



**WELL COMPLETION FORM**  
**WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

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 #: \_\_\_\_\_

Spud Date or Recompletion Date      Date Reached TD      Completion Date or Recompletion Date

API No. 15 - \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE       NW       SE       SW

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ 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: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite: \_\_\_\_\_

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**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.

Submitted Electronically

**KCC Office Use ONLY**

- Letter of Confidentiality Received  
Date: \_\_\_\_\_
- Confidential Release Date: \_\_\_\_\_
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_



1095972

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**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 type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i>  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
_____ Perforate _____ 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 <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:      Size: \_\_\_\_\_ Set At: \_\_\_\_\_ Packer At: \_\_\_\_\_ Liner Run:  Yes  No

Date of First, Resumed Production, SWD or ENHR. \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other (Explain) \_\_\_\_\_

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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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 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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Form	ACO1 - Well Completion
Operator	Atlas Operating LLC
Well Name	Cypress 4
Doc ID	1095972

All Electric Logs Run

Dual Induction
compensated Neutron density
Microlog
Cbl

Form	ACO1 - Well Completion
Operator	Atlas Operating LLC
Well Name	Cypress 4
Doc ID	1095972

Tops

Name	Top	Datum
INDIAN CAVE	2457	-792
HEEBNER SH	3380	-1715
LANSING	3579	-1914
STARK SH	3930	-2265
CHEROKEE SH	4143	-2478
MISS CHERT	4185	-2520
KINDERHOOK SH	4215	-2550
VIOLA	4395	-2730
SIMPSON SH	4465	-2800
SIMPSON SD	4477	-2812



DISCOUNT-001377

# INVOICE

PO Box 93999  
Southlake, TX 76092

Invoice Number: 130378  
Invoice Date: Mar 4, 2012  
Page: 1

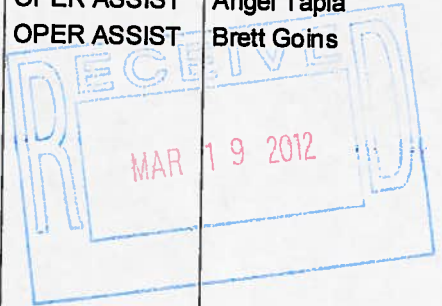
Voice: (817) 546-7282  
Fax: (817) 246-3361

Federal Tax I.D.#: 20-8651475

**Bill To:**  
Atlas Operating  
15603 Kuykendahl Suite #200  
Houston, TX 77090-3655

Customer ID	Well Name# or Customer P.O.	Payment Terms	
Atlas	Cypress # 4	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-01	Liberal	Mar 4, 2012	4/3/12

Quantity	Item	Description	Unit Price	Amount
175.00	MAT	Class A Common	16.25	2,843.75
3.00	MAT	Gel	21.25	63.75
6.00	MAT	Chloride	58.20	349.20
184.00	SER	Handling	2.25	414.00
30.00	SER	Mileage	20.24	607.20
1.00	SER	Surface	900.00	900.00
30.00	SER	Heavy Vehicle Mileage	7.00	210.00
30.00	SER	Light Vehicle Mileage	4.00	120.00
1.00	CEMENTER	David Felio		
1.00	CEMENTER	Virgil Newton		
1.00	EQUIP OPER	Jose Gonzalez		
1.00	OPER ASSIST	Angel Tapia		
1.00	OPER ASSIST	Brett Goins		



Account # Cement  
Property # 120005  
Descrip. 160016  
Acctg. Period \_\_\_\_\_

ALL PRICES ARE NET, PAYABLE  
30 DAYS FOLLOWING DATE OF  
INVOICE. 1 1/2% CHARGED  
THEREAFTER. IF ACCOUNT IS  
CURRENT, TAKE DISCOUNT OF

**\$ 1101.58**

ONLY IF PAID ON OR BEFORE  
Mar 29, 2012

Subtotal	5,507.90
Sales Tax	205.17
Total Invoice Amount	5,713.07
Payment/Credit Applied	
<b>TOTAL</b>	<b>5,713.07</b>

# ALLIED OIL & GAS SERVICES, LLC 05320

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:

Liberal, KS

DATE <u>3/4/12</u>	SEC <u>30</u>	TWP <u>29</u>	RANGE <u>9</u>	CALLED OUT <u>1:00</u>	ON LOCATION <u>3</u>	JOB START	JOB FINISH <u>4:15</u>
LEASE <u>CYPRESS</u>		WELL # <u>4</u>	LOCATION <u>Zenda, KS - 3N, 3W, 34N</u>		COUNTY <u>Maxwell</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)			<u>write</u>				

CONTRACTOR Val #2  
 TYPE OF JOB Surface  
 HOLE SIZE 12 1/4 T.D. 267  
 CASING SIZE 8 3/4 DEPTH 263  
 TUBING SIZE DEPTH  
 DRILL PIPE DEPTH  
 TOOL DEPTH  
 PRES. MAX 250' MINIMUM -  
 MEAS. LINE SHOE JOINT  
 CEMENT LEFT IN CSG. 10 LB  
 PERFS.  
 DISPLACEMENT 16 bbl

OWNER Atkins  
 CEMENT AMOUNT ORDERED 175 sk Class 'A'  
 COMMON Class A 175 sk @ 1625 28375.00  
 POZMIX @  
 GEL 3 @ 2625 7875.00  
 CHLORIDE 6 @ 5820 34920.00  
 ASC @

EQUIPMENT  
 PUMP TRUCK CEMENTER David Peto  
 # 518 HELPER Vinyl Newman  
 BULK TRUCK DRIVER Jose Gonzalez  
 # 521 DRIVER Angie Tapia  
 BULK TRUCK DRIVER Boeth Goins  
 # 352

HANDLING @ 184  
 MILEAGE 104.11 @ 30 3120.00  
 NET TOTAL 33120.00

REMARKS:

Prod @ 66m - Local Circ  
Pump spacer 20.4 175 sk  
Class 'A' cement. Stop, Release  
Plug, Stop Displacement of  
fluid @ 0 See increase in loss  
Stop Rate, Stop Pump/Start in  
Cement Did Circ.

SERVICE

DEPTH OF JOB  
 PUMP TRUCK CHARGE 900.00  
 EXTRA FOOTAGE @  
 MILEAGE (H) 30 @ 7.00 210.00  
 MANIFOLD @  
Mileage (L) 30 @ 4.00 120.00

CHARGE TO:  
 STREET  
 CITY STATE ZIP

TOTAL

PLUG & FLOAT EQUIPMENT

PLUG & FLOAT EQUIPMENT  
 @  
 @  
 @  
 @  
 @  
 TOTAL

To: Allied Oil & Gas Services, LLC.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any)  
 TOTAL CHARGES 5739.15  
 DISCOUNT 20% IF PAID IN 30 DAYS

PRINTED NAME Rick Smith  
 SIGNATURE Rick Smith

Bib Net 4586.32



PO Box 93999  
Southlake, TX 76092

Voice: (817) 546-7282  
Fax: (817) 246-3361

001266  
001267

# INVOICE

Invoice Number: 130539  
Invoice Date: Mar 13, 2012  
Page: 1



**Bill To:**  
Atlas Operating  
15603 Kuykendahl Suite #200  
Houston, TX 77090-3655

Customer ID	Well Name# or Customer P.O.	Payment Terms	
Atlas	Cyress#4	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-02	Medicine Lodge	Mar 13, 2012	4/12/12

Quantity	Item	Description	Unit Price	Amount
350.00	MAT	ASC	19.00	6,650.00
1,750.00	MAT	KolSeal	0.89	1,557.50
164.00	MAT	FL-160	17.20	2,820.80
12.00	MAT	Clapro	31.25	375.00
500.00	MAT	ASF	1.27	635.00
393.00	SER	Handling	2.25	884.25
30.00	SER	Mileage	43.23	1,296.90
1.00	SER	Production	2,405.00	2,405.00
30.00	SER	Heavy Vehicle Mileage	7.00	210.00
1.00	SER	Manifold Head Rental	200.00	200.00
30.00	SER	Light Vehicle Mileage	4.00	120.00
1.00	EQP	5 1/2 Reg Guide Shoe	240.00	240.00
1.00	EQP	5 1/2 AFU Insert	286.00	286.00
1.00	EQP	5 1/2 Rubber Plug	73.00	73.00
16.00	EQP	5 1/2 Centralizers	49.00	784.00
1.00	EQUIP OPER	Jason Thimesch		
1.00	EQUIP OPER	Matt Thimesch		
1.00	OPER ASSIST	Derek Gibbons		
1.00	OPER ASSIST	Troy Lenz		

APPROVED  
DATE May 26 2012

DESCRIPTION \_\_\_\_\_  
ACCOUNT # \_\_\_\_\_  
WELL NAME \_\_\_\_\_  
AFE # \_\_\_\_\_  
DATE \_\_\_\_\_ APPROVED \_\_\_\_\_

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

**\$ 3707.49**

ONLY IF PAID ON OR BEFORE  
**Apr 7, 2012**

Subtotal	18,537.45
Sales Tax	845.54
Total Invoice Amount	19,382.99
Payment/Credit Applied	
<b>TOTAL</b>	<b>19,382.99</b>

# ALLIED OIL & GAS SERVICES, LLC 054003

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:  
Medicine Lodge KS

DATE <u>03/13/2012</u>	SEC <u>30</u>	TWP <u>29</u>	RANGE <u>9</u>	CALLED OUT	ON LOCATION	JOB START <u>900AM</u>	JOB FINISH <u>1030AM</u>
LEASE <u>Cypress</u>	WELL # <u>4</u>	LOCATION <u>Zenda KS, 3 North, 3 West,</u>			COUNTY <u>Kingman</u>	STATE <u>Ks</u>	
OLD OR NEW (Circle one)		<u>1/2 North, west Side</u>					

CONTRACTOR Val #2 OWNER Atlas Operating

TYPE OF JOB Production

HOLE SIZE 7 1/2 T.D. 4600

CASING SIZE 5 1/2 DEPTH 4582

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX 1400 MINIMUM

MEAS. LINE SHOE JOINT 41'

CEMENT LEFT IN CSG. 41'

PERFS.

DISPLACEMENT  bids 2% KCl

**EQUIPMENT**

PUMP TRUCK CEMENTER Jason Thinasch/Matt Thinasch

# 360/265 HELPER Derek Gibany/Matt Thinasch

BULK TRUCK

# 421/252 DRIVER Troy Lenz

BULK TRUCK

# DRIVER

CEMENT

AMOUNT ORDERED 350ex Class A ASC+

5# Kolseal +.5% fl-160

500gal ASF 12gal clay

COMMON @

POZMIX @

GEL @

CHLORIDE @

ASC 350-x @ 19 6650

Kolseal 1750 @ .89 1557.50

FL-160 160 @ 17.20 2820

Clay 12gal @ 31.25 159

ASF 500 gal @ 1.27 635

@

@

@

@

HANDLING 393 @ 2.25 884.25

MILEAGE 393/11/30 @ 2.25 1296.90

TOTAL 14002.65

**REMARKS:**

Drk circ, pump ball thru, pump 3 bbls H<sub>2</sub>O, 500gal  
ASF, 3 bbls H<sub>2</sub>O, mix + pump 505x RH, mix + pump  
205x AH, mix + pump 3005x cement, shut down,  
wash pump + lines, Release plug, Disp H<sub>2</sub>O, Lift  
at 5', Final Disp 109' bump plug from 900  
to 1400, Plug held

**SERVICE**

DEPTH OF JOB 4582'

PUMP TRUCK CHARGE 2405

EXTRA FOOTAGE @

MILEAGE 30 @ 7 210

MANIFOLD Hard Rental @ 200 200

right vehicle 30 @ 4 120

@

TOTAL 2935

5/2 **PLUG & FLOAT EQUIPMENT**

1-Reg guide shoe @ 240 240

1-ASF insert @ 286 286

1-Rubber plug @ 73 73

16-centralizers @ 49 784

@

TOTAL 1383

SALES TAX (If Any) \_\_\_\_\_

TOTAL CHARGES 18,320.65

DISCOUNT 20% IF PAID IN 30 DAYS

NET 14,656.52

CHARGE TO: Atlas Operating

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

To: Allied Oil & Gas Services, LLC.  
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Bob Younce

SIGNATURE Bob Younce



GEOLOGIST'S REPORT  
 DRILLING TIME AND SAMPLE LOG

OPERATOR ATLAS OPERATING, LLC

LEASE CYPRESS # 4

FIELD GOETZ

LOCATION 1950' FAULT 330' FEL (S/4-NE-SE-SE)

SEC. 30 TWP. 29S RGE. 9W

COUNTY KIDGAND STATE KS.

WELL NO. VRL ENERGY, TAC #19

DATE 3-03-12 TO 3-13-12

LOG TO 4601'

LOG TO 2500' TO T.D.

LOG TO 1300' TO T.D.

LOG TO 2390' TO T.D.

LOG TO 3325' TO T.D.

LOG TO 15-095-22248-00-00 CHEMICAL

FORMATION	DEPTH	LOG	REMARKS
ONAGA SHALE	2413	(-1748)	2414 (-1748) +3
HELDON CAVE	2457	(-1792)	2454 (-1787) +3
HEERMAN SH.	3380	(-1715)	3381 (-1716) +1
DOUGLAS SH.	3413	(-1748)	3413 (-1748) -1
LOUISIANA	3579	(-1914)	3582 (-1917) +1
STARK SHALE	3930	(-2265)	3933 (-2268) +5
CHESTER SH.	4143	(-2478)	4142 (-2477) +3
MISS. CHEST	4185	(-2520)	4183 (-2518) +2
MISS. LIMB	4223	(-2558)	4220 (-2555) +3
KNO. SH.	4215	(-2550)	4208 (-2545) FLAT
KNO. LIMB	4325	(-2660)	4318 (-2655) +2
VIOLA	4395	(-2730)	4394 (-2729) FLAT
SIMPSON SH.	4425	(-2800)	4425 (-2800) -3
SIMPSON SD.	4477	(-2812)	4471 (-2806) -3
ARBUCKLE	4573	(-2908)	4473 (-2908) -1



WELL LOG SUMMARY  
 SUPERIOR  
 CN/D; DI; PE; MICRO

DRILLING RECORD  
 SURFACE 8 5/8" @ 267'  
 PRODUCTION 5 1/8" @ T.D.

ELEVATION  
 KB 1665'  
 DF 1655'  
 FROM KB (1665')

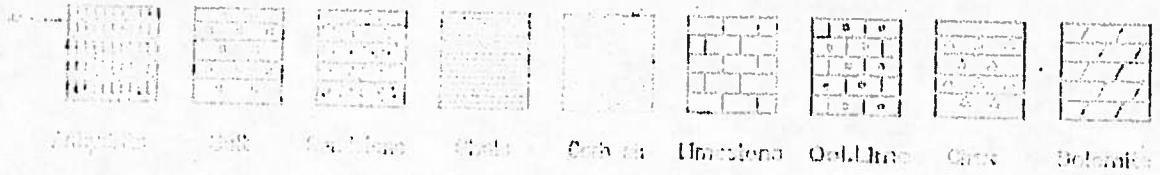
REMARKS: IT WAS RECOMMEND & AGREED UPON BY ALL PARTIES THAT PRODUCTION LOG BE SET ON THE #4 CYPRESS TO FURTHER EVALUATE THIS WELL

RESPECTFULLY SUBMITTED

BY PATRICK J. DEWNIHAN  
 PETROLEUM GEOLOGIST

*Patrick J. Dewnihan*

LEGEND



SCALE 1" = 100'

DEPTH	STRAT. DESCRIPTION	REMARKS
2300	SAMPLES 20' APC & DRY	6:30 AM, DEPTH
	SH, RED & GRV	3-03-12 - MTRU
		3-04-12 - 0' SPUD WELL
		3-05-12 - 418' DRAW WORK DOWN
		3-06-12 - 1982'
		3-07-12 - 2060'
		3-08-12 - 2771' - FISH FOR COLLARS
		3-09-12 - 3280' DISPLACE @ 3325'
		3-10-12 - 3847'
		3-11-12 - 4192'
		3-12-12 - 4600'
		3-13-12 Logging
	LS & SH, WHT TO CLEAR - SANDY	
	KS, NO VIS SHOW - NO ODR NO FLVR. - SHALES - GRV & RED	
		53 UNIT TOTAL GAS - NO RECVR

SEC. 30-7295-R9W, 5/4-NE-SE-NE ATLAS OPERATING CO'S # 3 CYPRESS

LS & SH, WHI TO CLR - SANDY  
NO VIS SHOW - NO ODR NO  
FLVR - SHALES - GRAY & RED

53 UNIT TOTAL GAS - NO RECYCLE

LS, WHI - V. F. - ALN - SLT - DOLD  
TO INTER - ALN - NO SHOW

2400

SH, AROUND GRAY TO DK GRAY - SOME  
ORANGE BLUE & RED IN NO SHOW  
LS, BNT - SING - F. - ALN - SUB CHALKY  
NO SHOW

ONAGA SHALE

2414 (-749)

SH, A)A - RED BEDS -

SH, A)A

INDIAN CAVE

2454 (-789)

LS, WHI - SING - SLT - SANDY  
NO VIS. SHOW -

TOTAL GAS = 52 UNIT  
RECYCLE = 54 UNIT > BACK GROUND  
31 UNIT

TOTAL GAS = 50 UNIT  
RECYCLE = 52 UNIT > BACK GRS  
28 UNIT

LS A)A INTER IN SS, NO VIS SHOW

WABUNSEE SH.

2500 (-835)

2500

SH, GRAY TO DK GRAY - SILTY TO ARGIL

Vis = 9.5 WT: 28

SH, A)A SLT - MICACEOUS

SH, GRAY - ARGIL

LS, CRM - TAN - F. - ALN, SLT - FSSL (TITE)  
SUB - CHALKY

SH, GRAY & REDDISH BAN. - ARGIL

SH, LT GRAY TO GRAY - TRC OF VARI-  
COLOR

2600

SAMPLES  
50 WET DRY

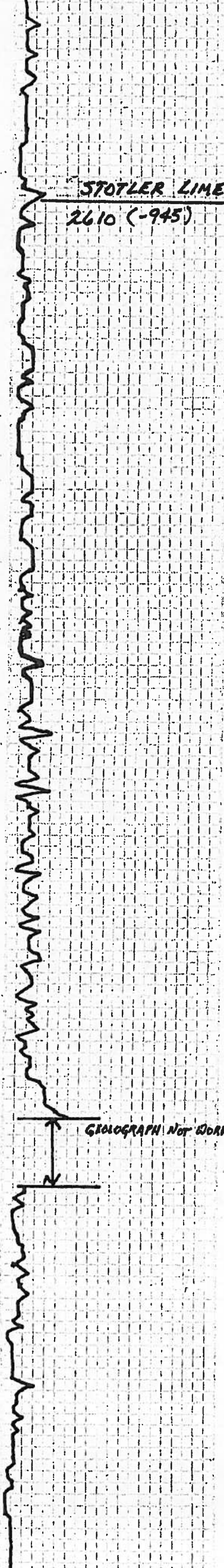
STOTLER LIME

2610 (-925)

SH, A)A - PREDOM - GRAYS

LS, CRM - LT GRAY, P - F. - ALN, A - FSSL

TOTAL GAS = 145 UNIT



SH, LT. GRAY TO GRAY - TRC OF VARI-COLOR

2600

SAMPLES  
50 WATERY

SH, A)A - PREDOM - GRYS.

LS, CRM-LT GRAY P-FN-XLN, P-FSSZ  
SUB CHALKY - NO SNOW OF OIL OR  
SPN, 7.400R

TOTAL GAS = 145 UNIT -> BACK GROUND  
RECYCLE = 80 UNIT -> = 28 UNIT

STOTLER LIME

2610 (-945)

SH, GRAY-ARG TO SILTY

SN, A)A TRC OF LT GRAY SS. - V-FN TO  
FN-GRN - SUB-ANGULAR - MOD-SORT  
MICACEOUS - NO SNOW (SEM) - TO  
NON-FRABLE

LS, TAN, BRN, LT GRAY - FN-XLN, SH-  
FSSZ - CHALKY - NO SNOW OF OIL  
OR SPIN

TOTAL GAS = 90 UNIT -> BACK GROUND  
NO RECYCLE -> = 21 UNIT

LS, A)A

LS, TAN-OR BRN - FN-XLN - VERY  
DENSE MICRO-XLN - NO SNOW

SH, GRAY ARGIL

2700

SH, A)A

(LS)  
SN, A)A - SOME CRM-TAN-FN-XLN, FSSZ  
& CHALKY - NO SNOW

SH & LS, A)A.

GEOLOGRAPH NOT WORKING

\*2771' - TWISTED OFF AT COLLARS - START  
FISHING AT 2:30 AM ON 3-08-12  
BACK TO DRG AT 7:15 PM - 3-08-12

MUD-Co / SERVICE MUD, INC. ✓  
@ 2772'

VIS: 29 WT: 9.2 WL: N/E  
GHL: 50,000 LCM: 04

LS, WNY CRM - FN-XLN, P-FSSZ -  
CHALKY - NO SNOW.

2800

LS, A)A.

SH, GRY, BRN, ORG - LT. GRN-ARGIL

SH, A)A.

SH., GRAY, BRN, DRG. - LT. GRN. ARGIL

SH., A/A

SH., A/A

LS., WHT, CRM, TAN, SING - FN - XLN -  
TO JOB - CHALKY - TRC OF FSSL  
Φ - NO SHOW

LS., A/A - CARRY A LOT OF GRAY  
STYACK

2900

LS., WHT - CRM - SING - V - FN - FN - XLN -  
FSSL CHALKY. 12) DEPTH

SH., BLACK, DK GRAY & GRAY - ARGIL

LS., CRM, TAN - SING - SLI - MOTT - FN - XLN  
SCATT FSSL, TRC OF P - INTER - XLN

3000

LS., TAN - BRN - SING / MOTT - FN - XLN  
FSSL TRC OF SHALLOW VUG Φ - NO  
SHOW

LS., CRM - SING - FN - XLN, FSSL TO OOL  
CHALKY - NO SHOW

3100

SH, GRY-TO VARI-COLOR.

LS, CRM TAN-SING - FN-XLN-P-SCAT  
FSSL, CHALKY NO SHOW

LS, A)A-INCR IN CHALK W)DEPTH

SH, DK GRY, BLACK CARB

50

LS, WHT CRM LT. GRY - FN-XLN -  
SUB-CHALKY TO CHALKY

LS, WHT CRM-SING FSSL, CHALKY  
& CHALKY NO SHOW

3200

LS, CRM, LT GRY-SING/MOTT - MICRO  
HEAD TO FN-XLN-FSSL & CHALKY - No  
SHOW

50

SH, VARI-COLOR-ARGIL

SH, BLACK CARB & DK GRY-ARGIL

LS, WHT CRM-SING-FSSL-FN-XLN  
CHALKY NO SHOW

3300

LS, CRM-TAN-SING MOTT-DENSE  
MICRO TO FN-XLN-P-FSSL IN  
PART NO SHOW

LS, A)A

DISPLACE MUD - 3925' ON - 3-09-12

3300

PART No SHOW

LS, A/A

DISPLACE MUD - 3325' ON - 3-09-12

LS, A/A - 301 - SHALY

SH, BLACK CARB

SH, BLACK CARB

SH, A/A (W) VARI-COLOR ARGIL SH.

MUD-Co / SERVICE MUD, INC. ✓  
D 3388  
VIS: 49 WT: 8.7 WL: 9.0  
GHL: 4,500 LCM: 0"

3400

LS, WHT-GRN - SING. FN - XLN - 301  
FSSC - No SHOW

SH, BLACK CARB - ABUND. DK GRAY -  
GRY - FISSLE, ARGIL & SILTY WITH  
DEPTN.

TOTAL GAS: 82 UNIT  
RECYCLE = 80 UNIT  
BACK GROUND  
16.8 UNIT

SH, A/A - TRAC OF WHT-GALE SS CLUSTERS  
F-301 - Sub - ANG - MICACEOUS - No  
SHOW

SH, A/A - SCAT - CRN FSSC To P-40-100  
LS, No SHOW

SH, BLACK CARB - FREDDM. GRY DRNG  
GRN SILEY SH.

LS, CRN-BRN - MOTT/SING - FN - XLN -  
FSSC & CHALKY - ABUND SA A/A  
& PIRATE - No SHOW

SH, GRY - TO VARI-COLOR - SILTY

GEOLOGRAPH NOT WORKING

3500

SH, A/A - SCAT - FN - GRN - P-30-100  
MICACEOUS SS SEMI-FRABLE  
No SHOW

SH, A/A - SCAT LS, A/A No SHOW

SH, A/A - SCAT

SH, DK GRY, GRY, LT GRN - ARGILL  
SILTY

SS, WHT-LT GRN - GLAUCONITIC  
MICACEOUS - DENSE - P-30-100 - SEMI  
FRABLE - No SHOW

50

LANSING  
3582 (1917)

50

SH, A)A - SCAP

SH, DK GRAY, GRAY, LT GRN - ARGILL  
SILTY

SS, WHY - LT GRN - GRAUDONTYIC  
MICACEOUS - DENSE - P. SONTOS - SEM  
FOLIO - FRIBLE - NO SHOW

SH, BLACK CARB - GRYS - ARGILL  
SILTY

LS, GRN, LT GRAY - FN - XLN - SLT - FSSZ  
SUB CHALKY

LS, GRN - SING - FN - XLN TO SLT - FSSZ  
CHALKY W) DRPTH - NO SHOW

3600

LS, A)A - SLT - CHERT - STILL CARRI-  
NG SILTSTONE & SHALES FROM  
DOUGLAS FORMATION

LS, GRN, TAN, BRN - DENSE CRYPTO - XLN  
SING TO V. MOTT. NO SH ON

50

LS, A)A - ABUND. GRAY SHALES

LS, A)A

3700

SH, DK GRAY GRAY - ARGILL (TRC OF LT  
GRN - ARGILL)

LS, GRN, TAN - SING TO SLT - MOTT -  
V. POOR FN - XLN TO CRYPTO - XLN  
NO SHOW

LS, A)A - ABUND GRAY SHALE

LS, TAN - SING - BRN - MOTT - GRAY -  
FSSZ TO F.oolg - NO SHOW

50

LS, A)A

SH, ABUND DK GRAY, GRAY & BRN ARGILL

LS., A7A

SH., ABOVE OR GRV; GRV & GRN ARGIL

SH., A7A (W.) BLACK CARB.

3800

LS., CRM TAN - SING CRYPTO - XEN  
No. SHOW

SH., BLACK CARB.

LS., CRM TAN - GRV - FN - XEN - BLACKY  
No. SHOW

SH., GRV'S

LS., CRM TAN - SING - MICRO - XEN - No  
SHOW

50

SHUT DOWN @ 7:15 AM - WAITING  
ON PARTS FOR STUFFING BOX ON  
SEAB. PUMP  
MUD CO / SERVICE MUD, INC ✓  
@ 3858'

LS., WHT. CRM - SING - FN - XEN - FSSL  
SUB. CHALKY

VIS: 44 WT: 9.3 WL: 11.2  
CHI: 7,000 LCM: 0"

LS., A7A (W) TRC OF CRM TO GRV CHERT

SH., ABOVE GRV'S & GRN - ARGIL

3900

LS., CRM - GRV - MOTT / SING - FN - XEN  
FSSL - V. DENSE - No. SHOW

STARK SHALE

3993 (-2268)

SH., BLACK CARB

TOTAL GAS = 150 UNIT - BACKGROUND  
NO RECYCLE = 80 UNIT

LS., WHT CRM - SING - FN - XEN - TO P -  
INTER - XEN - SUB. CHALKY - No. SHOW

50

SH., BLACK CARB

TOTAL GAS = 140 UNIT - BACKGROUND  
NO RECYCLE = 70 UNIT

LS., WHT CRM - SING - FSSL - SLI - OOL  
No. SHOW

4000

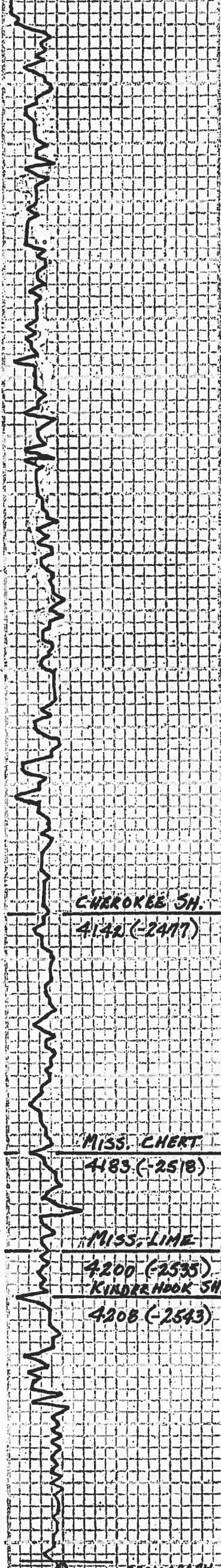
LS., WHT CRM - SING - FN - XEN - SLI - FSSL  
TRC OF CRM - OPAQUE SHARP D

VIS: 46 WT: 9.4

SH., ABOVE - VAR. COLOR - GRV, GRN  
ORANGE & BLACK - ARGIL

SH., A7A - ARGIL TO SILTY





4000

LS, WNT-CRM-SING-FIN-XLN-SLI-FSSL  
TRC OF CRM-OPAQUE SHARP D

Vis: 46 Wt: 9.4

SH, ROUND-VARI-COLOR-GRY, GRN  
ORANGE & BLACK-ARGIL

SH, A/A-ARGIL TO SILTY

SH, BLACK CARB

SH, VARI-COLOR D

No GAS KICKS - BACK GROUND  
= 68.3 UNITS

50

LS, CRM-TAN-GRY-SING/MOTT-P-  
FIN-XLN, P-SCATT FSSL TRC  
OF CHERTY LS.

SH, BLACK CARB. TO VARI-COLOR

LS, CRM-TAN-SING-V-FIN TO FIN-XLN  
TRC OF IMPER-XLN TO INTER-  
FSSL P-FRESH TO SLI-FSSL A  
TRANSLUENT TO OPAQUE-NO  
SHOW

4100

SH, BLACK CARB

SH, VARI-COLOR-ARGIL-SLI-SILTY

LS, CRM-SING-FIN-XLN, P-PP TO INTER-  
XEN, MICRO. OOL W/ NO VIS POROSITY  
NO SHOW

LS, A/A (W) CRM-FRESH TO SLI-OOL  
CHERT

CHEROKEE SH.  
4142 (-2417)

SH, BLACK CARB

50

SH, VARI-COLOR  
LS, CRM-LY GRY

SH, BLACK CARB

SH, VARI-COLOR.

SH, VARI-COLOR.

MISS. CHERT  
4183 (-2518)

CHERT-LY TAN-FRESH-TRANS TO OPAQUE  
NO SHOW - NO GAS KICK

SH-VARI-COLOR

MISS. LIME  
4200 (-2535)

4200

LS, WNT-CRM-SING-FIN-XLN-TO-MICRO-  
XLN-V-SLI-SH OF BLACK GILSONITE  
EDGE SH-NO OOL, NO FLOOR NO F.S.O.  
OIL-NO GAS KICK

SH, GRY, DR GRY SOME BLACK CARB

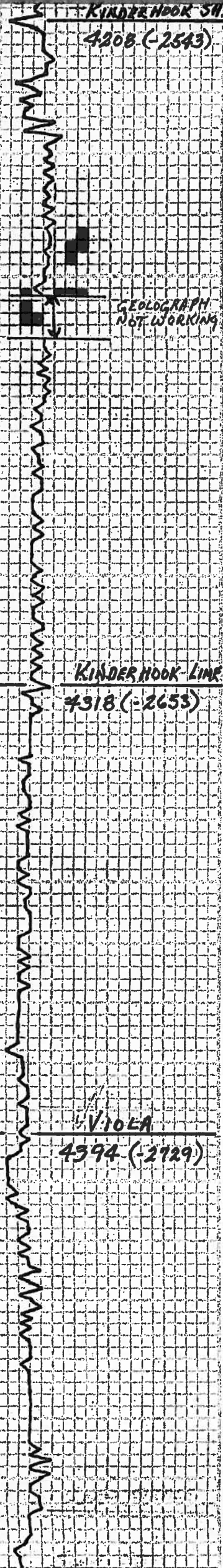
KINDERHOOK SH.  
4208 (-2543)

SH, A/A SET-SILTY

SH, A/A

50

SH, -ABUND VARI-COLOR-GRY  
LT GRN, AQUA, ORANGE  
ARGIL



oil - no gas risk

SH, GRN, DK GRN SOME BLACK CARB

SH, A) A SILT-SILTY

SH, A) A

SH, - ABUND VARI - COLOR - GRN  
OF GRN, AQUA, ORANGE  
ARGIL

SH, A) A

SH, A) A - SILT-SILTY

SH, DK GRN, GRN - ARGIL - VARI  
COLORED AS ABOVE IN GREASE  
IN SILTY

LS, WHT - GRN - SING / MOTT - FOLIA  
TRC OF P-FSSL - CRM TO MOTT -  
ORG & PURPLE CHERT - TRC OF ODR  
P-SCATT FLUR ON A FEW PGS - NO  
F.O. - STILL CAREYING AROUND  
GRY SHALE

LS, A) A W) No SHOW

SH, BLACK CARB - ABUND DK GRN  
GRY - W) GRN - ARGIL

LS, LSH - CRM - GRN - MOTT - SING  
SLI - CHERTY - FOLIA to P-FSSL  
SUB CHARTY - NO SHOW

Dolo; FOL to MED - RHOMBIC - V-FRIBBLE  
V-GSEFO - STRONG ODR - V-DRIGHT  
GOLD FLUR

Dolo; A) A - DECREASE IN LFD - V-GRAD  
ODR & FLUR - BECOMING PBL  
W) DEPTH - G - FLUR - PBL  
TITE BUT 5000 - OIL STN TARA - OBT

Dolo / CHERT - Dolo - CRM - SING -  
V-DENSE - NO VIS - F-CHERT  
FRESH O.PARUL SLI-FSSL - NO SHOW

LS, WHT - CRM - TAN - MOTT - SING - NO  
SHOW -

LS, A) A - ABUND VARI - COLOR SH,

SH, GRN - SILT-SILTY - W) ABUND VARI - COLE  
SH, PREDOM - ARGIL

SS - FOL TO MED GRN - V-GSEFO - F-ODR

MUD-CO / SERVICE MUD, INC. ✓  
D 4225  
VIS: 45 WT: 9.3 WL: 11.2  
CHL: 6,000 LCM=0

TOTAL GAS: 238 UNITS  
RECYCLE: 240 UNITS

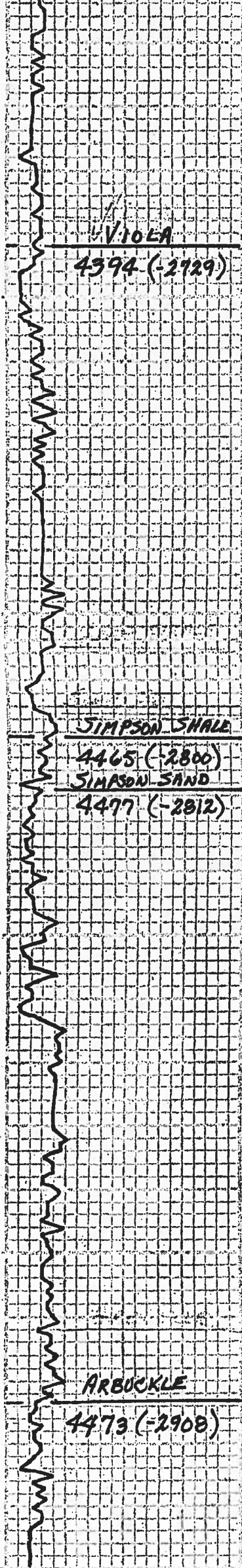
TOTAL GAS=250 UNITS  
RECYCLE=250 UNITS

TOTAL GAS=238 UNITS  
RECYCLE=260 UNITS

TOTAL GAS=230 UNITS  
RECYCLE=200 UNITS

RIG ✓  
VIS: 43 WT: 9.4 LCM: 14

TOTAL GAS: 330 UNITS



VIOLA  
4394 (-2729)

SIMPSON SHALE  
4465 (-2800)  
SIMPSON SAND  
4477 (-2812)

ARBOCKLE  
4473 (-2908)

4400

50

4500

50

SH, BLACK CARB-ABUND DK GRN  
GRY-W7 GRN-ARGIL

✓

LS, LSH-CRM-GRY-MOTT-SING  
SLI-CHEATY-FN-XLN TO P-FSSL  
SUB-CHALKY-NO SHOW

DOL, FN TO MED-RHOMBIC-V-FRIBLE  
V-SSFD-STRONG ODR-V-DRYHT  
GOLD FLOOR

DOL: A) A DECREASE IN LFD-V-GOOD  
ODR & FLOOR-BEGGING DOL  
W) DEPTH-G-FLOOR-BOOKS  
TITE BUT GOOD OIL STN TARN'D

DOL/CHERT-DOL-CRM-SING-  
V-DENSE-NO VIS-F-CHERT  
FRESH OPAQUE SLI-FSSL-NO SHOW

LS, WHT-CRM-TAN-MOTT-SING-NO  
SHOW

LS, A) A-ABUND VARI-COLOR SH,

SH, GRN-SLI-SILTY-W) ABUND VARI-COLOR  
SH. FREDDM-ARGIL

SS, FN TO MED GRN-V-SSFD-M-ODR  
V-WALL RD-P-F-TO WORTED-  
V-FRIBLE-CALCITE IN PART

SS, FN-MED GRN-V-SSFD-ABUND  
SUB RD TO SUB-AND-SORTED-  
V-GLAUCONITE W) DEPTH-NO  
FLOOR-FAINT ODR.

SS, FN-MED GRN-SORTED-SUB RD TO RD  
TRC OF SORT-DEAD OIL STN-NO FLOOR  
NO ODR-STILL V-FRIBLE-NO

SS, A) A W) ABUND G. RY  
SHALE

SH, BLACK & VARI-COLORED

✓

SH, A) A-ABUND PYRITE-  
STILL CARRYING SS W) DEAD OIL  
STN-TRC OF GLAUCONITE INCLUS  
& TRC OF MICACEOUS SS.

SN, DK GRY, GRN-ARGIL

LS, W-CRM-V-FD XLN TO BLOCKY  
V-TITE NO SHOW

DOL, CRM-SING-FN-XLN TO BLOCK  
CRYPTO-XLN, SLI SUCROSIC.  
NO SHOW

DOL, A) A

TOTAL GAS = 238 UNITS  
RECYCLE = 260 UNITS

BACK GROUND  
89 UNITS

TOTAL GAS 230 UNITS  
RECYCLE = 200 UNITS

BACK GROUND  
120 UNITS

RIG ✓  
VIS: 43 WT: 9.4 LCM: 1H

TOTAL GAS: 330 UNITS  
RECYCLE: 250 UNITS

BACK GROUND  
180 UNITS

TOTAL GAS: 250 UNITS  
RECYCLE = 238

BACK GROUND  
192 UNITS

RIG ✓  
VIS: 41 WT: 9.3 LCM = 2H

VIS: 50 WT: 9.4 LCM = 3H

RTD=4600 - REACHED @ 6:22 A.M. ON  
3-12-12