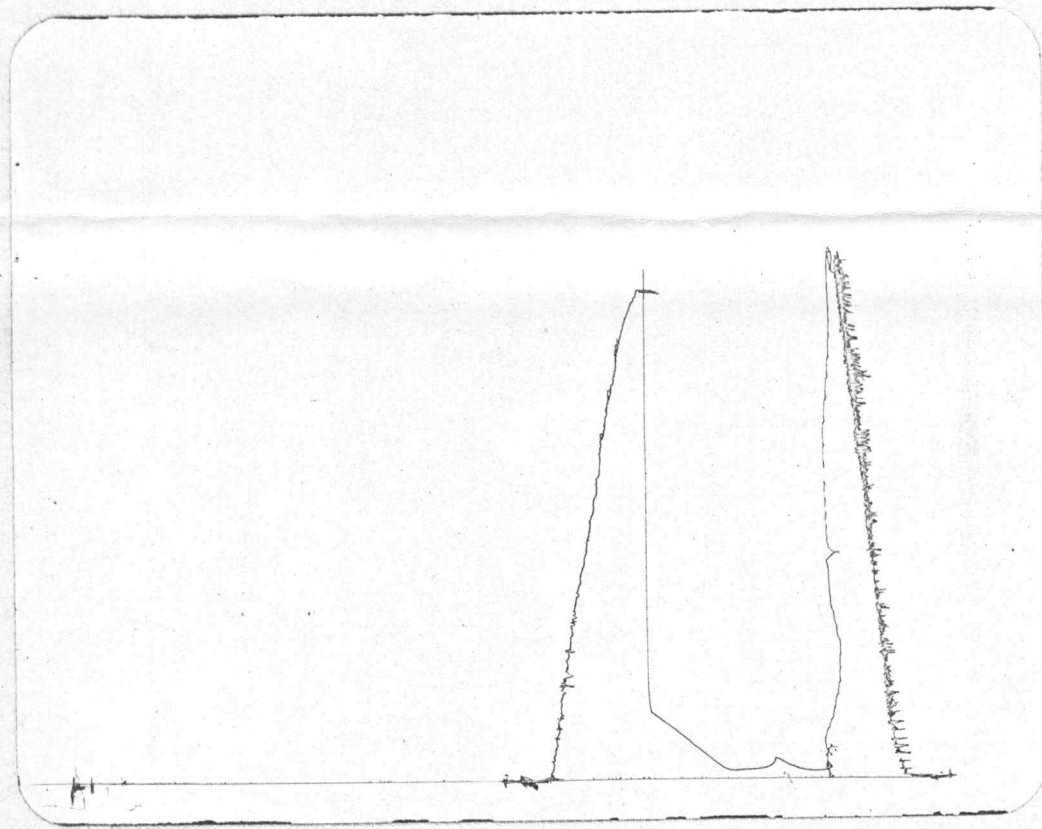
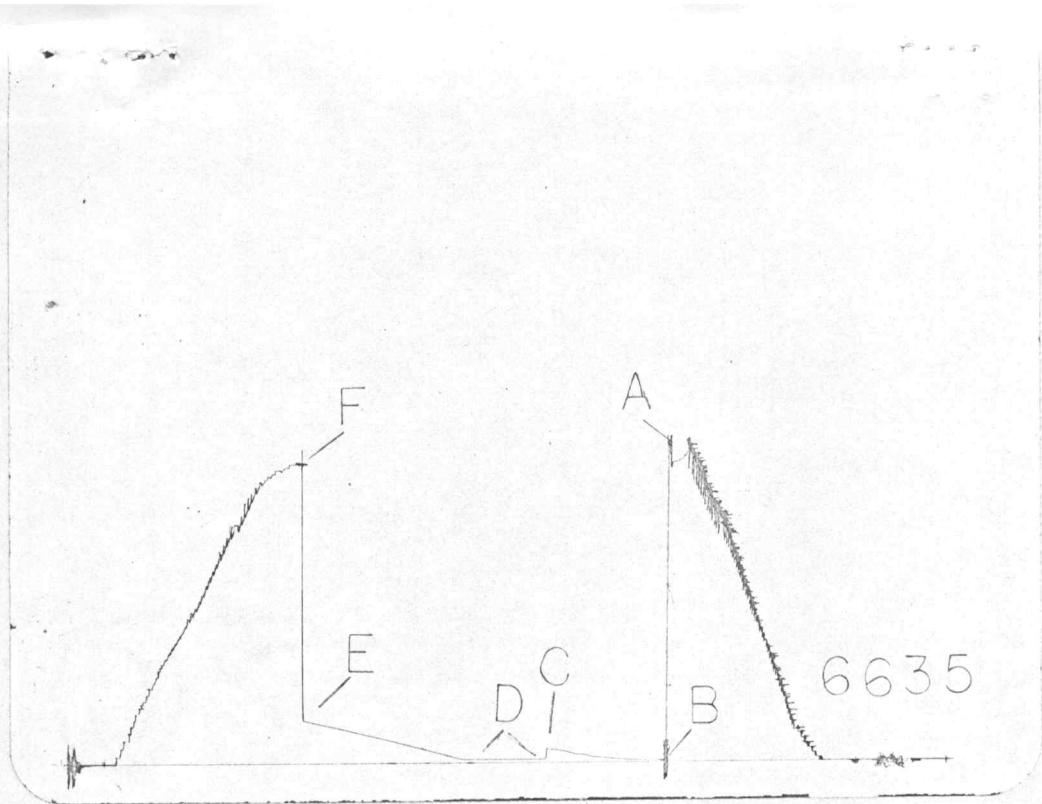
Chamber Pressure _____ psig _____

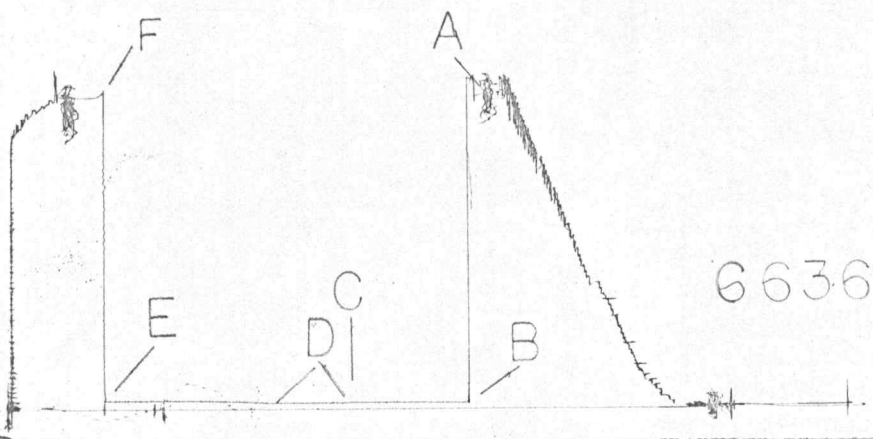
SAMPLER RECOVERY:

Total volume of fluid recovered 1400 CC
Heavy Oil cut 140 CC
Water _____ CC
Mud 1260 CC
Total volume of gas recovered trace CF
Gravity of oil _____ API @ _____ ° F
Specific gravity of water _____ @ _____ ° F
Chloride content 15,000 PPM as NA CL
Resistivity of water _____ @ _____ ° F
Resistivity of mud .4 @ 74 ° F
Ph 9

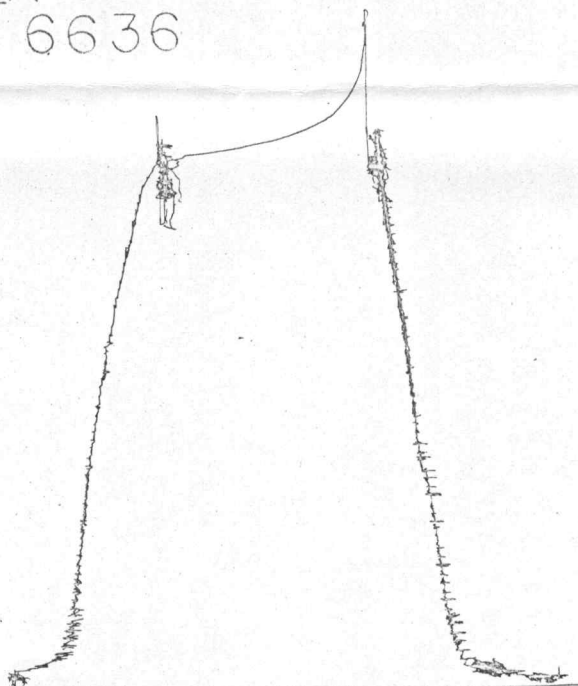
PIT MUD FILTRATE:

Resistivity .82 @ 72 ° F
Chloride content 9,000 PPM as NA CL





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6636



First Flow	30	Minutes	 BOMIN TESTING BOX 732 LIBERAL, KANSAS	Date	8-31-77	LOCATION 1-33-31W C NW-WW	FIELD S/Kismet	COUNTY Seward	STATE Kansas	Headricks Lease Name 1 Well No. 3 Test No. Petroleum, Inc. Lease Owner Liberal, KS Owners District
First CIP	60	Minutes		Ticket No.	6636					
Second Flow	60	Minutes		DISTRICT	Liberal, KS					
Second CIP	120	Minutes		Kind of Job	Straddle					
Depth Top Gauge	5512	Ft.	Blanked Off	No	CONTRACTOR	Zenith Drilling Co. # 6				
Recorder No.	6014		12	Hr. Clock	HOLE & TOOL DATA					
Pressure Readings	Field		Office Corrected		Elevation	2760	Top Packer Depth	5502-5507		
Initial Hydro Mud Pressure	A-2866		2773		Total Depth	5660	Bottom Packer Depth	5560		
First Flow	B-51-51		51-51		Casing or Hole Size	7 7/8	Size & Type Wall Packer	6 3/4 BT		
First CIP	C-85		58		Liner or Rathole Size		Size Bottom Choke	1/2"		
Second Flow	D-51-51		55-55		Interval Tested	5507-5560	Size Surface Choke	1"		
Second CIP	E-102		79		Formation Tested	Morrow	ID & Length Drill Collars	2 1/4 x 528 4" H-90		
Final Hydro Mud Pressure	F-2799		2732		Est. Gauge Depth Temp.	128	Size Drill Pipe	4 1/2 FH		
Depth Bottom Gauge	5659	Ft.	Blanked Off	Yes	MUD DATA Weight	9.2	Viscosity	45		
Recorder No.	2825		24	Hr. Clock	All depths measured from	K.B.	No. Folders Reproduced	7		
Pressure Readings	Field		Office Corrected		REMARKS: Open tool 30 min for initial					
Initial Hydro Mud Pressure					flow with good steady blow. No gas to					
First Flow					surface. Close tool 60 min for ICIP.					
First CIP					Open tool 60 min for final flow with					
Second Flow					good steady blow decreasing slightly.					
Second CIP					No gas to surface. Close tool 120					
Final Hydro Mud Pressure					min for FCIP.					
Recovered	10		Feet of	mud						
Recovered			Feet of							
Recovered			Feet of							
Recovered			Feet of							
Witnessed By	Dave Floyd				RECEIVED SEP 8 1977					
Amount-Type										

BOTTOM HOLE SAMPLER
ANALYSIS

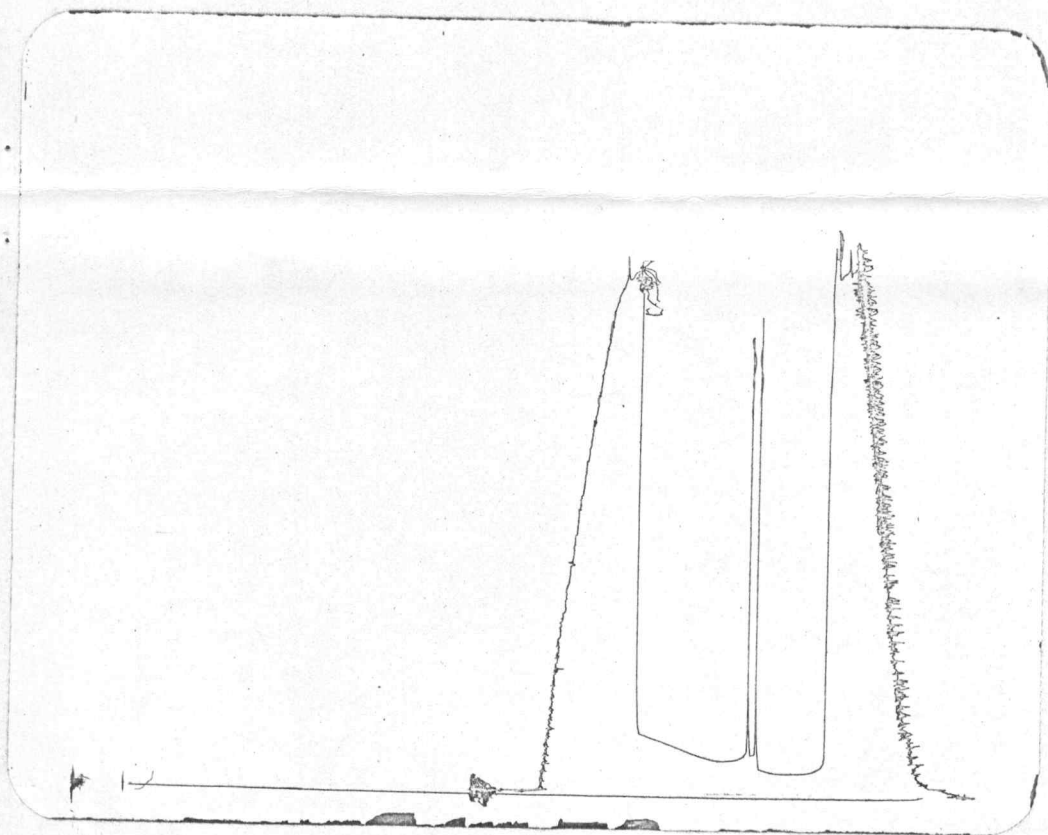
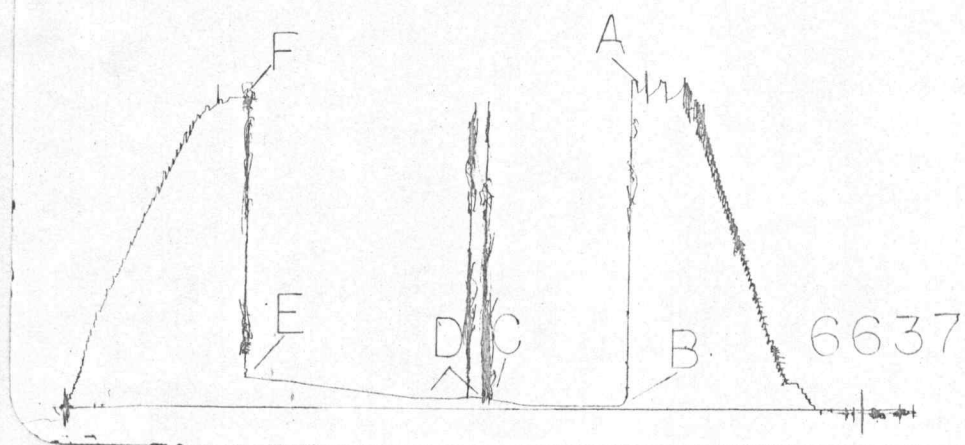
Date 8-31-77 Ticket No. 6636
Company Petroleum, Inc.
Lease Headrick Well No. 1 State Kansas County Seward
Interval Tested 5507-5560 Net Pay _____ BHT 128
Recovery 10 feet of mud
Chamber Pressure 39 psig _____

SAMPLER RECOVERY:

Total volume of fluid recovered 1625 CC
Oil _____ CC
Water _____ CC
Mud 1625 CC
Total volume of gas recovered _____ CF
Gravity of oil _____ API @ _____ ° F
Specific gravity of water _____ @ _____ ° F
Chloride content 8,000 PPM as NA CL
Resistivity of water _____ @ _____ ° F
Resistivity of mud .7 @ 78 ° F
Ph 9

PIT MUD FILTRATE:

Resistivity .8 @ 78 ° F
Chloride content 7,000 PPM as NA CL



First Flow	30	Minutes	 BOMIN TESTING BOX 782 LIBERAL, KANSAS	Date	9-1-77
First CIP	60	Minutes		Ticket No.	6637
Second Flow	60	Minutes		DISTRICT	Liberal, KS
Second CIP	120	Minutes		Kind of Job	Open hole
Depth Top Gauge	5670	Ft.	Blanked Off	No	CONTRACTOR Zenith Drilling Rig 6
Recorder No.	6014	12	Hr. Clock		HOLE & TOOL DATA
Pressure Readings	Field	Office Corrected			Elevation
Initial Hydro Mud Pressure	A-2899	2876			Top Packer Depth
First Flow	B-68-85	34-34			Bottom Packer Depth
First CIP	C-85	82			Size & Type Wall Packer
Second Flow	D-85-136	82-92			Size Bottom Choke
Second CIP	E-291	274			Interval Tested
Final Hydro Mud Pressure	F-2749	2819			Formation Tested
Depth Bottom Gauge	5771	Ft.	Blanked Off	yes	ID & Length Drill Collars
Recorder No.	2825	24	Hr. Clock		Size Drill Pipe
Pressure Readings	Field	Office Corrected			Est. Gauge Depth Temp.
Initial Hydro Mud Pressure					MUD DATA Weight
First Flow					All depths measured from
First CIP					No. Folders Reproduced
Second Flow					REMARKS: Open tool 30 min for preflow
Second CIP					with good blow increasing to strong.
Final Hydro Mud Pressure					No gas to surface. Close tool 60 min
					for ICIP. Open tool 60 min for final
					flow. No blow. Bypassed after 10
					min with fair blow. Bypassed after
					20 min with fair steady blow. Close
					tool 120 min for FCIP.
Recovered	187	Feet of			mud (slightly gas cut)
Recovered		Feet of			
Recovered		Feet of			
Recovered		Feet of			
Witnessed By	Bob Romme				
Amount-Type of Cushion		Tester	Archie Farrand		

Headricks

Lease Name

Well No. 1

Test No. 4

Petroleum, Inc.

Lease Owner

Liberal

Owners District

LOCATION 1-33-31W

C NW-4W

FIELD S/Kismet

COUNTY Seward

STATE Kansas

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BOTTOM HOLE SAMPLER ANALYSIS

Date 9-1-77 Ticket No. 6637
 Company Petroleum, Inc.
 Lease Headrick Well No. 1 State Kansas County Seward
 Interval Tested 5665-5772 Net Pay _____ BHT 129
 Recovery 187 feet of mud (slightly gas cut)

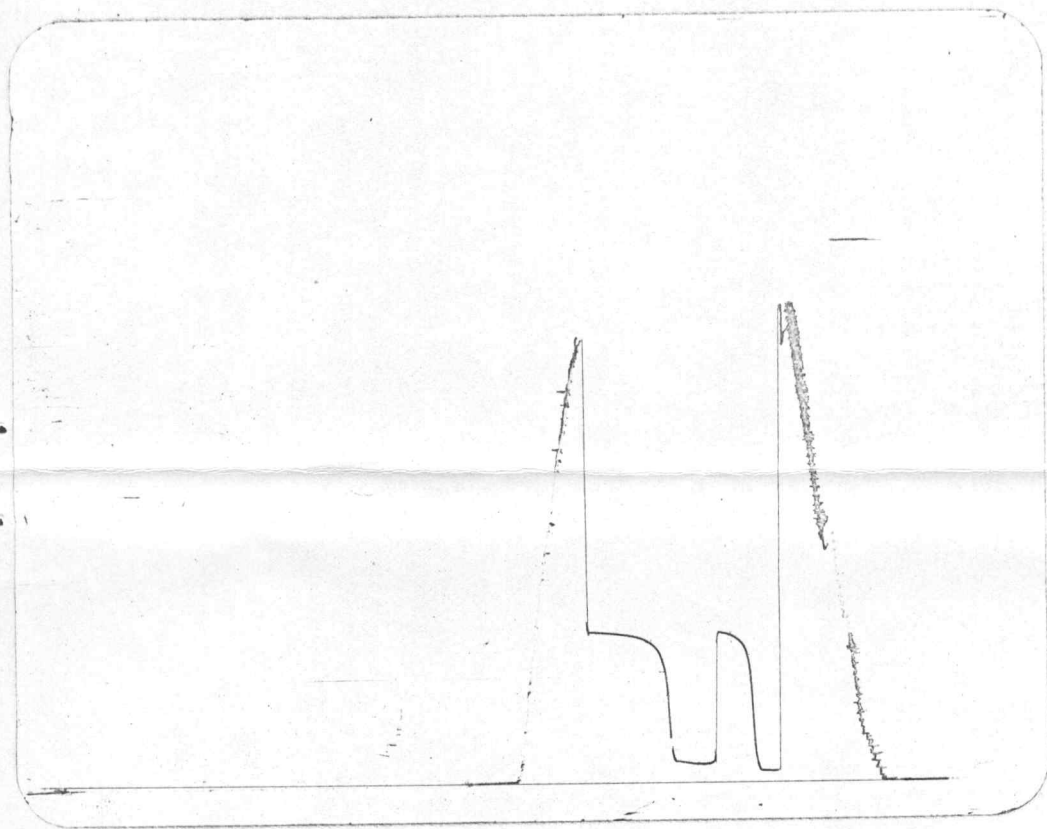
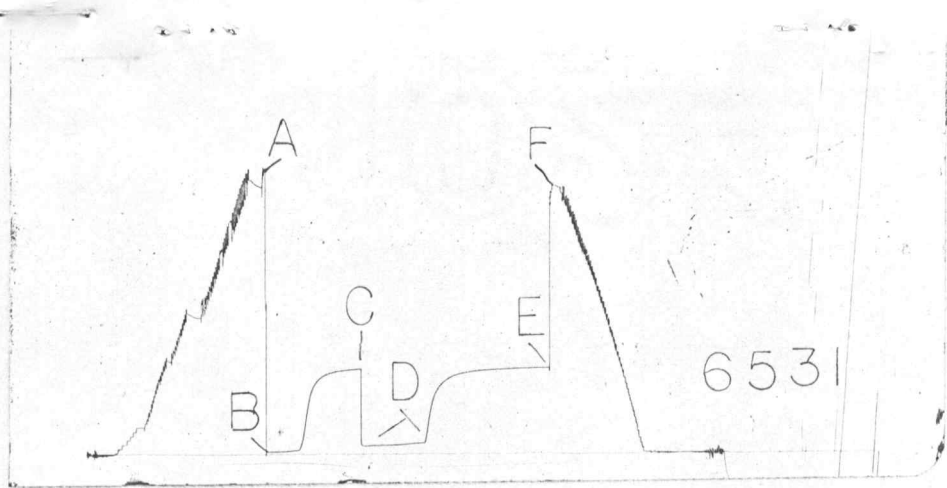
Chamber Pressure 112 psig _____

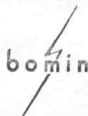
SAMPLER RECOVERY:

Total volume of fluid recovered 1350 CC
 Oil _____ CC
 Water _____ CC
 Mud 1350 CC
 Total volume of gas recovered trace CF
 Gravity of oil _____ API @ ° F
 Specific gravity of water _____ @ ° F
 Chloride content 6,000 PPM as NA CL
 Resistivity of water _____ @ _____ ° F
 Resistivity of mud .75 @ 74 ° F
 Ph 9

PIT MUD FILTRATE:

Resistivity .85 @ 76 ° F
 Chloride content 6,000 PPM as NA CL



First Flow	30	Minutes	 BOMIN TESTING BOX 782 LIBERAL, KANSAS	Date	9-4-77	LOCATION 1-33-31W C NW-NE	Headrick Lease Name Well No. 1 Test No. 5 Petroleum, Inc. Lease Owner Liberal, KS Owners District	
First CIP	60	Minutes		Ticket No.	6531			
Second Flow	60	Minutes		DISTRICT	Woodward, OK			
Second CIP	120	Minutes		Kind of Job	Open hole			
Depth Top Gauge	5934	Ft.	Blanked Off	No	CONTRACTOR Zenith Drilling Co.		FIELD S/Kismet COUNTY Seward STATE Kansas	
Recorder No.	K3 8526	12	Hr. Clock	HOLE & TOOL DATA				
Pressure Readings	Field	Office Corrected	Elevation	Top Packer Depth	5919			
Initial Hydro Mud Pressure	A-2924	2958	Total Depth	5944	Bottom Packer Depth	5924		
First Flow	B-41-62	33-50	Casing or Hole Size	7 7/8	Size & Type Wall Packer	6 3/4		
First CIP	C-937	925	Liner or Rathole Size	Size Bottom Choke	1/2"			
Second Flow	D-83-125	92-125	Interval Tested	5924-5944	Size Surface Choke	1"		
Second CIP	E-895	933	Formation Tested	St. Louis	ID & Length Drill Collars	2 1/2" 584'		
Final Hydro Mud Pressure	F-2861	2891	Est. Gauge Depth Temp.	129	Size Drill Pipe	4 1/2 FH		
Depth Bottom Gauge	5944	Ft.	Blanked Off	Yes	MUD DATA Weight	9.4		Viscosity
Recorder No.	K1 2257	24	Hr. Clock	All depths measured from	K.B.	No. Folders Reproduced	7	
Pressure Readings	Field	Office Corrected	REMARKS: Open tool for 30 min preflow					
Initial Hydro Mud Pressure	with strong blow. Close tool 60 min.							
First Flow	for ICIP. Open tool 60 min for a							
First CIP	final flow with strong blow. Close							
Second Flow	120 min for FCIP.							
Second CIP								
Final Hydro Mud Pressure								
Recovered	Feet of							
Recovered	Feet of							
Recovered	Feet of							
Recovered	Feet of							
Witnessed By	Bob Romme							
Amount-Type of Cushion	Tester Art Budig							

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BOTTOM HOLE SAMPLER ANALYSIS

Date 9-4-77 Ticket No. 6531
 Company Petroleum, Inc.
 Lease Headrick Well No. 1 State Kansas County Seward
 Interval Tested 5924-5944 Net Pay _____ BHT 129
 Recovery 1880' gas in drill pipe
176' oil & gas cut mud. 88' water
 Chamber Pressure 45 psig _____

SAMPLER RECOVERY:

Total volume of fluid recovered 1400 CC
 Oil trace CC
 Water 1400 CC
 Mud _____ CC
 Total volume of gas recovered trace CF
 Gravity of oil _____ API @ _____ ° F
 Specific gravity of water _____ @ _____ ° F
 Chloride content 78,000 PPM as NA CL
 Resistivity of water .1 @ 80 ° F
 Resistivity of mud _____ @ _____ ° F
 Ph _____

PIT MUD FILTRATE:

Resistivity .65 @ 80 ° F
 Chloride content 80 PPM as NA CL