

OPERATOR

Company: TDI, INC.
 Address: 1310 BISON ROAD
 HAYS, KANSAS 67601

Contact Geologist: TOM DENNING
 Contact Phone Nbr: 785-259-3141
 Well Name: ROHR-SCHMEIDLER UNIT # 1
 Location: E2 W2 W2 SE Sec.32-14s-18w
 Pool: IN FIELD
 State: KANSAS

API: 15-051-26310-00-00
 Field: ENGEL WEST
 Country: USA



TDI, Inc.
 1310 BISON ROAD
 HAYS, KANSAS 67601
 (785) 628-2593

Scale 1:240 Imperial

Well Name: ROHR-SCHMEIDLER UNIT # 1
 Surface Location: E2 W2 W2 SE Sec.32-14s-18w
 Bottom Location:
 API: 15-051-26310-00-00
 License Number: 4787
 Spud Date: 6/25/2012 Time: 1:00 PM
 Region: ELLIS COUNTY Time: 1:51 PM
 Drilling Completed: 6/30/2012
 Surface Coordinates: 1320' FSL & 2250' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 2039.00ft
 K.B. Elevation: 2049.00ft
 Logged Interval: 2900.00ft To: 3750.00ft
 Total Depth: 3750.00ft
 Formation: LANSING-KANSAS CITY
 Drilling Fluid Type: GEL/CHEMICAL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: Latitude:
 N/S Co-ord: 1320' FSL
 E/W Co-ord: 2250' FEL

LOGGED BY

Company: SOLUTIONS CONSULTING
 Address: 108 W 35TH
 HAYS, KS 67601

Phone Nbr: (785) 639-1337
 Logged By: GEOLOGIST

Name: HERB DEINES

CONTRACTOR

Contractor: SOUTHWIND DRILLING INC.
 Rig #: 1
 Rig Type: MUD ROTARY
 Spud Date: 6/25/2012
 TD Date: 6/30/2012
 Rig Release: 7/1/2012

Time: 1:00 PM
 Time: 1:51 PM
 Time: 12:00 AM

ELEVATIONS

K.B. Elevation: 2049.00ft
 K.B. to Ground: 10.00ft
 Ground Elevation: 2039.00ft

NOTES

RECOMMENDATION TO RUN PRODUCTION BASED ON FAVORABLE STRUCTURE AND POSITIVE RESULTS OF DST # 1.


FORMATION TOPS SUMMARY AND SUMMARY OF DAILY ACTIVITY AND DEPTH AT 7:00AM

ROHR-SCHMEIDLER UNIT #1
1320' FSL & 2250' FEL, SE/4
Sec.32-14s-18w
2039' GL 2049' KB

<u>FORMATION</u>	<u>SAMPLE TOPS</u>	<u>LOG TOPS</u>
Anhydrite	1232+ 817	1226+ 823
B-Anhydrite	1265+ 784	1263+ 786
Topeka	3006- 957	3004- 955
Heebner Shale	3273-1224	3272-1223
Toronto	3297-1248	3294-1245
LKC	3322-1273	3321-1272
BKC	3556-1507	3556-1507
Arbuckle	3638-1589	3638-1589
RTD	3750-1701	
LTD		3750-1701

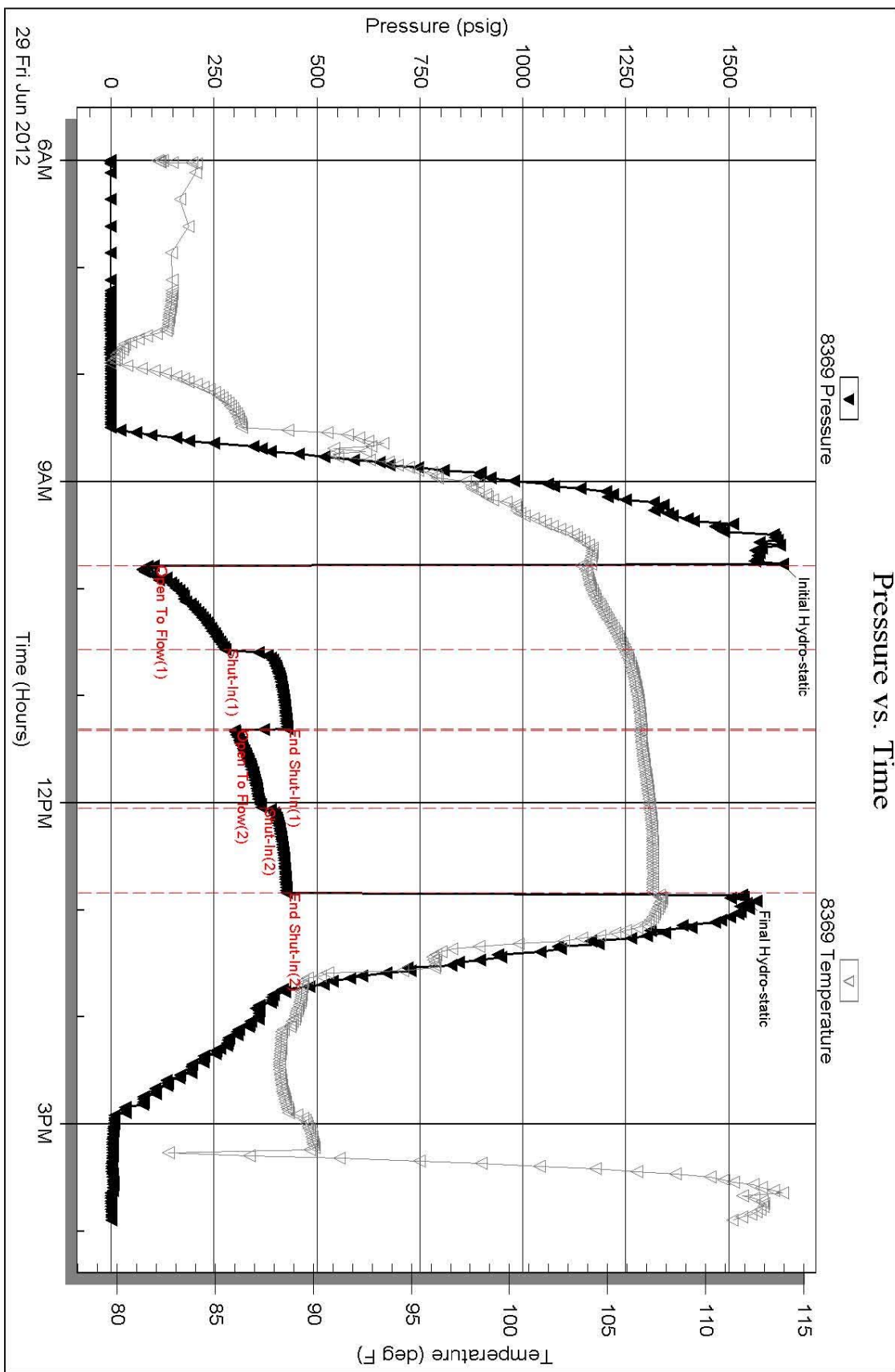
- 6-25-12 RU, Spud, set surface casing to 212.56' w/150 sxs. Common, 2%gel, 3%CC, Slope survey 1/4 degree, WOC 8 hrs. Plug down 5:15PM, Quality Cementing Ticket # 693
- 6-26-12 580', drilling
- 6-27-12 2015', drilling
- 6-28-12 2835', drilling, displaced 2890'-2929'
- 6-29-12 3380', drilling, DST # 1 3304'-3380'
- 6-30-12 3616', drilling, RTD 3750', mini short trip, CCH, out for logs
- 7-01-12 3750', logging completed, lay down drill pipe, run casing, RD

DST # 1 SUMMARY PAGE

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT									
	TDI, Inc. 1310 Bison Rd Hays KS 67601 ATTN: Herb	32-14-18, Ellis, KS Rohr-Schmeidler #1 Job Ticket: 49264 DST#: 1 Test Start: 2012.06.29 @ 06:00:00								
GENERAL INFORMATION:										
Formation: KC" A-D" Deviated: No Whipstock: ft (KB) Time Tool Opened: 09:47:00 Time Test Ended: 15:53:30		Test Type: Conventional Bottom Hole (Initial) Tester: Brett Dickinson Unit No: 59								
Interval: 3304.00 ft (KB) To 3380.00 ft (KB) (TVD) Total Depth: 3380.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition:		Reference Elevations: 2049.00 ft (KB) 2041.00 ft (CF) KB to GR/CF: 8.00 ft								
Serial #: 8369 Inside										
Press@RunDepth: 364.94 psig @ 3305.00 ft (KB) Start Date: 2012.06.29 End Date: 2012.06.29 Start Time: 06:00:05 End Time: 15:53:30		Capacity: 8000.00 psig Last Calib.: 2012.06.29 Time On Btm: 2012.06.29 @ 09:46:00 Time Off Btm: 2012.06.29 @ 12:53:00								
TEST COMMENT: IF-BOB in 9min died back to 3in slid 15ft to bottom ISI-BOB in 10.5min FF-BOB in 5.5min FSI-BOB in 35min died back to 11in										
	PRESSURE SUMMARY									
	Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation						
	0	1629.24	104.16	Initial Hydro-static						
	1	104.16	103.66	Open To Flow (1)						
	48	277.17	105.83	Shut-In(1)						
	93	426.79	106.71	End Shut-In(1)						
	94	300.09	106.68	Open To Flow (2)						
	137	364.94	107.15	Shut-In(2)						
	185	425.43	107.30	End Shut-In(2)						
	187	1534.55	107.67	Final Hydro-static						
Recovery		Gas Rates								
Length (ft)	Description	Volume (bbl)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Choke (inches)</th> <th style="width: 30%;">Pressure (psig)</th> <th style="width: 40%;">Gas Rate (Mcf/d)</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)			
Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)								
216.00	VSOCMV 5%O 10%M 85%WV	3.03								
434.00	GVSVMCO 50%G 5%W 45%O	6.09								
210.00	VGOCM 60%G 20%M 20%O	2.95								
60.00	VSOCM 2%O 98%M	0.84								

DST # 1 EXPANDED CHARTS

Serial #: 8369 Inside TDJ, Inc. Rohr-Schneider #1 DST Test Number: 1



Triobite Testing, Inc

Ref. No: 49264

Printed: 2012.06.29 @ 16:39:36

ROCK TYPES

Dolprim	Lmst fw>	Carbon Sh	Ss
Lmst fw<7	shale, grn	shale, red	Shgy

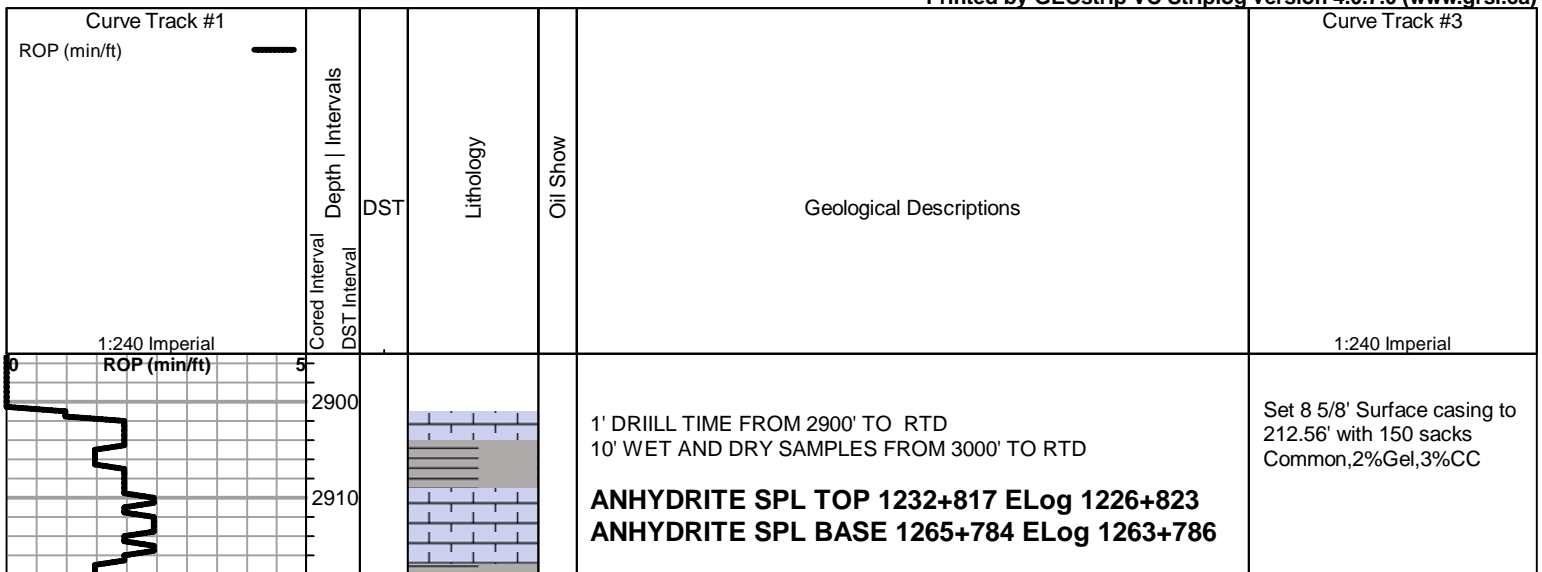
ACCESSORIES

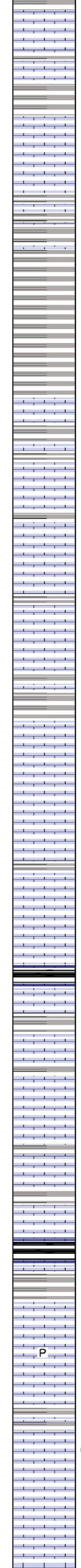
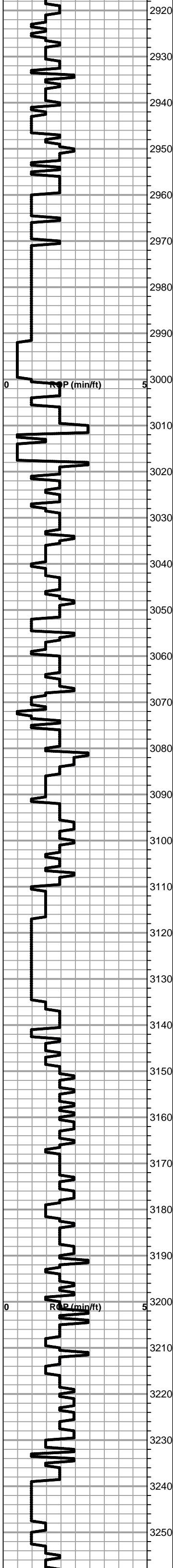
MINERAL	FOSSIL
P Pyrite	○ Oolite
• Sandy	◊ Oomoldic
◊ Varicolored chert	
△ Chert White	
◇ Euhed rhombs of dol or	

OTHER SYMBOLS

DST
■ DST Int
■ DST alt

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)





Lime, brn-gray, fnxln, slightly fossiliferous

Shale, lt-med gray, soft blocky

TOPEKA SPL TOP 3006-957 ELog 3004-955

Lime, med brn, fnxln-granular, slightly fossiliferous, grey mottling

Lime, crm-brn-gray, fnxln, fossiliferous in part

Lime, lt-med brn, fnxln, slightly fossiliferous

Lime, crm-med brn-gray, fnxln with granular in part, CXLN, NS

Lime, crm-brn-grayish brn, fnxln-granular, NS

Lime, mix of colors, lt brn-dark gray, fnxln

Shale, med-dark gray, calcareous in part

Lime, lt brn-lt gray, fnxln, bedded chalk in part

Lime, lt-med brn, fnxln-granular, bedded chalk in part

Lime, lt-med brn-grayish brn, fnxln-granular, slightly fossiliferous

Lime, lt-med brn-grayish brn, fnxln-granular, slightly fossiliferous

Lime, med brn-grayish brn, granular, slight chalk in part

Shale, gray-black carbonaceous

Lime, crm-brn, fnxln

Lime, crm, fnxln, cryptocrystalline

Lime, crm-lt brn, fnxln-granular, slight chalk, slight fossil content

Lime, crm-lt brn, fn-vfxln with scattered granular, slight chalk

Lime, crm-med brn-gray, fnxln, slightly chalky

Shale, black carbonaceous

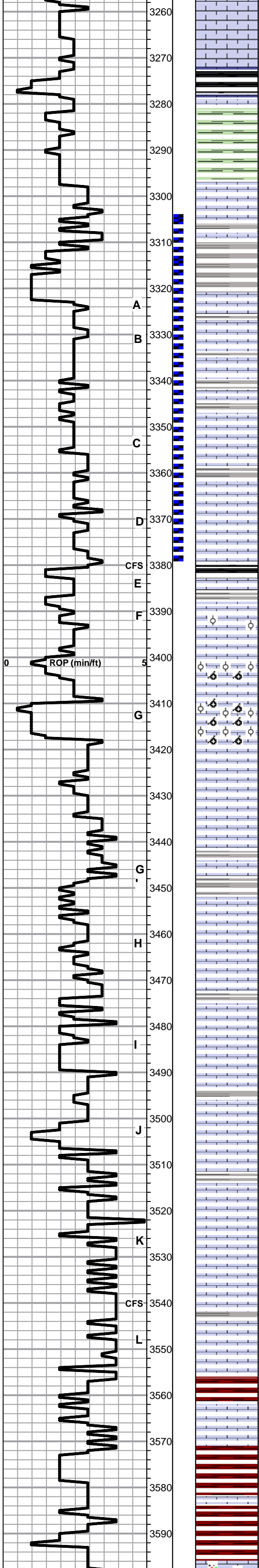
Lime, lt brn-grayish brn, fnxln

Lime, lt-med brn with scattered pyrite clusters, fnxln-granular

Lime, med grayish brn, fnxln-granular, chalky, slightly fossiliferous

Lime, crm, mostly fnxln with light brn granular in part with scattered to saturated staining, interxln with scattered vuggy porosity.

Lime, lt brn, granular



Lime, med brn, fnxn-granular, slight chalk in part

HEEBNER SHALE SPL 3273-1224 ELog 3272-1223

Shale, black carbonaceous
Lime, grayish brn, fnxn

Shale, lime green, soft

TORONTO SPL 3297-1248 ELog 3294-1245

Lime, crm-tan, fn-vfxln, bedded chalk in part, NS

Shale, reddish brn - gray

LKC SPL 3322-1273 ELog 3321-1272

A ○ Lime, offwht-lt brn, mostly fnxn, lt odor in scattered vuggy porosity

B Lime, tan-lt brn-lt gray, mostly fnxn

Lime, lt brn-lt gray, fnxn

C ○ Lime, lt brn, mostly fnxn, scattered vuggy porosity, light odor with light staining

Lime, tan-lt brn, mostly fnxn

D ○ Lime, tan-lt brn, fnxn, few pieces vuggy porosity with light odor and staining.

CFS Shale, black carbonaceous

E Lime, lt brn, fnxn
Shale, gray with pyrite clusters

F Lime, crm-tan, slightly oolitic but well cemented, chalk in part, NS

Lime, crm-tan, fnxn

G Lime, crm-tan, fnxn with oolitic-oolimoldic material in part, NS

Lime, crm-lt brn, fnxn-cryptocrystalline, chalk in part, NS

Lime, crm-lt brn, fn-vfxln, chalk in part

Lime, crm-lt brn, fn-vfxln

Lime, lt brn, fn-vfxln, slight chalk, NS or staining noted

Lime, crm-lt brn, fn-vfxln, slight chalk

I **D** Lime, lt-med brn, mostly fn-vfxln, dark dead oil staining in poorly developed reservoir.

J ○ Lime, crm-tan, fn-vfxln, bedded chalk in part, no visible porosity, NFO. no odor, few chips with scattered staining

Lime, crm-tan, fn-vfxln, bedded chalk, NS, no staining

Lime, crm-lt tan, fn-vfxln

Lime, wht-crm, fn-vfxln,

Lime, crm-med brn, fnxn-cryptocrystalline, slight chalk

BKC 3556-1507 ELog 3556-1507

Shale, reddish brn, soft blocky

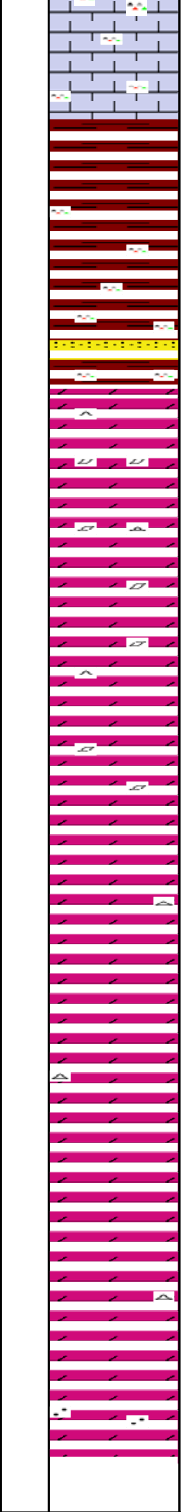
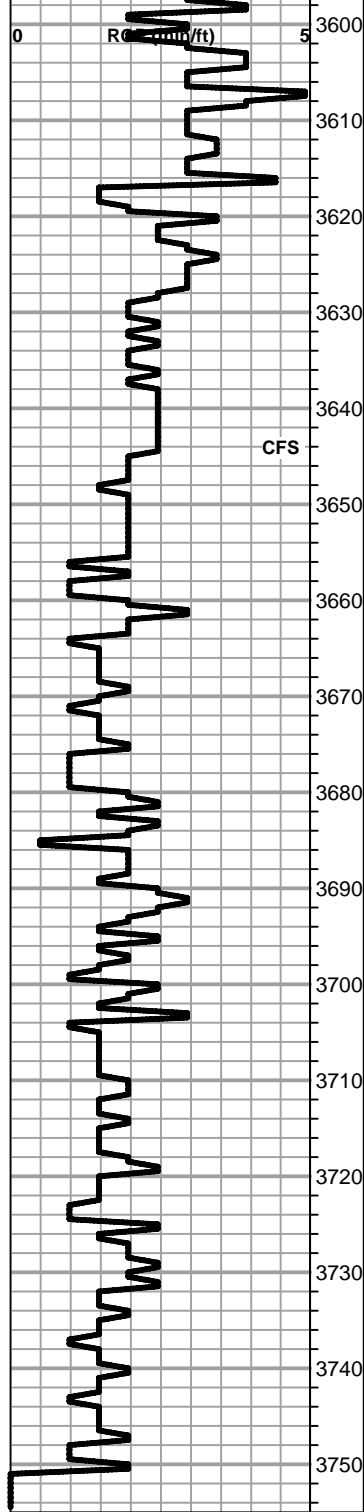
Lime, crm-tan, fn-vfxln

Shale, reddish brn with lime clastics in part

Shale, reddish brn

MARMATON MARKER BED 3596-1547

DST # 1 3304'-3380'
SEE HEADER FOR TEST
DETAILS



- Lime, crm-brn, fnxln with few orange chert chips
- Lime, lt-med brn, fnxln with reworked lime in part
- Shale, reddish brn with light red wash
- Shale, red wash with vari colored cherts
- Shale, red wash with vari colored cherts, scattered SS clusters
- ARBUCKLE SPL 3638-1589 ELog 3638-1589**
- Dolomite, crm, mostly fnxln, appears reworked with qtz grains
- Dolomite, crm-tan, fn-cxln, light saturated staining in interxln porosity, good rhombic crystalline development
- Dolomite, ivory-crm, fn-cxln, SFO with lt gassy oil, cherty
- Dolomite, ivory, fn-cxln, increasing clean material indicating possible oil/water contact
- Dolomite, ivory fn-cxln, clean, oomoldic in part
- Dolomite, crm-ivory, fn-cxln
- Dolomite, ivory, fn-cxln, few light specks of glauconite
- Dolomite, ivory, fnxln
- Dolomite, ivory, fn-cxln
- Dolomite, ivory-crm, fn-cxln, scattered qtz grains
- Dolomite, ivory-crm, fn-cxln, scattered qtz grains
- Dolomite, ivory-crm, fn-cxln, scattered qtz grains

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 693

Date	Sec.	Twp.	Range	County	State	On Location	Finish
6-25-12	32	14	18	Ellis	KS		5:15pm
Lease	Well No.		Location				
Rohr Schneider	1		Hays Antonio Rd 1/4 W Qinto				

Contractor	Owner
Southward #1	To Quality Oilwell Cementing, Inc.
Type Job	You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Surface	
Hole Size	T.D.
12 1/4	214
Csg.	Depth
8 5/8	
Tbg. Size	Depth
Tool	City
	State
Cement Left in Csg.	Shoe Joint
15	
Meas Line	Displace
	12 1/2 Bc
	Cement Amount Ordered
	150 w/m 3% acc 2% brcl

EQUIPMENT

Pumptrk	No.	Cement Helper	Common
9		Craig	150
Bulktrk	No.	Driver	Poz. Mix
		Matt	
Bulktrk	No.	Driver	Gel.
8		Lonnice	3

JOB SERVICES & REMARKS

Remarks:	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
8 5/8 on bottom Est Circulation Mix 150 w/m + Displace	Sand Handling 158
	Mileage

Cement Circulation

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	8 5/8 surge
AFU Inserts	
Float Shoe	
Latch Down	

Pumptrk Charge	Surface
Mileage	10

X Signature	Tax
	Discount
	Total Charge

Ruby

JOB LOG

SWIFT Services, Inc.

DATE 7/12/12 PAGE NO. 1

CUSTOMER TDI WELL NO. #1 LEASE Kow-Schweidler JOB TYPE Cement long string 2 stage TICKET NO. 23136

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								150 EA-2 w/ 1/2" Floack / 180 sand w/ 1/2" Flo 5 1/2" x 14" casing / 93 joints 3749' shelit 35.64' baffles 475' 3213' DV 1195' Cent 1, 3, 5, 7, 9, 10, 12, 60 brkt 1, 12, 60, 79
	0500							on loc TRK 114
	0635							start 5 1/2" x 14" casing in well
	0825							Drop ball - circulate
	0940	4 3/4	12			250		Pump 500 gal mid flush
		4 3/4	70			20		Pump 20 bbl KCL flush
	0950	4 3/4	37			350		mix EA-2 cement 150 sks @ 15.3 ppg
	1000							Drop 1st stage plug wash out pump & line
	1005	6 3/4	62			150		Displace plug w/ H2O
		6 3/4	76			550		Displace plug w/ drilling mud
	1020	4 3/4	91			1500		Land plug
								Drop bomb
	1033		7					Plug RH - MH 30 sks - 20 sks
			20			1000		open DV tools w/ KCL H2O
	1042	6 3/4	93			250		mix SMD cement 130 sks @ 11.2 ppg
								Drop 2nd stage plug
	1104	6 3/4				250		Displace plug
		6 3/4	35			700		- cement to surface - (130 sks)
	1100	6 3/4	39			1800		Land plug - close DV (30 sks to pt)
								Wash truck
	1150							Rack up job complete Truck TJ, Blaw, Doe