



KANSAS CORPORATION COMMISSION 1102185
OIL & GAS CONSERVATION DIVISION

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 # 34357
Name: Atlas Operating LLC
Address 1: 15603 Kuykendahl, Ste 200
Address 2: _____
City: HOUSTON State: TX Zip: 77090 + _____
Contact Person: zafar Ullah
Phone: (281) 893-9400
CONTRACTOR: License # 5822
Name: Val Energy, Inc.
Wellsite Geologist: Pat Deenihan
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 #: _____
12/27/2011 01/04/2012 06/12/2012
Spud Date or Date Reached TD Completion Date or
Recompletion Date Recompletion Date

API No. 15 - 15-077-21784-00-00
Spot Description: _____
NW NE SE NW Sec. 27 Twp. 31 S. R. 8 East West
1500 Feet from North / South Line of Section
2170 Feet from East / West Line of Section
Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW
County: Harper
Lease Name: Sanders-Schmisser Well #: 4
Field Name: Spivey Grabs Basil
Producing Formation: Simpson
Elevation: Ground: 1584 Kelly Bushing: 1594
Total Depth: 4956 Plug Back Total Depth: 4905
Amount of Surface Pipe Set and Cemented at: 257 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: 7500 ppm Fluid volume: 160 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite: _____
Operator Name: Messenger
Lease Name: Nicholas A- 1 License #: 4706
Quarter NE Sec. 20 Twp. 30 S. R. 8 East West
County: Kingman Permit #: 1030624986

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: Deanna Garrison Date: 01/07/2013



1102185

Operator Name: Atlas Operating LLC Lease Name: Sanders-Schmisseur Well #: 4
 Sec. 27 Twp. 31 S. R. 8 East West County: Harper

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 checked="" type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input 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: Attached	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum Attached Attached Attached
---	--

CASING RECORD <input checked="" 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
Surface	12.25	8.625	23	257	Pozmix A	225	CC 3 %, Gel 2 %
Production	7.875	5.50	15.50	4953	A	235	Koiseal 5#, salt 2.6 %

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
_____ Perforate _____ Protect Casing _____ Plug Back TD <input checked="" type="checkbox"/> Plug Off Zone	4418-4428	A	100	FI 160 : 0.3 %

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
4	4830-4835,4840-4852,4864-4874	2250 Gals 15 % Nefe acid	4830-4874
4	4418-4428	1600 gals 15 % nefe	4418-4428
4	4418-4428	100 sks A cmt sqzd	4418-4428

TUBING RECORD: Size: <u>2.875</u> Set At: <u>4781</u> Packer At: <u>4781</u> Liner Run: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Date of First, Resumed Production, SWD or ENHR. <u>07/05/2012</u>	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input checked="" type="checkbox"/> Other (Explain) <u>Injection</u>
Estimated Production Per 24 Hours	Oil Bbls. Gas Mcf Water Bbls. 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: <u>4830-4874</u> <u>Simpson</u>
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Form	ACO1 - Well Completion
Operator	Atlas Operating LLC
Well Name	Sanders-Schmisseur 4
Doc ID	1102185

All Electric Logs Run

Dual Induction
Compensated Neutron Density
Microlog
Cbl



PO Box 470308
Fort Worth, TX 76147

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

000875
000876

INVOICE

Invoice Number: 129745

Invoice Date: Dec 28, 2011

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	Sanders Schmissour#4	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Medicine Lodge	Dec 28, 2011	1/27/12

Quantity	Item	Description	Unit Price	Amount
135.00	MAT	Class A Common	16.25	2,193.75
90.00	MAT	Pozmix	8.50	765.00
3.00	MAT	Gel	21.25	63.75
7.00	MAT	Chloride	58.20	407.40
235.00	SER	Handling	2.25	528.75
35.00	SER	Mileage	25.85	904.75
1.00	SER	Surface	1,125.00	1,125.00
35.00	SER	Heavy Vehicle Mileage	7.00	245.00
35.00	SER	Light Vehicle Mileage	4.00	140.00
1.00	EQP	8 5/8 Wooded Plug	92.00	92.00
1.00	EQUIP OPER	Matt Thimesch		
1.00	EQUIP OPER	Ron Gilley		
1.00	EQUIP OPER	Eddie Piper		
1.00	OPER ASSIST	George Wright		

85/8

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

\$ 1293.08

ONLY IF PAID ON OR BEFORE
Jan 22, 2012

Subtotal	6,465.40
Sales Tax	221.88
Total Invoice Amount	6,687.28
Payment/Credit Applied	
TOTAL	6,687.28



INVOICE

PO Box 31
Russell, KS 67666

Invoice Number: 129801
Invoice Date: Jan 5, 2012
Page: 1

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

000232
000871

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

000872

Customer ID	Well Name# or Customer P.O.	Payment Terms	
Atlas	Sander Schmissaur #4	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-02	Medicine Lodge	Jan 5, 2012	2/4/12

Quantity	Item	Description	Unit Price	Amount
285.00	MAT	Class A Premium	19.00	5,415.00
133.00	MAT	FL-160	17.20	2,287.60
1,425.00	MAT	KolSeal	0.89	1,268.25
12.00	MAT	Cia-pro	31.25	375.00
8.00	MAT	Salt	12.00	96.00
376.00	SER	Handling	2.25	846.00
35.00	SER	Mileage	41.36	1,447.60
1.00	SER	Production	2,405.00	2,405.00
35.00	SER	Heavy Vehicle Mileage	7.00	245.00
1.00	SER	Manifold Head Rental	200.00	200.00
35.00	SER	Light Vehicle Mileage	4.00	140.00
1.00	EQP	5 1/2 TRP	73.00	73.00
1.00	EQP	5 1/2 Guide Shoe	240.00	240.00
1.00	EQP	5 1/2 AFU Insert	286.00	286.00
10.00	EQP	5 1/2 Centralizers	49.00	490.00
1.00	CEMENTER	David Fello		
1.00	EQUIP OPER	Jason Thimesch		
1.00	OPER ASSIST	George Wright		

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

\$3142.89

ONLY IF PAID ON OR BEFORE
Jan 30, 2012

Subtotal	15,814.45
Sales Tax	663.44
Total Invoice Amount	16,477.89
Payment/Credit Applied	
TOTAL	16,477.89



ALLIED CEMENTING CO., LLC

Cementing & Acidizing Services

CEMENTING LOG

STAGE NO.

Date 01-05-12 District Med. Lodge 15 Ticket No. 37869
 Company A+ Gas Oper. Rig Val #5
 Lease Sander Schriever Well No. _____
 County Haskell State KS
 Location Area KS 6K 28 15 1/2 E. S. 4 Field 27-31s-08w

CEMENT DATA:
 Spacer Type: 10 Bbls Salt flush
 Amt. _____ Sls Yield _____ ft³/sk Density _____ PPG

CASING DATA: PTA Squeeze
 Surface Intermediate Production Liner
 Size 5 1/2 Type _____ Weight 15.5# Collar _____

LEAD: Pump Time _____ hrs. Type Class A ASC + 5#
K 1 seal + 5% FC - 160 Excess _____

Amt. 235 Sls Yield 1.57 ft³/sk Density 14.5 PPG

TALE Pump Time _____ hrs. Type ASC + 5# K 1
 Excess _____

Amt. 20 Sls Yield 1.57 ft³/sk Density _____ PPG

WATER Lead 7.23 gals/sk Tail 7.23 gals/sk Total _____ Bbls

Casing Depth: Top _____ Bottom _____

Pump Trucks Used 360-265

Bulk Equip. 381-250

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size 7 7/8 T.D. 4955 ft. P.B. to 4953 ft.

Float Equip: Manufacturer W-G

Shoe: Type Guide Shoe Depth _____

Float: Type AFU insert Depth _____

Centralizers: Quantity 10 Plugs Top Top Btm. _____

Stage Collars _____

Special Equip. _____

Disp. Fluid Type 2% KCl Water Amt. 117 Bbls Weight _____ PPG

Mud Type No. 2 V.C. Weight _____ PPG

CAPACITY FACTORS:

Casing: Bbls/Lin. ft. .0238 Lin. ft./Bbl. _____

Open Hole: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____

Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____

Annulus: Bbls/Lin. ft. .0309 Lin. ft./Bbl. _____

Bbls/Lin. ft. _____ Lin. ft./Bbl. _____

Perforations: From _____ ft. to _____ ft. Amt. _____

COMPANY REPRESENTATIVE Bab

CEMENTER D. Felio

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
						Pipe on Bottom, Break Circulation
	400		10		5	Pump Preflush
	100			8%	3	Plug Root Hole w/ 305x A-ASC
	100		5%		3	Plug Annulus w/ 205x A-ASC
	400 + 25			62 3/4	6	MIX 235x exclusive A-ASC cement
						Stop Pump
	100		10		3	Work Pump & Lines
	100					Release Plug
	500			70	6	Start Displacement w/ 2% KCl water
	1300		100		3	See Stand, increase in PST
3:45 AM	1800			117	3	Slow Rate
						Bump Plug
						Release PST - Float Did Hold

FINAL DISP. PRESS: 1500 PSI BUMP PLUG TO 1800 PSI BLEEDBACK 1 BBLs THANK YOU

ALLIED CEMENTING CO., LLC. 037869

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

SERVICE POINT:
Medicine Lodge, KS

DATE <i>01-05-12</i>	SEC <i>27</i>	TWP <i>31s</i>	RANGE <i>07W</i>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <i>Sandus Schmissen</i> WELL # <i>#4</i>				LOCATION <i>Atlas, KS, 6 Km, 2.5, 1.5, 1.5</i>		COUNTY <i>Haskell</i>	STATE <i>KS</i>
OLD OR NEW (Circle one)				<i>State</i>			

CONTRACTOR *Vol #5*

TYPE OF JOB *Production Casing*

HOLE SIZE *7 7/8* I.D. *4955'*

CASING SIZE *5 1/2* DEPTH *4953'*

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX *1800#* MINIMUM *---*

MEAS. LINE SHOE JOINT *73.96*

CEMENT LEFT IN CSG. *44'*

PERFS.

DISPLACEMENT *117 Bbls 2% KCL Water*

EQUIPMENT

PUMP TRUCK CEMENTER *D. Felix*

#360-265 HELPER *T. Thinsch*

BULK TRUCK

#381-250 DRIVER *G. Wright*

BULK TRUCK

DRIVER

OWNER *Atlas Oper.*

CEMENT

AMOUNT ORDERED *285 sacks class "A" ASC + 5# Kalsol + .5% FL-160 # 12 gals Clappa # 8% salt*

COMMON	⊙		
POZMIX	⊙		
GEL	⊙		
CHLORIDE	⊙		
ASC Class "A"	285 sacks	19.00	5415.00
FL-160	133 gals	17.20	2287.60
Kalsol	1485 pds	.89	1321.65
Clappa	12 gals	31.25	375.00
Salt	8 Sacks	18.00	144.00
	⊙		
	⊙		
	⊙		
	⊙		
	⊙		
	⊙		
	⊙		
HANDLING <i>3%</i>	⊙	2.85	846.00
MILEAGE <i>57 @ .25 x .11</i>	⊙		147.60
TOTAL			11,735.45

REMARKS:

Open Bottom Break Circulation Pump Run Flush Mix 50% + Fly Rot & Mosekles Mix 235 Sx A ASC Cement: Stop Pump, Wash Pump & Lines, Release Fly, Seal & Displacement w/ 2% KCL Water, Seal & increase PSI at 70 Bbls, Slowrate, Pump Fly at 117 Bbls total Drop to 1800#, Release P.S.F., Float Dil. to 11'

SERVICE

DEPTH OF JOB	<i>4953</i>		
PUMP TRUCK CHARGE			2405.00
EXTRA FOOTAGE	⊙		
MILEAGE	<i>35</i>	7.00	245.00
MANIFOLD <i>hand rental</i>	⊙		200.00
<i>Light Vehicle</i>	<i>35</i>	4.00	140.00
	⊙		
TOTAL			2990.00

CHARGE TO: *Atlas Oper!*

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

<i>1-TRP</i>	⊙		73.00
<i>1-Guide Shoe</i>	⊙		240.00
<i>1-AFU insert</i>	⊙		281.00
<i>10-centralizers</i>	⊙	49-	500.00
	⊙		
TOTAL			1099.00

To Allied Cementing Co., 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 Yance*

SIGNATURE *Bob Yance*

SALES TAX (If Any) _____

TOTAL CHARGES *\$15,824.45*

DISCOUNT *20%* IF PAID IN 30 DAYS

Net \$12,159.56

ALLIED CEMENTING CO., LLC. 037869

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

SERVICE POINT:

Medicine Lodge, KS

DATE <u>01-05-12</u>	SEC. <u>27</u>	TWP. <u>31s</u>	RANGE <u>09W</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <u>3:45 AM</u>
LEASE <u>Sander Schmissen</u>	WELL #	LOCATION <u>A+las, KS, 6 1/2 mi, 29 1/2 1/4 E.</u>			COUNTY <u>Harpers</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)		<u>S/Later</u>					

CONTRACTOR Val #5

TYPE OF JOB Production Casing

HOLE SIZE 7 7/8" T.D. 4955'

CASING SIZE 5 1/2" 12.5' DEPTH 4953'

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX. 1800# MINIMUM _____

MEAS. LINE _____ SHOE JOINT 43.96'

CEMENT LEFT IN CSG. 44'

PERFS. _____

DISPLACEMENT 117 Bbls 2% KCL Water

OWNER Atlas Oper.

CEMENT AMOUNT ORDERED 2855x class "A" ASC + 5# Kdseal + .5% FL-160 & 12gals Caproc & 8sr salt

COMMON	_____ @ _____
POZMIX	_____ @ _____
GEL	_____ @ _____
CHLORIDE	_____ @ _____
ASC	_____ @ _____
_____	_____ @ _____
_____	_____ @ _____
_____	_____ @ _____
_____	_____ @ _____
_____	_____ @ _____
_____	_____ @ _____
_____	_____ @ _____
_____	_____ @ _____
_____	_____ @ _____
HANDLING	_____ @ _____
MILEAGE	_____ @ _____

EQUIPMENT

PUMP TRUCK CEMENTER D. Felia

360-265 HELPER J. Thomsch

BULK TRUCK

381-250 DRIVER G. Wright

BULK TRUCK

_____ DRIVER _____

REMARKS:

Pipe on B+rm Break Circulation, Pump Run flush Mix 50sr to Plug Rat & Murechales Mix: 2355x A ASC cement Stop Pump, Wash Pump & Lines, Release Plug, Start Displacement w/ 2% KCL Water, See steady increase in PSI at 70 Bbls, Slow Rate, Bump Plug at 117 Bbls total Disp. to 1800#, Release PSI, Float Dil hold

TOTAL _____

SERVICE

DEPTH OF JOB	<u>4953</u>
PUMP TRUCK CHARGE	_____
EXTRA FOOTAGE	_____ @ _____
MILEAGE	_____ @ _____
MANIFOLD <u>head rental</u>	_____ @ _____
<u>Light Vehicle</u>	_____ @ _____
_____	_____ @ _____

TOTAL _____

CHARGE TO: Atlas oper.

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

To Allied Cementing Co., LLC.
You are hereby requested to rent cementing equipment

(5#)

1-TRP	_____ @ _____
1-Guide Shoe	_____ @ _____
1-AF Visent	_____ @ _____
10-Centralizers	_____ @ _____

4512 Spyglass Creek

(316) 840-5311

Wichita, KS 67226

GEOLOGIST'S REPORT DRILLING TIME AND SAMPLE LOG

OPERATOR ATLAS OPERATING, LLC

LEASE SANDERS-SCHMIDTBEUR #4

FIELD SPIREY GRAB BASIN

LOCATION 1500' FNL & 2170' FNL (UNWA-SAND)

SEC 27 TWP. 31^S RGE. 8^W

COUNTY HARPER STATE KANSAS

CONTRACTOR VAL ENERGY, INC. Rig #5

LOG NO. 12-27-11 COMP. 1-04-12

ATD 4945' LOG TO 4955'

SAMPLES SAVED FROM N/A TO N/A

DRILLING TIME KEPT FROM 3600' TO T.D.

SAMPLES EXAMINED FROM 3900' TO T.D.

GEOLOGICAL SUPERVISION FROM 4000' TO T.D.

WELL ID 5293' TYPE HOLE CHEMICAL

API # 15-077-21784-00-00

FORMATION	LOG TOP	LOG BOTTOM	DEPTH	DEPTH
<u>LOWZING</u>	<u>3740 (-2145)</u>	<u>3736 (-2146)</u>		
<u>STARK SHALE</u>	<u>4065 (-2469)</u>	<u>4063 (-2468)</u>		
<u>CHICKEN SHALE</u>	<u>4303 (-2711)</u>	<u>4301 (-2709)</u>		
<u>MISSISSIPPIAN</u>	<u>4410 (-2824)</u>	<u>4407 (-2825)</u>		
<u>KINDERHOOK SN</u>	<u>4615 (-3031)</u>	<u>4614 (-3030)</u>		
<u>KINDERHOOK LM</u>	<u>4639 (-3049)</u>	<u>4640 (-3046)</u>		
<u>VIOLA</u>	<u>4760 (-3166)</u>	<u>4760 (-3166)</u>		
<u>VIOLA SS COND</u>	<u>4808 (-3214)</u>	<u>4807 (-3213)</u>		
<u>JACKSON SHALE</u>	<u>4880 (-3286)</u>	<u>4878 (-3284)</u>		
<u>JACKSON SAND</u>	<u>4703 (-3307)</u>	<u>4702 (-3308)</u>		

ELEVATION
KB 1594'

DF
GL 1584'

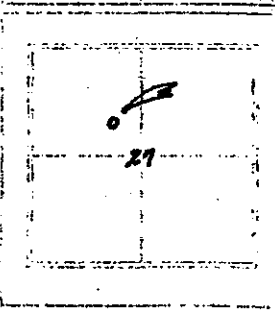
Measurements Are All From KB, 1594'

CASING RECORD
SURFACE 263' OF 8 5/8"

PRODUCTION 5 1/2" SAT @ 1A

WELL LOG SURVEYS
CND, DUAL IND. MICRO
& PE.

SUPERIOR WELL SERVICES



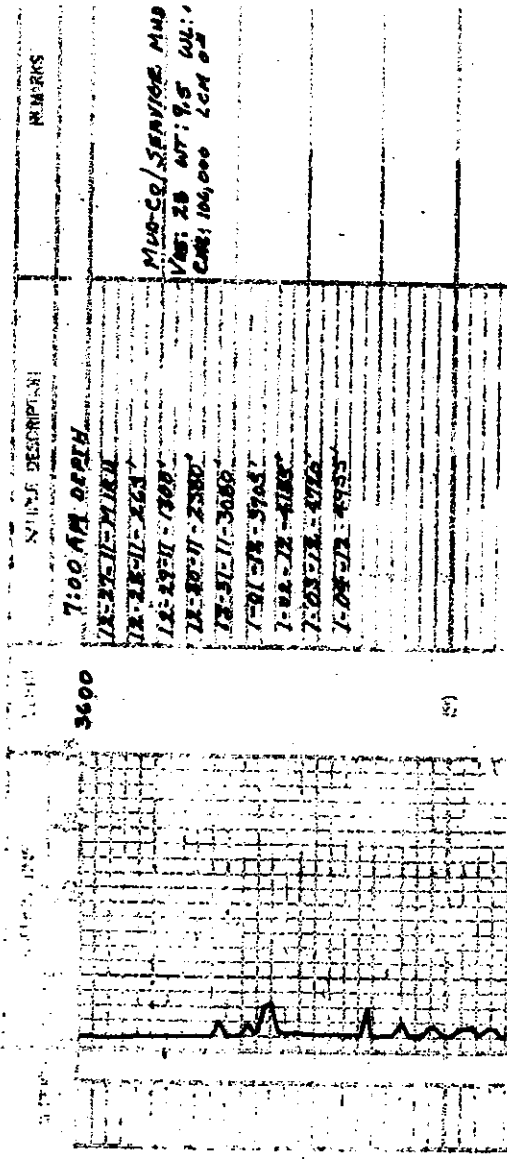
REFERENCE WELL FOR PRODUCTION COMPARISON ATLAS OPERATING, LLC - SANDERS SCHMIDTBEUR #3

REMARKS
 IT WAS ASCERTAINED & AGREED UPON ALL PARTIES CONCERNED THAT
 5 1/2" CSG BE SET ON THIS WELL TO FURTHER ELUCIDATE
 RESERVING SUBMITTAL
 BY: THIRICKA J. DECHEN
 Field Production

LEGEND

- Dolomite
- Chert
- Oil Lime
- Limestone
- Shale
- Sandstone
- Sandstone with shells
- Sandstone with shells and dolomite
- Sandstone with shells and dolomite and chert
- Sandstone with shells and dolomite and chert and limestone
- Sandstone with shells and dolomite and chert and limestone and oil lime

SCALE " = 100'



LANSING
5786 (2182)

50

3800

3900

4000

54, BLACK CORE

15, GEN. SING - FA - XEN - POOR
SAMPLES

12, N/A TOOK SAMPLES

13, N/SAMPLES - POOR SAMPLES

STARTED SAMPLES - W
BIT

15, WHT - GRN - SING - SL - TRN
ONLY 80% REFINED

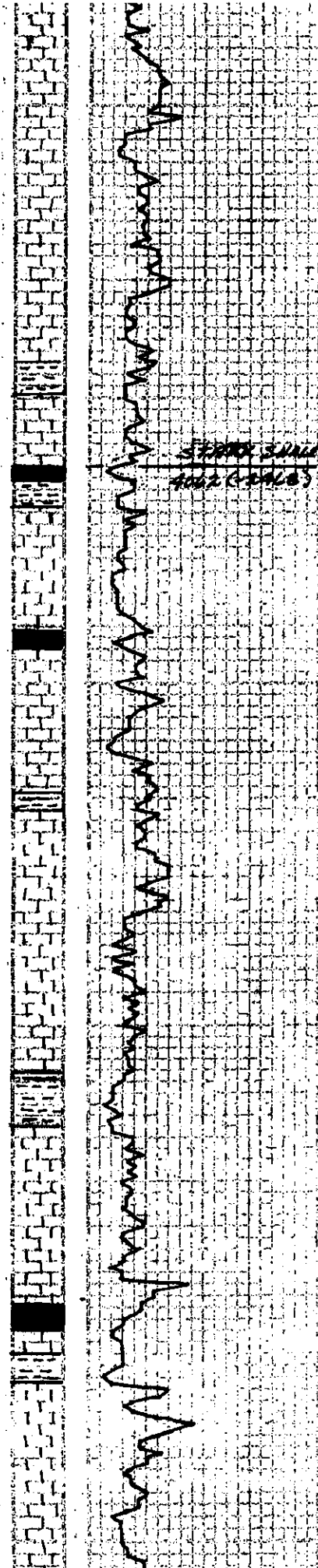
20, WHT - GRN - SING - SL - TRN
No SHOW

* PLEASE NOTE SAMPL
DISCRPTIONS ARE BE
LAGGED TO USING PI

57, KARL - SING - POOR SAMPLES

15, WHT - GRN - SING - SL - TRN
ONLY 80% REFINED
No SHOW - POOR SAMPLES

VIA: 46 WT: 9.3 WL: 1
CHL: 7000 LCM: 0"



4000

Via: 46 WT: 9.3 NL: 1
 CHL: 7000 LCM: 0.4

SN, SANDY GRAY MUD - BRITISH
 SANDS

LS, GRAY-TAN-SAND - 135L

5 FT SAND
 4002 (2000)

SN, BLACK CARB

SN, D) (E 12) VARI-COLOR-

LS, GRAY-CARB - GRAY-TAN TO TAN
 PART - 10' IN THE 10' TO 12' DEPTH
 CHALKY TO DEPTH

SN, BLACK CARB

4100

LS, GRAY-TAN-LEGAL - 300' (1000)
 PART - 10' IN THE 10' TO 12' DEPTH
 CHALKY TO DEPTH (12) DEPTH

SN, VARI-COLORED

LS, GRAY-CARB - GRAY-TAN TO TAN
 PART - 10' IN THE 10' TO 12' DEPTH
 CHALKY TO DEPTH (12) DEPTH

SN, VARI-COLOR - PINKISH-GAY
 (12) 30'

LS, GRAY-TAN-CARB - 10' (1000)
 PART - 10' IN THE 10' TO 12' DEPTH
 CHALKY TO DEPTH (12) DEPTH

4200

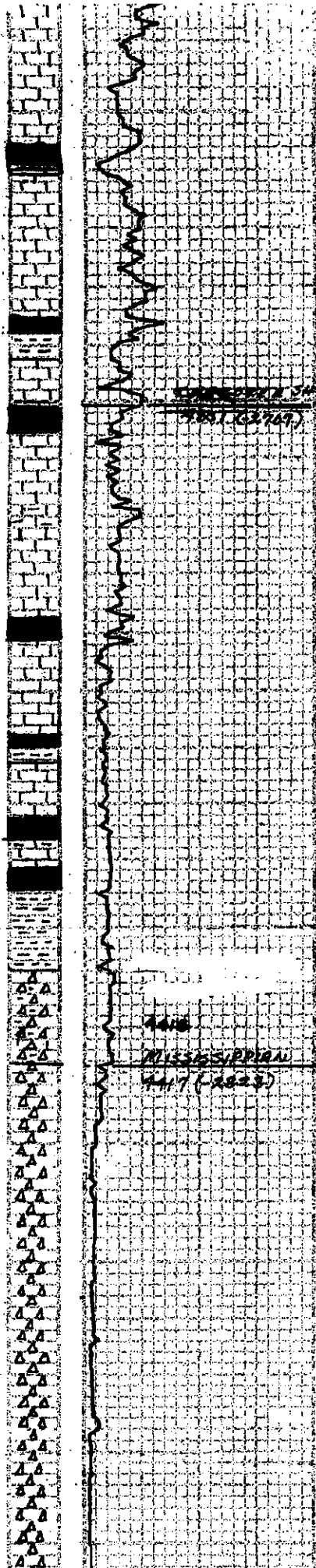
Rig ✓ 57 Vis;

LS, GRAY-TAN-CARB - 10' (1000)
 PART - 10' IN THE 10' TO 12' DEPTH
 CHALKY TO DEPTH (12) DEPTH

SN, BLACK CARB

SN, VARI-COLOR

LS, GRAY-TAN-CARB - 10' (1000)
 PART - 10' IN THE 10' TO 12' DEPTH
 CHALKY TO DEPTH (12) DEPTH



SH. BLACK CARB.

SH. VARI. COLORED STONIA

LS. LT. GRAY CRN. SAND - CRISTO
TO. MILD. SAND. S.L. SAND.
NO. 5000

SH. BLACK CARB. - TART. COLO.
NO. 5000

LS. DARK GR. TO. YEL. SUB. CHALKY
NO. 5000

4300 SH. BLACK CARB.

LS. LT. GRAY CRN. SAND - SUNG
MILD. SAND. NO. 5000

SH. BLACK CARB.

LS. GRAY SAND - SUNG - MICRO. SAND
SUB. CHALKY - NO. 5000

SH. BLACK CARB. - GRAY SAND

LS. CRN. LT. GRAY SAND - S.L.
CHALKY - NO. 5000

SH. BLACK CARB.

LS. LT. GRAY SAND - MILD. SAND
NO. 5000

SH. BLACK CARB.

SH. AROUND TART. COLO. - V. LIND
NO. 5000. MILD. SAND. SAND. SAND.

4400 LS. LT. GRAY SAND - SUNG - STONY
SAND. S.L. SAND. SAND.

CHART. INT. LT. GRAY SAND - FINE
TA. MILD. SAND. S.L. SAND.
GRANULAR SAND. SAND. SAND.
NO. 5000. SAND. SAND. SAND.
TO. SAND. SAND. SAND. SAND.
SAND. SAND. SAND. SAND.

ENTR. SAND. SAND. SAND. SAND. SAND.
SAND. SAND. SAND. SAND.

TOTAL GAS = 189.204

CHART. INT. CRN. SAND - MILD.
TA. MILD. SAND. SAND. SAND.
V. SAND. SAND. SAND. SAND.
TO. SAND.

TOTAL GAS = 198.253

CHART. INT. S.L. SAND. SAND.
SAND. SAND. SAND. SAND.
SAND. SAND. SAND. SAND.

CHART. INT. SAND. SAND. SAND.
SAND. SAND. SAND. SAND.
SAND. SAND. SAND. SAND.
SAND. SAND. SAND. SAND.
SAND. SAND. SAND. SAND.

4500 CHART. INT. SAND. SAND. SAND.
SAND. SAND. SAND. SAND.
SAND. SAND. SAND. SAND.

VIS: 49 WT: 9.4 NL
CHL: 7.00 LCH: 0

Rig / 49 Vis: 9.4

