

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

ORIGINAL

Form ACO-1

June 2009

Form Must Be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 33711
Name: B-C Steel, LLC
Address 1: 209 N Fry
Address 2: _____
City: Yates Center State: Ks Zip: 66783 + _____
Contact Person: Bert Carlson
Phone: (620) 625-2999
CONTRACTOR: License # 33734
Name: Hat Drilling
Wellsite Geologist: Robert Hendrix
Purchaser: _____

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Designate Type of Completion:
 New Well Re-Entry Workover
 Oil WSW SWD SIOW
 Gas D&A ENHR SIGW
 OG GSW Temp. Abd.
 CM (Coal Bed Methane)
 Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:
Operator: _____

Well Name: _____
Original Comp. Date: _____ Original Total Depth: _____
 Deepening Re-perf. Conv. to ENHR Conv. to SWD
 Conv. to GSW
 Plug Back: _____ Plug Back Total Depth _____
 Commingled Permit #: _____
 Dual Completion Permit #: _____
 SWD Permit #: _____
 ENHR Permit #: _____
 GSW Permit #: _____

11-03-2010	12-5-2010	12-6-2010
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-035-24373-0000
Spot Description: _____
SE SE NE Sec. 19 Twp. 31 S. R. 8 East West
2,957 Feet from North / South Line of Section
8,423 Feet from East / West Line of Section
Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW
County: COWLEY
Lease Name: SONTAG Well #: 19-3
Field Name: RADCLIFFE NORTHEAST
Producing Formation: HERTHA
Elevation: Ground: 1440 Kelly Bushing: 1445
Total Depth: 2300 Plug Back Total Depth: 460
Amount of Surface Pipe Set and Cemented at: 460 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
(Data must be collected from the Reserve Pit)
Chloride content: 3% ppm Fluid volume: 3000 bbls
Dewatering method used: EVAPORATED DRY
Location of fluid disposal if hauled offsite: _____
Operator Name: _____
Lease Name: _____ License #: _____
Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West
County: _____ Permit #: _____

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, 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 of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (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.

AFFIDAVIT

I am the affiant and I hereby certify that 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: [Signature]
Title: agent Date: 5/19/2011

KCC Office Use ONLY

Letter of Confidentiality Received
Date: _____
 Confidential Release Date: _____
 Wireline Log Received
 Geologist Report Received
 UIC Distribution
ATI-Dlg-8/10/11

Operator Name: B-C Steel, LLC Lease Name: SONTAG Well #: 19-3
 Sec. 19 Twp. 183 S. R. 8 East West County: COWLEY

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems 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 test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run:	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample <table style="width:100%; border: none;"> <tr> <td style="width:60%;">Name</td> <td style="width:20%;">Top</td> <td style="width:20%;">Datum</td> </tr> <tr> <td>HERTHA</td> <td>2228</td> <td>-783</td> </tr> </table>	Name	Top	Datum	HERTHA	2228	-783
Name	Top	Datum					
HERTHA	2228	-783					

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> 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
LONGSTRING	6 3/4	4 1/2		2300	THICKSET	60	#5 KOLSEAL & 1/2 PHOROSEAL
SURFACE PIPE	12 1/4	8 5/8		460	CLASS A	215	CAL 3% GEL 2% FLOCELE 1/4 SK

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> 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
17	3 1/8 SLICK GUN	ACID AND SAND	2241-2249

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TUBING RECORD:	Size: <u>2 3/8</u>	Set At: <u>2300</u>	Packer At:	Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
----------------	--------------------	---------------------	------------	--

Date of First, Resumed Production, SWD or ENHR. <u>MAR 2011</u>	Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____						
Estimated Production Per 24 Hours	Oil Bbls. <u>3</u>	Gas Mcf	Water Bbls. <u>33</u>	Gas-Oil Ratio	Gravity		

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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CONSOLIDATED
Oil Well Services, LLC

REMIT TO
Consolidated Oil Well Services, LLC
Dept. 970
P.O. Box 4346
Houston, TX 77210-4346

6/15/10
MAIN OFFICE
P.O. Box 884
Chanute, KS 66720
620/431-9210 • 1-800/467-8676
FAX 620/431-0012

INVOICE

Invoice # 237999

Invoice Date: 11/15/2010 Terms:

Page 1

B.C. STEEL GAS LLC
209 N. FRY
P.O. BOX 326
YATES CENTER KS 66783
(620) 625-2999

SONTAG 19-3
29941
11-09-10

Part Number	Description	Qty	Unit Price	Total
1104S	CLASS "A" CEMENT (SALE)	215.00	13.5000	2902.50
1102	CALCIUM CHLORIDE (50#)	600.00	.7500	450.00
1118B	PREMIUM GEL / BENTONITE	400.00	.2000	80.00
1107	FLO-SEAL (25#)	55.00	2.1000	115.50
1123	CITY WATER	3000.00	.0149	44.70

Description	Hours	Unit Price	Total
485 CEMENT PUMP (SURFACE)	1.00	725.00	725.00
485 EQUIPMENT MILEAGE (ONE WAY)	50.00	3.65	182.50
515 TON MILEAGE DELIVERY	505.50	1.20	606.60
McCOY 80 BBL VACUUM TRUCK (CEMENT)	4.00	100.00	400.00

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KCC WICHITA

Parts:	3592.70	Freight:	.00	Tax:	244.30	AR	5751.10
Labor:	.00	Misc:	.00	Total:	5751.10		
Subt:	.00	Supplies:	.00	Change:	.00		

Signed _____

Date _____

BARTLESVILLE, OK
918/338-0808

ELDORADO, KS
316/322-7022

EUREKA, KS
620/583-7664

GILLETTE, WY
307/686-4914

OAKLEY, KS
785/672-2227

OTTAWA, KS
785/242-4044

THAYER, KS
620/839-5269

WORLAND, WY
307/347-4577



CONSOLIDATED
Oil Well Services, LLC

ENTERED

TICKET NUMBER 29941
LOCATION Eureka
FOREMAN Troy Strickler

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
11-9-10	1152	Sontag 19-3				Cowley
CUSTOMER B.C. Steel Gas LLC			TRUCK # DRIVER TRUCK # DRIVER 485 John S. JS 515 J.P. JA 83 Scotty L. SL			
MAILING ADDRESS 1432 Nighthawk Rd.						
CITY Yates Center	STATE Ks	ZIP CODE 66783				
Safety Meeting						

JOB TYPE S/P 0' HOLE SIZE 12 1/4" HOLE DEPTH 462' CASING SIZE & WEIGHT 8 5/8"
 CASING DEPTH 460' DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 15# SLURRY VOL 5284 WATER gal/sk 6.5 CEMENT LEFT in CASING 20'
 DISPLACEMENT 2884 DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety Meeting. Big up to 8 5/8" casing. Break Circulation w/ 1000l Fresh Water.
Mixed 215skt Class A Cement w/ 3% Cade, 2% Gel, + 1/4" Floccle/sk @ 15#/gal
Displace w/ 2884l Fresh Water. Shut Casing in w/ Good Cement to surface = 884l
Slurry to pit
Job Complete.

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
S4015	1	PUMP CHARGE	725.00	725.00
S406	50	MILEAGE	3.65	182.50
11045	215skt	Class A Cement	13.50	2902.50
1102	600#	Cade 3%	.75	450.00
11188	400#	Gel 2%	.20	80.00
1107	55#	Floccle 1/4#/sk	2.10	115.50
S407A	10.00 Ton	Ton-Mileage	60.66	606.60
1020	4hrs.	800W Vac Truck	100.00	400.00
123	3000gal	City Water	14.90	44.70
Thank You!				
			Sub Total	5506.80
			SALES TAX	244.30
			ESTIMATED TOTAL	5751.10

Revin 3737

AUTHORIZATION Brent Waterman TITLE Field Sup DATE _____

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.



CONSOLIDATED
Oil Well Services, LLC

REMIT TO
Consolidated Oil Well Services, LLC
Dept. 970
P.O. Box 4346
Houston, TX 77210-4346

MAIN OFFICE
P.O. Box 884
Chanute, KS 66720
620/431-9210 • 1-800/467-8676
FAX 620/431-0012

INVOICE

Invoice # 238070

Invoice Date: 11/17/2010 Terms:

Page 1

B.C. STEEL GAS LLC
209 N. FRY
P.O. BOX 326
YATES CENTER KS 66783
(620) 625-2999

SONTAG 19-3
29923
11-15-10

Part Number	Description	Qty	Unit Price	Total
1126A	THICK SET CEMENT	60.00	17.0000	1020.00
1110A	KOL SEAL (50# BAG)	300.00	.4200	126.00
1107A	PHENOSEAL (M) 40# BAG)	30.00	1.1500	34.50
1123	CITY WATER	3000.00	.0149	44.70
4404	4 1/2" RUBBER PLUG	1.00	45.0000	45.00

Description	Hours	Unit Price	Total
520 CEMENT PUMP	1.00	925.00	925.00
520 EQUIPMENT MILEAGE (ONE WAY)	60.00	3.65	219.00
543 MIN. BULK DELIVERY	1.00	315.00	315.00
McCOY 80 BBL VACUUM TRUCK (CEMENT)	4.00	85.00	340.00

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Parts:	1270.20	Freight:	.00	Tax:	86.38	AR	3155.58
Labor:	.00	Misc:	.00	Total:	3155.58		
Sublt:	.00	Supplies:	.00	Change:	.00		

Signed _____

Date _____

BARTLESVILLE, OK
918/338-0808

ELDORADO, KS
316/322-7022

EUREKA, KS
620/583-7664

GILLETTE, WY
307/686-4914

OAKLEY, KS
785/672-2227

OTTAWA, KS
785/242-4044

THAYER, KS
620/839-5269

WORLAND, WY
307/347-4577



CONSOLIDATED
Oil Well Services, LLC

ENTERED

TICKET NUMBER 29923

LOCATION Euless, KS

FOREMAN Rick Ledford

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
11-15-10	1152	Santas 19-3				Cowley	
CUSTOMER B.C. Steel Gas LLC			TRUCK # DRIVER TRUCK # DRIVER 520 John 513 Dave 83 Scott				
MAILING ADDRESS 1432 Nighthawk Rd.							
CITY Yates Center		STATE KS					ZIP CODE 66783
Safety meeting 75 00 2							

JOB TYPE Logging 0 HOLE SIZE 6 3/4" HOLE DEPTH 29 1/2' CASING SIZE & WEIGHT 4 1/2"
 CASING DEPTH 2300 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 13.6* SLURRY VOL 18 Bbl WATER gal/sk 8.0 CEMENT LEFT in CASING 0'
 DISPLACEMENT 3 1/2 Bbl DISPLACEMENT PSI 600 ~~PSI~~ 1000 RATE _____

REMARKS: Safety meeting. Rig up to 4 1/2" casing. Break circulation w/ 40 Bbl
fresh water. Mixed 60 sacks thickest cement w/ 5" Kol-soal/sk + 1/2" phoscol/sk
@ 13.6*/gal. Washout pump + liner, shut down. release plug. Displace w/ 3 1/2
Bbl fresh water. Final pump pressure 600 PSI. Bump plug to 1000 PSI.
wait 2 minutes, release pressure, float held. Good circulation @ all times
while cementing. Job complete. Rig down.

"THANK YOU"

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE	925.00	925.00
5406	100	MILEAGE	3.65	219.00
1126A	100 SKS	thickest cement	17.00	1020.00
1110A	300*	5" Kol-soal/sk	.42	126.00
1107A	30*	1/2" phoscol/sk	1.15	34.50
5407	3.3	tan mileage bulk fuel	m/c	315.00
5502C	4 hrs	80 Bbl wt. TRK	85.00	340.00
1122	3000 gals	city water	14.90/1000	44.70
Y404	1	4 1/2" top rubber plug	KCC WICHITA 45.00	45.00
Subtotal				3069.20
SALES TAX				86.39
ESTIMATED TOTAL				3155.59

Flav'n 3737 AUTHORIZATION Brent Whitman TITLE Field Sup DATE _____
 238010

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.

Wellsite Geologist

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY B-C Steel LLC
 LEASE Sontag # 19-3
 FIELD Kadcliffe Northeast
 LOCATION 2957' ESI & 8423' EEL (T&R)
 SEC 19 TWP 31s RGE 8E
 COUNTY Cowley STATE Kansas

ELEVATIONS
 KB 1445'
 DF _____
 GL 1440'
 Measurements Are All
 From KB

CONTRACTOR Hat Drilling
 SPUD 8-8-2010 COMP 11-14-2010
 RTD 2912' LTD 2908'
 MUD UP 1442' TYPE MUD Chemical

CASING
 SURFACE 8 5/8" @ 460'
 PRODUCTION _____
 ELECTRICAL SURVEYS

SAMPLES SAVED FROM 850' TO 2912'
 DRILLING TIME KEPT FROM 800' TO 2912'
 SAMPLES EXAMINED FROM 850' TO 2912'
 GEOLOGICAL SUPERVISION FROM 800' TO 2912'
 GEOLOGIST ON WELL Robert Hendrix

FORMATION TOPS	LOG	SAMPLES
Heebner	1244 (+201)	1251 (+194)
Talan	1540 (-95)	1542 (-97)
Tola	1976 (-531)	1979 (-534)
Hushpuckney	2228 (-783)	2228 (-783)
Altamont	2392 (-947)	2390 (-945)
Cherokee	2547 (-1102)	2538 (-1093)
Mississippian	2890 (-1445)	2889 (-1444)

		19		

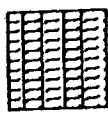
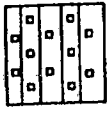




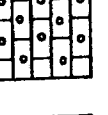
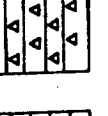
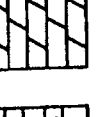
REMARKS Testing of the Logten and Hertha is suggested!

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JUN 17 2011 Robert D. Hendrix

Robert D. Hendrix
 312 S. Roosevelt St.
 Marion, KS 66861
 Cell: 316-519-4848
 Home: 620-382-2326

LEGEND

-  Anhydrite
-  Salt
-  Sandstone
-  Shale
-  Carb sh
-  Limestone
-  Ool. Lime
-  Chert
-  Dolomite

SCALE " = 100'

SCALE

" = 100'

DRILLING TIME IN MINUTES
PER FOOT
Rate of Penetration Increases

5" 10" 15" 20" 25"

LITHOLOGY

SAMPLE DESCRIPTIONS

REMARKS

DEPTH

500

300

Shale Gray Brown

Shale Gray Black

Shale Gray Silty

Limestone Tan, Folia
Fossiliferous, trace
amount of Dead animal
Nautilus

Shale Silty, micaceous

Limestone Tan, Folia
Fossiliferous, trace
amount of Dead animal
Nautilus

Shale Brown, Gray

Shale Brown, Gray, Silty

Limestone Tan, Folia
Fossiliferous, trace
amount of Dead animal
Nautilus

Limestone Tan, Folia
Fossiliferous, trace
amount of Dead animal
Nautilus

Shale Gray

Limestone Tan, Folia
Fossiliferous, trace
amount of Dead animal
Nautilus

Shale Black, Gray

Limestone Tan, Folia
Fossiliferous, trace
amount of Dead animal
Nautilus

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00

Shale: Gray
Calcareous, No vis. f.
No Fluorescence

Shale: Gray, Sandy, Bladdy

Sandstone: White, 1/2
V-F gr. Rhd.
Well sorted, Trace of
Biotite, No vis. f.
Calcareous cement

Shale: Sandy, Gray
Biotitic

Limestone: Tan, Fxln. Foss.
No vis. f.

1200

Shale: Gray, Micaceous

Shale: Gray, V-Sandy,
micaceous

Limestone: Brown, Fxln.
No vis. f.

Shale: Black, Carbonaceous

Limestone: Tan, Fxln. Foss.
No vis. f.

Shale: Green, Gray

Shale: Red, Gray, Green

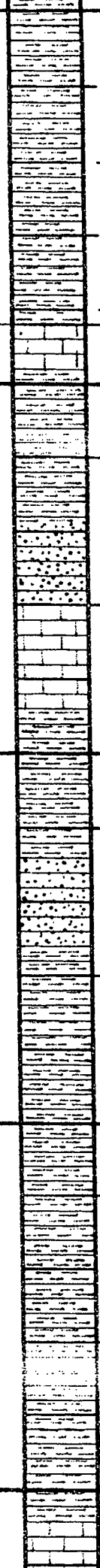
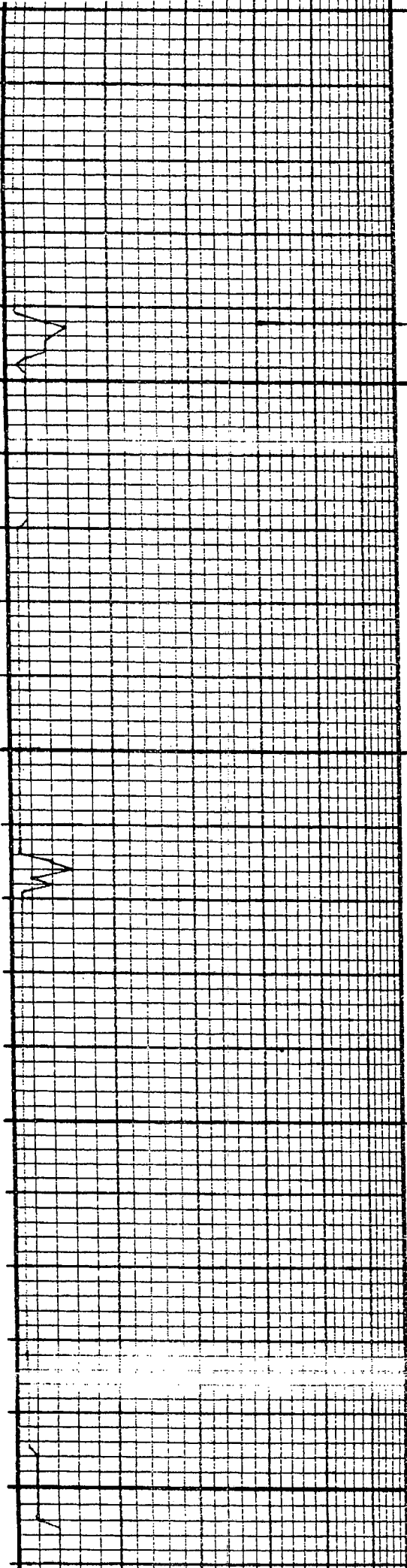
1300

Limestone: Tan to white
Fxln. No vis. f.

Heebner
1251 (+194)

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1500



Shale: Brown, micaceous
Biotite, sandy

Shale: Brown, Biotite

Shale: Brown, Wet

Limestone: Brown, Fine
No vis &

Shale: Gray, micaceous
Sandy

Sandstone: white, light gray
F-92 gr. Sub. rounded
Med. sorted, calcareous
Cement, No vis &
No fluorescence

Limestone: Tan, Fine
No vis &

Shale: Gray, micaceous
Sandy

Sandstone: Clean, Tan
F-90, Sub. rounded
Med. sorted, No vis &
No fluorescence

Shale: Brown

Shale: Brown, Red, Black

Shale: Brown, Red, Black
Sandy, micaceous

Shale: Brown

Shale: Red, gray, Sand

Limestone: Brown, Fine
Fossils, No vis &

Vis 32, wt 8.7

Iatan
1542 (-97)

Stalnaker

1600

Vis 33, wt 8.7

1700

Vis 32, wt 8.7

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KCC WICHITA

700

Shale: Red. Gray. Sandy

Limestone: Brown. Exln.
Fossiliferous. Navis ♂

Shale: Gray. Green

Limestone: Tan. Exln.
Navis ♂

Shale: Gray. Green

Vis 34, WE 8.7

Shale: Red. Gray. Green

Limestone: Gray. Exln.
Navis ♂

Vis 33, WE 8.8

Shale: Gray. Red. Sandy

1800

Limestone: Tan to white.
Exln. Navis ♂
Limestone: Brown. F. Exln.
Fossiliferous. Navis ♂

Shale: Gray

Vis 30, WE 8.8

Shale: Black. Gray

Shale: Gray + Black

Limestone: Tan. Exln.
Navis ♂

Limestone: Brown. Exln.
Fossiliferous. Navis ♂

Vis 33, WE 8.9

Shale: Gray

Shale: Gray. Muddy

1900

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JUN 17 2011
KCC WICHITA

2100

Shale: Gray Silty micaceous

Siltstone: Compact
Gray. Itard

Limestone: Tan, Fin
Soft Trace Lt Surface
Stain No vis ♂

Vis 35, wt 9.1

Limestone: Tan, Fin
Chunky. No vis ♂

Limestone: White to Tan
F-ina. Chunky. No vis ♂

Shale: Gray

Limestone: white, Fin
Chunky. 5% sample
Lt Spady Patina
Surface stain. P-pp ♂
No Free oil
No fluorescence

Limestone: Tan, Fin
Soft. No vis ♂

Vis 43 wt 9.2

Limestone: Tan, Fin
Chunky. No vis ♂

2200

Limestone: white to Tan
F-Main. No vis ♂

Shale: Gray Black

Limestone: white, Fin
No vis ♂

Hushpuckney
2228 (-783)

Shale: Black Carbonaceous

Limestone: white to Tan
F-Main, Fossiliferous
5% sample. P-pp ♂
Gd. Lt. Suboxided stain
V-silt 5FO Bright yellow
fluorescence

Herttha
Vis 42, wt 9.

Shale: Gray
Limestone: Tan, Fin,
No vis ♂

Limestone: Tan to Brown
F-Main, Fossiliferous
No vis ♂

Vis 30, wt 8

Limestone: Brown, fin
Fossiliferous. No vis ♂

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2300

Shale: Black, Gray, Red

KCC WICHITA

2100

2200

300

Shale Black Gray Red

Shale Gray Black Red
Sandy

Limestone Tan to Brown
Fria No. 10

NS 33, WT 816

Sandstone white No. 10
Fria No. 10
No. 10
Shale Black Gray

Sandstone white Spay
F-30 Sub-Rail
Missouri Cement No. 10
No. 10

Low Circulation

Shale Red Gray Sandy

NS 32, WT 817

Shale Gray Red

Altamont
2390 (-935)

400

Limestone Tan
Fria No. 10
No. 10

Shale Black Gray Red

Limestone white Fria
No. 10

Shale Gray Sandy Silty

Shale

Shale Red Gray Black

NS 33, WT 817

Shale Gray Red

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Pawnee

Limestone Tan Fria
Fria No. 10
Shale Black

Limestone Tan Fria
No. 10

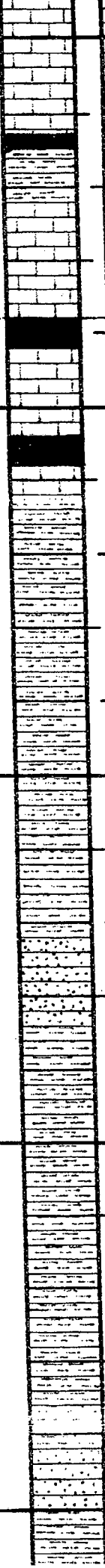
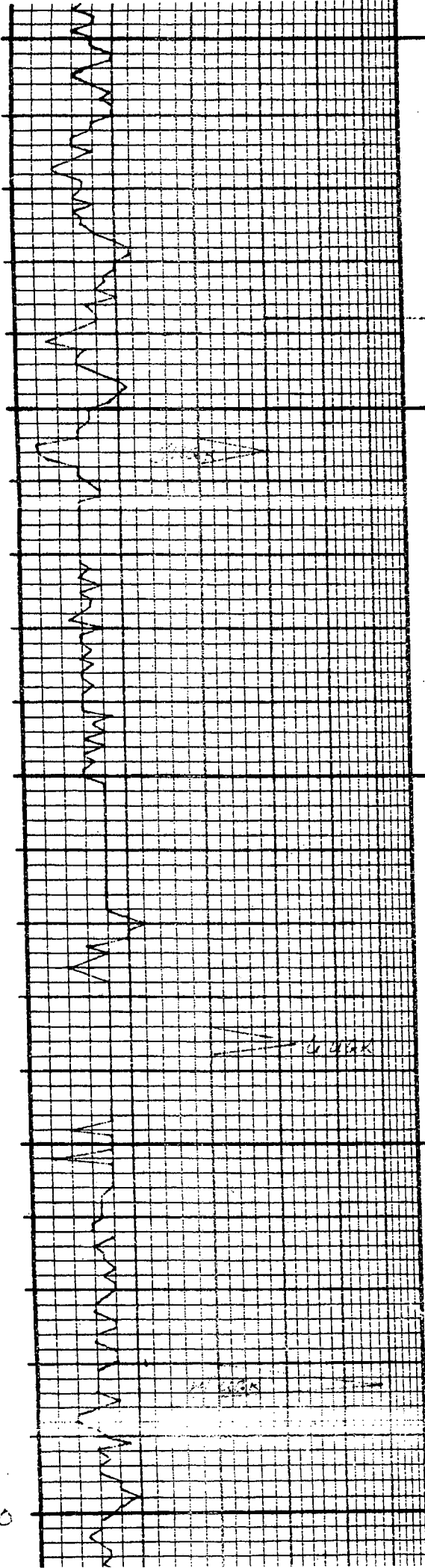
Limestone Tan Fria
Fria No. 10

500

2500

2600

2700



Limestone Tan, Fine
Fossiliferous, No. 1012

Limestone Tan to White
Fdn. No. 1013

Shale Black Carbonaceous

Limestone Tan to White
Fdn. Fossiliferous
No. 1014

Shale Black Carbonaceous

Limestone Tan to Brown
Fdn. Fossiliferous
No. 1015

Shale Black Carbonaceous

Limestone Tan to Brown
Fdn. No. 1016

Shale Gray Green

Shale Tan Green

Shale Gray Red

Shale Green Red

Shale Black Gray

Sandstone White Tan
Fgn. Sub-Rose
W. S. S. Carbonaceous
Cement No. 1017

Shale Black Gray Purple

Shale Red Gray

Shale Black Gray Green

Sandstone Gray Tan
Fgn. rounded
with irregular carbonaceous
Cement No. 1018

Shale Black Gray

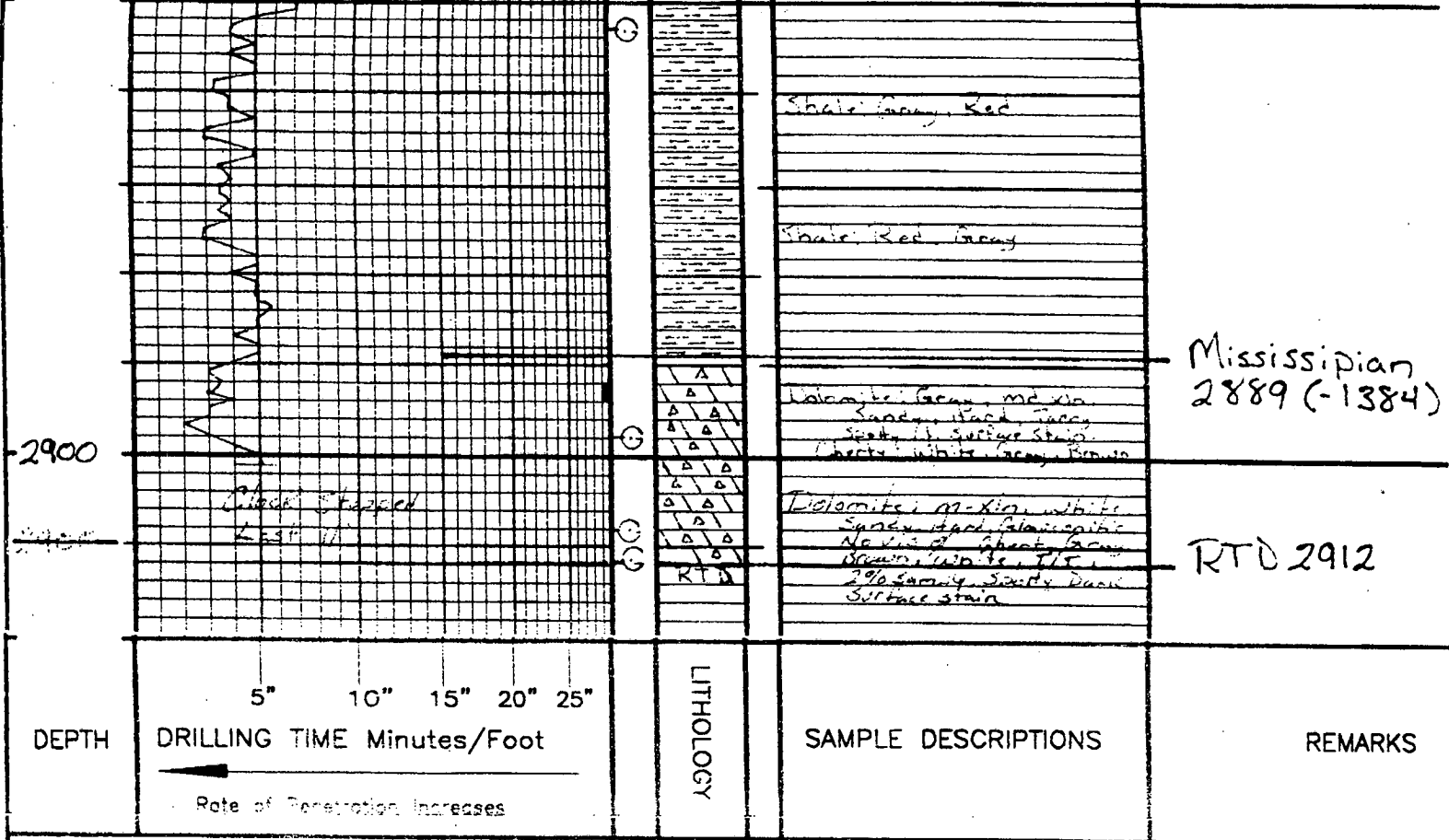
Ft Scott

Cherokee
2538 (-1093)

No. 35, wt. 9.

No. 35, wt. 9.

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COMPANY B-C Steel LLC.
 LEASE Santa # 19-3
 LOCATION 2757 FSL 8423 FEL SEC 19 TWP 31s RNG 8e
 COUNTY Cowley STATE Kansas

ELEVATION: KB = 1445

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