

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name CORKE #1 Test No. 1 Date 11/20/92
Company CASTLE RESOURCES, INC. Zone LANSING "C&D"
Address 1200 E.27th HAYS KANSAS 67601 Elevation 2645
Co. Rep./Geo. TERRY WILLIAMSON Cont. EMPHASIS RIG #8 Est. Ft. of Pay _____
Location: Sec. 21 Twp. 9S Rge. 26W Co. SHERIDAN State KS

Interval Tested 3938-3975 Drill Pipe Size 4.5 XH
Anchor Length 37 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3933 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3938 Mud Wt. 9.2 lb/Gal.
Total Depth 3975 Viscosity 48 Filtrate 12

Tool Open @ 9:25 PM Initial Blow FAIR TO STRONG BLOW - BOTTOM OF BUCKET IN 12 MINUTES

Final Blow FAIR TO STRONG BLOW - BOTTOM OF BUCKET IN 13 MINUTES

Recovery - Total Feet 682 Flush Tool? NO

Rec. 124 Feet of MUDDY WATER-80%WTR/20%MUD
Rec. 558 Feet of SALT WATER
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 112 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.14 @ 64 °F Chlorides 78000 ppm Recovery Chlorides 5000 ppm System

(A) Initial Hydrostatic Mud 1912.3 PSI AK1 Recorder No. 13278 Range 4400

(B) First Initial Flow Pressure 41.2 PSI @ (depth) 3972 w / Clock No. 22993

(C) First Final Flow Pressure 185.9 PSI AK1 Recorder No. 10248 Range 4400

(D) Initial Shut-in Pressure 1140.6 PSI @ (depth) 3967 w / Clock No. 30410

(E) Second Initial Flow Pressure 205.8 PSI AK1 Recorder No. _____ Range _____

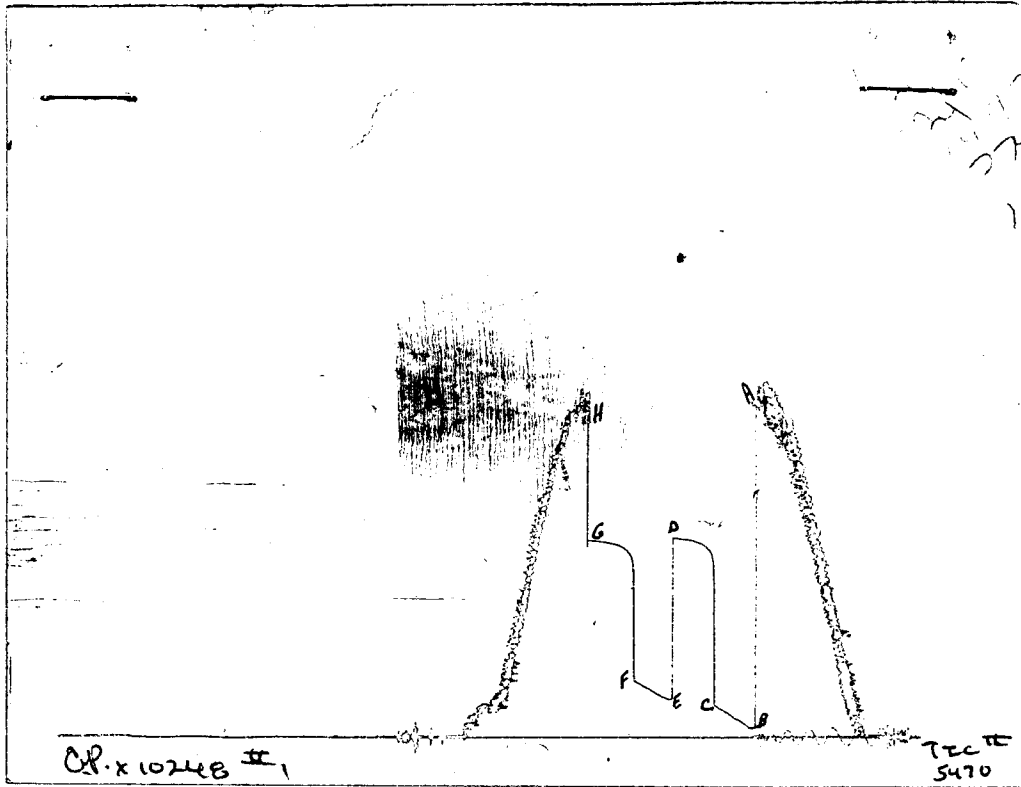
(F) Second Final Flow Pressure 320.6 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1131.4 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1890.7 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative GARY PEVOTEAUX

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1909	1912.3
(B) FIRST INITIAL FLOW PRESSURE	37	41.2
(C) FIRST FINAL FLOW PRESSURE	184	185.9
(D) INITIAL CLOSED-IN PRESSURE	1137	1140.6
(E) SECOND INITIAL FLOW PRESSURE	204	205.8
(F) SECOND FINAL FLOW PRESSURE	317	320.6
(G) FINAL CLOSED-IN PRESSURE	1128	1131.4
(H) FINAL HYDROSTATIC MUD	1887	1890.7

Test Ticket

No 5470

Well Name & No. CORKE #1 Test No. 1 Date 11-20-92
 Company CASTLE RESOURCES Zone Tested LAWS C&D
 Address 1200 E. 21TH ST. STE. C HAYS KS 67601 Elevation 2645 K.B. COR.
 Co. Rep./Geo. TERRY WILLIAMSON Cont. EMPHASIS OIL COR. #8 Est. Ft. of Pay _____
 Location: Sec. 21 Twp. 9S Rge. 20W Co. SHERIDAN State KS
 No. of Copies 5 Distribution Sheet _____ Yes _____ No _____ Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested 3938 - 3975' Drill Pipe Size 4 1/2" X.H.
 Anchor Length 37' Top Choke - 1" Bottom Choke - 3/4"
 Top Packer Depth 3933' Hole Size - 7 7/8" Rubber Size - 6 3/4"
 Bottom Packer Depth 3938' Wt. Pipe I.D. - 2.7 Ft. Run NONE
 Total Depth 3975' Drill Collar - 2.25 Ft. Run NONE
 Mud Wt. 9.2 lb/gal. Viscosity 48 Filtrate 12.0 cc.
 Tool Open @ 9:25 PM. Initial Blow Fair to Strong below (liter of bucket in 12 mins)
 Final Blow Fair to Strong below. (liter of bucket in 13 mins)

Recovery - Total Feet 682' Feet of Gas In Pipe NONE Flush Tool? No

Rec.	Feet Of	%gas	%oil	%water	%mud
<u>124'</u>	<u>M.W.</u>		<u>80</u>	<u>20</u>	
<u>558'</u>	<u>SALT WATER</u>		<u>98</u>	<u>2</u>	

BHT 112 °F Gravity N.A. °API @ _____ °F Corrected Gravity N.A. °API
 RW 0.14 @ 64 °F Chlorides 78,000 ppm Recovery Chlorides 5,000 ppm System
 (A) Initial Hydrostatic Mud 1909 PSI Ak1 Recorder No. 13278 Range 4400
 (B) First Initial Flow Pressure 37 PSI @ (depth) 3972' w/Clock No. 22993
 (C) First Final Flow Pressure 184 PSI AK1 Recorder No. 10248 Range 4400
 (D) Initial Shut-in Pressure 1137 PSI @ (depth) 3967' w/Clock No. 30410
 (E) Second Initial Flow Pressure 204 PSI AK1 Recorder No. _____ Range _____
 (F) Second Final Flow Pressure 317 PSI @ (depth) _____ w/Clock No. _____
 (G) Final Shut-in Pressure 1128 PSI Initial Opening 30 Test
 (H) Final Hydrostatic Mud 1887 PSI Initial Shut-in 30 Jars _____

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Final Flow 30 Safety Joint _____
 Final Shut-in 30 Straddle _____
 Circ. Sub _____
 Sampler _____
 Extra Packer _____
 Other _____
 TOTAL PRICE \$ ✓ 600.00

Approved By Terry Williamson
 Our Representative Gary Twintars

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name CORKE #1 Test No. 2 Date 11/21/92
Company CASTLE RESOURCES, INC. Zone LANSING "K&L"
Address 1200 E.27th HAYS KANSAS 67601 Elevation 2645
Co. Rep./Geo. TERRY WILLIAMSON Cont. EMPHASIS RIG #8 Est. Ft. of Pay _____
Location: Sec. 21 Twp. 9S Rge. 26W Co. SHERIDAN State KS

Interval Tested 4090-4160 Drill Pipe Size 4.5 XH
Anchor Length 70 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4085 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 4090 Mud Wt. 9.2 lb/Gal.
Total Depth 4160 Viscosity 50 Filtrate 9.6

Tool Open @ 10:36 PM ^{Initial} Blow FAIR TO STRONG BLOW - BOTTOM OF BUCKET IN 11 MINUTES

Final Blow FAIR TO STRONG BLOW - BOTTOM OF BUCKET IN 23 MINUTES

Recovery - Total Feet 155 Flush Tool? NO

Rec. 402 Feet of GAS IN PIPE
Rec. 55 Feet of CLEAN OIL-5%GAS/95%OIL
Rec. 100 Feet of GSY MUD CUT OIL-15%GAS/50%OIL/35%MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 114 °F Gravity 33 °API @ 61 °F Corrected Gravity 33 °API
RW _____ @ _____ °F Chlorides 5000 ppm Recovery Chlorides 5000 ppm System

(A) Initial Hydrostatic Mud 1998.3 PSI AK1 Recorder No. 13278 Range 4400

(B) First Initial Flow Pressure 72.1 PSI @ (depth) 4157 w / Clock No. 22993

(C) First Final Flow Pressure 93.6 PSI AK1 Recorder No. 10248 Range 4400

(D) Initial Shut-in Pressure 371.0 PSI @ (depth) 4152 w / Clock No. 30410

(E) Second Initial Flow Pressure 105.6 PSI AK1 Recorder No. _____ Range _____

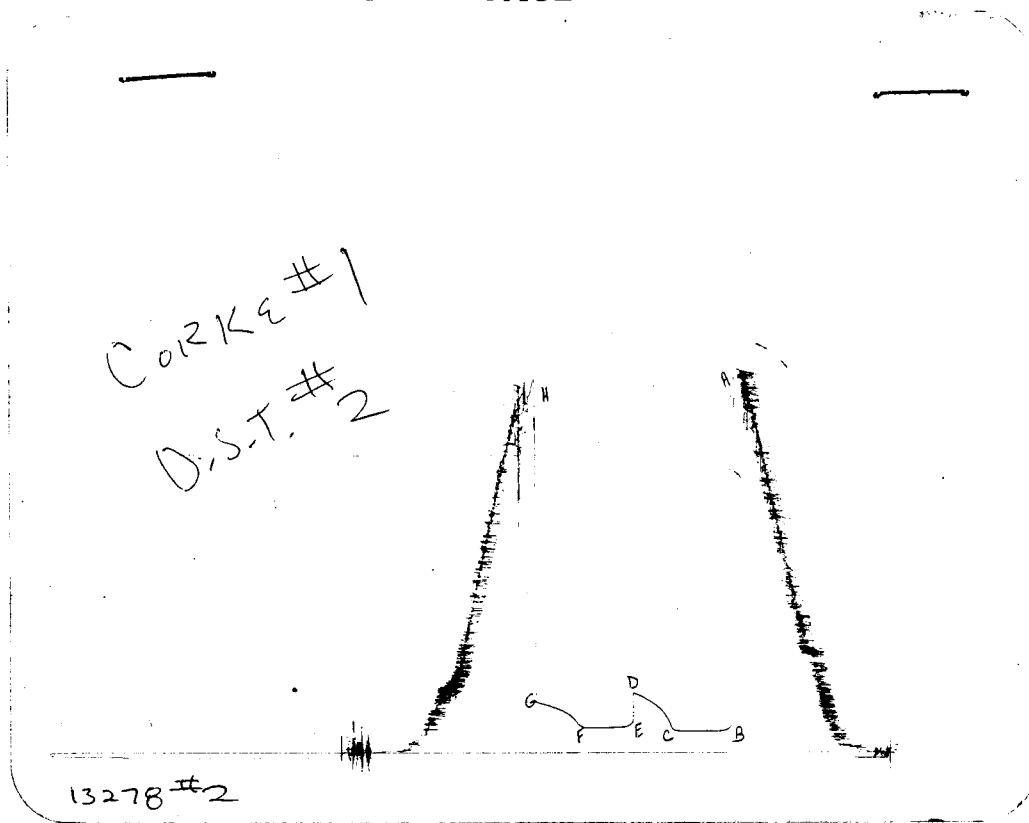
(F) Second Final Flow Pressure 115.8 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 309.9 PSI Initial Opening 35 Final Flow 35

(H) Final Hydrostatic Mud 1988.6 PSI Initial Shut-in 35 Final Shut-in 35

Our Representative GARY PEVOTEAUX

CHART PAGE

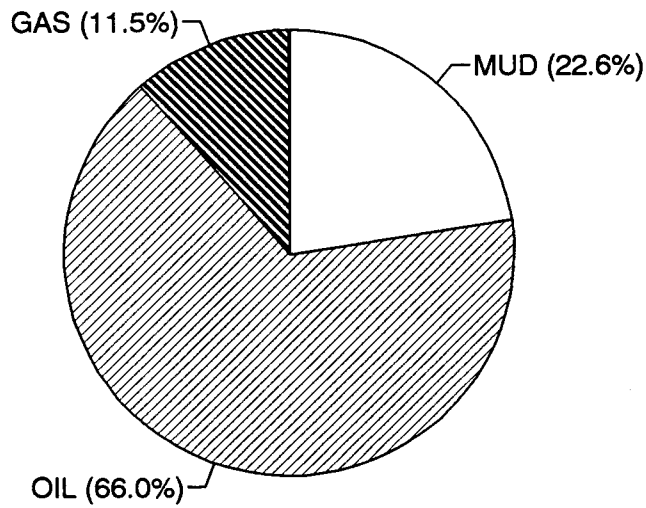


This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1994	1998.3
(B) FIRST INITIAL FLOW PRESSURE	62	72.1
(C) FIRST FINAL FLOW PRESSURE	82	93.6
(D) INITIAL CLOSED-IN PRESSURE	366	371
(E) SECOND INITIAL FLOW PRESSURE	95	105.6
(F) SECOND FINAL FLOW PRESSURE	105	115.8
(G) FINAL CLOSED-IN PRESSURE	310	309.9
(H) FINAL HYDROSTATIC MUD	1985	1988.6

DST #	CALCULATED RECOVERY ANALYSIS					DRILL	PIPE		
	2						TICKET	5471	
SAMPLE #	TOTAL FEET	GAS %	FEET	OIL %	FEET	WATER %	FEET	MUD %	FEET
1	55	5	2.75	95	52.25	0	0	0	0
2	100	15	15	50	50	0	0	35	35
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	155	11.451613	17.75	66	102.25	0	0	22.6	35

			HRS	BBL/DAY
BBL OIL=	1.453995	*	1.05	33.234
BBL WATER=	0	*		0
BBL MUD=	0.4977			
BBL GAS	0.252405			



CORKE #1
INITIAL

DST #1
SHUTIN
30 TOTAL FLOW TIME

Slope 428.84 psi/cycle
P * 492 psi

TIME(MIN)	Pws (psi)	Log Horn T	(PRESSURE) Horn T
3	173.4	1.041	173.4	11
6	218.2	0.778	44.8	6
9	250.1	0.637	31.9	4
12	275.9	0.544	25.8	4
15	294.7	0.477	18.8	3
18	313.5	0.426	18.8	3
21	328.7	0.385	15.2	2
X 24	340.5	0.352	11.8	2
27	351.1	0.325	10.6	2
30	361.6	0.301	10.5	2
X 33	371.1	0.281	9.5	2

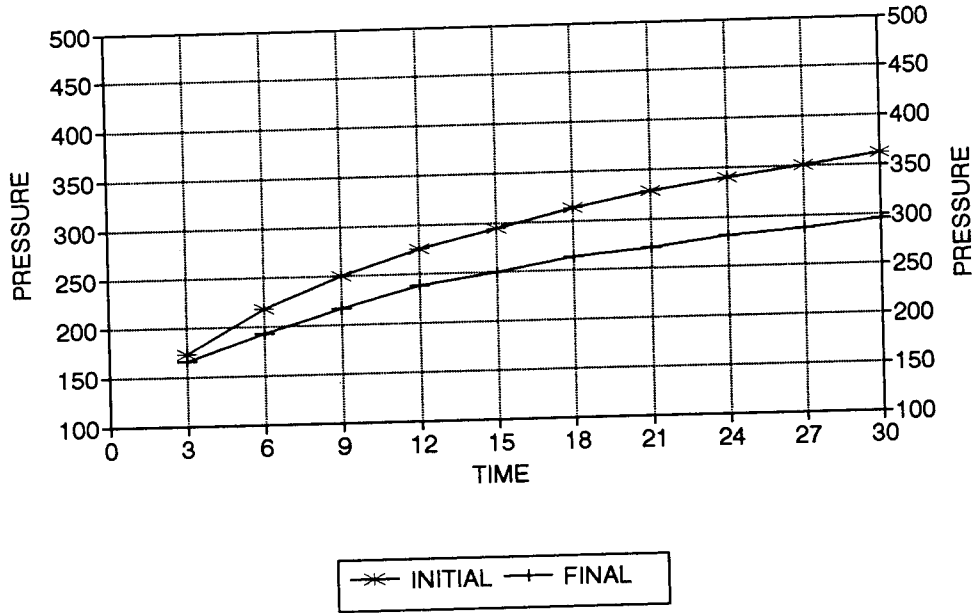
CORKE #1
FINAL

DST #2
SHUTIN
60 TOTAL FLOW TIME

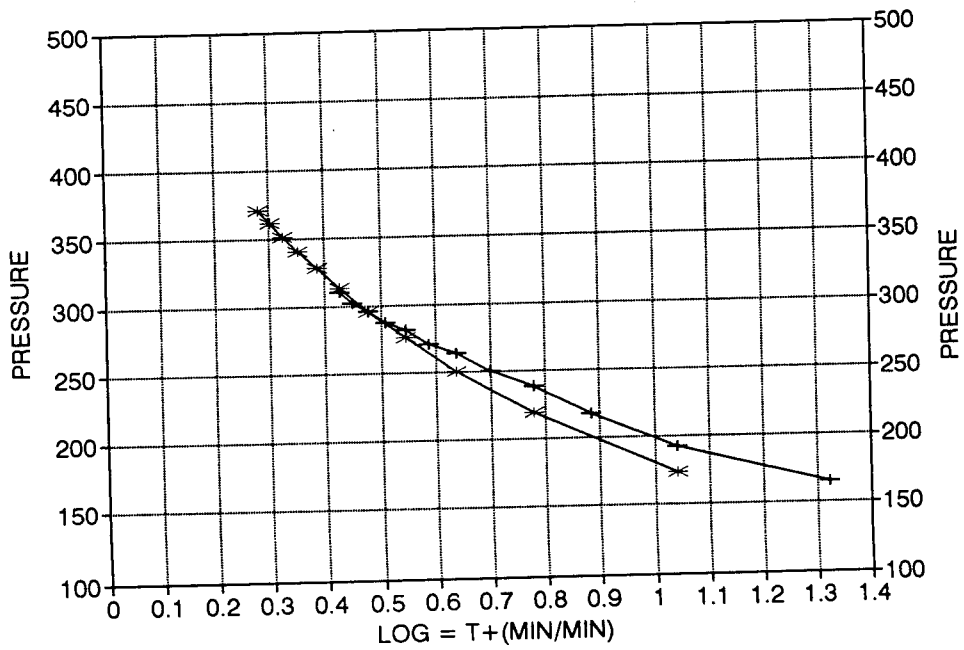
Slope 275.65 psi/cycle
P * 427 psi

	Pws (psi)	Log Horn T	(PRESSURE) Horn T
3	165.1	1.322	165.1	21
6	192.2	1.041	27.1	11
9	217.1	0.885	24.9	8
12	238.2	0.778	21.1	6
15	250.1	0.699	11.9	5
18	264.1	0.637	14.0	4
21	271.1	0.586	7.0	4
24	281.7	0.544	10.6	4
27	287.6	0.508	5.9	3
X 30	295.8	0.477	8.2	3
33	301.7	0.450	5.9	3
X 36	309.9	0.426	8.2	3

CORKE #1 / DST #2 DELTA T DELTA P



HORNER PLOT



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 5471

Well Name & No. <u>CORKE # 1</u>	Test No. <u>2</u>	Date <u>11-21-92</u>
Company <u>CASTLE RESOURCES</u>	Zone Tested <u>LOW. K&L</u>	
Address <u>1200 E. 27TH SUITE C HAYS KS. 67601</u>	Elevation <u>2645 K.B. EST.</u>	
Co. Rep./Geo. <u>TERRY WILLIAMSON</u>	cont. <u>EMPHASIS OIL CORP. INC.</u>	Est. Ft. of Pay _____
Location: Sec. <u>21</u>	Twp. <u>9S</u>	Rge. <u>26W</u> Co. <u>SHERIDAN</u> State <u>KS.</u>
No. of Copies <u>5</u>	Distribution Sheet _____	Yes _____ No _____ Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested <u>4090' - 4160'</u>	Drill Pipe Size <u>4 1/2" K.H.</u>
Anchor Length <u>70'</u>	Top Choke - 1" <input checked="" type="checkbox"/> Bottom Choke - 3/4" <input checked="" type="checkbox"/>
Top Packer Depth <u>4085'</u>	Hole Size - 7 7/8" <input checked="" type="checkbox"/> Rubber Size - 6 3/4" <input checked="" type="checkbox"/>
Bottom Packer Depth <u>4090'</u>	Wt. Pipe I.D. - 2.7 Ft. Run <u>NONE</u>
Total Depth <u>4160'</u>	Drill Collar - 2.25 Ft. Run <u>NONE</u>
Mud Wt. <u>9.2</u> lb/gal.	Viscosity <u>50</u> Filtrate <u>9.6 cc.</u>

Tool Open @ 10:36 P.M. Initial Blow Fair to strong below. (bottom of bucket in 11 mins.)

Final Blow Fair to strong below (bottom of bucket in 23 mins.)

Recovery - Total Feet <u>155'</u>	Feet of Gas in Pipe <u>402'</u>	Flush Tool? <u>No</u>
Rec. <u>55</u> Feet Of <u>clean oil</u>	<u>5</u> % gas <u>95</u> % oil	% water _____ % mud _____
Rec. <u>100</u> Feet Of <u>G.M.C.O.</u>	<u>15</u> % gas <u>50</u> % oil	% water <u>35</u> % mud _____
Rec. _____ Feet Of _____	% gas _____ % oil _____	% water _____ % mud _____
Rec. _____ Feet Of _____	% gas _____ % oil _____	% water _____ % mud _____
Rec. _____ Feet Of _____	% gas _____ % oil _____	% water _____ % mud _____

BHT 114 °F Gravity 33 °API @ 61 °F Corrected Gravity 33 °API

RW N.A. @ ~ °F Chlorides 5,000 ppm Recovery Chlorides 5,000 ppm System

- (A) Initial Hydrostatic Mud 1994 PSI AK1 Recorder No. 13278 Range 4400
- (B) First Initial Flow Pressure 62 PSI @ (depth) 4157' w/Clock No. 22993
- (C) First Final Flow Pressure 82 PSI AK1 Recorder No. 10248 Range 4400
- (D) Initial Shut-In Pressure 366 PSI @ (depth) 4152' w/Clock No. 30410
- (E) Second Initial Flow Pressure 95 PSI AK1 Recorder No. ~ Range ~
- (F) Second Final Flow Pressure 105 PSI @ (depth) ~ w/Clock No. ~
- (G) Final Shut-In Pressure 310 PSI Initial Opening 35 Test
- (H) Final Hydrostatic Mud 1985 PSI Initial Shut-In 35 Jars _____

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Final Flow <u>35</u>	Safety Joint _____
Final Shut-In <u>35</u>	Straddle _____
	Circ. Sub _____
	Sampler _____
	Extra Packer _____
	Other _____

Approved By Terry Williamson

Our Representative Gary Twintony

TOTAL PRICE \$ ✓ 600.00

WELL NAME Corke

DST # 2

RECORDER # 13278

INIT. HYD. MUD.		INITIAL SHUTIN		FINAL HYD. MUD		FINAL SHUTIN	
INITIAL FLOW	MINUTES	MINUTES	INTERVAL	FINAL FLOW	MINUTES	MINUTES	INTERVAL
113	1245	110		1	131	1523	137
		1147		2			140
		1185		3			163
		1212		4			184
		1234		5			202
		1250		6			212
		1266		7			224
		1279		8			230
115	1227	1289		9			239
		1298		10	131	1523	244
		1307		11			251
		1315	371.0	12			256
				13			263
				14			301.7
				15			
				16			
				17			
				18			
				19			
				20			
				21			
				22			
				23			
				24			
				25			
				26			
				27			

Chris - Hu

0.11	129.7237
0.147	173.4161
0.185	218.2205
0.212	250.0184
0.234	275.8916
0.25	294.7
0.266	313.5012
0.279	328.7719
0.289	340.5154
0.298	351.0821
0.307	361.6364
0.315	371.0129
	0
0.133	156.8804
0.14	165.1477
0.163	192.2866
0.184	217.0417
0.202	238.2533
0.212	250.0184
0.224	264.1327
0.23	271.1884
0.239	281.77
0.244	287.6477
0.251	295.8753
0.256	301.7513
0.263	309.9765