

KULP 1-33

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January 25, 1983 Drilling 7-7/8" hole @ 4175' (685'/24 hrs.); 1m & sh.
Mud wt. 8.9# - vis 34 - pv 3 - yp 4 - gels 1/3 - pH 8.5 -
Cl 3000 ppm - solids 3.4% - LCM 3#.
Bit #3: 1906'/58½ hrs.
23 hrs. drlg. - 1 hr. svc rig & conn.
DMC \$761.00 TMC \$8465.00 TWC \$119,778.00

January 26, 1983 Drilling 7-7/8" hole @ 4720' (545'/24 hrs.) 1m & sh.
Mud wt. 9# - vis 35 - yp 12 - pv 5 - gels 10/11 - pH 8.5 -
Cl 3500 - solids 5.6 - LCM 3#.
Bit #3: 2451'/82-3/4 hrs.
22½ hrs. drlg. - 1/2 hr. circ. for samples @ 4320' - 3/4
hr. circ. for samples @ 4385' - 1/2 hr. rig svc & conn.
DMC \$903.00 TMC \$9368.00 TWC \$127,125.00

January 27, 1983 Drilling 7-7/8" hole @ 5080' (360'/24 hrs.); fm - 1m & sh.
Mud wt. 8.9 ppg - vis 35 - pv 3 - yp 9 - gells 4/8 - pH
8.5 - Cl 3000 ppm - solids 4.2% - LCM 3 ppb.
Bit #3: (2811'/104 hrs.)
21½ hr. drlg., 1-3/4 hr. circ. for samples @ 5078', 1 hr.
rig svc & conn.
DMC \$957.00 TMC \$10,325.00 TWC \$132,537.00

January 28, 1983 Drilling 7-7/8" hole @ 5366' (286'/24 hrs.); 1m & sh.
Mud wt. 8.9# - vis 36 - pv 6 - yp 12 - gels 7/16 - WL
15 cc - pH 9 - Cl 3000 - solids 3.8 - LCM 3#.
Bit #3: out @ 5197' - cut 2928'/110½ hrs. - deviation
1/2° @ 5197'.
Bit #4: 7-7/8" Smith F-3 re-run; in @ 5197' - cut 169'/
14 hrs.
19-3/4 hr. drlg. - 3-3/4 hr. trip - 1/2 hr. svc. rig &
conn.
DMC \$778.00 TMC \$11,103.00 TWC \$136,974.00

January 29, 1983 5680' RTD; CON for DST #1 (314'/24 hrs); 1m, sh &sd
mud wt 9.0# vis 43 - PV9 - YP7 - gels 3/4 - WL 11cc -
PH9 - cl 4000 ppm - solids 3.4% - LCM 3#
bit #4: cut 483'/34 hrs - out @ 5680'
20 hrs drlg - 2 hrs circ for DST - 1 hr trip out for DST -
1 hrssvc rig & conn.
DMC \$1220 - TMC \$12,323 TWC 142,755.00

January 30, 1983 drlg 7 7/8" hole @ 5800' (120'/24 hrs); 1m & sh
½° @ 5680'
mud wt 9.0# - vis 40 - PV18 YP12 - gels 4/9 - WL 10.2cc -
ph 9.5 - cl3500 - solids 4.7% - LCM 3#
bit #5 - 7 7/8" Smith F-3 Re-run - in @ 5680' - cut
120'/10 3/4 hrs
10 3/4 hrs drlg - 4 1/2 hrs testing - 8 1/4 hrs trips -
1/4 hr circ OB after DST - 1/4 hr SVC rig & conn
DMC \$667.00 TMC \$12,685.00

DST #1
DST #1 in Chester fr 5613' - 5680' (30/60/60/120); good
strong blow on both openings. Rec 30' drlg mud.

January 30, 1983
(cont.)

Pressures:	Initial	Final
HP	2678#	2646#
FP	49# - 33#/30min	33# - 33#/60 min
SIP	1179#/60 min	1539#/120 min
		TWC \$149,997.00

January 31, 1983

6000' RTD; running logs (200'/24 hrs); 1m &sh - mud wt 9# - vis 48 - PV10 - YPB - g₁s2/4 - WL 9.5cc - ph 9.5 - cl 3000 - solids 3.8% - LCM 3#
bit #5 cut 320'/27½ hrs
16½ hrs drlg - 2 hrs circ for logs - 2 hrs trip - 2½ hrs log - 1 hr SVC rig & conn
DMC \$811 - TMC \$13,496 TWC \$154,773

February 1, 1983

Logs

6000' RTD; Welox ran dual induction guard log fr 5987' to 1609' and CNL-FDC w/ GR-Caliper fr 5985' to 2500'; log T.D. 5987'; WOO; SD due to weather.
TMC \$13,496.00 TWC \$167,673.00

February 2, 1983

6000' RTD; SD due to weather.
TMC \$13,496.00 TWC \$172,473.00

February 3, 1983

6000' RTD; running DST #3 fr 4290' to 4316' @ report time.
Mud properties: same as 1/31/83.
TMC \$13,496.00 TWC \$182,273.00

DST #2

Ran DST #2 fr 5916' to 5952' (St.Louis); op 20, SI 60, op 40, SI 90 minutes; 1st op, wk blo; 2nd op, good blo off bottom of bucket, NGTS; IH 2857#, IFP 33 to 49#, ISIP 1768#, FFP 49 to 49#, FSIP 1768#, FH 2857#; rec. 4610' free gas, 20' OCM & 70' oil; BHT 110° F.

February 4, 1983

6030' RTD (30'/24 hrs); prep to cmt 4½" prod csg @ report time.
mud properties: same as 1/31/83.
TMC \$13,496.00 TWC \$208,750.00

Not covered by cement

DST #3

Ran DST #3 fr 4290' to 4316' (Toronto); op 30, SI 60, op 60, SI 120 minutes; 1st op, had GTS 2½ min, qgd 59.9 mcf/d decreasing to 59.2 mcf/d; 2nd op, qgd 59.2 mcf/d decreasing to 19.9 mcf/d; IH 1997#, IFP 557 to 754#, ISIP 869#, FFP 836 to 885#, FSIP 885#, FH 1997#; BHT 106°F; rec 1850' SW.

RIH following DST #3 & drilled 30 feet of rathole fr 6000 to 6030'; conditioned hole & mud, and LD DP; ran 144 jts, 4½"-10.5#, ST & C, 8rd, J-55, API csg; tally 6032.44', set csg @ 6030', PBD 5987'; prepare to cement 4½" csg w/270 sx of self stress II cmt @ report time.

February 5, 1983

6030' RTD; WOC @ report time.

Dowell cemented 4 1/2" - 10.5# production csg @ 6030' w/270 sx Self Streets II cement and displaced w/fresh water, PD @ 11: a.m., 2/4/83; float held; set csg slips & released rig @ 12: p.m., 2/4/83.

TWC \$215,470.00

March 2, 1983

TDC

RU Gearhart Wireline & ran CBL-GR-CCL cased hole logs fr 5979' back to 4250', correlated cased hole logs to GR on FDC-CNL open hole log; found TDC @ 4836' with an excellent bond log indicated fr 5979' to 4836'; RD & NO Gearhart; wait on completion tools.

TWC \$213,814.00

March 3, 1983

Prepare to MIRUCT this p.m.

TWC \$218,814.00

March 4, 1983

MIRUCT, Patrick Well Service; installed 4 1/2", Hercules A-7, female tbq. head; unloaded 188 jts., 2-3/8"-4.7#, FUE, 8 rd, tbq., tally - 5981.94'; RIH SN and 188 jts. of tbq. to 5986'; SD for day.

TWC \$232,482.00

March 5, 1983

Perf

PBD 5987'; circulated hole clean thru OE tbq. @ 5986' w/ 100 bbls. of 2% KCl water; swabbed tbq. & csg. down to 2000' & POOH w/ tbq.; RU Gearhart Wireline & perf St. Louis "B" fr 5926' to 5940', 2 jspf (20 holes) & 5946 to 5956', 2 jspf (21 holes) w/ a 3-1/8" csg. gun, FL remained unchanged @ 2400'; RIH a Baker Model-R packer & API SN on 185 jts. of tbq., set pkr @ 5896'; ran tbq. swab, FL @ 2000', rec. 15 bbls. of 2% KCl water and 1/4 BO w/ good sho of gas ahead of swab; the last swab run to SH was dry; SION; prep. to az this a.m.

TWC \$238,231.00

March 6, 1983

Acidize

PBD 5987'; SITP 40#/SI 15 hrs., FL @ 5200'; made two swab runs to SN @ 5896', rec. 3 BO, the second swab run was dry; RU Howco to tbq. & az St. Louis "B" w/ 3600 gal. of 15% HCl containing 8 gal. of 3 N, 4 gal. of 5 N & 8 gal. of HAI-75 plus 60 BS; displaced acid w/ 23 bbls. of 2% KCl water; formation break down 2750#, max. press. 2900#, AIR 5 1/2 BPM @ ATP 2700#, ISIP 100#, 5 min SI 75#, 10 min. SI 25#, 15 min. SI 0#; 109 BLTR; swabbed tbq. 3 hrs. after acidizing and rec. 42 BLW plus 6 BO, SD to wait on swab tank; RU test tank & swabbed 4 1/2 hrs., rec. 7 BLW & 21 BO; swabbed 7 BF the last hour (90% oil), FL @ 5600'; SION.

Note: Total swab results after acidizing - 49 BLW & 27 BO, 60 BLTR.

TWC \$243,290.00

- March 7, 1983 No report - SD for Sunday, 3/6/83.
This a.m. - SITP 160#, FL @ 2100'; rec. 6 BF on first swab run (95% oil).
- March 8, 1983 PBD 5987'; SITP 160#/SI 37½ hrs., FL @ 2100'; swabbed 10 hrs., rec. 42 BO & 13 BLW, 37 BLTR; swabbed 3 BOPH the last 2 hrs., FL @ 5000'; SION.
TWC \$244,945.00
Oil analysis: 25.3° API gravity @ 60° F.
This a.m. - SITP 65#/SI 13 hrs., FL @ 2300'; rec. 6 BF on first swab run (95% oil).
- March 9, 1983 PBD 5987'; SITP 65#/SI 14½ hrs., FL @ 2300'; swabbed 9 hrs., rec. 32 BO & 43 BLW; swabbed 4 BOPH the last 2 hrs. FL @ 5200'. SION.
TWC 246,610.00
- March 10, 1983 SITP 60#, SICP 90#/SI 14-1/2 hrs., FL @ 4200'; POOH w/ tbg. & pkr; RIH - 2-3/8" x 14' mud anchor, 2-3/8" x 3' perf. tbg. sub, API SN, 2 jts. of 2-3/8" tbg., 2-3/8" x 4-1/2" tbg. anchor catcher, 185 jts. of 2-3/8" tbg.; set tbg. anchor catcher @ 5897' and SN @ 5961'; flanged up well head w/ 12000# tension on tbg. string; RIH - 2" x 1-1/4" x 16 Harbison Fisher, bottom hold down pump w/ 1" x 12' gas anchor, 160 - 3/4" x 25' plain rods, 76 - 3/4" x 25' scraped rods, 3/4" x 8' pony rod, 1-1/4" x 16' polish rod w/ 1-1/2" O.D. x 9' polish rod liner; seated pump & checked pump action; RD & MO Patrick Well Service.
TWC \$257,963.00
Note: Tank battery & pumping unit pads are completed.
- March 11, 1983 Sold 75 bbls. of oil, fr test tank, to Panhandle Sales and released test tank; SI awaiting installation of production equipment.
- March 31, 1983 Production equipment is installed and the lease electrified; began pumping well @ 2:00 p.m., 3/30/83; left well pumping overnight; P/40 BO & 18 BLW in the last 19 hrs.
TWC \$307,500.00

April 1, 1983 P/33 B0 in the last 24 hrs. & 13 BW; took water sample to Howco for analysis.
Water analysis: SpGr 1.126; Cl 108,585 mp1; Ca 9,639 mp1; Fe (hvy); SO₄ (none); pH 7.1; Rw .070 @ 65⁰ F.

April 2, 1983 P/ 25 B0 & 6 BSW in the last 24 hrs.

April 5, 1983 P/ 36 B0 & 24 BSW in the last 72 hrs.

April 6, 1983 P/ 10 B0 & 6 BSW in the last 24 hrs.

April 7, 1983 F/ 32 B0 & 12 BSW in the last 24 hrs.

April 8, 1983 P/ 12 B0 & 6 BSW in the last 24 hrs.

April 9, 1983 P/13 B0 & 6 BSW in the last 24 hrs.

April 10, 1983 P/ 12 B0 & 6 BSW in the last 24 hrs.

April 11, 1983 P/ 12 B0 & 6 BSW in the last 24 hrs.

April 12, 1983 P/ 12 B0 & 6 BSW in the last 24 hrs.

April 13, 1983 P/ 12 B0 & 6 BSW in the last 24 hrs.

April 14, 1983 P/ 8 B0 & 2 BW in the last 24 hrs.

April 15, 1983 P/ 12 B0 & 6 BSW in the last 24 hrs.

April 16, 1983 P/ 10 B0 & 6 BSW in the last 24 hrs.

April 20, 1983 MI RU Bruce Well Service; POOH - rods, pump & tbq.; SD for day; prep. to frac this a.m.

April 21, 1983 RU Gearhart Wireline and set CIRP on wireline @ 5943'; RU Howco to frac thru csg. w/ 20,000 gallons of gelled 2% KCl water plus 25,000# of 20-40 sand and displaced w/ 4000 gal. of 2% KCl water as follows; CIBP

FVILC

1. P/5000 gal. gelled Pad containing 250# of Adomite Aqua (fluid loss)
2. P/5000 gal. gell containing 250# Adomite Aqua w/ 1 ppg sand,
3. P/10000 gal. gell containing 2 ppg sand,
4. Displaced w/ 4000 gal. 2% KCl water;

max. press. 400#, ATP 320# @ AIR 10 BPM, ISIP 170#, 5 min. SI 100#, 10 min. SI & 15 min. SI 80#; 571 BLTR; SION.

CIBP 5943

- April 22, 1983 SICP 0#/SI 16 hrs., RU sand pump on sand line, found 133' of fillup on top CIBP @ 5943'; cleaned out approx. 100' of sand fillup; SD for darkness & SION.
- April 23, 1983 SICP 0#/ SI 14 hrs., FL @ 1100'; ran sand pump and cleaned out approx. 40' of sand down to top of CIBP @ 5943'; SD for rig repairs 6½ hrs. & SD for day.
- April 24, 1983 SICP 0#/SI 14 hrs., FL @ 1100'; ran sand line drill to knock out CIBP to bottom; was unable to drill out CIBP due to sand coming in on top of CIBP; SD for day.
- April 25, 1983 SD for Sunday, 4/24/83.
- April 26, 1983 Ran tubing w/ bit to approx. 5930' - attempted to circulate - would not circulate after pumping 35 bbls. water - picked up to 5900' - started swabbing tubing w/ FL @ 1300' - picked up again to 5867' when started getting some sand. Swabbed 8 hrs. - rec. 130 BLW w/ tr oil - FL @ 4700' @ 8:00 p.m. when SD for night; 441 BLTR.
- April 27, 1983 Very light blow on tubing and casing @ 7:00 a.m., 4/26/83. Ran tubing swab - FL @ 2600'. Swabbed 3½ hrs. - rec. 70 BLW to pit w/ oil inc to 10% - 15% - turned fluid to stock tank. Swabbed 6 hrs. more - rec. 13 BO in stock tank and 35 BLW in water tank. SD @ 7:00 p.m. w/ FL @ 4400' - pulling swab fr 5400' - small gas show. 336 BLTR.
- April 28, 1983 SITP 75#, SICP 150# - found approx. 3' sand fillup on top bridge plug. POOH w/ tubing string and bit. Ran sand pump - recovered sand. Ran sand line drill - worked on bridge plug - recovering metal and rubber from plug - moved plug down hole 3' when sand started coming in again - started running sand pump again. Should be able to get plug pushed to bottom and run pumping string today.
- April 29, 1983 Have drilled thru upper slips, packing and brass rings - unable to move plug any more. It appears we are at top of bottom cone. Recovering rubber, brass and iron from body and slips - will attempt to finish by noon - if not, will run tubing, rods and pump - start pumping well. SD 2-1/2 hrs. - rig fuel problems.
- April 30, 1983 SICP 50#/ 14 hrs. Ran sand line drill - rec. small amount iron and sand. Changed over to sand pump - recovered sand but sand still coming in after 7 hrs. Metal recovered indicates only junk pusher on bottom of plug remains.

Drill out BP

April 30, 1983
(continued)

Ran tubing string:

2 jts. 2-3/8" open ended
2-3/8" anchor catcher
API SN @ 5897' ✓
183 jts. 2-3/8" tubing

OK
5962 - bottom of tubing

May 1, 1983

*Ran tubing
+ pump*

Ran 2" x 1 1/2" x 16' bottomhold down pump w/ gas anchor,
157 - 3/4" x 25' plain rods, 76 - 3/4" x 25' scraped
rods, 8', 6', 2' x 3/4" plain rod subs and 2-3/4" x 2'
scraped rods subs. Hung well on beam - started pumping
at 11:00 a.m., 4/30/83.

May 3, 1983

P/23 B0 - 123 BLW - 24 hrs.; CP 30#, 70 BLTR.

May 4, 1983

P/22 B0 - 56 BLW - 24 hrs., CP 30#, 14 BLTR.

analysis

Water analysis by Halliburton: SG 1.116 - pH 7 - Iron
moderate - Cl 96,133 mpI - Ca 7925 mpI - Res. .072 @ 70° -
sulfates moderate - mixture of formation and treating water.

May 5, 1983

P/25 B0 - 53 BW - 24 hrs.; CP 30# - all load recovered.
Put on time clock; 4 hrs. on - 4 hrs. off.

Water analysis by Halliburton: SG 1.120 - Iron light -
pH 6.5 - Cl 104,102.9 mpI - Calcium 7,711 mpI - sulfates
light - Res. .066 @ 77° F.

May 6, 1983

P/13 B0 - 27 BW - 12 hrs. pumping time - 30# on casing -
switched back to full time pumping.

May 7, 1983

P/28 B0 & 53 BSW in the last 24 hrs.

May 8, 1983

P/26 B0 & 53 BSW in the last 24 hrs.

Kulp 1-33
 C. N. E. N. E. S. W.
 Sec 33-32S-31W
 Seward County, KS
 Elev: 2793 KB
 2781 GL
 API No 15-175-20,679
 Drilled 1983

3/8 @
 520

3/8 @
 1608

Tubing
 32.22' / Jt
 176 Jts =
 5671'

Tubing string:
 2 Jts 2 3/8" open ended
 2 3/8" Anchor - catcher
 SN @ 5897
 183 Jts 2 3/8" tubing

5897
 64
 3

 5964 (bottom of string)

Rod string
 2 x 1 1/4" x 16' BHD w/ gas and
 157 - 3/4 x 25' plain rods
 76 - 3/4 x 25' scraper rods
 Pumping 4/30/83

≡ St Louis 5926 - 5940 (2 SPF)

≡ St Louis 5946 - 5956 (2 SPF)

DST #1: Chester 5613 - 568
 Rec 30' dry mud

DST #2: St Louis ...
 5916 - 5952

ISIP: 1768 #

FSIP: 1768 #

Rec 4610' free gas - 20' oil
 70' oil

DST #3 - Toronto - Rec 1850' SW

5987' PBD

RTD 6030'

4 1/2" 10.50 #
 @ 6030'

? L# 12/3/91