

ORIGINAL SIDE ONE

STATE CORPORATION COMMISSION OF KANSAS  
OIL & GAS CONSERVATION DIVISION  
WELL COMPLETION FORM  
ACO-1 WELL HISTORY  
DESCRIPTION OF WELL AND LEASE

API NO. 15- 033-20,817-0000

County Comanche  
SW SE NE Sec. 5 Twp. 35S Rge. 16 East West X

Operator: License # 03384  
Name: R. J. Sullivan dba Sullivan and Company  
Address Suite 1700  
320 South Boston  
City/State/Zip Tulsa, OK 74103

2970' Ft. North from Southeast Corner of Section  
1350' Ft. West from Southeast Corner of Section  
(NOTE: Locate well in section plat below.)

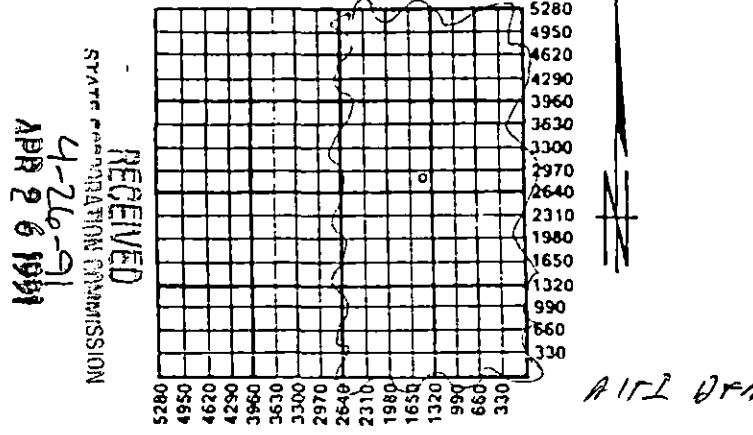
Purchaser: dry P & A  
Operator Contact Person: Dale E. Dawson  
Phone ( 918 ) 584-4288

Lease Name R. McMoran Well # 2  
Field Name W/C

Contractor: Name: Sage Drilling Co.  
License: 5421  
Wellsite Geologist: BecSul

Producing Formation dry hole  
Elevation: Ground 1839' KB 1861'  
Total Depth 5380' PBDT ---

Designate Type of Completion  
 New Well  Re-Entry  Workover  
 Oil  SWD  Temp. Abd.  
 Gas  Inj  Delayed Comp.  
 Dry  Other (Core, Water Supply, etc.)



If OWO: old well info as follows:  
Operator: \_\_\_\_\_  
Well Name: \_\_\_\_\_  
Comp. Date \_\_\_\_\_ Old Total Depth \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at 480 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 Method:  
 Mud Rotary  Air Rotary  Cable  
04-08-91 04-17-91 04-20-91  
Spud Date Date Reached TD Completion Date

INSTRUCTIONS: This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. Rule 82-3-130, 82-3-107 and 82-3-106 apply. Information on 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 drillers time log 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. Any recompletion, workover or conversion of a well requires filing of ACO-2 within 120 days from commencement date of such work.

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 Dale E. Dawson  
Title Production & Operations Manager Date 04-25-91  
Subscribed and sworn to before me this 25<sup>th</sup> day of April, 19 91.  
Notary Public Faye Washburn  
Date Commission Expires December 7, 1992

K.C.C. OFFICE USE ONLY  
F  Letter of Confidentiality Attached  
C  Wireline Log Received  
C  Drillers Timelog Received  
Distribution  
 KCC  SWD/Rep  NGPA  
 KGS  Plug  Other (Specify)

SIDE TWO

Operator Name R. J. Sullivan dba Sullivan and Company Lease Name R. McMoran Well # 2  
Sec. 5 Twp. 35S Rge. 16  East  West  
County Comanche

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem 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 during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken  Yes  No  
(Attach Additional Sheets.)  
Samples Sent to Geological Survey  Yes  No  
Cores Taken  Yes  No  
Electric Log Run  Yes  No  
(Submit Copy.)

Formation Description  
 Log  Sample

Name	Top	Bottom
Red Bed	40'	1250'
Shale/Anhy	1250'	1700'
Anhy/Shale	1700'	2200'
Shale	2200'	3650'
Lime/Shale	3650'	5380'

CASING RECORD  New  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 1/4"	8 5/8"	23#	480	Class "A"	150	3% CaCl <sub>2</sub>

Shots Per Foot	PERFORATION RECORD Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
none	none	none	

TUBING RECORD Size none Set At \_\_\_\_\_ Packer At \_\_\_\_\_ Liner Run  Yes  No

Date of First Production Dry P & A Producing Method  Flowing  Pumping  Gas Lift  Other (Explain)

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

Disposition of Gas:  Vented  Sold  Used on Lease (If vented, submit ACO-18.)  
METHOD OF COMPLETION:  Open Hole  Perforation  Dually Completed  Commingled  Other (Specify) \_\_\_\_\_  
Production Interval none

SIDE TWO

Operator Name R. J. Sullivan dba Sullivan and Company Lease Name R. McMoran Well # 2

Sec. 5 Twp. 35S Rge. 16  East  West County Comanche

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem 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 during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken  Yes  No  
(Attach Additional Sheets.)  
Samples Sent to Geological Survey  Yes  No  
Cores Taken  Yes  No  
Electric Log Run  Yes  No  
(Submit Copy.)

Formation Description

Log  Sample

Name	Top	Bottom
Base Heebner	4360	
Lansing -K.C.	4550	
Ft. Scott	5160	
Miss. Lm.	5270	

STATE CORPORATION COMMISSION  
MAY 8 1961  
58-91  
CONSERVATION DIVISION  
Wichita, Kansas

**CASING RECORD**  New  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 1/2"	8 5/8"	23#	480	Class "A"	150	3% CaCl <sub>2</sub>

**PERFORATION RECORD**

Shots Per Foot	Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
none	none	none	

**TUBING RECORD**

Size none Set At \_\_\_\_\_ Packer At \_\_\_\_\_ Liner Run  Yes  No

Date of First Production Dry P & A Producing Method  Flowing  Pumping  Gas Lift  Other (Explain)

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

Disposition of Gas:  Vented  Sold  Used on Lease (If vented, submit ACO-18.)

METHOD OF COMPLETION:  Open Hole  Perforation  Dually Completed  Commingled  Other (Specify) \_\_\_\_\_

Production Interval: none

PHONE  
318 / 824-7340

ORIGINAL  
**DEAN'S TESTERS INC.**

P. O. BOX 1182  
LIBERAL, Ks. 67801

SEC. 5  
TWP. 35S  
R0E. 16N  
COUNTY Comanche  
STATE KANSAS  
TICKET NO. 3362

Sullivan & Co. OPERATOR  
McMORAN #2  
WELL NAME & NO.  
TEST #  
4960' - 5012'  
TEST INTERVAL

Formation Kansas City Type Test Tailpipe Straddle Date April 19, 1991  
Anchor Length and Size 52' ; 30' X 6"OD-D.C. , 22' X 4 1/2"OD-Perf. Total Depth 5380'  
Packer Depths 4955' & 4960' Below Straddle 5012' Choke Size Bottom 5/8" Surface 1/4"  
Equipment Run 3 Packers, Jars, Sample Chamber, Safty joint, Circ. sub., Straddle Assembly

Lengths: Tool 453' D.P. 4763' ID. 3.8" Wt. P. ID. D.C. 268' ID. 2.25"  
Mud Type Chemical Vls. 68 Wt. 9.1 Wtr. Loss 5.5 Cl. 13,000 ppm

Recorders:  
Depth 4971' Make Kuster Cap. 6500 Ser. No. 10269 Inside  
Depth 4975' Make Kuster Cap. 6800 Ser. No. 10217 Outside  
Depth 5019' Make Kuster Cap. 6450 Ser. No. 10268 Below Straddle

Pressures:  
Tool on Bottom @ 9:10 A.M. Initial Hydrostatic 2401 psi  
Initial Flow 30 Min. IFP 96 psi to 119 psi  
Initial Shut-In 59 Min. ISIP 1900 psi  
Final Flow 90 Min. FFP 135 psi to 140 psi  
Final Shut-In 155 Min. FSIP 1906 psi  
Tool off Bottom @ 2:45 P.M. Final Hydrostatic 2385 psi Temp. 122

Slow: Weak throughout test.

Recovery: 240' Total Fluid.  
180' Mud.  
60' Watery Mud.

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STATE CORPORATION COMMISSION  
MAY 8 1991  
CONSERVATION DIVISION  
Wichita, Kansas

Gas Flow:  
Sampler Data:  
Pressure 110 PSI  
Gas none cu. ft.  
Total Fluid 2000 cc  
Oil -- cc  
Water 800 48,000 PPM Cl. cc  
Mud 1200 cc  
Oil Gravity \_\_\_\_\_ @ \_\_\_\_\_ °F.  
Gas/Oil Ratio \_\_\_\_\_

Remarks:  
Rw.- .06 @ 122 F.

Tester Butch Young Witnessed by: Bill Griffin

Pressure Break Down

Test ticket no. 3362 Recorder no. 10269 Capacity 6500 Rec. Depth. 4971'

Initial Flow pressure <u>96</u> to <u>119</u>	Time	Given <u>30</u>	Computed <u>30</u>
Initial Closed in pressure <u>1900</u>		<u>60</u>	<u>59</u>
Final Flow pressure <u>135</u> to <u>140</u>		<u>90</u>	<u>90</u>
Final Closed-in pressure <u>1906</u>		<u>155</u>	<u>155</u>
Initial Hydrostatic pressure <u>2401</u>	Final Hydrostatic press. <u>2385</u>	Temp <u>122</u>	

Initial Flow Press.	Initial Closed in Press.	Final Flow Press	Final Closed in Press.
Minutes Press	Minutes Press	Minutes Press	Minutes Press
0 96	0 119	0 135	0 148
Plugging	6 1479	Plugging	10 1369
Action	12 1707	Action	20 1704
30 119	18 1791	70 140	30 1803
	24 1836	80 140	40 1839
	30 1858	90 140	50 1858
	36 1874		60 1871
	42 1884		70 1881
	48 1893		80 1887
	54 1897		90 1890
	59 1900		100 1893
			110 1897
			120 1900
			130 1903
			140 1903
			150 1906
			155 1906

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 STATE CORPORATION COMMISSION  
 MAY 8 1991  
 CONSERVATION DIVISION  
 Wichita, Kansas

316/624-7340



Box 1182, Liberal, Ks.

Ticket No. 3362

Date 4-19-91

Company Name SULLIVAN & CO.

Address \_\_\_\_\_

Report Distribution: \_\_\_\_\_ copies 5

Invoice sent to: \_\_\_\_\_ copies \_\_\_\_\_

Well Name & No. McMORAN #2 Sec. 5 Twp. 35S Rge. 16W

County COMANCHE State KANSAS Elevation \_\_\_\_\_

DST No. 1 Formation K.C. Test Interval 4960' to 5012' Total Depth 5380'

Anchor Length 52' Anchor size 30.76" O.D. P.C. 22.24" O.D. PER Surface Choke 1/4" Bot. Choke 5/8"

Top Packer Depth 4955' Damaged NO Bottom Packer Depth 4960' Damaged NO

Below Straddle Depth \_\_\_\_\_ Damaged \_\_\_\_\_ Bot. Packer Depth 5012' Damaged NO

Recorders: Depth 4971' Make KUSTER Capacity 6500\* Ser. No. 10269 Inside 19620

Depth 4975' Make KUSTER Capacity 6800\* Ser. No. 10217 Outside 27964

Below Straddle: Depth 5012' Make KUSTER Capacity 6450\* Ser. No. 10268

PRESSURES: Tool on Bottom @ 9:10 A.M. Initial Hydrostatic 2414 psi 2401

Initial Flow 30 Min. IFP 112 psi to 145 psi 96-119

Initial Shut-in 59 Min. ISIP 1916 psi 1900

Final Flow 90 Min. FFP 145 psi to 161 psi 135-140

Final Shut-in 155 + 80 Min. FSIP 1916 psi 1906

Tool off Bottom @ 2:45 3:10 P.M. Final Hydrostatic 2378/2385 psi Temp. 122°

Blow WEAK THROUGHT TEST

Recovery (240' TOTAL FLUID)

180' MUD

60' WATERY MUD

Extra Equipment 2 PACKERS, JARS, SAFETY FT, CIRC SUB, SAMPLER, STRADDLE

Lengths: Tool 453 DP 4763' ID 3.8 Wt. P \_\_\_\_\_ ID \_\_\_\_\_ DC 268' ID 2.25

Mud Type CHEMICAL Vis. 68 Wt. 9.1 WtrLoss 5.5 Chlorides 13,000 PPM

Drig. Cont. SAGE Rig # 5 Jnt. Size: DC 4" H-90 DP 4 1/2" X.H.

Remarks: \_\_\_\_\_

Company Terms: Dean's Testers shall not be liable for damage of any kind to the property of the one for whom a test is run, or for any loss suffered, directly or indirectly, through the use of its equipment or its statements or opinion concerning the results of any test.

Tester: Butch Young Test Approved By: Bill [Signature]

# ORIGINAL

## \*\* DRILLERS LOG \*\*

R. McMoran No.2  
Section 5-35S-16W  
Comanche County, Kansas

Ran 11 jts of 8-5/8"  
set @ 480',  
Cement W/180sx  
3%cc + 150 sx Class A

Operator: Sullivan & Company  
Contractor: Sage Drilling Co.  
Commence: April 8, 1991  
Completed: April 20, 1991

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Formation:	From	To	Remarks:
Red Bed	40'	1250'	
Shale/Anhy	1250'	1700'	
Anhy/Shale	1700'	2200'	
Shale	2200'	3650'	
Lime/Shale	3650'	5380'	TD Plugged 50 sx @ 510' 50 sks @ 510' 10sks @ 40' 10 sks @ 3'- 30' 15 sks Rathole 15 sks Mousehole

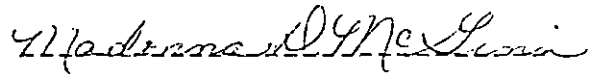
I Certify that this is a true and correct copy of the log on the above captioned well to the best of my knowledge



Martin F. Huschka  
Secretary/Treasurer

Subscribed and sworn to before me this 23th day of April, 1991.

My Commission Expires:  
November 15, 1994

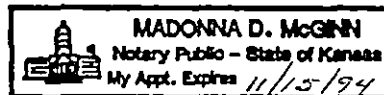


Madonna McGinn  
Notary Public

RECEIVED  
STAFF CORPORATION COMMISSION

APR 26 1991

CONSERVATION DIVISION  
Wichita, Kansas





P.O. Box 4442  
Houston, Texas 77210

# ORIGINAL CEMENTING LOG

STAGE NO.

Date 4-20-91 District W-20 Co. 008E Ticket No. 643 769  
 Company SULLIVAN Co. Rig SAGE # 5  
 Lease R Mc MORAN Well No. 2  
 County COMANCHE State KANSAS  
 Location S-35E-16W Field WTLWCDT  
Hauptner, 270

CASING DATA PTAC  Squeeze   
 Surface  Intermediate  Production  Liner   
 Size 3 7/8" Type \_\_\_\_\_ Weight \_\_\_\_\_ Collar \_\_\_\_\_

Casing Depths: Top 61' Bottom 483'

Drill Pipe Size 4 1/2" Weight 16.6 Connors XH

Open Hole Size 7 1/8" T.D. 5386 ft. P.B. to \_\_\_\_\_ ft.

CAPACITY FACTORS:  
 Casing: Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_  
 Open Holes: Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_  
 Drill Pipe: Bbls/Lin. ft. 0.1422 Lin. ft./Bbl. 70 MAY 8  
 Annulus: Bbls/Lin. ft. \_\_\_\_\_ Lin. ft./Bbl. \_\_\_\_\_  
 Perforations: From \_\_\_\_\_ ft. to \_\_\_\_\_ ft. Amt. Wichita, Kan Mud Type \_\_\_\_\_

### CEMENT DATA

Spacer Type: FRESH H<sub>2</sub>O  
 Amt. \_\_\_\_\_ Sks Yield \_\_\_\_\_ ft<sup>3</sup>/sk Density 8.34 PPG

LEAD Pump Time \_\_\_\_\_ hrs. Type \_\_\_\_\_  
 Excess \_\_\_\_\_

Amt. \_\_\_\_\_ Sks Yield \_\_\_\_\_ ft<sup>3</sup>/sk Density \_\_\_\_\_ PPG  
 TAIL. Pump Time \_\_\_\_\_ hrs. Type 40:60:6  
 Excess \_\_\_\_\_

Amt. 140 Sks Yield 1.53 ft<sup>3</sup>/sk Density 13.8 PPG  
 WATER: Lead \_\_\_\_\_ gals/sk Tail 7.8 gals/sk Total 26 Bbls.

Pump Trucks Used 2902-6481 Max Bell  
 Bulk Equip. 2903-6483 TUSTEN HART

Float Equip: Manufacturer \_\_\_\_\_  
 Shoe Type \_\_\_\_\_ Depth \_\_\_\_\_  
 Float Type \_\_\_\_\_  
 Centralizers: Quantity \_\_\_\_\_ Plug Top \_\_\_\_\_  
 Collars \_\_\_\_\_  
 Special Equip. \_\_\_\_\_  
 Mud Type DLLB Mud Amt. \_\_\_\_\_ Bbls Weight 9.3 PPG  
 Mud Type CHEMICAL Weight 9.3 PPG

COMPANY REPRESENTATIVE TOM TREPE

CEMENTER KEVIN BRUNGAARDT

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
10:30						ON LOCATION, RIG UP JOB & SAFETY MEETING SOX @ 9:30'
	150		8 1/2	8 1/2	4 1/2	START FRESH H <sub>2</sub> O FRESH H <sub>2</sub> O IN - START CEMENT
			22 1/2	14	4 1/2	CEMENT IN - START FRESH H <sub>2</sub> O
			25 1/2	3	4 1/2	FRESH H <sub>2</sub> O IN - START MUD
12:30			37	6 1/2	5	MUD IN - STOP PUMPS SOX @ 110'
			8 1/2	8 1/2	5	START FRESH H <sub>2</sub> O
			22 1/2	14	4 1/2	FRESH H <sub>2</sub> O IN - START CEMENT
13:50	100		26	3 1/2	4 1/2	CEMENT IN - START FRESH H <sub>2</sub> O FRESH H <sub>2</sub> O IN - STOP PUMPS SOX @ 140'
			3	3		
			7	4		15% IN CAT HOLE
2:15			11	4		15% IN MUD SET HOSE