

CHECK NO. 1

DATE \_\_\_\_\_

COMPANY: Cities Service Oil Co CONTRACTOR Gabbert-Jones

REPORT FOR MR. Deaney REPORT FOR MR. Danper

ADDRESS Great Bend ADDRESS Paratt, Rig

WELL NO. Rein A #5 LOCATION 531E Bazine COUNTY Ness TOTAL DEPTH \_\_\_\_\_

Last casing 8 7/8 in. @ 500 ft. Bit Size 7 7/8 in. Calculated Annular Velocity \_\_\_\_\_ Ft./min. Mud Cycle \_\_\_\_\_ Mi

CASING PROGRAM: Surface \_\_\_\_\_ in. @ \_\_\_\_\_ ft., Intermediate \_\_\_\_\_ in. @ \_\_\_\_\_ ft. Production \_\_\_\_\_ in. @ \_\_\_\_\_ ft.

Mud in Pits 350 Bbl. Mud in Hole 126 Bbl. Total Mud 476 Bbl. Circulating Press 400 # /in<sup>2</sup> Hydrostatic Pressure \_\_\_\_\_ # /in

Pumps: Make Natural Model C150 Size 6 1/4 x 12 Bbl./Stroke \_\_\_\_\_ Strokes/min. \_\_\_\_\_ Output \_\_\_\_\_ Bbls./min

Bit \_\_\_\_\_ Size \_\_\_\_\_ Make \_\_\_\_\_ Bit Type \_\_\_\_\_ Jet Size \_\_\_\_\_ Depth Out \_\_\_\_\_ Feet Drilled \_\_\_\_\_ Hours Run \_\_\_\_\_

Drill Pipe Size: \_\_\_\_\_ Wt. \_\_\_\_\_ T. J. Size \_\_\_\_\_ Type \_\_\_\_\_ Drill Collar Length \_\_\_\_\_ O. D. x ID. \_\_\_\_\_ x \_\_\_\_\_ Weight \_\_\_\_\_ 1000# RPM \_\_\_\_\_

Sample from: <input checked="" type="checkbox"/> Flowline <input type="checkbox"/> Pit <input type="checkbox"/>	Mud Properties		Mud	TOUR
Flowline Temperature _____ °F	Mud Type: <u>Salt</u>		Contains	TREATMENT
Time Sample Taken				Suggest: At approx 3200 Jet shale pit clean, add 40 bbls oil and 10 gal D-D
✓	1740			
	9.0			
	271			At approx 4100 1. Jet shale pi and reduce velocity
Viscosity (cps.) at _____ °F	<u>Native</u>			
Plastic Viscosity (cps.)				2. Add 100# Per at flow line over 1 circ before addin starch
Yield Point (lb./100 sq. ft.)	<u>Solids</u>			
Gel Strength—Initial (lb./100 sq. ft.)				3. Mix 35 sack Hy-lo-jel 5-i MIN per SAC
Gel strength 10 min. (lb./100 sq. ft.)	<u>a</u>		✓ Tandy 3	
pH—Strip <input type="checkbox"/> Beckman <input type="checkbox"/>		<u>Water</u>	✓	4. Add 10-12 bu on Mud up
Cake Thickness (32nd)				
P—Alkalinity (Pf)				At approx 425 1. Add 40 bbls oil & 10 gal
Salt— <input type="checkbox"/> ppm <input type="checkbox"/> gpg Chloride— <input type="checkbox"/> ppm <input type="checkbox"/> gpg		<u>4,000</u>		
P mud—c.c.			✓ Salt Gel	
Gyp (lb./bbl.) <input type="checkbox"/> Calcium—ppm <input checked="" type="checkbox"/>		<u>Light</u>	✓ L.C.M	
Solids Content (% by Vol.)			✓ Paces	
Sand Content (% by Vol.)				
Oil Content (% by Vol.)				
API HT-HP Water Loss (cc/30 min.)			✓	

REMARKS—Give operation, depth and nature of any problems encountered:

Daily Cost \_\_\_\_\_

Cumulative Cost \_\_\_\_\_

- Drilling (i) Suggest after starch & oil has been added.
- Salt Water flow (ii) 1. Maintain viscosity 40-45 sedgt
- Gas kick (ii) 2. Control weight 10.0-10.2 # gal with water
- Stuck pipe (ii) 3. Keep L.C.M in system 2-3 # Per Barrel
- Tight hole (ii) 4. Control water loss 10.0-12.0 cc with Hy-lo-jel
- Sloughing Shale (ii) 5. Keep hole full on trips
- Lost Returns (ii) 6. Mix all mud slow

Thanks

Dresser Magcobar Engineer.

Jim Wiesner

Phone 363-7957

Whse

363-8417

Address

Great Bend

CHECK NO. 2

 DATE 10-18-67

COMPANY: Cities Service Oil Co CONTRACTOR Gabbert-Jones  
 REPORT FOR MR. Devaney REPORT FOR MR. Johnson  
 ADDRESS Great Bend ADDRESS Great Bend  
 WELL NO. Rein A #5 LOCATION SSIE BAZINE COUNTY Nass TOTAL DEPTH \_\_\_\_\_ ft.  
 Last casing 8 5/8 in. @ 500 ft. Bit Size 7 7/8 in. Calculated Annular Velocity \_\_\_\_\_ Ft./min. Mud Cycle 95+ Min  
 CASING PROGRAM: Surface \_\_\_\_\_ in. @ \_\_\_\_\_ ft., Intermediate \_\_\_\_\_ in. @ \_\_\_\_\_ ft. Production \_\_\_\_\_ in. @ \_\_\_\_\_ ft.  
 Mud in Pits 350 Bbl. Mud in Hole 316 Bbl. Total Mud 666 Bbl. Circulating Press 600 # /in<sup>2</sup> Hydrostatic Pressure \_\_\_\_\_ # /in<sup>2</sup>  
 Pumps: Make National Model C150 Size 6 1/4 x 1 1/2 Bbl./Stroke .115 Strokes/min. 40 Output 6.90 Bbls./min  
 Bit 9 Size 7 7/8 Make SCC Bit Type 54T Jet Size \_\_\_\_\_ Depth Out 3694 Feet Drilled 337 Hours Run 14 3/4  
 Drill Pipe Size: 4 1/2 Wt. 16.60 T. J. Size \_\_\_\_\_ Type \_\_\_\_\_ Drill Collar Length \_\_\_\_\_ O. D. x I.D. \_\_\_\_\_ x \_\_\_\_\_ Weight \_\_\_\_\_ 1000# RPM 90

Sample from: Flowline <input checked="" type="checkbox"/> Pit <input type="checkbox"/>	Mud Properties	Mud Contains	TOUR TREATMENT
Flowline Temperature _____ °F	Mud Type: <u>Salt</u>		
Time Sample Taken <u>P.M. 3:15</u>	<u>3953</u>	<input checked="" type="checkbox"/>	<u>Suggest:</u>
<input checked="" type="checkbox"/>	<u>9.8</u>	<input checked="" type="checkbox"/>	<u>At 4100'</u>
	<u>28</u>		<u>1. Set shale pi</u>
Viscosity (cps.) at _____ °F			<u>cut out bac</u>
Plastic Viscosity (cps.)	<u>NATIVE</u>		<u>pit &amp; reduc</u>
Yield Point (lb./100 sq. ft.)			<u>volume</u>
Gel Strength—Initial (lb./100 sq. ft.)	<u>Solids</u>		<u>2. Raise viscosity</u>
Gel strength 10 min. (lb./100 sq. ft.)			<u>30-31 sec/qt</u>
pH—Strip <input type="checkbox"/> Beckman <input type="checkbox"/>	<u>6</u>	<input checked="" type="checkbox"/>	<u>with 5 Salt</u>
		<u>Totally 3</u>	<u>to 1 Magazine</u>
Cake Thickness (32nd)	<u>Water</u>	<input checked="" type="checkbox"/>	<u>3. Add 8 hulls</u>
P—Alkalinity (Pf)			<u>4. Add 100# Sta</u>
Salt— <input checked="" type="checkbox"/> ppm <input type="checkbox"/> gpg Chloride— <input checked="" type="checkbox"/> ppm <input type="checkbox"/> gpg	<u>7.4%</u>		<u>at flow line</u>
P mud—c.c.	<u>45,000</u>	<input checked="" type="checkbox"/>	<u>over 1 circ</u>
Gyp (lb./bbl.) <input type="checkbox"/> Calcium—ppm <input checked="" type="checkbox"/>	<u>Heavy</u>	<input checked="" type="checkbox"/>	<u>before addin</u>
Solids Content (% by Vol.)	<u>8%</u>	<input checked="" type="checkbox"/>	<u>starch</u>
Sand Content (% by Vol.)	<u>-</u>	<input checked="" type="checkbox"/>	<u>5. Mix 35 sack</u>
Oil Content (% by Vol.)	<u>Trace</u>	<input checked="" type="checkbox"/>	<u>Ny-Lu-del 5-</u>
API HT-HP Water Loss (cc/30 min.)	<u>-</u>	<input checked="" type="checkbox"/>	<u>MIN per sack</u>
<u>L.C.H - 1# Bbl - This check</u>		<input checked="" type="checkbox"/>	<u>At 4250 - Add</u>
			<u>40 bbls oil &amp;</u>

REMARKS—Give operation, depth and nature of any problems encountered:

 Daily Cost 10 gal 0-0

- Drilling @ 3953 Suggest after starch & oil has been added.  
 Salt Water flow @ 1. Maintain viscosity 40-45 sec/qt  
 Gas kick @ 2. Control weight 10.0-10.2 gnl with water  
 Stuck pipe @ 3. Control water loss 10.0-12.0 cc with Ny-Lu-del  
 Tight hole @ 4. Keep L.C.H in system 2-3# Per Barrel  
 Sloughing Shale @ 5. Keep hole full on taps  
 Lost Returns @ 6. Mix all mud slow

Cumulative Cost

Thanks

Dresser Magco Bar Engineer

Jim Wiesner

 Phone 353-7957

Where

353-8417

Address

Great Bend



CHECK NO. 4

 DATE 10-21-67

COMPANY: Citic's Service Oil Co CONTRACTOR Gabbent-James  
 REPORT FOR MR. Deunay REPORT FOR MR. Johnson  
 ADDRESS Great Bend ADDRESS Great Bend  
 WELL NO. Rein A#5 LOCATION SSIF Bazine COUNTY Ness TOTAL DEPTH \_\_\_\_\_  
 Last casing 8 1/2 in. @ 500 ft. Bit Size 7 7/8 in. Calculated Annular Velocity \_\_\_\_\_ Ft./min. Mud Cycle \_\_\_\_\_ Mi  
 CASING PROGRAM: Surface \_\_\_\_\_ in. @ \_\_\_\_\_ ft., Intermediate \_\_\_\_\_ in. @ \_\_\_\_\_ ft. Production \_\_\_\_\_ in. @ \_\_\_\_\_ ft.  
 Mud in Pits 175 Bbl. Mud in Hole 356 Bbl. Total Mud 531 Bbl. Circulating Press 500 # /in<sup>2</sup> Hydrostatic Pressure \_\_\_\_\_ # /in<sup>2</sup>  
 Pumps: Make National Model C150 Size 6 1/4 x 12 Bbl./Stroke .115 Strokes/min. 60 Output 6.9 Bbls./min  
 Bit 11 Size 7 7/8 Make Sec Bit Type H4N Jet Size \_\_\_\_\_ Depth Out 4223 Feet Drilled 213 Hours Run 16 3/4  
 Drill Pipe Size: 4 1/2 Wt. 16.60 T. J. Size \_\_\_\_\_ Type \_\_\_\_\_ Drill Collar Length \_\_\_\_\_ O. D. x I. D. \_\_\_\_\_ x \_\_\_\_\_ Weight \_\_\_\_\_ 1000# RPM 90

Sample from: Flowline <input checked="" type="checkbox"/> Pit <input type="checkbox"/>	Mud Properties		Mud Contains	TOUR TREATMENT
Flowline Temperature _____ °F	Mud Type: <u>SALT</u>			
Time Sample Taken	<u>A.M. 8:25</u>		<u>Salt Gel</u>	<u>As needed for viscosity</u>
_____ ft.	<u>4449</u>			
<input checked="" type="checkbox"/> Mud	<u>10.1</u>			
_____ ft.	<u>42</u>			
Viscosity (cps.) at _____ °F	<u>19</u>			
Plastic Viscosity (cps.)				
Yield Point (lb./100 sq. ft.)	<u>5</u>			
Gel Strength—Initial (lb./100 sq. ft.)	<u>4</u>			
Gel strength 10 min. (lb./100 sq. ft.)	<u>10</u>		<input checked="" type="checkbox"/>	<u>3</u> <u>Tourly</u>
pH—Strip <input checked="" type="checkbox"/> Beckman <input type="checkbox"/>	<u>6.6</u>			
_____	<u>10.4</u>			
Cake Thickness (32nd)	<u>2/32</u>			
P—Alkalinity (Pf)	<u>-</u>			
Salt— <input type="checkbox"/> ppm <input type="checkbox"/> gpg Chloride— <input type="checkbox"/> ppm <input type="checkbox"/> gpg	<u>9.2%</u>	<u>56,000</u>		
P mud—c.c.	<u>-</u>			
Gyp (lb./bbl.) <input type="checkbox"/> Calcium—ppm <input checked="" type="checkbox"/>	<u>Heavy</u>		<u>L.C.M - 2" Bbl - This check</u>	
Solids Content (% by Vol.)	<u>10%</u>			
Sand Content (% by Vol.)				
Oil Content (% by Vol.)	<u>1%</u>			
API HT-HP Water Loss (cc/30 min.)	<u>-</u>			
<u>Recs. .050" Bbl - This check</u>				

REMARKS—Give operation, depth and nature of any problems encountered:

Daily Cost

Cumulative Cost

- DST @ 4449 Suggest:
1. Maintain viscosity 40-45 sec/qt for D.S.T.
  2. Maintain viscosity 45-50 sec/qt for log
  3. Control weight 10.0 - 10.5 # gal
  4. Control water loss 10.0 - 12.0 cc with My-lo-Jel
  5. Keep L.C.M in system 2-3" Per Barrel
  6. Mix all mud slow

THANKS

Dresser Magcobar Engineer

Jim Wiesner

Phone

SW3-7957

Wbs:

SW3-8417

Address

Great Bend

DRILLING MUD REPORT

CHECK NO. 5 DATE 10-22-67

COMPANY: Cities Service Oil Co CONTRACTOR Gabbert-Jones  
 REPORT FOR MR. Devaney REPORT FOR MR. Johnson  
 ADDRESS Great Bend ADDRESS Great Bend  
 WELL NO. Rein A #5 LOCATION 551E Bazine COUNTY Ness TOTAL DEPTH \_\_\_\_\_ ft  
 Last casing 8 5/8 in. @ 500 ft. Bit Size 7 7/8 in. Calculated Annular Velocity \_\_\_\_\_ Ft./min. Mud Cycle \_\_\_\_\_ Min  
 CASING PROGRAM: Surface \_\_\_\_\_ in. @ \_\_\_\_\_ ft., Intermediate \_\_\_\_\_ in. @ \_\_\_\_\_ ft. Production \_\_\_\_\_ in. @ \_\_\_\_\_ ft  
 Mud in Pits 175 Bbl. Mud in Hole 357 Bbl. Total Mud 532 Bbl. Circulating Press 550 # /in<sup>2</sup> Hydrostatic Pressure \_\_\_\_\_ # /i  
 Pumps: Make National Model C150 Size 6 1/4 x 12 Bbl./Stroke 1115 Strokes/min. 60 Output 6.9 Bbls./mi  
 Bit 12 Size 7 7/8 Make Sec Bit Type M4N Jet Size \_\_\_\_\_ Depth Out 4449 Feet Drilled 226 Hours Run 16 3/4  
 Drill Pipe Size: 4 1/2 Wt 16.60 T. J. Size \_\_\_\_\_ Type \_\_\_\_\_ Drill Collar Length \_\_\_\_\_ O. D. x I.D. \_\_\_\_\_ x \_\_\_\_\_ Weight \_\_\_\_\_ 1000# RPM 90

Sample from: <input checked="" type="checkbox"/> Flowline <input type="checkbox"/> Pit <input type="checkbox"/>	Mud Properties		Mud Contains	TOUR TREATMENT
Flowline Temperature _____ °F	Mud Type: <u>Salt</u>			
Time Sample Taken <u>A.M. 6:15</u>	<u>4459</u>		<input checked="" type="checkbox"/> Salt	<u>As needed for viscosity</u>
<u>10.0</u>			<input type="checkbox"/> Asphaltenes	
	<u>43</u>		<input type="checkbox"/> Barite	
Viscosity (cps.) at _____ °F	<u>20</u>		<input type="checkbox"/> Magcobond	
Plastic Viscosity (cps.)	<u>5</u>		<input type="checkbox"/> Quebracho	
Yield Point (lb./100 sq. ft.)	<u>5</u>		<input type="checkbox"/> Spersene	
Gel Strength—Initial (lb./100 sq. ft.)	<u>6</u>		<input type="checkbox"/> T-20	
Gel strength 10 min. (lb./100 sq. ft.)	<u>13</u>		<input type="checkbox"/> Tannin	
pH—Strip <input checked="" type="checkbox"/> Beckman <input type="checkbox"/>	<u>6.8</u>		<input type="checkbox"/> Sulfur Soap	<u>Daily</u>
	<u>12.8</u>		<input type="checkbox"/> Wax	
Cake Thickness (32nd)	<u>2/32</u>		<input type="checkbox"/> Drill Solids	
P—Alkalinity (Pf)			<input type="checkbox"/> Silica	
Salt— <input checked="" type="checkbox"/> ppm <input type="checkbox"/> gpg Chloride— <input checked="" type="checkbox"/> ppm <input type="checkbox"/> gpg	<u>9.5%</u>	<u>58,000</u>	<input type="checkbox"/> Mud Solids	
P mud—c.c.			<input type="checkbox"/> Manganese	
Gyp (lb./bbl.) <input type="checkbox"/> Calcium—ppm <input checked="" type="checkbox"/>	<u>Heavy</u>		<input checked="" type="checkbox"/> L.C.M - 2 # Bbl - This check	
Solids Content (% by Vol.)	<u>9%</u>		<input checked="" type="checkbox"/> Pacs	<u>50 # Today</u>
Sand Content (% by Vol.)	<u>-</u>			
Oil Content (% by Vol.)	<u>Trace</u>			
API HT-HP Water Loss (cc/30 min.)	<u>-</u>			
<u>Pacs. Nil - This check</u>				

REMARKS—Give operation, depth and nature of any problems encountered: \_\_\_\_\_ Daily Cost \_\_\_\_\_

- Off-line @ 4459 Suggest!  
 Salt Water flow (i) 1. Maintain viscosity 48-50 sec/qt for D.S.T. + log  
 Gas kick (i) 2. Control weight 10.0 - 10.2 # gal  
 Stuck pipe (i) 3. Control water loss 10.0 - 12.0 cc with Hy-60-1el  
 Tight hole (i) 4. Keep L.C.M in system 2-3 # Per Barrel  
 Sloughing Shale (i) 5. Keep hole full on trips  
 Lost Returns (i) 6. Mix all mud slow

Thanks \_\_\_\_\_ Dresser Magcobar Engineer Jim Wisner Phone 543-7957  
 Wbs \_\_\_\_\_ Address Great Bend

CHECK NO. 6

DATE 10-22-67

COMPANY: Citias Service Oil Co CONTRACTOR Gabbant-Jonas  
 REPORT FOR MR. Deuaney REPORT FOR MR. Johnson  
 ADDRESS Garat Bend ADDRESS Garat Bend  
 WELL NO. Rein A #5 LOCATION SSIE BAZING COUNTY Nass TOTAL DEPTH \_\_\_\_\_  
 Last casing 8 7/8 in. @ 500 ft. Bit Size 7 7/8 in. Calculated Annular Velocity \_\_\_\_\_ Ft./min. Mud Cycle \_\_\_\_\_ Mi  
 CASING PROGRAM: Surface \_\_\_\_\_ in. @ \_\_\_\_\_ ft., Intermediate \_\_\_\_\_ in. @ \_\_\_\_\_ ft. Production \_\_\_\_\_ in. @ \_\_\_\_\_ ft.  
 Mud in Pits 175 Bbl. Mud in Hole 357 Bbl. Total Mud 532 Bbl. Circulating Press 550 # /in<sup>2</sup> Hydrostatic Pressure \_\_\_\_\_ # /i  
 Pumps: Make National Model C150 Size 6 1/4 x 12 Bbl./Stroke .115 Strokes/min. 60 Output 6.9 Bbls./m  
 Bit 12 Size 7 7/8 Make Sec Bit Type M4N Jet Size \_\_\_\_\_ Depth Out 4449 Feet Drilled 226 Hours Run 16 3/4  
 Drill Pipe Size: 4 1/2 Wt. 16.60 T. J. Size \_\_\_\_\_ Type \_\_\_\_\_ Drill Collar Length \_\_\_\_\_ O. D. x I.D. \_\_\_\_\_ x \_\_\_\_\_ Weight \_\_\_\_\_ 1000# RPM 90

Sample from: <input checked="" type="checkbox"/> Flowline <input type="checkbox"/> Pit	Mud Properties		Mud Contains	TOUR TREATMENT
Flowline Temperature _____ °F	Mud Type: <u>SALT</u>			
Time Sample Taken <u>A.M. 9:30</u>			<input checked="" type="checkbox"/> <u>SALT-Gel</u>	<u>As needed for viscosity</u>
Depth (ft.) <u>4459</u>				
Weight <input checked="" type="checkbox"/> _____	<u>10.0</u>			
Add Gradient _____				
Filter _____	<u>65</u>			
Viscosity (cps.) at _____ °F	<u>31</u>			
Plastic Viscosity (cps.)				
Yield Point (lb./100 sq. ft.)	<u>5</u>			
Gel Strength—Initial (lb./100 sq. ft.)	<u>9</u>			
Gel strength 10 min. (lb./100 sq. ft.)	<u>19</u>			
pH—Strip <input checked="" type="checkbox"/> Beckman <input type="checkbox"/>	<u>6.8</u>			<u>No treatment unless more hole is made</u>
Water loss (cc/30 min.)	<u>9.6</u>			
Cake Thickness (32nd)	<u>2/32</u>			
P—Alkalinity (Pf)				
Salt— <input checked="" type="checkbox"/> ppm <input type="checkbox"/> gpg Chloride— <input type="checkbox"/> ppm <input type="checkbox"/> gpg	<u>9.5%</u>	<u>53,000</u>		
P mud—c.c.				
Gyp (lb./bbl.) <input type="checkbox"/> Calcium—ppm <input checked="" type="checkbox"/>	<u>Heavy</u>			
Solids Content (% by Vol.)	<u>9%</u>			
Sand Content (% by Vol.)	<u>-</u>			
Oil Content (% by Vol.)	<u>Trace</u>			
API HT-HP Water Loss (cc/30 min.)	<u>-</u>			
<u>Pres. Nil - This check</u>				

REMARKS—Give operation, depth and nature of any problems encountered:

Drilling @ 4459 Suggest:

Salt Water flow @ 1. Maintain viscosity 48-50 sec/pt for D.S.T. & log

Gas kick @ 2. Control weight 10.0-10.2 # gal - No water

Stuck pipe @ 3. Control water loss 10.0-12.0 cc with Mj-60-Jel

Tight hole @ 4. Keep L.C.M. in system 2-3 # Per Barrel

Sloughing Shale @ 5. Keep hole full on trips

Lost Returns @ 6. Mix all mud slow

Thanks Six Winsner Phone 5W3-7957  
 Address Garat Bend

Whise 5W3-9417

DRILLING MUD REPORT

CHECK NO. 7

DATE 10-23-67

COMPANY: Cities Service Oil Co CONTRACTOR Gabbert-Jones

REPORT FOR MR. Deunney REPORT FOR MR. Johnson

ADDRESS Great Bend ADDRESS Great Bend

WELL NO. Rein A #5 LOCATION 551E Bazine COUNTY Ness TOTAL DEPTH \_\_\_\_\_

Last casing 8 5/8 in. @ 500 ft. Bit Size 7 7/8 in. Calculated Annular Velocity \_\_\_\_\_ Ft./min. Mud Cycle \_\_\_\_\_ M

CASING PROGRAM: Surface \_\_\_\_\_ in. @ \_\_\_\_\_ ft., Intermediate \_\_\_\_\_ in. @ \_\_\_\_\_ ft. Production \_\_\_\_\_ in. @ \_\_\_\_\_

Mud in Pits 175 Bbl. Mud in Hole 357 Bbl. Total Mud 532 Bbl. Circulating Press 530 # /in<sup>2</sup> Hydrostatic Pressure \_\_\_\_\_ # /

Pumps: Make National Model C150 Size 6 1/4 x 12 Bbl./Stroke 115 Strokes/min. 60 Output 6.9 Bbls./r

Bit 12 Size 7 7/8 Make Sec Bit Type H4N Jet Size \_\_\_\_\_ Depth Out 4449 Feet Drilled 226 Hours Run 16 3/4

Drill Pipe Size: 4 1/2 Wt 16.60 T. J. Size \_\_\_\_\_ Type \_\_\_\_\_ Drill Collar Length \_\_\_\_\_ O. D. x I.D. \_\_\_\_\_ x \_\_\_\_\_ Weight \_\_\_\_\_ 1000# RPM 90

Sample from: Flowline <input checked="" type="checkbox"/> Pit <input type="checkbox"/>	Mud Properties		Mud Contains	TOUR TREATMENT
Flowline Temperature _____ °F	Mud Type: <u>Salt</u>			
Time Sample Taken <u>A.M</u>	<u>12:50</u>		<input checked="" type="checkbox"/> <u>Magbar Gel</u>	<u>As needed for viscosity</u>
	<u>4459</u>		<input type="checkbox"/> MagcoGel	
	<u>9.6</u>		<input type="checkbox"/> High Yield Clay	
	<u>48</u>		<input type="checkbox"/> Magcophos	
Viscosity (cps.) at _____ °F	<u>24</u>		<input type="checkbox"/> Quebracho	
Plastic Viscosity (cps.)	<u>5</u>		<input type="checkbox"/> Coersene	
Yield Point (lb./100 sq. ft.)	<u>5</u>		<input type="checkbox"/> KP-20	
Gel Strength—Initial (lb./100 sq. ft.)	<u>9</u>		<input type="checkbox"/> TannAthrin	
Gel strength 10 min. (lb./100 sq. ft.)	<u>19</u>		<input type="checkbox"/> Caustic Soda	
pH—Strip <input checked="" type="checkbox"/> Beckman <input type="checkbox"/>	<u>6.8</u>		<input checked="" type="checkbox"/> Ny-Lo-Jel	<u>No treatment</u>
	<u>11.6</u>		<input type="checkbox"/> Magco CMC	
Cake Thickness (32nd)	<u>2/32</u>		<input type="checkbox"/> Dr Tube <input type="checkbox"/> D-D	cans
P—Alkalinity (Pf)			<input type="checkbox"/> Galnex	cans
Salt— <input type="checkbox"/> ppm <input type="checkbox"/> gpg Chloride— <input type="checkbox"/> ppm <input type="checkbox"/> gpg	<u>9.5%</u>	<u>58,000</u>	<input type="checkbox"/> Nur Plug	sx
P mud—c.c.			<input type="checkbox"/> Magco-Misc	sx
Gyp (lb./bbl.) <input type="checkbox"/> Calcium—ppm <input checked="" type="checkbox"/>	<u>Heavy</u>		<input checked="" type="checkbox"/> <u>L.C.M-2" Bbl</u>	<u>This check</u>
Solids Content (% by Vol.)	<u>8%</u>			
Sand Content (% by Vol.)	<u>-</u>			
Oil Content (% by Vol.)	<u>1%</u>			
API HT-HP Water Loss (cc/30 min.)	<u>-</u>			
<u>Pres Nil - This check</u>				

REMARKS—Give operation, depth and nature of any problems encountered: Mud mixed

Daily Cost \_\_\_\_\_  
Cumulative Cost \_\_\_\_\_

- Drilling @ 4459 Suggest:
- Salt Water flow @ 1. Maintain viscosity 48-50 sec/qt for log
- Gas kick @ 2. Control weight 10.0 - 10.2 # gal - No water
- Stuck pipe @ 3. Control water loss 10.0 - 12.0 cc with Ny-Lo-Jel
- Tight hole @ 4. Keep L.C.M in system 2-3" Per Barrel
- Sloughing Shale @ 5. Keep hole full on trips
- Lost Returns @ 6. Mix all mud slow

Thanks Jin Wisner Phone 3W3-7957  
Whoe 3W3-8417 Address Great Bend