

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

Operator: License # 30444

Name: Charter Production Company

Address 224 E. Douglas

Suite 400 **JAN 1 1993**

City/State/Zip Wichita, KS 67202 **CONFIDENTIAL**

Purchaser: Koch

Operator Contact Person: Jerald W. Rains

Phone (316) 264-2808

Contractor: Name: Zenith Drilling Corporation

License: 5141

Wellsite Geologist: Robert Smith

Designate Type of Completion
 New Well Re-Entry Workover

Oil SWD SIOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, MSW, Expl., Cathodic, etc)

If Workover/Re-Entry: old well info as follows:

Operator: _____

Well Name: _____ **ORIGINAL**

Comp. Date _____ Old Total Depth _____

Deepening Re-perf. Conv. to Inj/SWD
 Plug Back PBSD
 Commingled Docket No. _____
 Dual Completion Docket No. _____
 Other (SWD or Inj?) Docket No. _____

Spud Date 9/16/92 Date Reached TD 10/2/92 Completion Date 10/15/92

API NO. 15- 175-21265-00-00

County Seward

C. NW NW Sec. 29 Twp. 34 Rge. 31 E W

660 Feet from S (circle one) Line of Section

660 Feet from E (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW or SW (circle one)

Lease Name Sprinkle Well # 1

Field Name Blue Bell NW

Producing Formation Toronto

Elevation: Ground 2718' KB 2729'

Total Depth 6470' PBSD _____

Amount of Surface Pipe Set and Cemented at 1530 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set _____ Feet

If Alternate II completion, cement circulated from _____

feet depth to _____ w/ _____ sx cmt.

Drilling Fluid Management Plan ALT 1-21-93
(Data must be collected from the Reserve Pit)

Chloride content 3,400 ppm Fluid volume 8,068 bbls

Deswering method used Evaporation & Deflocculation

Location of fluid disposal if hauled offsite: _____

Operator Name _____ **RELEASED**

Lease Name _____ **FEB 14 1995**

Quarter _____ Sec. _____ Twp. _____ S Rng. _____ E/W

County _____ **FROM CONFIDENTIAL**

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the report (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Jerald W. Rains

Title Operations Manager Date 1/8/93

Subscribed and sworn to before me this 8th day of January, 1993.

Notary Public Nancy Kandt

Date Commission Expires 2/4/96

NANCY KANDT
NOTARY PUBLIC
STATE OF KANSAS
My Appt. Exp. Feb. 4, 1996

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received **1 2 1993**
Distribution: SWD/Rep Plug Other (Specify)
KCC _____ KGS _____
Wichita, INGRA S
COMMISSION

Operator Name Charter Production Company Lease Name Sprinkle Well # 1
 Sec. 29 Twp. 34 Rge. 31 East West
 County Seward

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken Yes No
 (Attach Additional Sheets.)
 Samples Sent to Geological Survey Yes No
 Cores Taken Yes No
 Electric Log Run Yes No
 (Submit Copy.)

Log Formation (Top), Depth and Datum Sample
 Name Top Datum

Please see enclosed information.

List All E.Logs Run:
 Geologist's Log, Dual Spaced Neutron,
 Dual Induction & Microlog.

PLEASE KEEP ALL INFORMATION CONFIDENTIAL.

CASING RECORD

New Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface Casing	12 1/4"	8 5/8"	23#	1530'	Pacesetter	535	3% salt, 8% gel
					Class C	150	1% CC
Production Casing	7 7/8"	5 1/2"	15.5#	5985	EA-2	320	

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
Perforate <u>NA</u>				
Protect Casing				
Plug Back TD				
Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4	Douglas 4466'-80'	400 gals, 15% NE	4466'-70'
4	Toronto 4408'-4412'	400 gals, 15% MCA	4408'-12'
	Bridge Plug Set @ 4460'		

TUBING RECORD Size 2 7/8" Set At 4451' Packer At _____ Liner Run Yes No

Date of First, Resumed Production, SWD or Inj. 10/22/92 Producing Method Flowing Pumping Gas Lift Other (Explain)

Estimated Production Per 24 Hours Oil 90 Bbls. Gas 0 Mcf Water 35 Bbls. Gas-Oil Ratio _____ Gravity _____

Disposition of Gas: Vented Sold Used on Lease (If vented, submit 400-18) METHOD OF COMPLETION Open Hole Perf. Dually Comp. Commingled Production Interval 4408'-12'

77-E

ROBERT W. SMITH

Geologist
 R.R. 2, Box 126 C API #15-175-21265
 Ellinwood, Kansas 67526 (316) 564-3362

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY CHARTER PRODUCTION
 LEASE SPRINKLE #1
 FIELD BLUEBELL NW JAN 1 '91
 LOCATION C NW NW CONFIDENTIAL
 SEC. 29 TWP. 34 RNG. 31 W
 COUNTY SEWARD STATE KANSAS

ELEVATIONS
 K.B. 2729
 D.F. _____
 G.L. 2718
 Measurements Are All
 From ICB

CONTRACTOR ZENITH DRILLING RIG 6
 SPUD 16 SEP 92 COMP. 1 OCT 92
 RTD 6470 LTD 6472
 MUD UP 3400 TYPE MUD POLY/CHEM

CASING
 SURFACE 8 7/8 @ 1530
 PRODUCTION _____
 ELECTRICAL SURVEYS
 SCL/DSN DIL
 ML SGO FF

SAMPLES SAVED FROM 2500 TO TD
 DRILLING TIME KEPT FROM 2500 TO TD
 SAMPLES EXAMINED FROM 2500 TO TD WET + DRY
 GEOLOGICAL SUPERVISION FROM 2500 TO TD
 GEOLOGIST ON WELL ROBERT W. SMITH **RELEASED**

FORMATION TOPS	LOG	SAMPLES
CHASE	2678 (+51)	2674
COUNCIL GROVE	3063 (-334)	3062
HEEBNGR	4369 (-1640)	4366
TORONTO	4388 (-1659)	4386
LANSING	4535 (-1806)	4541
MORROW SH	5758 (-3029)	5757
MORROW SAND	5804 (-3075)	5803
CHASTON	5909 (-3180)	5908
ST GEN	6211 (-3482)	6202
ST LOUIS "A"	6310 (-3581)	6300

FEB 1 4 1995
 31W
FROM CONFIDENTIAL
 RECEIVED
 STATE CORPORATION COMMISSION
 FEB 2 1995
 CONSERVATION DIVISION
 TOPEKA, KANSAS

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

KCC

JAN 11

CONFIDENTIAL

Drill-Stem Test Data

Well Name SPRINKLE #1 Test No. 1 Date 9/21/92
 Company CHARTER PRODUCTION COMPANY Zone TORONTO
 Address 224 EAST DOUGLAS #400 WICHITA KS 67202 Elevation 2729 k.b.
 Co. Rep./Geo. ROBERT SMITH Cont. ZENITH DRLG RIG #6 Est. Ft. of Pay 8
 Location: Sec. 29 Twp. 34S Rge. 31W Co. SEWARD State KS

Interval Tested 4364-4410 Drill Pipe Size 4.5" XH
 Anchor Length 46 Wt. Pipe I.D. - 2.7 Ft. Run _____
 Top Packer Depth 4359 Drill Collar - 2.25 Ft. Run 576
 Bottom Packer Depth 4364 Mud Wt. 8.8 lb./Gal.
 Total Depth 4410 Viscosity 47 Filtrate 9.4

Tool Open @ 3:00 AM Initial Blow STRONG BLOW-BUILT TO BOTTOM OF BUCKET IN 30 SECONDS
GAS TO SURFACE IN 6 MINUTES-GAUGED @44.2 MCF
 Final Blow BOTTOM OF BUCKET AS TOOL OPENED
OIL TO SURFACE IN 10 MINUTES

Recovery - Total Feet 4410 Flush Tool? NO

Rec. 4410 Feet of OIL TO SURFACE-20%GAS/80%OIL
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____
 Rec. _____ Feet of _____

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FEB 14 1995

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BHT 112 °F Gravity 40 °API @ 82 °F Corrected Gravity 38 °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4200 ppm System

(A) Initial Hydrostatic Mud 1947.8 PSI AK1 Recorder No. 13277 Range 4125

(B) First Initial Flow Pressure 570.3 PSI @ (depth) 4369 w / Clock No. 27594

(C) First Final Flow Pressure 708.6 PSI AK1 Recorder No. 11038 Range 5075

(D) Initial Shut-in Pressure 1270.3 PSI @ (depth) 4407 w / Clock No. 30418

(E) Second Initial Flow Pressure 877.4 PSI AK1 Recorder No. _____ Range _____

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STATE CORPORATION COMMISSION

(F) Second Final Flow Pressure 892.6 PSI @ (depth) _____ w / Clock No. _____

12 1995

(G) Final Shut-in Pressure 1279.1 PSI Initial Opening 30 Final Flow 26

CONSERVATION DIVISION
WICHITA, KANSAS

(H) Final Hydrostatic Mud 1911.4 PSI Initial Shut-in 60 Final Shut-in 90

Our Representative TOM HORACEK

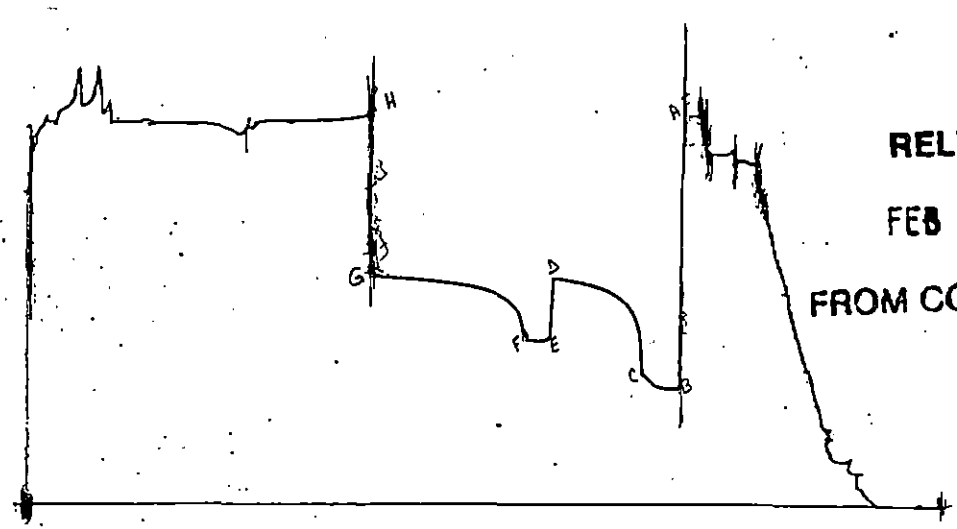
CHART PAGE

D57 # 1
13277

KCC

JAN 11

CONFIDENTIAL



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FEB 14 1995

FROM CONFIDENTIAL

This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1928	1947.8
(B) FIRST INITIAL FLOW PRESSURE	611	570.3
(C) FIRST FINAL FLOW PRESSURE	702	708.6
(D) INITIAL CLOSED-IN PRESSURE	1272	1270.3
(E) SECOND INITIAL FLOW PRESSURE	855	877.4
(F) SECOND FINAL FLOW PRESSURE	881	892.6
(G) FINAL CLOSED-IN PRESSURE	1260	1279.1
(H) FINAL HYDROSTATIC MUD	1902	1911.4

COMPUTER EVALUATION BY TRILOBITE TESTING, L.L.C.

CHARTER PRODUCTION C SPRINKLE #1

DST 1

29 34S 31W SEWARD KS

ELEVATION:	2729	KB	EST. PAY	8	FT
DATUM:	-4370		ZONE TESTED:	TORONTO	
TEST INTERVAL:	4364-4410		TIME INTERVALS:	30-60-20-90	
RECORDER DEPTH:	4369		VISCOSITY:	7.816	CP
BOTTOM HOLE TEMP:	112		HOLE SIZE:	7.875	IN

CUBIC FEET OF GAS IN PIPE:	70.42			
TOTAL FEET OF RECOVERY:	3528.00	CORRECTED PIPE FILLUP:	2465.746	
TOTAL BARRELS OF RECOVERY:	44.79	CORR. BARRELS OF RECOVERY:	30.118	BBL
BARRELS IN DRILL PIPE:	41.98	API GRAVITY:	38	
BARRELS IN WEIGHT PIPE:	0.00	FLUID GRADIENT:	0.362	
BARRELS IN DRILL COLLARS:	2.82			
GAS OIL RATIO:	1.5720	CU.FT/BBL		
BUBBLE POINT PRESSURE:	16.459			
UNCORRECTED INITIAL PRODUCTION:			1290.07	BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE:			860.06	BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:			145.315	

INITIAL SLOPE	342.96	PSI/CYCLE	FINAL SLOPE	215.24	PSI/CYCLE
INITIAL P*	1326	PSI	FINAL P*	1320	PSI

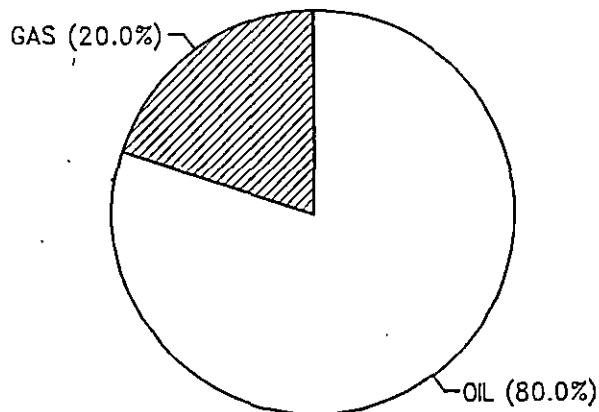
TRANSMISSIBILITY	649.72	(MD.-FT./CP.)
PERMEABILITY	634.78	(MD.)
INDICATED FLOW CAPACITY	5078.24)MD.FT)
PRODUCTIVITY INDEX	0.73	(BARRELS/DAY/PSI)
DAMAGE RATIO	0.36	
RADIUS OF INVESTIGATION	178.15	(FT,)
POTENTIOMETRIC SURFACE	-1307.92	(FT.)
DRAWDOWN FACTOR	0.452	(%)

CALCULATED RECOVERY ANALYSIS

DST # 1 TICKET # 4831

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
DRILL 1	3834	20	766.8	80	3067.2	0	0	0	0
PIPE 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
WEIGHT 1			0		0		0		0
PIPE 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
DRILL 1	576	20	115.2	80	460.8	0	0	0	0
COLLAR 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0	100	0
TOTAL	4410		882		3528		0		0

		HRS OPEN	BBL/DAY
BBL OIL=	45.868896	*	0.83 1326.3295
BBL WATER=	0	*	0
BBL MUD=	0		
BBL GAS =	11.467224		



INITIAL FLOW

RECORDER # 13277

DST # 1

TIME(MIN)	PRESSURE	<> PRESSURE
-----	-----	-----
0	570.3	570.3
3	659.6	89.3
6	636.4	-23.2
9	622.2	-14.2
12	617	-5.2
15	624.7	7.7
18	632.5	7.8
21	645.4	12.9
24	662.2	16.8
27	686.7	24.5
30	708.6	21.9

FINAL FLOW

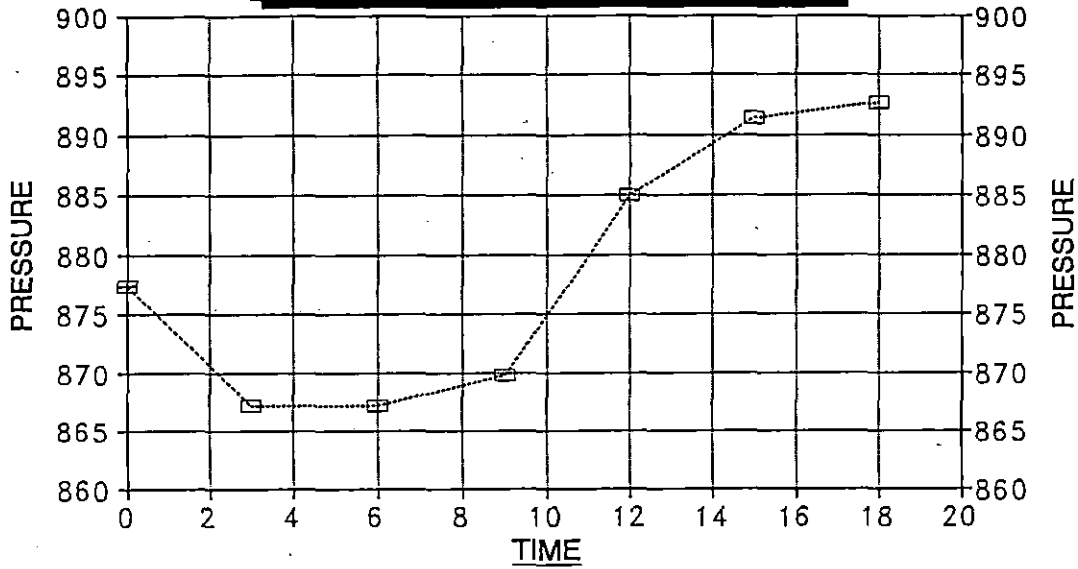
RECORDER # 13277

DST # 1

TIME(MIN)	PRESSURE	<> PRESSURE
-----	-----	-----
0	877.4	877.4
3	867.2	-10.2
6	867.2	0
9	869.8	2.6
12	885	15.2
15	891.4	6.4
18	892.6	1.2

DELTA T DELTA P

FINAL FLOW - DST #1



---□--- SPRINKLE #1

INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:

145.315

SPRINKLE #1 DST #1
INITIAL SHUTIN

30 TOTAL FLOW TIME

Slope 342.96 psi/cycle
P * 1326 psi

	TIME(MIN)	Pws (psi)	Horn T	Log <> PRESSURE	Horn T
	6	1052.3	0.778	1052.3	6
	12	1123.0	0.544	70.7	4
	18	1159.5	0.426	36.5	3
	24	1188.5	0.352	29.0	2
	30	1209.9	0.301	21.4	2
	36	1230.1	0.263	20.2	2
	42	1241.4	0.234	11.3	2
	48	1251.5	0.211	10.1	2
X	54	1260.3	0.192	8.8	2
	60	1266.5	0.176	6.2	2
X	66	1270.3	0.163	3.8	1

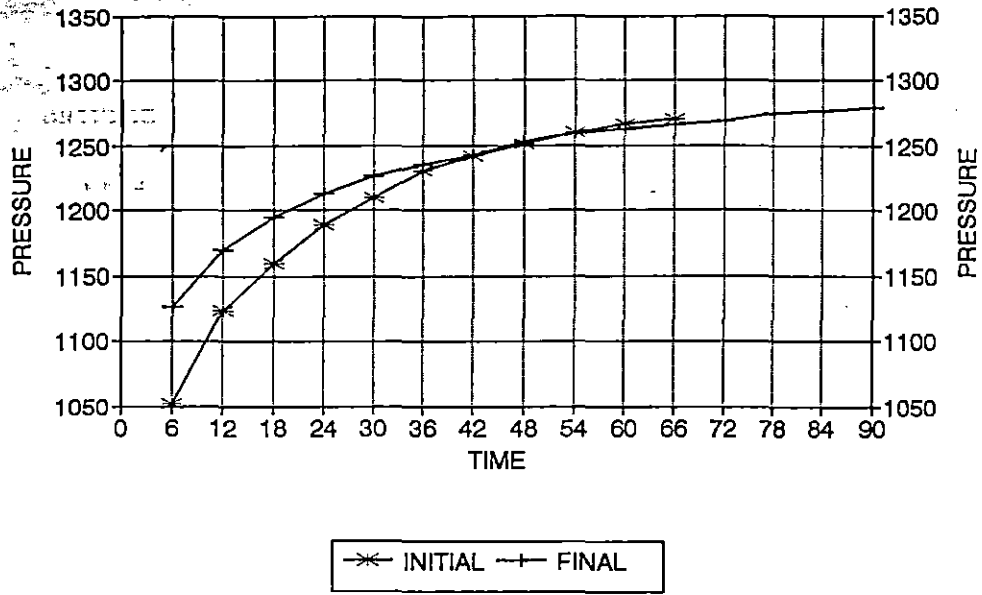
SPRINKLE #1 DST #1
FINAL SHUTIN

50 TOTAL FLOW TIME

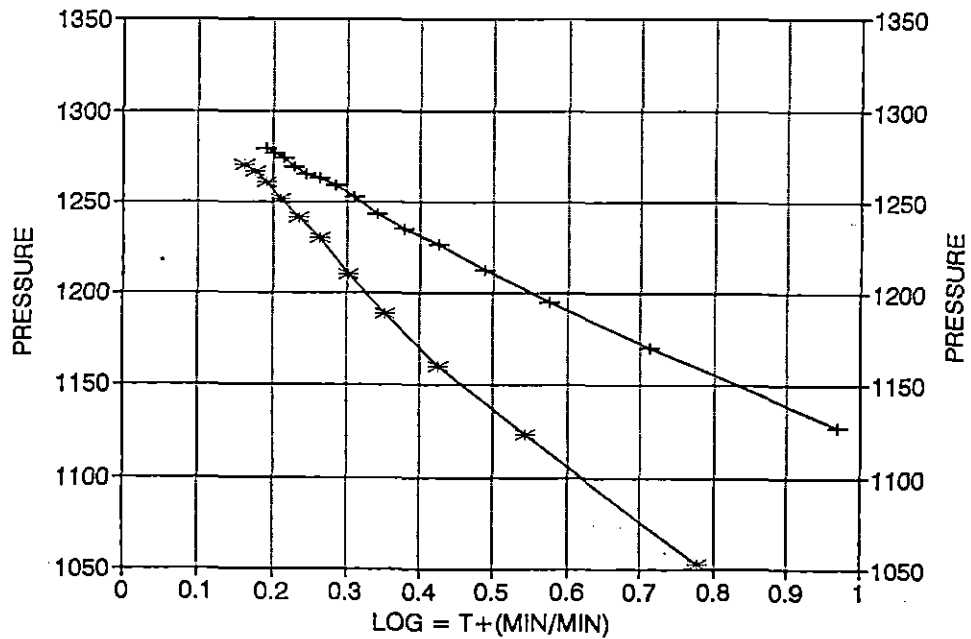
Slope 215.24 psi/cycle
P * 1320 psi

		Pws (psi)	Horn T	Log <> PRESSURE	Horn T
	6	1126.8	0.970	1126.8	9
	12	1169.6	0.713	42.8	5
	18	1194.8	0.577	25.2	4
	24	1212.5	0.489	17.7	3
	30	1226.3	0.426	13.8	3
	36	1235.1	0.378	8.8	2
	42	1242.7	0.341	7.6	2
	48	1252.7	0.310	10.0	2
	54	1259.0	0.285	6.3	2
	60	1262.8	0.263	3.8	2
	66	1265.3	0.245	2.5	2
	72	1269.0	0.229	3.7	2
X	78	1274.1	0.215	5.1	2
	84	1276.6	0.203	2.5	2
X	90	1279.1	0.192	2.5	2

SPRINKLE #1 / DST #1 DELTA T DELTA P



HORNER PLOT



GAS VOLUME REPORT

CHARTER PRODUCTION COMPANY

SPRINKLE #1

DST # 1

MIN	PSIG	ORIFICE	MCF/D
10	5.5	0.375	46.4
20	12	0.375	72.6
30	5	0.375	44.2

MIN	PSIG	ORIFICE	MCF/D
10	OIL TO SURFACE		

Remarks: GAS TO SURFACE IN 6 MINUTES

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 4831

Well Name & No. Sparkle #1 Test No. KL1 Date 9-21-92
Company Charter Production Company Zone Tested Tercate
Address 224 E Douglas St. 400 Wichita, KS 67202 Elevation 1279 KB
Co. Rep./Geo. Robert Smith cont. 2 on 1/4 Drily #6 Est. Ft. of Pay 8'
Location: Sec. 29 Twp. 34 Rge. 31 Co. Sevier State Ks
No. of Copies _____ Distribution Sheet _____ Yes No Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested 4364-4410 Drill Pipe Size 4.5 x-Hole
Anchor Length 46' Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth 4359 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth 4364 Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth 4410 Drill Collar — 2.25 Ft. Run 576'
Mud Wt. 8.8 lb/gal. Viscosity 47 Filtrate 9.4
Tool Open @ 3:00 AM Initial Blow strong blow - built to bottom of bucket 30 sec.
GTS in 6 min. Gauged @ 44.2 MCF
Final Blow Bottom of bucket as tool opened.

Oil to surface in 10 min.

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?
Rec. _____ Feet Of _____	% gas _____ % oil _____ % water _____ % mud _____	<u>NO</u>
Rec. <u>Oil to surface</u> Feet Of _____	<u>20</u> % gas <u>80</u> % oil _____ % water _____ % mud _____	
Rec. _____ Feet Of _____	% gas _____ % oil _____ % water _____ % mud _____	
Rec. _____ Feet Of _____	% gas _____ % oil _____ % water _____ % mud _____	
Rec. _____ Feet Of _____	% gas _____ % oil _____ % water _____ % mud _____	

BHT 112 °F Gravity 40 °API @ 82 °F Corrected Gravity 38.3 °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4200 ppm System
(A) Initial Hydrostatic Mud 1928 PSI AK1 Recorder No. 13277 Range 4125
(B) First Initial Flow Pressure 611 PSI @ (depth) 4369 w/Clock No. 27594
(C) First Final Flow Pressure 702 PSI AK1 Recorder No. 11038 Range 5075
(D) Initial Shut-in Pressure 1272 PSI @ (depth) 4407 w/Clock No. 30418
(E) Second Initial Flow Pressure 855 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 881 PSI @ (depth) _____ w/Clock No. _____
(G) Final Shut-in Pressure 1260 PSI Initial Opening 30 Test
(H) Final Hydrostatic Mud 1902 PSI Initial Shut-in 60 Jars

TRILOBITE TESTING COMPANY 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 SUBSTAINED, 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 20 Safety Joint
Final Shut-in 90 Straddle _____
Circ. Sub _____
Sampler _____

Approved By [Signature]
Our Representative Tom Horacek

Extra Packer _____
Other real _____
TOTAL PRICE \$ _____

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name SPRINKLE #1 Test No. 2 Date 9/25/92
Company CHARTER PRODUCTION COMPANY Zone MARMATON
Address 224 EAST DOUGLAS #400 WICHITA KS 67202 Elevation 2729
Co. Rep./Geo. ROBERT SMITH Cont. ZENITH DRLG RIG #6 Est. Ft. of Pay 10
Location: Sec. 29 Twp. 34S Rge. 31W Co. SEWARD State KS

Interval Tested	<u>5274-5307</u>	Drill Pipe Size	<u>4.5" XH</u>
Anchor Length	<u>33</u>	Wt. Pipe I.D. - 2.7 Ft. Run	<u>607</u>
Top Packer Depth	<u>5269</u>	Drill Collar - 2.25 Ft. Run	<u>9.2</u>
Bottom Packer Depth	<u>5274</u>	Mud Wt.	<u>46</u> lb/Gal.
Total Depth	<u>5307</u>	Viscosity	<u>9.2</u> Filtrate

Tool Open @ 2:00 PM Initial Blow STRONG BLOW-BUILT TO BOTTOM OF BUCKET IN 30 SECONDS
ISI: BLED OFF BLOW-WEAK BLOW-BUILT TO BOTTOM OF BUCKET IN 5 MINUTES
Final Blow BOTTOM OF BUCKET AS TOOL OPENED/GAS TO SURFACE IN 10 MIN
FSI: BLED OFF BLOW-WEAK BLOW-BUILT TO BOTTOM IN 5 MIN-GAUGED @8.89 MCF/DAY

Recovery - Total Feet 1040 Flush Tool? NO

Rec. <u>210</u>	Feet of	<u>GASSY DRILLING MUD</u>
Rec. <u>830</u>	Feet of	<u>SALT WATER</u>
Rec. _____	Feet of	_____
Rec. _____	Feet of	_____
Rec. _____	Feet of	_____

BHT 126 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.18 @ 80 °F Chlorides 35000 ppm Recovery Chlorides 3400 ppm System

(A) Initial Hydrostatic Mud 2611.7 PSI AK1 Recorder No. 13277 Range 4125

(B) First Initial Flow Pressure 119.8 PSI @ (depth) 5278 w / Clock No. 27594

(C) First Final Flow Pressure 274.5 PSI AK1 Recorder No. 11038 Range 5075

(D) Initial Shut-in Pressure 1666.9 PSI @ (depth) 5304 w / Clock No. 30418

(E) Second Initial Flow Pressure 391.2 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 574.6 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1665.8 PSI Initial Opening 30 Final Flow 60

(H) Final Hydrostatic Mud 2571.6 PSI Initial Shut-in 60 Final Shut-in 90

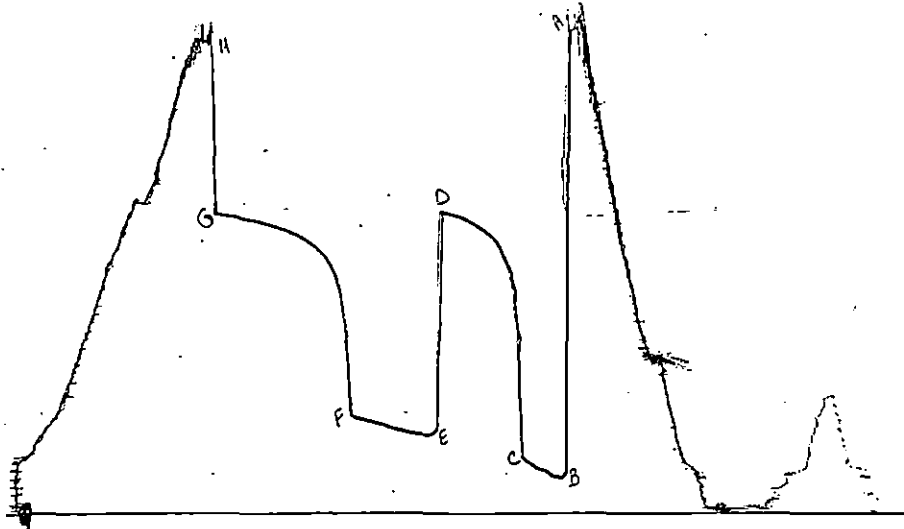
Our Representative TOM HORACEK

CHART PAGE

DS 1K 2

13277

SPINDLE #0



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2606	2611.7
(B) FIRST INITIAL FLOW PRESSURE	122	119.8
(C) FIRST FINAL FLOW PRESSURE	270	274.5
(D) INITIAL CLOSED-IN PRESSURE	1662	1666.9
(E) SECOND INITIAL FLOW PRESSURE	389	391.2
(F) SECOND FINAL FLOW PRESSURE	572	574.6
(G) FINAL CLOSED-IN PRESSURE	1662	1665.8
(H) FINAL HYDROSTATIC MUD	2567	2571.6

GAS VOLUME REPORT

KCC

JAN 1 9

CONFIDENTIAL

CHARTER PRODUCTION COMPANY

SPRINKLE #1

DST # 2

MIN	PSIG	ORIFICE	MCF/D	MIN	PSIG	ORIFICE	MCF/D
				20	30	0.25	9.2
				30	32	0.25	9.5
				40	30	0.25	9.2
				50	28	0.25	8.89
				60	28	0.25	8.89

Remarks: GAS TO SURFACE IN 10 MINUTES 2nd OPENING

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601 KCC

Test Ticket

JAN 1 1
CONFIDENTIAL No 4832

Well Name & No. <u>Sprinkle #1</u>	Test No. <u>#2</u>	Date <u>9-25-92</u>
Company <u>Charter Production Company</u>	Zone Tested <u>Marmaton</u>	
Address <u>224 E. Douglas St 400 Wichita KS 67202</u>	Elevation <u>1279</u>	<u>KB</u>
Co. Rep./Geo. <u>Robert Smith</u>	cont. <u>Zenith Dr #6</u>	Est. Ft. of Pay <u>10'</u>
Location: Sec. <u>29</u>	Twp. <u>34</u>	Rge. <u>31</u>
Co. <u>Seward</u>	State <u>Ks</u>	
No. of Copies _____	Distribution Sheet _____	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Turnkey _____	Yes <input type="checkbox"/> No <input type="checkbox"/>	Evaluation _____

Interval Tested <u>5274-5307</u>	Drill Pipe Size <u>4.5 x-Hole</u>
Anchor Length <u>33'</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>5269</u>	Hole Size — 7 1/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>5274</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth <u>5307</u>	Drill Collar — 2.25 Ft. Run <u>607'</u>
Mud Wt. <u>9.2</u> lb/gal.	Viscosity <u>46</u> Filtrate <u>9.2</u>

Tool Open @ 2:00 pm Initial Blow strong blow - built to bottom of bucket in 30 sec
ISI - Bleed off blow - weak blow - built to bottom of bucket 5 min.

Final Blow Bottom of bucket as tool opened. 6 TS in 10 min.
FSI - Bleed off blow - weak blow - built to bottom 5 min. {Gauged @ 8.89 mcf}

Recovery — Total Feet 1040' Feet of Gas in Pipe _____ Flush Tool? NO

Rec. _____	Feet Of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec. _____	Feet Of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec. <u>210'</u>	Feet Of <u>Gassy Drly mud</u>	%gas _____	%oil _____	%water _____	%mud _____
Rec. <u>830'</u>	Feet Of <u>salt water</u>	%gas _____	%oil _____	%water _____	%mud _____
Rec. _____	Feet Of _____	%gas _____	%oil _____	%water _____	%mud _____

BHT 126 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW .18 @ 80 °F Chlorides 35,000 ppm Recovery Chlorides 2,400 ppm System

- (A) Initial Hydrostatic Mud 2606 PSI AK1 Recorder No. 13277 Range 4125
- (B) First Initial Flow Pressure 122 PSI @ (depth) 5278 w/Clock No. 27594
- (C) First Final Flow Pressure 270 PSI AK1 Recorder No. 11038 Range 5075
- (D) Initial Shut-In Pressure 1662 PSI @ (depth) 5304 w/Clock No. 30418
- (E) Second Initial Flow Pressure 389 PSI AK1 Recorder No. _____ Range _____
- (F) Second Final Flow Pressure 572 PSI @ (depth) _____ w/Clock No. _____
- (G) Final Shut-In Pressure 1662 PSI Initial Opening 30 Test X
- (H) Final Hydrostatic Mud 2567 PSI Initial Shut-In 60 Jars X

TRILOBITE TESTING COMPANY 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 SUBSTAINED, 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 60 Safety Joint X
 Final Shut-In 90 Straddle _____
 Circ. Sub _____
 Sampler _____

Approved By [Signature]
 Our Representative Toni Horacek

Extra Packer _____
 Other _____
 TOTAL PRICE \$ 900.50

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name SPRINKLE #1 Test No. 3 Date 9/27/92
Company CHARTER PRODUCTION COMPANY Zone MORROW
Address 224 EAST DOUGLAS #400 WICHITA KS 67202 Elevation 2729
Co. Rep./Geo. ROBERT SMITH Cont. ZENITH DRLG RIG #6 Est. Ft. of Pay 12
Location: Sec. 29 Twp. 34S Rge. 31W Co. SEWARD State KS

Interval Tested 5790-5824 Drill Pipe Size 4.5" XH
Anchor Length 34 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 5785 Drill Collar - 2.25 Ft. Run 607
Bottom Packer Depth 5790 Mud Wt. 9.1 lb/Gal.
Total Depth 5824 Viscosity 54 Filtrate 8

Tool Open @ 8:00 PM Initial Blow BOTTOM OF BUCKET AS TOOL OPENED
GAS TO SURFACE IN 2 MINUTES-GAUGED @2012 MCF/DAY
Final Blow BOTTOM OF BUCKET AS TOOL OPENED/GAUGED @2258 MCF/DAY

Recovery - Total Feet 120 Flush Tool? NO

Rec. 120 Feet of GASSY DRILLING MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 131 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 3200 ppm System

(A) Initial Hydrostatic Mud 2794.3 PSI AK1 Recorder No. 13277 Range 4125

(B) First Initial Flow Pressure 413.5 PSI @ (depth) 5794 w/ Clock No. 27594

(C) First Final Flow Pressure 439.0 PSI AK1 Recorder No. 11038 Range 5075

(D) Initial Shut-in Pressure 1958.5 PSI @ (depth) 5821 w/ Clock No. 30418

(E) Second Initial Flow Pressure 497.7 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 432.6 PSI @ (depth) _____ w/ Clock No. _____

(G) Final Shut-in Pressure 1956.0 PSI Initial Opening 30 Final Flow 60

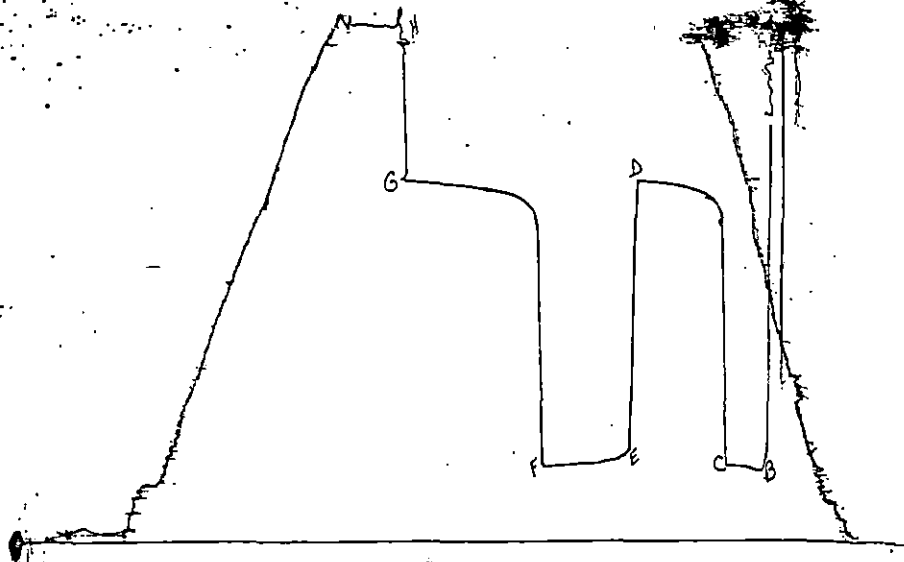
(H) Final Hydrostatic Mud 2769.0 PSI Initial Shut-in 60 Final Shut-in 90

Our Representative TOM HORACEK

CHART PAGE

DS 143

13277



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2790	2794.3
(B) FIRST INITIAL FLOW PRESSURE	410	413.5
(C) FIRST FINAL FLOW PRESSURE	453	439
(D) INITIAL CLOSED-IN PRESSURE	1966	1958.5
(E) SECOND INITIAL FLOW PRESSURE	475	497.7
(F) SECOND FINAL FLOW PRESSURE	432	432.6
(G) FINAL CLOSED-IN PRESSURE	1946	1956
(H) FINAL HYDROSTATIC MUD	2769	2769

SPRINKLE #1 DST #3
INITIAL SHUTIN

30 TOTAL FLOW TIME

Slope 73729.14 psi/cycle
P * 1977 psi

	TIME(MIN)	Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	-----	-----	-----	-----	-----
	2.3	871.6	1.147	871.6	14
	3.9	1821.8	0.939	950.2	9
	6.4	1858.3	0.755	36.5	6
	13	1918.0	0.520	59.7	3
	19.5	1929.9	0.405	11.9	3
X	23.5	1941.1	0.357	11.2	2
	27.6	1952.6	0.320	11.5	2
	34.1	1955.1	0.274	2.5	2
	39.4	1956.9	0.246	1.8	2
	48.5	1957.7	0.209	0.8	2
X	56.4	1958.5	0.185	0.8	2

SPRINKLE #1
FINAL

DST #3
SHUTIN

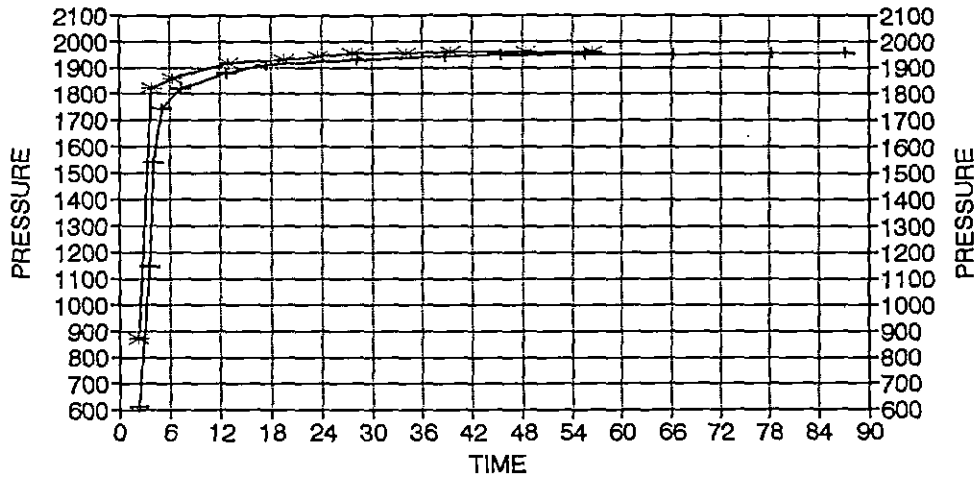
90 TOTAL FLOW TIME

Slope 154290.32 psi/cycle
P * 1972 psi

Log <>

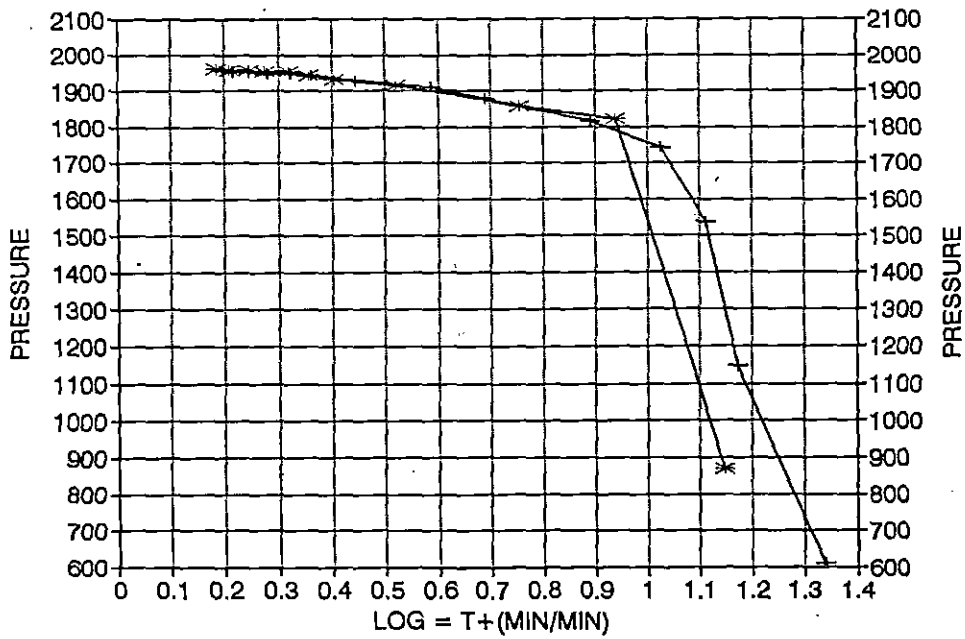
	Pws (psi)	Horn T	PRESSURE	Horn T	
	2.4	611.2	1.585	611.2	38
	3.6	1146.7	1.415	535.5	26
	4.2	1536.1	1.351	389.4	22
	5.2	1742.2	1.263	206.1	18
	7.4	1816.6	1.119	74.4	13
	12.8	1877.7	0.905	61.1	8
	17.5	1909.7	0.788	32.0	6
	28.2	1928.2	0.622	18.5	4
	38.6	1941.9	0.523	13.7	3
	45.4	1946.8	0.475	4.9	3
	55.6	1948.8	0.418	2.0	3
	66.2	1951.7	0.373	2.9	2
X	78.2	1953.7	0.333	2.0	2
X	87.1	1956.0	0.308	2.3	2

SPRINKLE #1 / DST #3 DELTA T DELTA P



—*— INITIAL —+— FINAL

HORNER PLOT



GAS VOLUME REPORT

CHARTER PRODUCTION COMPANY

SPRINKLE #1

DST # 3

MIN	PSIG	ORIFICE	MCF/D	MIN	PSIG	ORIFICE	MCF/D
10	18	1.5	1824	10	22	1.5	2075
20	20	1.5	1949	20	28	1.5	2441
30	21	1.5	2012	30	25	1.5	2258
				40	25	1.5	2258
				50	25	1.5	2258
				60	25	1.5	2258

Remarks: GAS TO SURFACE IN 2 MINUTES/ GAS WILL BURN

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 4833

Well Name & No. <u>Sprinkle #1</u>	Test No. <u>#3</u>	Date <u>9-27-92</u>
Company <u>Chacter Production Company</u>	Zone Tested <u>Morrow</u>	
Address <u>224 E. Douglas St. 400 Wichita Ks 67202</u>	Elevation <u>1279</u>	<u>KB</u>
Co. Rep./Geo. <u>Robert Smith</u>	cont. <u>Zenith Div. #6</u>	Est. Ft. of Pay <u>12'</u>
Location: Sec. <u>29</u> Twp. <u>34</u> Rge. <u>31</u> Co. <u>Seward</u> State <u>Ks.</u>		
No. of Copies _____	Distribution sheet _____	Yes <u>X</u> No _____ Turnkey _____
		Yes _____ No _____ Evaluation _____

Interval Tested <u>5790-5824</u>	Drill Pipe Size <u>4.5 X-Hole</u>
Anchor Length <u>34'</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>5785</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>5790</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth <u>5824</u>	Drill Collar — 2.25 Ft. Run <u>607'</u>
Mud Wt. <u>9.1</u> lb/gal.	Viscosity <u>54</u> Filtrate <u>8.0</u>
Tool Open @ <u>8:00 pm</u>	Initial Blow <u>Bottom of bucket as tool opened</u>
	<u>GTS in 2 min</u> <u>Gauged @ 2012 MPK</u>

Final Blow Bottom of bucket as tool opened
Gauged @ 2258 MPK

Recovery — Total Feet 120' Feet of Gas In Pipe _____ Flush Tool? NO

Rec. _____	Feet Of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec. _____	Feet Of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec. <u>120'</u>	Feet Of <u>Curry Dr. mud</u>	%gas _____	%oil _____	%water _____	%mud _____
Rec. _____	Feet Of _____	%gas _____	%oil _____	%water _____	%mud _____
Rec. _____	Feet Of _____	%gas _____	%oil _____	%water _____	%mud _____

BHT 131 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 3200 ppm System

(A) Initial Hydrostatic Mud <u>2790</u> PSI	Ak1 Recorder No. <u>13277</u>	Range <u>4125</u>
(B) First Initial Flow Pressure <u>410</u> PSI	@ (depth) <u>5794</u>	w/Clock No. <u>22584</u>
(C) First Final Flow Pressure <u>453</u> PSI	Ak1 Recorder No. <u>11038</u>	Range <u>5075</u>
(D) Initial Shut-in Pressure <u>1966</u> PSI	@ (depth) <u>5821</u>	w/Clock No. <u>30418</u>
(E) Second Initial Flow Pressure <u>475</u> PSI	Ak1 Recorder No. _____	Range _____
(F) Second Final Flow Pressure <u>432</u> PSI	@ (depth) _____	w/Clock No. _____
(G) Final Shut-in Pressure <u>1946</u> PSI	Initial Opening <u>30</u>	Test <u>X</u> <u>650.00</u>
(H) Final Hydrostatic Mud <u>2769</u> PSI	Initial Shut-in <u>60</u>	Jars <u>X</u> <u>200.00</u>

TRILOBITE TESTING COMPANY 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 SUBSTAINED, 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>60</u>	Safety Joint <u>X</u> <u>500.00</u>
Final Shut-in <u>90</u>	Straddle _____
	Circ. Sub _____
	Sampler _____
	Extra Packer _____
	Other <u>oil (partial)</u>

Approved By [Signature]
Our Representative Tom Harbeck

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name SPRINKLE #1 Test No. 4 Date 9/25/92
Company CHARTER PRODUCTION COMPANY Zone CHESTER
Address 224 EAST DOUGLAS #400 WICHITA KS 67202 Elevation 2729
Co. Rep./Geo. ROBERT SMITH Cont. ZENITH DRLG RIG #6 Est. Ft. of Pay 8
Location: Sec. 29 Twp. 34S Rge. 31W Co. SEWARD State KS

Interval Tested 5933-5988 Drill Pipe Size 4.5" XH
Anchor Length 55 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 5928 Drill Collar - 2.25 Ft. Run 576
Bottom Packer Depth 5933 Mud Wt. 9
Total Depth 5988 Viscosity 48 Filtrate 7.6

Tool Open @ 4:00 AM Initial Blow 2" BLOW-BUILT TO BOTTOM OF BUCKET IN 15 MINUTES
ISI: BLED OFF BLOW-NO BLOW BACK
Final Blow BOTTOM OF BUCKET AS TOOL OPENED
FSI: BLED OFF BLOW-NO BLOW BACK

Recovery - Total Feet 20 Flush Tool? NO

Rec. 700 Feet of GAS IN PIPE
Rec. 20 Feet of GASSY DRILLING MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

gHT 133 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 2700 ppm System

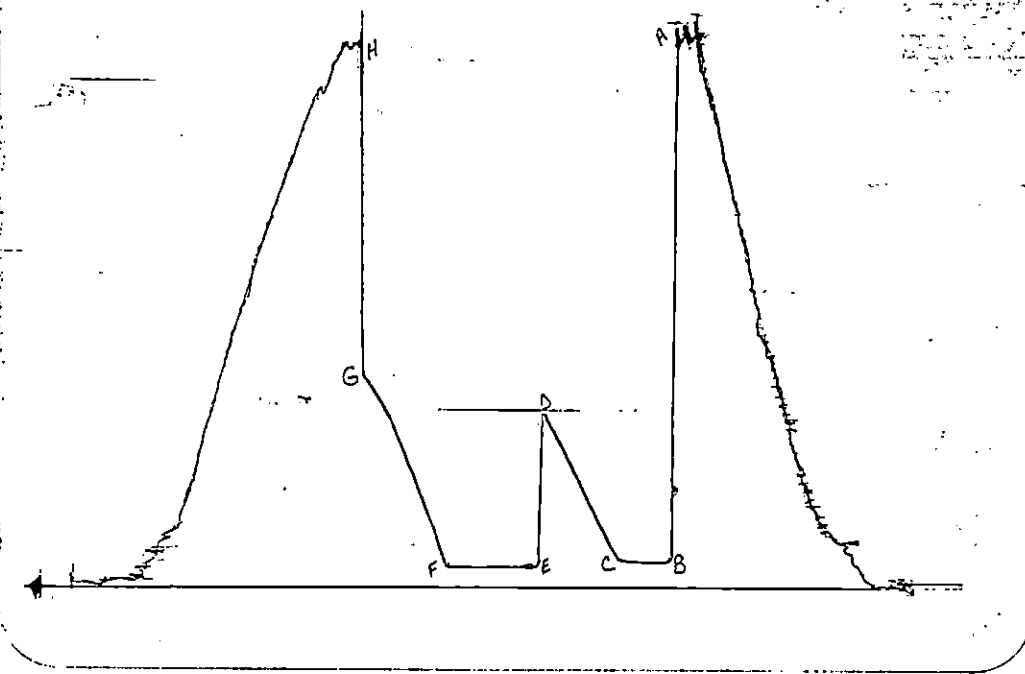
(A) Initial Hydrostatic Mud 2931.4 PSI AK1 Recorder No. 13277 Range 4125
(B) First Initial Flow Pressure 44.5 PSI @ (depth) 5936 w / Clock No. 27594
(C) First Final Flow Pressure 60.9 PSI AK1 Recorder No. 11038 Range 5075
(D) Initial Shut-in Pressure 999.7 PSI @ (depth) 5950 w / Clock No. 30418
(E) Second Initial Flow Pressure 44.5 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 44.5 PSI @ (depth) _____ w / Clock No. _____
(G) Final Shut-in Pressure 1150.6 PSI Initial Opening 30 Final Flow 60
(H) Final Hydrostatic Mud 2894.7 PSI Initial Shut-in 60 Final Shut-in 60

Our Representative TOM HORACEK

JAN 1 1

CONFIDENTIAL

DS 744
13277



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2928	2931.4
(B) FIRST INITIAL FLOW PRESSURE	41	44.5
(C) FIRST FINAL FLOW PRESSURE	55	60.9
(D) INITIAL CLOSED-IN PRESSURE	995	999.7
(E) SECOND INITIAL FLOW PRESSURE	41	44.5
(F) SECOND FINAL FLOW PRESSURE	41	44.5
(G) FINAL CLOSED-IN PRESSURE	1146	1150.6
(H) FINAL HYDROSTATIC MUD	2889	2894.7

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601 **KCC**

Test Ticket

JAN 11

No. 4834

CONFIDENTIAL

Well Name & No. Sprinkle 21 Test No. # 4 Date 9-28-92
 Company Charter Production Company Zone Tested Chester
 Address 224 E. Douglas St 400 Wichita Ks 67202 Elevation ~~2729~~ 2729 KB
 Co. Rep./Geo. Robert Smith Cont. Zenith Dr. # 6 Est. Ft. of Pay 8'
 Location: Sec. 29 Twp. 34 Rge. 31 Co. Seward State KS
 No. of Copies 10 Distribution Sheet Yes X No Turnkey Yes No Evaluation

Interval Tested 5933-5988 Drill Pipe Size 4.5 X-Hole
 Anchor Length 55' Top Choke - 1" Bottom Choke - 3/4"
 Top Packer Depth 5928 Hole Size - 7 7/8" Rubber Size - 6 3/4"
 Bottom Packer Depth 5933 Wt. Pipe I.D. - 2.7 Ft. Run
 Total Depth 5988 Drill Collar - 2.25 Ft. Run 576'
 Mud Wt. 9.0 lb/gal. Viscosity 48 Filtrate 7.6
 Tool Open @ 4:00 AM Initial Blow 2 in. blow - built to bottom of bucket 15 min
ISI - Bled off blow - NO blow back
 Final Blow Bottom of bucket as tool opened
FSF - Bled off blow - NO blow back

Recovery - Total Feet	Feet of Gas In Pipe	Flush Tool?
<u>20'</u>	<u>700'</u>	<u>NO</u>
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u> %oil <u> </u> %water <u> </u> %mud <u> </u>	
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u> %oil <u> </u> %water <u> </u> %mud <u> </u>	
Rec. <u>20'</u> Feet Of <u>Easy Drtg mud</u>	%gas <u> </u> %oil <u> </u> %water <u> </u> %mud <u> </u>	
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u> %oil <u> </u> %water <u> </u> %mud <u> </u>	
Rec. <u> </u> Feet Of <u> </u>	%gas <u> </u> %oil <u> </u> %water <u> </u> %mud <u> </u>	

BHT 133 °F Gravity °API @ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides 2,200 ppm System
 (A) Initial Hydrostatic Mud 2928 PSI Ak1 Recorder No. 13277 Range 4125
 (B) First Initial Flow Pressure 41 PSI @ (depth) 5936 w/Clock No. 27594
 (C) First Final Flow Pressure 55 PSI AK1 Recorder No. 11038 Range 5075
 (D) Initial Shut-In Pressure 995 PSI @ (depth) 5950 w/Clock No. 30418
 (E) Second Initial Flow Pressure 41 PSI AK1 Recorder No. Range
 (F) Second Final Flow Pressure 41 PSI @ (depth) w/Clock No.
 (G) Final Shut-In Pressure 1146 PSI Initial Opening 30 Test X
 (H) Final Hydrostatic Mud 2889 PSI Initial Shut-In 60 Jars X

Final Flow 60 Safety Joint X
 Final Shut-In 60 Straddle
 Circ. Sub
 Sampler
 Extra Packer
 Other
 TOTAL PRICE \$

Approved By [Signature]
 Our Representative Tom Horcick

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name SPRINKLE #1 Test No. 5 Date 9/30/92
Company CHARTER PRODUCTION COMPANY Zone CHESTER
Address 224 EAST DOUGLAS #400 WICHITA KS 67202 Elevation 2729
Co. Rep./Geo. ROBERT SMITH Cont. ZENITH DRLG RIG #6 Est. Ft. of Pay _____
Location: Sec. 29 Twp. 34S Rge. 31W Co. SEWARD State KS

Interval Tested 6094-6186 Drill Pipe Size 4.5" XH
Anchor Length 92 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 6089 Drill Collar - 2.25 Ft. Run 517
Bottom Packer Depth 6094 Mud Wt. 8.9 lb/Gal.
Total Depth 6186 Viscosity 54 Filtrate 8

Tool Open @ 11:00 AM Initial Blow SURFACE BLOW BUILT TO 1/2" DECREASED TO NO BLOW

Final Blow NO BLOW-FLUSHED TOOL-GOT SURGE-NO BLOW

Recovery - Total Feet 15 Flush Tool? YES

Rec. 15 Feet of DRILLING MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 135 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 3800 ppm System

(A) Initial Hydrostatic Mud 2996.5 PSI AK1 Recorder No. 13277 Range 4125

(B) First Initial Flow Pressure 44.5 PSI @ (depth) 6098 w / Clock No. 27594

(C) First Final Flow Pressure 44.5 PSI AK1 Recorder No. 11038 Range 5075

(D) Initial Shut-in Pressure 60.9 PSI @ (depth) 6118 w / Clock No. 30418

(E) Second Initial Flow Pressure 70.3 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 70.3 PSI @ (depth) _____ w / Clock No. _____

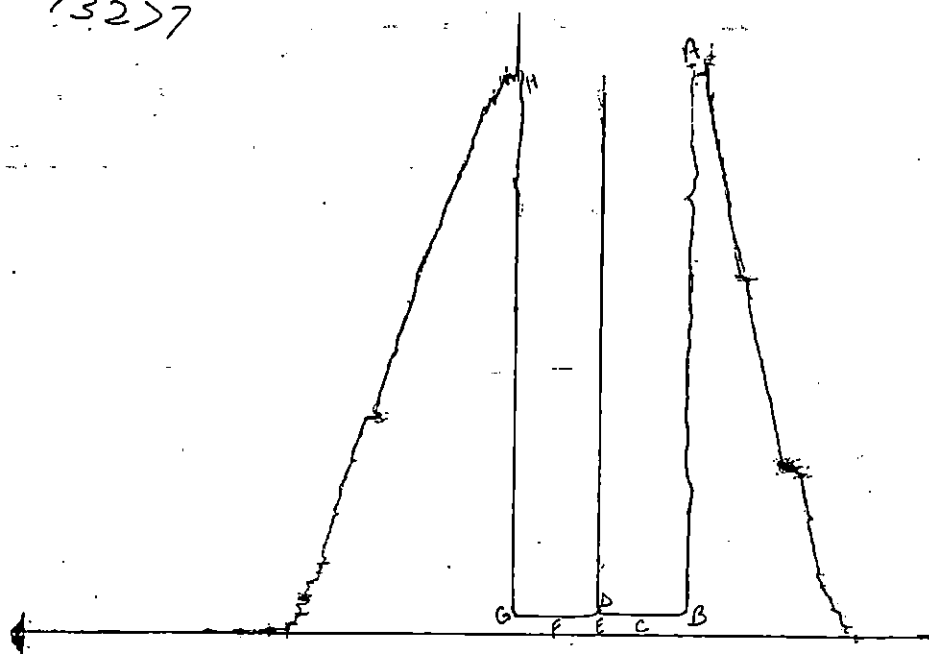
(G) Final Shut-in Pressure 85.4 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 2981.4 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative TOM HORACEK

CHART PAGE

DS 845
(32)7



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
) INITIAL HYDROSTATIC MUD	2992	2996.5
) FIRST INITIAL FLOW PRESSURE	41	44.5
) FIRST FINAL FLOW PRESSURE	41	44.5
) INITIAL CLOSED-IN PRESSURE	55	60.9
) SECOND INITIAL FLOW PRESSURE	68	70.3
) SECOND FINAL FLOW PRESSURE	68	70.3
) FINAL CLOSED-IN PRESSURE	82	85.4
) FINAL HYDROSTATIC MUD	2979	2981.4

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 4835

Well Name & No. Sprinkle #1 Test No. #5 Date 9-30-92
Company Charter Production Company Zone Tested Chester
Address 224 E. Douglas St. York, Wis. 53191 Elevation 2729 KB
Co. Rep./Geo. Robert Smith cont. Zenith Drilling Est. Ft. of Pay _____
Location: Sec. 29 Twp. 34 Rge. 31 Co. Seward State Ks.
No. of Copies 10 Distribution Sheet Yes X No Turnkey Yes _____ No _____ Evaluation _____

Interval Tested 6094-6186 Drill Pipe Size 4.5 x-Hole
Anchor Length 92' Top Choke - 1" _____ Bottom Choke - 3/4" _____
Top Packer Depth 6089 Hole Size - 7 7/8" _____ Rubber Size - 6 3/4" _____
Bottom Packer Depth 6094 Wt. Pipe I.D. - 2.7 Ft. Run _____
Total Depth 6186 Drill Collar - 2.25 Ft. Run 517'
Mud Wt. 8.9 lb/gal. Viscosity 54 Filtrate 8.0
Tool Open @ 11:00 AM Initial Blow Surface blow built to 12 in decreased to NO blow

Final Blow NO blow - Flused tool - got surge - NO blow

Recovery - Total Feet 15' Feet of Gas In Pipe _____ Flush Tool? yes

Rec. _____	Feet Of _____	%gas	%oil	%water	%mud
Rec. _____	Feet Of _____	%gas	%oil	%water	%mud
Rec. <u>15'</u>	Feet Of <u>Drilling mud</u>	%gas	%oil	%water	%mud
Rec. _____	Feet Of _____	%gas	%oil	%water	%mud
Rec. _____	Feet Of _____	%gas	%oil	%water	%mud

BHT 135 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 3,800 ppm System

- (A) Initial Hydrostatic Mud 2992 PSI AK1 Recorder No. 13277 Range 4125
- (B) First Initial Flow Pressure 41 PSI @ (depth) 6098 w/Clock No. 27594
- (C) First Final Flow Pressure 41 PSI AK1 Recorder No. 11038 Range 5075
- (D) Initial Shut-In Pressure 55 PSI @ (depth) 6118 w/Clock No. 30418
- (E) Second Initial Flow Pressure 68 PSI AK1 Recorder No. _____ Range _____
- (F) Second Final Flow Pressure 68 PSI @ (depth) _____ w/Clock No. _____
- (G) Final Shut-In Pressure 82 PSI Initial Opening 30 Test X 750.00
- (H) Final Hydrostatic Mud 2979 PSI Initial Shut-In 30 Jars 1 200.00

TRILOBITE TESTING COMPANY 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 SUBSTAINED, 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 X (200)
Final Shut-In 30 Straddle _____
Circ. Sub _____
Sampler _____
Extra Packer _____
Other _____
TOTAL PRICE \$ 1000.00

Approved By [Signature]
Our Representative Tom Horacek

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name SPRINKLE #1 Test No. 6 Date 10/2/92
Company CHARTER PRODUCTION COMPANY Zone ST GENEVIEVE
Address 224 EAST DOUGLAS #400 WICHITA KS 67202 Elevation 2729
Co. Rep./Geo. ROBERT SMITH Cont. ZENITH DRLG RIG #6 Est. Ft. of Pay
Location: Sec. 29 Twp. 34S Rge. 31W Co. SEWARD State KS

Interval Tested 6230-6472 Drill Pipe Size 4.5" XH
Anchor Length 242 Wt. Pipe I.D. - 2.7 Ft. Run
Top Packer Depth 6225 Drill Collar - 2.25 Ft. Run 371
Bottom Packer Depth 6230 Mud Wt. 9 lb/Gal.
Total Depth 6472 Viscosity 55 Filtrate 8.8

Tool Open @ 4:30 PM Initial Blow 2" BLOW-BUILT TO 7"
ISI: BLED OFF BLOW-NO BLOW BACK
Final Blow VERY WEAK BLOW-BUILT TO 7"
FSI: BLED OFF BLOW-NO BLOW

Recovery - Total Feet 310 Flush Tool? NO

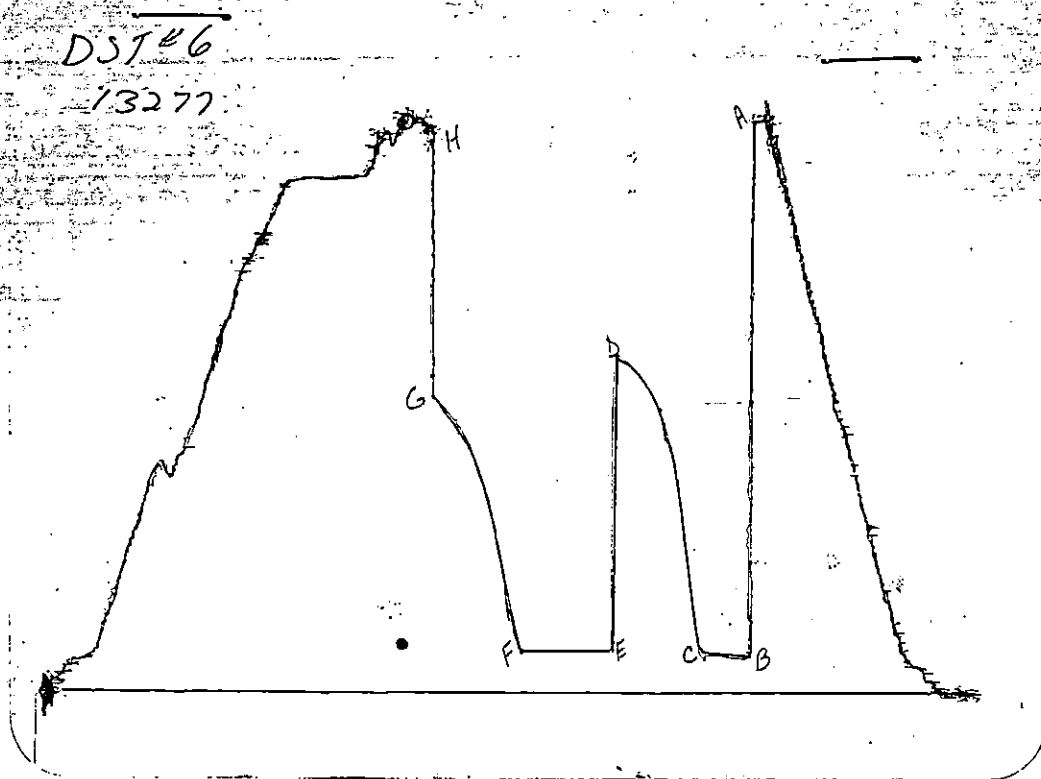
Rec. 310 Feet of DRILLING MUD
Rec. Feet of
Rec. Feet of
Rec. Feet of
Rec. Feet of

BHT 137 °F Gravity °API @ °F Corrected Gravity °API
RW @ °F Chlorides ppm Recovery Chlorides 3400 ppm System

(A) Initial Hydrostatic Mud 3086.5 PSI AK1 Recorder No. 13277 Range 4125
(B) First Initial Flow Pressure 181.2 PSI @ (depth) 6234 w / Clock No. 27594
(C) First Final Flow Pressure 195.6 PSI AK1 Recorder No. 11038 Range 5075
(D) Initial Shut-in Pressure 1855.4 PSI @ (depth) 6469 w / Clock No. 30418
(E) Second Initial Flow Pressure 220.1 PSI AK1 Recorder No. Range
(F) Second Final Flow Pressure 220.1 PSI @ (depth) w / Clock No.
(G) Final Shut-in Pressure 1615.9 PSI Initial Opening 30 Final Flow 60
(H) Final Hydrostatic Mud 3060.7 PSI Initial Shut-in 60 Final Shut-in 60

Our Representative TOM HORACEK

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	3082	3086.5
(B) FIRST INITIAL FLOW PRESSURE	176	181.2
(C) FIRST FINAL FLOW PRESSURE	190	195.6
(D) INITIAL CLOSED-IN PRESSURE	1852	1855.4
(E) SECOND INITIAL FLOW PRESSURE	217	220.1
(F) SECOND FINAL FLOW PRESSURE	217	220.1
(G) FINAL CLOSED-IN PRESSURE	1612	1615.9
(H) FINAL HYDROSTATIC MUD	3056	3060.7

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 4836

Well Name & No. Sprinkle #1 Test No. 26 Date 10-2-97
 Company Character Production Company Zone Tested St. Genevieve
 Address 224 E. Douglas St. 400 Wichita Ks. 67202 Elevation 2729 KB
 G.O. Rep./Geo. Robert Smith Cont. Zenith Drilling #6 Est. Ft. of Pay _____
 Location: Sec. 29 Twp. 34 Rge. 31 Co. Seward State Ks
 No. of Copies 10 Distribution Sheet Yes No Turnkey Yes _____ No _____ Evaluation _____

Interval Tested 6230-6472 Drill Pipe Size 4.5 x-Hole
 Anchor Length 242' Top Choke - 1" _____ Bottom Choke - 3/4"
 Top Packer Depth 6225 Hole Size - 7 7/8" _____ Rubber Size - 6 3/4"
 Bottom Packer Depth 6230 Wt. Pipe I.D. - 2.7 Ft. Run _____
 Total Depth 6472 Drill Collar - 2.25 Ft. Run 371'
 Mud Wt. 9.0 lb/gal. Viscosity 55 Filtrate 8.8

Well Open @ 4:30 pm Initial Blow 2 in. blow - built to 7 in.
FSI - Bled off blow - NO blow back
 Final Blow very weak blow - built to 7 in.
FSI - Bled off blow - NO blow

Recovery - Total Feet	Feet of Gas In Pipe	Flush Tool?
<u>310'</u>	_____	<u>NO</u>
ec. _____ Feet Of _____	% gas _____ % oil _____	% water _____ % mud _____
ec. _____ Feet Of _____	% gas _____ % oil _____	% water _____ % mud _____
ec. <u>310'</u> Feet Of <u>Dolg mud</u>	% gas _____ % oil _____	% water _____ % mud _____
ec. _____ Feet Of _____	% gas _____ % oil _____	% water _____ % mud _____
ec. _____ Feet Of _____	% gas _____ % oil _____	% water _____ % mud _____

HT 137 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 W _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 3400 ppm System

(A) Initial Hydrostatic Mud 3082 PSI AK1 Recorder No. 13277 Range 4125
 (B) First Initial Flow Pressure 176 PSI @ (depth) 6234 w/Clock No. 27594
 (C) First Final Flow Pressure 190 PSI AK1 Recorder No. 11038 Range 5075
 (D) Initial Shut-In Pressure 1852 PSI @ (depth) 6469 w/Clock No. 30418
 (E) Second Initial Flow Pressure 217 PSI AK1 Recorder No. _____ Range _____
 (F) Second Final Flow Pressure 217 PSI @ (depth) _____ w/Clock No. _____
 (G) Final Shut-In Pressure 1612 PSI Initial Opening 30 Test 750
 (H) Final Hydrostatic Mud 3056 PSI Initial Shut-In 60 Jars 1 200

Final Flow 60 Safety Joint 50
 Final Shut-In 60 Straddle _____
 Circ. Sub _____
 Sampler _____

Approved By [Signature]
 Our Representative Tom Hucacek
 Extra Packer _____
 Other _____
 TOTAL PRICE \$ 1000.00



HALLIBURTON SERVICES

INVOICE

A Halliburton Company

INVOICE NO.	DATE
251151	10/03/1992

WELL LEASE NO./PLANT NAME	WELL/PLANT LOCATION	STATE	WELL/PLANT OWNER
SPRINKLE 1	SEWARD	KS	SAME
SERVICE LOCATION	CONTRACTOR	JOB PURPOSE	TICKET DATE
LIBERAL	ZENITH	CEMENT PRODUCTION CASING	10/03/1992
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER
155799	ROBERT MOOREHEAD		
			SHIPPED VIA
			COMPANY TRUCK
			FILE NO
			41155

DIRECT CORRESPONDENCE TO:

CHARTER PRODUCTION
224 E. DOUGLAS, SUITE 400
WICHITA, KS 67202

JAN 1 1
CONFIDENTIAL

FIRST OKLAHOMA TOWER
210 WEST PARK AVENUE
SUITE 2050
OKLAHOMA CITY, OK 73102-5601

PRICE REF. NO.	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	AMOUNT
000-1117	PRASING AREA - EASTERN AREA MILEAGE	15	MI	2.60	39.00
007-013	MULT STAGE CEMENTING-1ST STAGE	5985	FT	1,520.00	1,520.00
001-016		1	UNT		
007-161	MULT STAGE CEMENTING-ADD STAGE	1	STG	1,025.00	1,025.00
019-241	CASING SWIVEL W/O WALL CLEANER RD	1	JOB	155.00	155.00
018-317	SUPER FLUSH	20	SK	98.00	1,960.00
218-738	CLAYFIX II	13	GAL	20.00	260.00
12A	GUIDE SHOE - 5 1/2" BRD THD.	1	EA	121.00	121.00
825.205					
24A	INSERT FLOAT VALVE - 5 1/2" BRD	1	EA	83.00	83.00
815.19251					
27	FILL-UP UNIT 5 1/2"-6 5/8"	1	EA	30.00	30.00
815.19311					
40	CENTRALIZER 5-1/2" X 7 7/8"	10	EA	44.00	440.00
807.93022					
66	FASGRIP LIMIT CLAMP 5 1/2"	2	EA	11.30	22.60
807.64031					
71	MULT STAGE CEMENTER 5-1/2" BRD	1	EA	2,450.00	2,450.00
813.10354					
75	PLUG SET - FREE FALL - 2-STAGE	1	EA	460.00	460.00
813.16510					
320	CEMENT BASKET 5 1/2"	2	EA	90.00	180.00
800.8883					
007-203	MULT STAGE CEMENTING-ADD HRS	2	HR	180.00	360.00
		1	EA		
504-043	PREMIUM CEMENT	320	SK	7.94	2,540.80
507-775	HALAD-322	180	LB	6.30	1,134.00
508-127	CAL SEAL	21	SK	19.70	413.70
508-291	GILSONITE BULK	1920	LB	.35	672.00
509-968	SALT	2299	LB	.10	229.90

ORIGINAL

RELEASED

FEB 14 1995

FROM CONFIDENTIAL

***** CONTINUED ON NEXT PAGE *****

WICHITA DIVISION

TERMS INVOICES PAYABLE NET BY THE 20TH OF THE FOLLOWING MONTH AFTER DATE OF INVOICE. UPON CUSTOMER'S DEFAULT IN PAYMENT OF CUSTOMER'S ACCOUNT BY THE LAST DAY OF THE MONTH FOLLOWING THE MONTH IN WHICH THE INVOICE IS DATED, CUSTOMER AGREES TO PAY INTEREST THEREON AFTER DEFAULT AT THE HIGHEST LAWFUL CONTRACT RATE APPLICABLE BUT NEVER TO EXCEED 18% PER ANNUM. IN THE EVENT IT BECOMES NECESSARY TO EMPLOY AN ATTORNEY TO ENFORCE COLLECTION OF SAID ACCOUNT, CUSTOMER AGREES TO PAY ALL COLLECTION COSTS AND ATTORNEY FEES IN THE AMOUNT OF 20% OF THE AMOUNT OF THE UNPAID ACCOUNT.

REMIT TO:

951046

REMIT TO:

P.O. BOX 951046

DALLAS, TX 75395-1046

ORIGINAL



HALLIBURTON SERVICES

A Halliburton Company

INVOICE

INVOICE NO.	DATE
251151	10/03/1994

WELL LEASE NO./PLANT NAME	WELL/PLANT LOCATION	STATE	WELL/PLANT OWNER
SPRINKLE 1	SEWARD	KS	SAME
SERVICE LOCATION	CONTRACTOR	JOB PURPOSE	TICKET DATE
LIBERAL	ZENITH	CEMENT PRODUCTION CASING	10/03/1994
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER
155799	ROBERT MOOREHEAD		
		SHIPPED VIA	FILE NO.
		COMPANY TRUCK	41155

CHARTER PRODUCTION
 224 E. DOUGLAS, SUITE 400
 WICHITA, KS 67202

DIRECT CORRESPONDENCE TO:
 FIRST OKLAHOMA TOWER
 210 WEST PARK AVENUE
 SUITE 2050
 OKLAHOMA CITY, OK 73102-5601

PRICE REF. NO.	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	AMOUNT
500-207	BULK SERVICE CHARGE	419	CFT	1.15	481.85
500-306	MILEAGE CMTG. MAT DEL OR. RETURN	823.028	TMI	.80	658.42
	INVOICE SUBTOTAL				15,236.27
	DISCOUNT--(BID.)				2,285.42
	INVOICE BID AMOUNT				12,950.85
	*-KANSAS STATE SALES TAX				403.48
	*-SEWARD COUNTY SALES TAX				82.37
	INVOICE TOTAL - PLEASE PAY THIS AMOUNT				\$13,436.70

JAN 11
CONFIDENTIAL

ORIGINAL

RELEASED
FEB 14 1995
FROM CONFIDENTIAL

RECEIVED
COMMISSION

12 1995

WICHITA DIVISION
Wichita, Kansas
\$13,436.70

TERMS INVOICES PAYABLE NET BY THE 20TH OF THE FOLLOWING MONTH AFTER DATE OF INVOICE. UPON CUSTOMER'S DEFAULT IN PAYMENT OF CUSTOMER'S ACCOUNT BY THE LAST DAY OF THE MONTH FOLLOWING THE MONTH IN WHICH THE INVOICE IS DATED, CUSTOMER AGREES TO PAY INTEREST THEREON AFTER DEFAULT AT THE HIGHEST LAWFUL CONTRACT RATE APPLICABLE BUT NEVER TO EXCEED 18% PER ANNUM, IN THE EVENT IT BECOMES NECESSARY TO ENFORCE THIS AGREEMENT.

DUPLICATE



The Western Company
of North America

REMIT TO: P.O. BOX 911543
DALLAS, TX 75391-1543

INVOICE NO. 405517	OUR RECEIPT NO. 205509	DATE 09/17/82
YOUR ORDER NO.		
16461	1225	

RECEIVED
DIVISION
Kansas

2 1993

CHARTER PRODUCTION CO.
224 E. DOUGLAS #400
WICHITA KS 67202

SERVICES FROM OUR STATION AT PERRYTON CEMENTING	OUR ENGINEER ARRINGTON	SIGNED FOR YOU BY SCOTT
FOR SERVICING WELL NAME SPRINKLE 1	COUNTY SEWARD	STATE KS 15

FEDERAL I.D. NO. C 75-0763484

PRODUCT CODE	DESCRIPTION	UNIT OF MEASURE	QUANTITY	LIST PRICE/UNIT	GROSS AMOUNT	PERCENT DISC.	NET AMOUNT
F0045	CEMENT CASING, 1001 - 1500'	BHRS	1.0	902.000	902.00	42.00	523.16
K1005	MILEAGE CHARGE, PER UNIT	MILE	15.0	2.600	39.00	42.00	22.62
K1025	MILEAGE AUTO/PICK-UP/TREATING VAN	MILE	15.0	1.350	20.25	42.00	11.75
M1005	BULK MATERIALS SVC CHG-LAND JOBS	CU FT	778.2	1.200	933.84	42.00	541.63
M2305	DELIVERY CHG BULK MATLS	TONMI	513.7	.800	410.96	42.00	238.36
P0527	CALCIUM CHLORIDE-TEXAS PANHANDLE	LB	160.0	.350	56.00	42.00	32.48
P0817	SODIUM CHLORIDE-S MISSISSIPPI	LB	1750.0	.100	175.00	42.00	101.50
P1715	CELLO-SEAL	LB	67.0	1.750	117.25	42.00	68.01
P3625	CMT PLUG, RUBBER, TOP 8-5X8"	EACH	1.0	97.200	97.20	42.00	56.38
P392N	PREM PLUS CMT, HUGOTON, KS	SACK	150.0	8.150	1222.50	42.00	709.05
P452F	PACESSETTER LITE II, PERRYTON, TX	SACK	535.0	8.500	4547.50	42.00	2,637.55
13156	GUIDE SHOE/LONG BOX 8 5/8" 8RD	EACH	1.0	216.000	216.00	42.00	125.28
17068	CENTRALIZER W/ PIN 8 5/8"	EACH	3.0	63.000	189.00	42.00	109.62
17120	CEMENT BASKET, SLIP ON 8 5/8"	EACH	1.0	227.000	227.00	42.00	131.66
17299	FLOAT CL/ALINS/FV AF LTR 8 5/8" 8RD	EACH	1.0	313.000	313.00	42.00	181.54
	SUB TOTAL				9466.50		5,490.59

JAN 11
CONFIDENTIAL

ORIGINAL

RELEASED
FFA 1 4 1993
FROM CONFIDENTIAL

PHONE: (713) 629-2600

TERMS: NET 30 DAYS

PAY THIS AMOUNT

5,490.59