

DRILL STEM TEST REPORT

Prepared For: **Grady Bolding Corp**

PO Box 486
Ellinwood, KS 67526

ATTN: Grady Bolding Corp

25-18-25 Ness,Ks

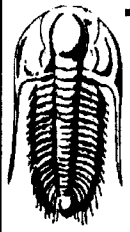
Sutton #1

Start Date: 2002.11.10 @ 11:26:59

End Date: 2002.11.10 @ 16:31:28

Job Ticket #: 15204 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Grady Bolding Corp

Sutton #1

PO Box 486
Elinwood, KS 67526

25-18-25 Ness, Ks

Job Ticket: 15204

DST#: 1

ATTN: Grady Bolding Corp

Test Start: 2002.11.10 @ 11:26:59

GENERAL INFORMATION:

Formation: **Ft Scott**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 13:05:13

Time Test Ended: 16:31:28

Test Type: **Conventional Bottom Hole**

Tester: **Shane McBride**

Unit No: **15**

Interval: **4265.00 ft (KB) To 4330.00 ft (KB) (TVD)**

Total Depth: **4330.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **2377.00 ft (KB)**

2372.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: 3227

Inside

Press@RunDepth: **38.98 psig @ 4267.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2002.11.10**

End Date: **2002.11.10**

Last Calib.: **1899.12.30**

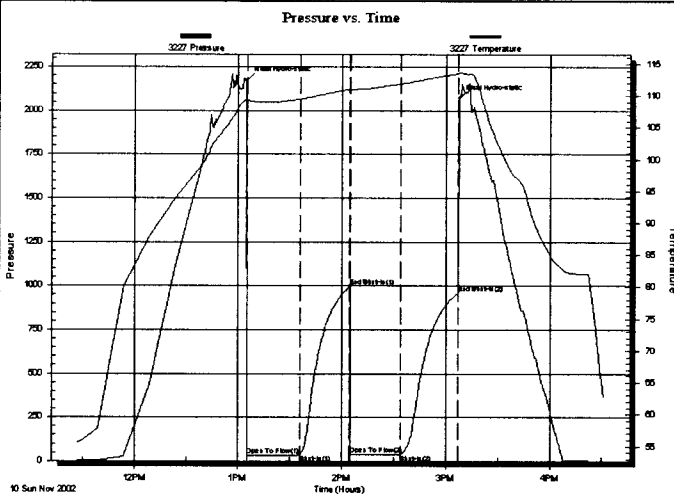
Start Time: **11:26:59**

End Time: **16:31:28**

Time On Btm: **2002.11.10 @ 13:04:58**

Time Off Btm: **2002.11.10 @ 15:07:43**

TEST COMMENT: Weak blow died in 17 min
No return
No blow, flushed tool after 5 min. good surge, no blow
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2171.60	109.34	Initial Hydro-static
1	30.63	109.20	Open To Flow (1)
31	34.65	109.46	Shut-in(1)
60	994.32	111.01	End Shut-in(1)
60	34.67	110.96	Open To Flow (2)
89	38.98	111.86	Shut-in(2)
123	959.31	113.47	End Shut-in(2)
123	2070.48	113.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud 100% m	0.21

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Grady Bolding Corp

Sutton #1

PO Box 486
Ellinwood, KS 67526

25-18-25 Ness, Ks

Job Ticket: 15204

DST#: 1

ATTN: Grady Bolding Corp

Test Start: 2002.11.10 @ 11:26:59

Tool Information

Drill Pipe:	Length: 4275.00 ft	Diameter: 3.80 inches	Volume: 59.97 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 28000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 59.97 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	4265.00 ft			Final 40000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	66.00 ft			
Tool Length:	85.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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S.I. Tool	5.00			4251.00	
HMV	5.00			4256.00	
Packer	5.00			4261.00	19.00 Bottom Of Top Packer
Packer	4.00			4265.00	
Stubb	1.00			4266.00	
C.O. Sub	1.00			4267.00	
Recorder	0.00	3227	Inside	4267.00	
Perforations	26.00			4293.00	
C.O. Sub	1.00			4294.00	
drillpipe	31.00			4325.00	
C.O. Sub	1.00			4326.00	
Recorder	0.00	11057	Outside	4326.00	
Bullnose	5.00			4331.00	66.00 Bottom Packers & Anchor

Total Tool Length: 85.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Grady Bolding Corp

Sutton #1

PO Box 486
Ellinwood, KS 67526

25-18-25 Ness, Ks

Job Ticket: 15204

DST#: 1

ATTN: Grady Bolding Corp

Test Start: 2002.11.10 @ 11:26:59

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 49.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.58 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3500.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	mud 100% m	0.210

Total Length: 15.00 ft Total Volume: 0.210 bbl

Num Fluid Samples: 0

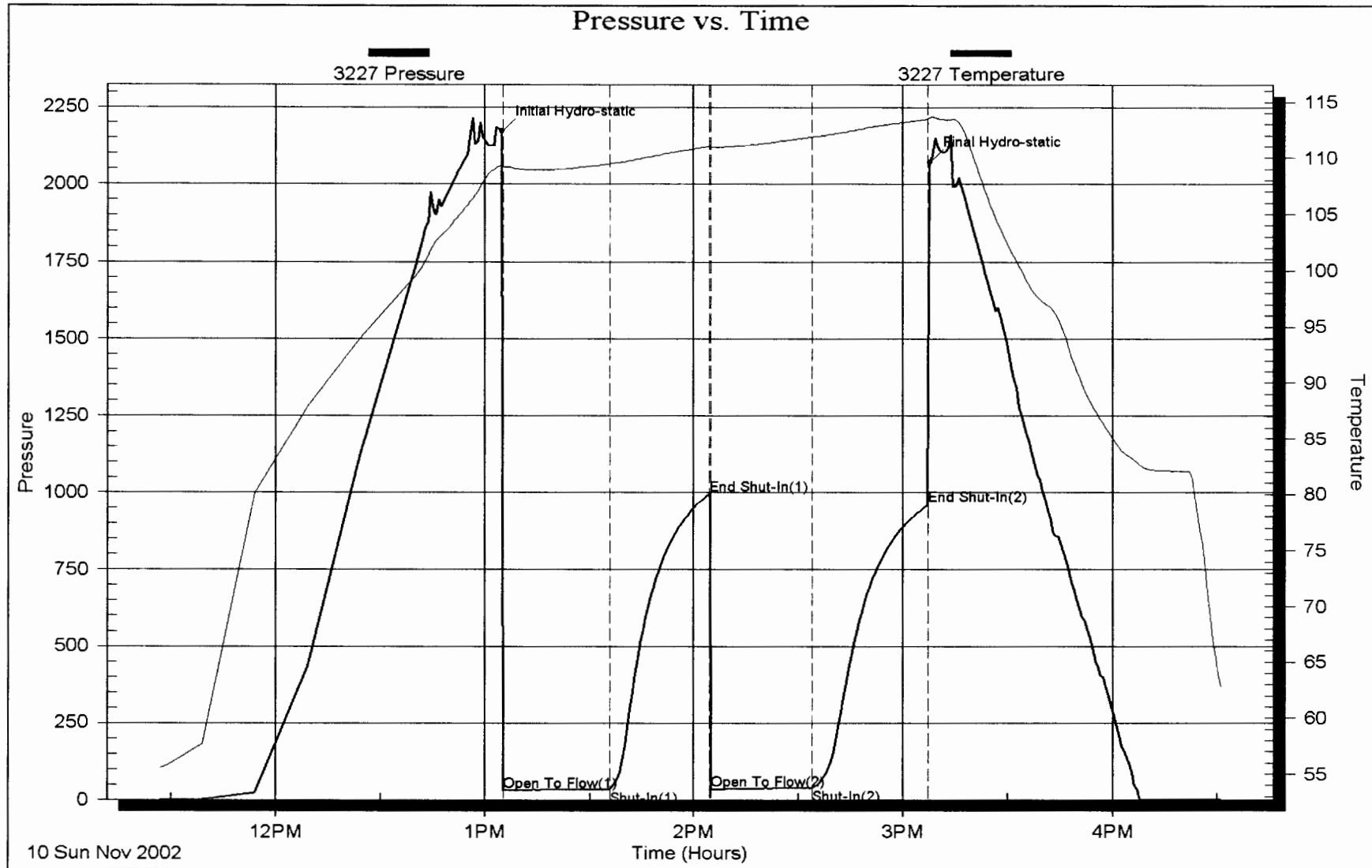
Num Gas Bombs: 0

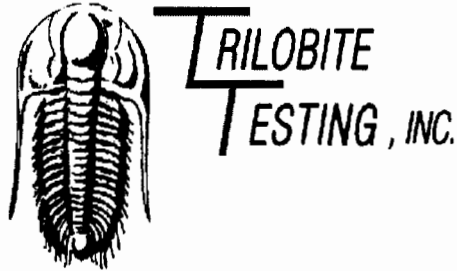
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Grady Bolding Corp**

PO Box 486
Ellinwood, KS 67526

ATTN: Grady Bolding Corp

25-18-25 Ness,Ks

Sutton #1

Start Date: 2002.11.11 @ 09:27:29

End Date: 2002.11.11 @ 16:24:58

Job Ticket #: 15205 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Grady Bolding Corp

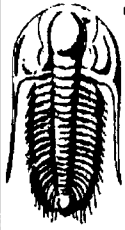
Sutton #1

25-18-25 Ness,Ks

DST # 2

miss

2002.11.11



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Grady Bolding Corp

Sutton #1

PO Box 486
Ellinwood, KS 67526

25-18-25 Ness, Ks

Job Ticket: 15205

DST#: 2

ATTN: Grady Bolding Corp

Test Start: 2002.11.11 @ 09:27:29

GENERAL INFORMATION:

Formation: **miss**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 11:24:43

Time Test Ended: 16:24:58

Test Type: **Conventional Bottom Hole**

Tester: **Shane McBride**

Unit No: **15**

Interval: **4325.00 ft (KB) To 4426.00 ft (KB) (TVD)**

Reference Elevations: **2377.00 ft (KB)**

Total Depth: **4426.00 ft (KB) (TVD)**

2372.00 ft (CF)

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

KB to GR/CF: **5.00 ft**

Serial #: 3227

Inside

Press@RunDepth: **111.68 psig @ 4326.00 ft (KB)**

Capacity: **7000.00 psig**

Start Date: **2002.11.11**

End Date:

2002.11.11

Last Calib.: **1899.12.30**

Start Time: **09:27:29**

End Time:

16:24:58

Time On Btm: **2002.11.11 @ 11:24:28**

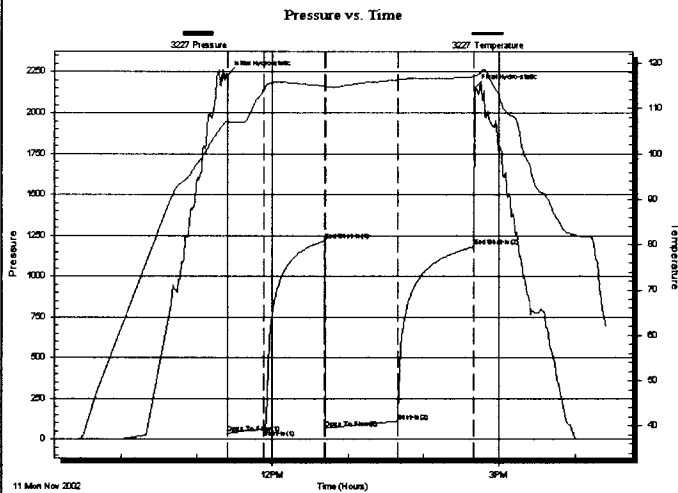
Time Off Btm: **2002.11.11 @ 14:40:43**

TEST COMMENT: **1/2" @ open , built to 2" in.**

No return

1/4" @ open , built to 2 1/2" in.

No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2232.30	107.10	Initial Hydro-static
1	37.04	107.02	Open To Flow (1)
29	64.33	114.26	Shut-In(1)
77	1218.84	114.98	End Shut-In(1)
78	69.24	114.85	Open To Flow (2)
135	111.68	116.30	Shut-In(2)
196	1181.59	117.08	End Shut-In(2)
197	2150.09	117.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
160.00	s w c m w/oil spots 15%w 85%m	2.24

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Grady Bolding Corp

Sutton #1

PO Box 486
Ellinwood, KS 67526

25-18-25 Ness, Ks

Job Ticket: 15205

DST#: 2

ATTN: Grady Bolding Corp

Test Start: 2002.11.11 @ 09:27:29

Tool Information

Drill Pipe:	Length: 4337.00 ft	Diameter: 3.80 inches	Volume: 60.84 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 28000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 60.84 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial 43000.00 lb
Depth to Top Packer:	4325.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	101.00 ft			
Tool Length:	121.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
C.O. Sub	1.00			4306.00	
S.I. Tool	5.00			4311.00	
HMV	5.00			4316.00	
Packer	5.00			4321.00	20.00 Bottom Of Top Packer
Packer	4.00			4325.00	
Stubb	1.00			4326.00	
Recorder	0.00	3227	Inside	4326.00	
Perforations	31.00			4357.00	
C.O. Sub	1.00			4358.00	
drillpipe	62.00			4420.00	
C.O. Sub	1.00			4421.00	
Recorder	0.00	11057	Outside	4421.00	
Bullnose	5.00			4426.00	101.00 Bottom Packers & Anchor

Total Tool Length: 121.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Grady Bolding Corp

Sutton #1

PO Box 486
Ellinwood, KS 67526

25-18-25 Ness, Ks

Job Ticket: 15205

DST#: 2

ATTN: Grady Bolding Corp

Test Start: 2002.11.11 @ 09:27:29

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 58.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.18 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
160.00	s w c m w/oil spots 15%w 85%m	2.244

Total Length: 160.00ft Total Volume: 2.244 bbl

Num Fluid Samples: 0

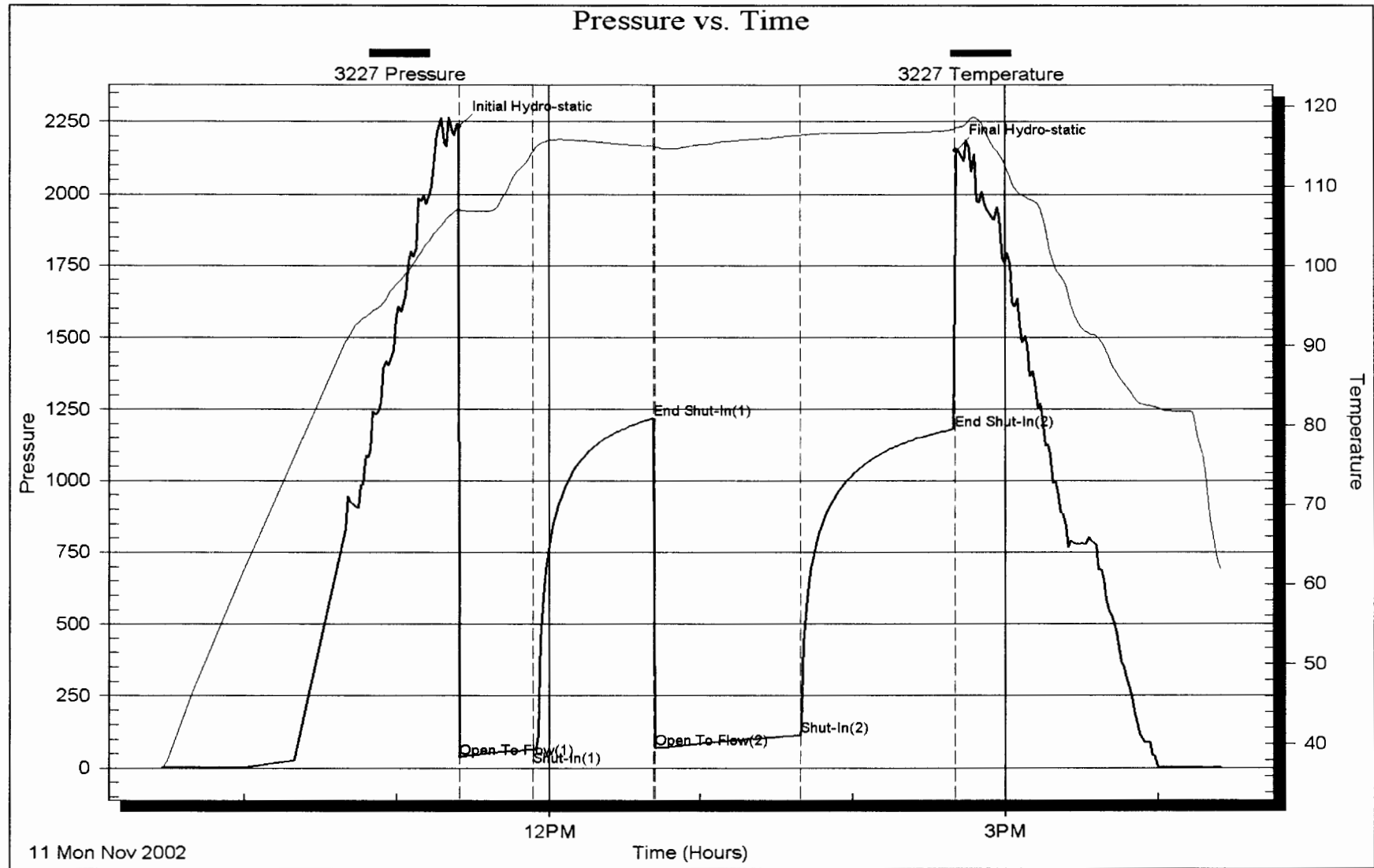
Num Gas Bombs: 0

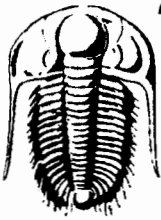
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

INV # 5236
2006

No 15204

Test Ticket

Well Name & No. Sutton #1 Test No. #1 Date 11/10/02
 Company Grady Bolding Corp. Zone Tested FT Scott
 Address P.O. Box 486, Ellinwood, KS 67526 Elevation 2377' KB 2372' GL
 Co. Rep / Geo. Jim Musgrove Cont. L.D. #1 Est. Ft. of Pay Por. %
 Location: Sec. 25 Twp. 18 Rge. 25 Co. Ness State KS
 No. of Copies None Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 4265' 4330' Initial Str Wt./Lbs. 40,000 Unseated Str Wt./Lbs. 40,000
 Anchor Length 65' Wt. Set Lbs. 28,000 Wt. Pulled Loose/Lbs. 60,000
 Top Packer Depth 4260' Tool Weight 1500
 Bottom Packer Depth 4265' Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 4330' Wt. Pipe Run Drill Collar Run
 Mud Wt. 9.3 LCM Tr Vis. 49 WL 9.6 Drill Pipe Size 4 1/2 XH Ft. Run 4275'
 Blow Description Weak blow died in 17 min
No return
No blow, Flushed tool after 5 min (good surge) No blow

Recovery — Total Feet 15' GIP Ft. in DC Ft. in DP 15'
 Rec. 15' Feet Of Mud %gas %oil %water 100% %mud
 Rec. Feet Of %gas %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 1130 °F Gravity °API D@ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides 3500 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		2180		3227	10:20 AM
(B) First Initial Flow Pressure		30		(depth) 4266'	T-Started 11:20 AM
(C) First Final Flow Pressure		34		11057	T-Open 13:05 p.m.
(D) Initial Shut-In Pressure		994		(depth) 4325'	T-Pulled 15:05 p.m.
(E) Second Initial Flow Pressure		34			T-Out 16:50 p.m.
(F) Second Final Flow Pressure		38		(depth) <u> </u>	T-Off Location 17:40 p.m.
(G) Final Shut-in Pressure		959		Initial Opening 30	Test X <u>800</u>
(Q) Final Hydrostatic Mud		2150		Initial Shut-in 30	Jars <u> </u>

Final Flow 30 Safety Joint
 Final Shut-in 30 Straddle
 Circ. Sub X N/E
 Sampler

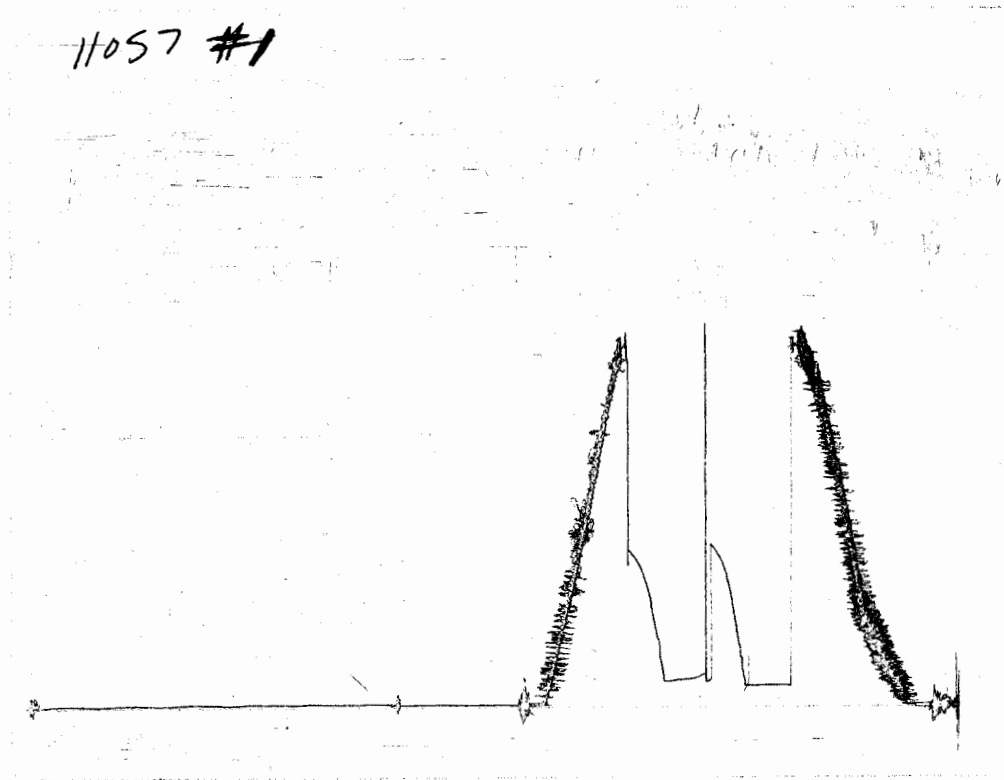
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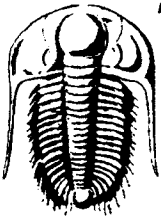
Approved By
 Our Representative Jim Musgrove

Extra Packer
 Elec. Rec. X 150
 Mileage X 53 1 way 53
 Other 41003
 TOTAL PRICE \$

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 15205

Test Ticket

Well Name & No. Sutton #1 Test No. #2 Date 11/11/02
 Company Grady Bolding Corp. Zone Tested MISS
 Address P.O. Box 486, Ellinwood, KS 67526 Elevation 2377' KB 2322' GL
 Co. Rep / Geo. Jim Musgrove Cont. L. D. #1 Est. Ft. of Pay Por. %
 Location: Sec. 25 Twp. 18 Rge. 25 Co. Ness State Ks
 No. of Copies Norm Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 4325' 4426' Initial Str Wt./Lbs. 43,000 Unseated Str Wt./Lbs. 44,000
 Anchor Length 101' Wt. Set Lbs. 28,000 Wt. Pulled Loose/Lbs. 60,000
 Top Packer Depth 4320' Tool Weight 1500
 Bottom Packer Depth 4325' Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Total Depth 4426' Wt. Pipe Run Drill Collar Run
 Mud Wt. 9.5 LCM TV Vis. 58 WL 11.2 Drill Pipe Size 4 1/2 X H Ft. Run 4337'
 Blow Description 1/2" in @ open built to 2" in
No return
1/4" in @ open built to 2 1/2" in.
No return

Recovery — Total Feet 160' GIP Ft. in DC Ft. in DP 160
 Rec. 160 Feet Of 5 w c m w/ all sps %gas %oil %water 15 %mud 85
 Rec. Feet Of %gas %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 °F Gravity °API D@ °F Corrected Gravity °API
 RW @ °F Chlorides ppm Recovery Chlorides 4,000 ppm System

	AK-1	Alpine	PSI	Recorder No.	T-On Location
(A) Initial Hydrostatic Mud		<u>2244</u>		<u>3227</u>	<u>08:50 A.M.</u>
(B) First Initial Flow Pressure		<u>37</u>		(depth) <u>4326'</u>	T-Started <u>09:30 A.M.</u>
(C) First Final Flow Pressure		<u>64</u>		Recorder No. <u>11057</u>	T-Open <u>11:25 A.M.</u>
(D) Initial Shut-In Pressure		<u>1218</u>		(depth) <u>4421'</u>	T-Pulled <u>14:40 P.M.</u>
(E) Second Initial Flow Pressure		<u>69</u>		Recorder No. <u> </u>	T-Out <u>16:50 P.M.</u>
(F) Second Final Flow Pressure		<u>111</u>		(depth) <u> </u>	T-Off Location <u>18:10 P.M.</u>
(G) Final Shut-in Pressure		<u>1181</u>		Initial Opening <u>30</u>	Test X <u>800</u>
(Q) Final Hydrostatic Mud		<u>2150</u>		Initial Shut-in <u>45</u>	Jars <u> </u>

Final Flow 60 Safety Joint
 Final Shut-in 60 Straddle
 Circ. Sub X N/C
 Sampler
 Extra Packer
 Elec. Rec. X 150
 Mileage X 53 / way 53
 Other
 TOTAL PRICE \$ 1003

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Approved By [Signature]
 Our Representative [Signature]

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart

