

ORIGINAL

KCC

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- 119-20,824 -00-00 MAY 1 7

County Meade **CONFIDENTIAL**

SW NE Sec. 17 Twp. 34S Rge. 28  East West

Operator: License # 04782

3200' Ft. North from Southeast Corner of Section

Name: Ensign Operating Co.

1980' Ft. West from Southeast Corner of Section  
(NOTE: Locate well in section plat below.)

Address 621 17th St., Suite 1800

Lease Name ROSS Well # 3-17

City/State/Zip Denver, Colorado 80293

Field Name Unnamed

Purchaser: Petro Source

Producing Formation Marmaton

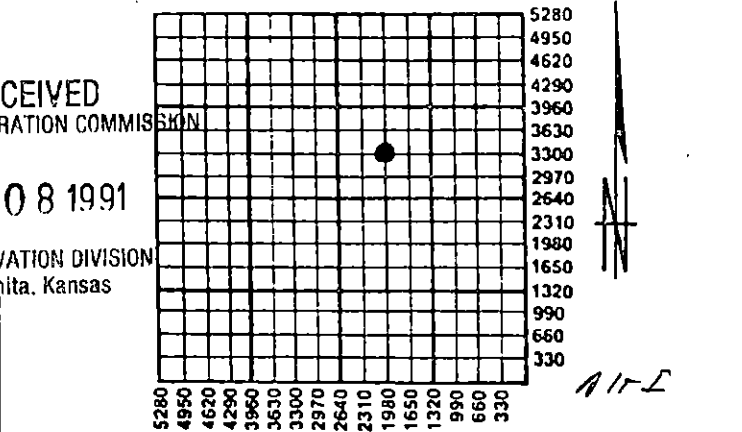
Operator Contact Person: J. C. Simmons

Elevation: Ground 2432' KB 2438'

Phone (303) 293-9999

Total Depth 6500' PBDT 5289'

Contractor: Name: Brandt Drilling Co., Inc.



License: \_\_\_\_\_

Wellsite Geologist: Duane E. Mordock

Designate Type of Completion

New Well  Re-Entry  Workover

Oil  SWD  Temp. Abd.

Gas  Inj  Delayed Comp.

Dry  Other (Core, Water Supply, etc.)

If **OWD**: old well info as follows:  
Operator: \_\_\_\_\_

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

Comp. Date \_\_\_\_\_ Old Total Depth \_\_\_\_\_

Drilling Method:  
 Mud Rotary  Air Rotary  Cable

1/15/91 2/2/91 3/15/91

Spud Date \_\_\_\_\_ Date Reached TD \_\_\_\_\_ Completion Date \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at 1628' 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 cmr.

**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-1 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 Connie Smith

Title Sr. Engineering Technician Date 5/6/91

Subscribed and sworn to before me this 6<sup>th</sup> day of May 19 91.

Notary Public Pamela E. Campbell

Date Commission Expires 9-30-94

K.C.C. OFFICE USE ONLY

F  Letter of Confidentiality Attached

C  Wireline Log Received

C  Drillers Time Log Received

KCC  SWD/Rep  NGPA

KGS  Plug  Other

(Specify)

SIDE TWO

Operator Name Ensign Operating Co. Lease Name Ross Well # 3-17  
 Sec. 17 Twp. 34S Rge. 28  East County Meade  
 West

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 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (Attach Additional Sheets.)  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 (Submit Copy.)  <p style="text-align: center;">See Attached</p>	<p style="text-align: center;">Formation Description</p> <input type="checkbox"/> Log <input type="checkbox"/> Sample  Name <span style="float: right;">Top Bottom</span>  <p style="text-align: center;">See Attached</p>
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**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	24	1628	Light Prem	+ 500	2% CaCl <sub>2</sub> & 1/4#/sx Flocele
Production	7-7/8	5-1/2	15.5	6026	CI "C"	150	2% CaCl <sub>2</sub>
					CI "H"	325	3% KCl, 7% Halad 322, .25% CBL

PERFORATION RECORD		Acid, Fracture, Shot, Cement Squeeze Record
Shots Per Foot	Specify Footage of Each Interval Perforated	(Amount and Kind of Material Used) Depth
See Attached		

TUBING RECORD	Size <u>2-7/8</u>	Set At <u>5170'</u>	Packer At <u>4755'</u>	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	CIBP @ <u>5779'</u> CIBP @ <u>5289'</u>
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Date of First Production 3/21/91 Producing Method  Flowing  Pumping  Gas Lift  Other (Explain)

Estimated Production Per 24 Hours	Oil <u>16</u> Bbls.	Gas <u>0</u> Mcf	Water <u>20</u> Bbls.	Gas-Oil Ratio	Gravity
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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  
Marmaton

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Perforation Record

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<u>Shots/Foot</u>	<u>Perforation Record</u>	
4 JSPF	4830'	Morrow
4 JSPF	5782-5790'	Morrow
4 JSPF	5292-5298'	Novinger
4 JSPF	5224-5235'	Marmaton
4 JSPF	4842-4848'	Iola

Acid, Fracture, Shot, Cement Squeeze Record

Sqz w/100 sx Cl "H"	4830'
450 Gals 7-1/2% FE-HCl, 1 Gal Aquaflo & 1 Gal I10-D	5782-5790'
600 Gals 7-1/2% Fe-HCl, .1% LoSurf 300, .1% HAI-60, 5000 Gals 20% FE-HCl	5224-5235'
350 Gals 7-1/2% Fe-HCl, .1% LoSurf 300, .1% HAI-60	4842-4848'
Sqz w/100 sx Cl "H"	4842-4848'

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CONSERVATION DIVISION  
Wichita, Kansas

# TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

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## Drill-Stem Test Data

MAY 17

Well Name & No.	RDSS #3-17	Test No.	1	Date	1/23/88
Company	ENSIGN OPERATING COMPANY	Zone Tested	101KA 101A		
Address	621 17th #1800 DENVER CO	Elevation	2439 KB		
Co. Rep./Geo.	MR DUANE MOREDOCK	Cont.	BRANDT DRLG	Est. Ft. of Pay	7
Location: Sec.	17	Twp.	34S	Rge.	28W
		Co.	MEADE	State	KANSAS

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Interval Tested	4824-4854	Drill Pipe Size	4.5" XH			
Anchor Length	30	Top Choke - 1"	Bottom Choke - 1/4"			
Top Packer Depth	4819	Hole Size - 7 7/8"	Rubber Size - 6 5/4"			
Bottom Packer Depth	4824	Wt. Pipe I.D. - 2.7 Ft. Run	0			
Total Depth	4854	Drill Collar - 2.25 Ft. Run	583			
Mud Wt.	9.1	lb/gal.	Viscosity	47	Filtrate	9.0
Tool Open @	4:01 PM	Initial Blow	OFF BOTTOM IN 30 SECONDS			
			GAS TO SURFACE IN 30 MINUTES-GAUGED 8.84			
Final Blow	OFF BOTTOM IN 30 SECONDS-GAS 16.7 TO 3.56					
	SURFACE BLOW ON FINAL SHUTIN					

Recovery - Total Feet	677	Flush Tool?	
Rec.	507	Feet of	MUD CUT GASSY OIL
Rec.	170	Feet of	WATER
Rec.	0	Feet of	
Rec.	0	Feet of	
Rec.	0	Feet of	

BHT	120	°F Gravity	41	°API @	70	°F Corrected Gravity	40	°API		
RW	.20	@	62	°F Chlorides	45000	ppm Recovery	Chlorides	2500	ppm System	4000
(A) Initial Hydrostatic Mud	2397.7	PSI	Ak1 Recorder No.	Range						
(B) First Initial Flow Pressure	76.5	PSI	@ (depth)	4826	w/Clock No.	27573				
(C) First Final Flow Pressure	148.6	PSI	Ak1 Recorder No.	10248	Range	4400				
(D) Initial Shut-In Pressure	1406.7	PSI	@ (depth)	4849	w/Clock No.	31152				
(E) Second Initial Flow Pressure	180.1	PSI	Ak1 Recorder No.	0	Range	0				
(F) Second Final Flow Pressure	261.2	PSI	@ (depth)	0	w/Clock No.	0				
(G) Final Shut-In Pressure	1440.0	PSI	Initial Opening	30						
(H) Final Hydrostatic Mud	2364.4	PSI	Initial Shut-In	60						
			Final Flow	60						
			Final Shut-In	120						

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CONSERVATION DIVISION  
Wichita, Kansas  
1050

MR MARK HERSKUWITZ

Our Representative \_\_\_\_\_

TOTAL PRICE \$ \_\_\_\_\_

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**TRILOBITE TESTING COMPANY**  
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## Drill-Stem Test Data

Well Name & No. <u>ROSS #3-17</u>	Test No. <u>2</u>	Date <u>1/25/91</u>
Company <u>ENSIGN OPERATING CO</u>	Zone Tested <u>MARMATON</u>	
Address <u>621 17th #1800 DENVER CO</u>	Elevation <u>2439</u>	
Co. Rep./Geo. <u>MR DUANE MOREDOCK</u>	Cont. <u>BRANDT DRLG</u>	Est. Ft. of Pay <u>14</u>
Location: Sec. <u>17</u>	Twp. <u>34S</u>	Rge. <u>28W</u> Co. <u>MEADE</u> State <u>KANSAS</u>

Interval Tested <u>5190-5244</u>	Drill Pipe Size <u>4.5" XH</u>
Anchor Length <u>54</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>5185</u>	Hole Size — 77/8" _____ Rubber Size — 63/4" _____
Bottom Packer Depth <u>5190</u>	Wt. Pipe I.D. — 2.7 Ft. Run <u>0</u>
Total Depth <u>5244</u>	Drill Collar — 2.25 Ft. Run <u>553</u>
Mud Wt. <u>9.1</u> lb/gal.	Viscosity <u>53</u> Filtrate <u>7.6</u>

Tool Open @ 9:42 PM Initial Blow OFF BOTTOM IN 15 SECONDS-GAS TO SURFACE IN 30 MIN-7.12 IN 30 MIN

Final Blow OFF BOTTOM IN 15 SECONDS-6" WATER /4.12 IN 120 MINUTES

Recovery — Total Feet <u>728</u>	Flush Tool? _____
Rec. <u>240</u> Feet of <u>WATER</u>	
Rec. <u>20</u> Feet of <u>OIL &amp; GAS CUT MUD</u>	
Rec. <u>468</u> Feet of <u>VERY GASSY MUD CUT OIL</u>	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	

BHT 122 °F Gravity 45 °API @ 70 °F Corrected Gravity 44 °API

RW .14 @ 60 °F Chlorides 60000 ppm Recovery Chlorides 2400 ppm System

(A) Initial Hydrostatic Mud <u>2520.3</u> PSI	Ak1 Recorder No. <u>2023</u> Range <u>4000</u>
(B) First Initial Flow Pressure <u>126.1</u> PSI	@ (depth) <u>5192</u> w/Clock No. <u>27573</u>
(C) First Final Flow Pressure <u>182.4</u> PSI	Ak1 Recorder No. <u>10248</u> Range <u>4400</u>
(D) Initial Shut-In Pressure <u>1522.0</u> PSI	@ (depth) <u>5239</u> w/Clock No. <u>31152</u>
(E) Second Initial Flow Pressure <u>195.9</u> PSI	Ak1 Recorder No. <u>0</u> Range <u>0</u>
(F) Second Final Flow Pressure <u>319.8</u> PSI	@ (depth) <u>0</u> w/Clock No. <u>0</u>
(G) Final Shut-In Pressure <u>1590.3</u> PSI	Initial Opening <u>30</u>
(H) Final Hydrostatic Mud <u>2460.8</u> PSI	Initial Shut-In <u>60</u>

Final Flow 120  
 Final Shut-In 180

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CONSERVATION DIVISION  
 Wichita, Kansas 1100

MR MARK HERSKOWITZ

Our Representative \_\_\_\_\_

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## Drill-Stem Test Data

Well Name & No.	ROSS #3-17	Test No.	3	Date	1/28/91
Company	ENSIGN OPERATING CO	Zone Tested	MORROW		
Address	621 17th #1800 DENVER CO	Elevation	2439		
Co. Rep./Geo.	MR DUANE MOREDOCK	Cont.	BRANDT DRLG	Est. Ft. of Pay	0
Location: Sec.	17	Twp.	34S	Rge.	
		Co.	MEADE	State	KANSAS

Interval Tested	5736-5826	Drill Pipe Size	4.5" XH
Anchor Length	90	Top Choke — 1"	Bottom Choke — 3/4"
Top Packer Depth	5731	Hole Size — 7 7/8"	Rubber Size — 6 3/4"
Bottom Packer Depth	5736	Wt. Pipe I.D. — 2.7 Ft. Run	0
Total Depth	5826	Drill Collar — 2.25 Ft. Run	523
Mud Wt.	8.9 lb/gal.	Viscosity	54 Filtrate 6.5
Tool Open @	2:52 AM	Initial Blow	OFF BOTTOM IN 30 SECONDS-GAS TO SURFACE IN 20 MINUTES-28.7 MCF/DAY
Final Blow	OFF BOTTOM IN 1.3 0 MIN-GAS 11.9 MCF/DAY		

Recovery — Total Feet	1186	Flush Tool?	
Rec.	350	Feet of	VERY HEAVY GAS CUT OIL
Rec.	180	Feet of	VERY HEAVY GAS CUT FROTHY OIL
Rec.	657	Feet of	OIL & GAS CUT WATER
Rec.	0	Feet of	
Rec.	0	Feet of	
BHT	130 °F	Gravity	36 °API @ 60 °F Corrected Gravity 36 °API
RW	@	°F Chlorides	ppm Recovery Chlorides 2100 ppm System
(A) Initial Hydrostatic Mud	2811.1	PSI	AK1 Recorder No. 2023 Range 4000
(B) First Initial Flow Pressure	254.8	PSI	@ (depth) 5736 w/Clock No. 27573
(C) First Final Flow Pressure	230.9	PSI	AK1 Recorder No. 10248 Range 4400
(D) Initial Shut-In Pressure	1784.1	PSI	@ (depth) 5759 w/Clock No. 31152
(E) Second Initial Flow Pressure	479.1	PSI	AK1 Recorder No. 0 Range 0
(F) Second Final Flow Pressure	463.2	PSI	@ (depth) 0 w/Clock No. 0
(G) Final Shut-In Pressure	1712.2	PSI	Initial Opening 30
(H) Final Hydrostatic Mud	2718.0	PSI	Initial Shut-In 60
		Final Flow	60
		Final Shut-In	120

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## Drill-Stem Test Data

Well Name & No. <u>ROSS #3-17</u>	Test No. <u>4</u>	Date <u>1/31/91</u>
Company <u>ENSIGN OPERATING CO</u>	Zone Tested <u>TERRA ROSSA</u>	
Address <u>621 17th #1800 DENVER COLORADO</u>	Elevation <u>2439 KB</u>	
Co. Rep./Geo. <u>MR DUANE MOREDOCK</u>	Cont. <u>BRANDT DRLG</u>	Est. Ft. of Pay <u>0</u>
Location: Sec. <u>17</u>	Twp. <u>34S</u>	Rge. <u>28W</u> Co. <u>MEADE</u> State <u>KANSAS</u>

Interval Tested <u>6092-6186</u>	Drill Pipe Size <u>4.5" XH</u>
Anchor Length <u>94</u>	Top Choke — 1" _____ Bottom Choke — 1/4" _____
Top Packer Depth <u>6087</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>6092</u>	Wt. Pipe I.D. — 2.7 Ft. Run <u>0</u>
Total Depth <u>6186</u>	Drill Collar — 2.25 Ft. Run <u>523</u>
Mud Wt. <u>9.0</u> lb/gal.	Viscosity <u>58</u> Filtrate <u>6.4</u>
Tool Open @ <u>8:48 AM</u> Initial Blow <u>WEAK SURFACE BLOW 2.5" IN 5 MINUTES</u>	
<u>TO SURFACE BLOW IN 30 MINUTES</u>	
Final Blow <u>SURFACE BLOW IN 5 MINUTES-NO BLOW IN 35 MINUTES</u>	

Recovery — Total Feet <u>65</u>	Flush Tool? _____
Rec. <u>65</u> Feet of <u>MUD</u>	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	
BHT <u>132</u> °F Gravity _____ °API @ <u>0</u> °F Corrected Gravity <u>0</u> °API	
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides <u>13308</u> ppm System <u>4700</u>	
(A) Initial Hydrostatic Mud _____ PSI AK1 Recorder No. _____ Range _____	
(B) First Initial Flow Pressure <u>51.2</u> PSI @ (depth) <u>6094</u> w/Clock No. <u>27573</u>	
(C) First Final Flow Pressure <u>64.3</u> PSI AK1 Recorder No. <u>10248</u> Range <u>4400</u>	
(D) Initial Shut-In Pressure <u>110.2</u> PSI @ (depth) <u>6112</u> w/Clock No. <u>31152</u>	
(E) Second Initial Flow Pressure <u>75.4</u> PSI AK1 Recorder No. <u>0</u> Range <u>0</u>	
(F) Second Final Flow Pressure <u>75.4</u> PSI @ (depth) <u>0</u> w/Clock No. <u>0</u>	
(G) Final Shut-In Pressure <u>110.2</u> PSI Initial Opening <u>30</u>	
(H) Final Hydrostatic Mud <u>2820.3</u> PSI Initial Shut-In <u>60</u>	
	Final Flow <u>60</u>
	Final Shut-In <u>120</u>

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CONSERVATION DIVISION  
 Wichita, Kansas

MR MARK HERSKOWITZ

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Our Representative \_\_\_\_\_

TOTAL PRICE \$ \_\_\_\_\_

# ORIGINAL TRILOBITE TESTING COMPANY

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## Drill-Stem Test Data

Well Name & No. <u>ROSS #3-17</u>		Test No. <u>5</u>	Date <u>2/3/91</u>
Company <u>ENSIGN OPERATING CO</u>		Zone Tested <u>ST LOUIS</u>	
Address <u>621 17th #1800 DENVER COLORADO</u>		Elevation <u>2439 KB</u>	
Co. Rep./Geo. <u>MR DUANE MOREDOCK</u>	Cont. <u>BRANDT DRLG</u>	Est. Ft. of Pay <u>10</u>	
Location: Sec. <u>17</u>	Twp. <u>34S</u>	Rge. <u>28W</u>	Co. <u>MEADE</u> State <u>KANSAS</u>

Interval Tested <u>6334-6390</u>	Drill Pipe Size <u>4.5" XH</u>
Anchor Length <u>56</u>	Top Choke — 1" _____ Bottom Choke — 1/4" _____
Top Packer Depth <u>6329</u>	Hole Size — 77/8" _____ Rubber Size — 63/4" _____
Bottom Packer Depth <u>6390 - 6334</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth <u>6500</u>	Drill Collar — 2.25 Ft. Run <u>462</u>

Mud Wt. 9.0 lb/gal. Viscosity 56 Filtrate 6.0

Tool Open @ 4:22 PM Initial Blow STRONG BLOW BOTTOM OF BUCKET IN  
30 SECONDS-ISI: BLEED OFF BLOW-WEAK BLOW-BUILT TO BOTTOM OF BUCKET

Final Blow BOTTOM OF BUCKET SOON AS TOOL OPEN-GAS TO SURFACE IN 24 MIN  
FSI: OFF BOTTOM THROUGHOUT-GAS GAUGED @2.24 MCF

Recovery — Total Feet <u>2260</u>	Flush Tool? <u>NO</u>
Rec. <u>500</u> Feet of <u>GASSY OIL CUT MUDDY WATER</u>	
Rec. <u>1760</u> Feet of <u>SLIGHTLY OIL CUT GASSY SALT WATER</u>	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	

BHT 140 °F Gravity \_\_\_\_\_ °API @ 0 °F Corrected Gravity 0 °API

RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm Recovery Chlorides 3000 ppm System 5075

(A) Initial Hydrostatic Mud _____ PSI	Ak1 Recorder No. _____ Range _____
(B) First Initial Flow Pressure <u>341.2</u> PSI	@ (depth) <u>6364</u> w/Clock No. <u>17640</u>
(C) First Final Flow Pressure <u>683.2</u> PSI	Ak1 Recorder No. <u>13337</u> Range <u>3975</u>
(D) Initial Shut-In Pressure <u>1681.2</u> PSI	@ (depth) <u>6381</u> w/Clock No. <u>14839</u>
(E) Second Initial Flow Pressure <u>833.2</u> PSI	Ak1 Recorder No. <u>5495</u> Range <u>5175</u>
(F) Second Final Flow Pressure <u>1120.9</u> PSI	@ (depth) <u>6497</u> w/Clock No. <u>27566</u>
(G) Final Shut-In Pressure <u>1721.4</u> PSI	Initial Opening <u>30</u>
(H) Final Hydrostatic Mud <u>3040.9</u> PSI	Initial Shut-in <u>60</u>

Final Flow 60  
Final Shut-in 120

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CONSERVATION DIVISION  
Wichita, Kansas 1600

MR TOM HORACEK

Our Representative \_\_\_\_\_

TOTAL PRICE \$ \_\_\_\_\_



MAY 17

# ORIGINAL

## FORMATION TOPS

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	Comparison Well SW SE NW 17-34S-28W K.B. 2477'		Drill Time and Samples		Wire Line Geophysical Logs	
	Surface +2466'		Surface +2432'		Surface +2432'	
Tertiary						
Permian						
Guadalupian						
Taloga	228'	+2249'	188'	+2250'	184'	+2254'
Day Creek	290'	+2187'	258'	+2180'	246'	+2192'
Whitehorse	326'	+2151'	283'	+2155'	284'	+2154'
Leonardian						
Nippewalla Gr.						
Blaine	484'	+1993'	459'	+1979'	446'	+1992'
Cedar Hill	580'	+1897'	527'	+1911'	540'	+1898'
Salt Plain	850'	+1627'	790'	+1648'	804'	+1634'
Sumner Gr.						
Stone Corral	1355'	+1122'	1297'	+1141'	1304'	+1134'
Ninnescah	1430'	+1047'	1391'	+1047'	1390'	+1048'
Wellington	1842'	+635'	1802'	+636'	1804'	+634'
Hutchinson	2026'	+451'	1996'	+442'	1974'	+462'
Wolfcampian						
Chase Gr.						
Herington	2664'	-187'	2589'	-151'	2586'	-148'
Krider	2700'	-223'	2669'	-231'	2664'	-226'
Winfield	2754'	-277'	2719'	-281'	2714'	-276'
Towanda	2808'	-331'	2772'	-334'	2764'	-326'
Wreford	2988'	-511'	2956'	-518'	2952'	-514'
Council Grove Gr.	3100'	-623'	3062'	-624'	3060'	-622'
Pennsylvanian						
Virgilian						
Wabaunsee Gr.	3624'	-1147'	3586'	-1148'	3576'	-1138'
Shawnee Gr.	3720'	-1243'	3678'	-1240'	3678'	-1240'
Douglas Gr.						
Heebner	4536'	-1959'	4400'	-1962'	4395'	-1957'
Toronto	4460'	-1983'	4422'	-1984'	4420'	-1982'
Missourian						
Lansing-Kansas City	4580'	-2103'	4540'	-2102'	4536'	-2098'
Iola	4874'	-2397'	4847'	-2409'	4840'	-2402'
Desmoinesian						
Marmaton Gr.	5262'	-2785'	5227'	-2789'	5220'	-2782'
Novinger	NP		5296'	-2858'	5290'	-2852'
Cherokee Gr.	5454'	-2977'	5420'	-2982'	5414'	-2976'
Atokian	5601'	-3124'	5566'	-3118'	5560'	-3122'
Morrowian	5790'	-3313'	5750'	-3312'	5747'	-3309'
Sandstone	5828'	-3351'	5788'	-3350'	5784'	-3346'
Shale Marker	6004'	-3527'	5982'	-3544'	5776'	-3338'
Terra Rossa	6155'	-3678'	6117'	-3679'	6112'	-3674'
Mississippian						
Meramecian						
Ste. Genevieve	6230'	-3753'	6182'	-3744'	6177'	-3739'
St. Louis	ND		6343'	-3905'	6338'	-3900'
Total Depth	6343'	-3866'	6500'	-4062'	6497'	-4059'

 RECEIVED  
 REGISTRATION COMMISSION

MAY 18 1991

 REGISTRATION DIVISION  
 Wichita, Kansas

ORIGINAL



RECEIVED  
FEB 28 1991

MAIL ROOM BOX 9510 KCC  
TX 75395-1046  
MAY 17

INVOICE

ORIGINAL HALLIBURTON SERVICES

A Halliburton Company

INVOICE NO. 93335 DATE 02/04/1991  
CONFIDENTIAL

WELL LEASE NO./PLANT NAME		WELL/PLANT LOCATION		WELL/PLANT OWNER	
ROSS 3-17		MEADE		ENSIGN OIL & GAS INC. KS SAME	
SERVICE LOCATION		CONTRACTOR		JOB PURPOSE	
LIBERAL		BRANDT DRLG #2		CEMENT PRODUCTION CASING	
TICKET DATE		02/04/1991			
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER	SHIPPED VIA	FILE NO.
273943	TERRY MAXWELL			COMPANY TRUCK	1042

ENSIGN OPERATING COMPANY  
1515 AIR PARK AVENUE  
P.O. BOX 2161  
LIBERAL, KS 67905-2161

DIRECT CORRESPONDENCE TO:  
FIRST OKLAHOMA TOWER  
210 WEST PARK AVENUE  
SUITE 2050  
OKLAHOMA CITY, OK 73102-5601

PRICE REF. NO.	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	AMOUNT
PRICING AREA - MID CONTINENT					
000-117	MILEAGE	45	MI	2.35	105.75
		1	UNT		
000-118	MILEAGE SURCHARGE-CEMENT-LAND	45	MI	.40	18.00
		1	UNT		
001-016	CEMENTING CASING	6029	FT	1,475.00	1,475.00
		1	UNT		
018-317	SUPER FLUSH	18	SK	74.00	1,332.00
218-738	CLAYFIX II	2	GAL	20.00	40.00
80	FORM PKR SHOE FLAP VLV 5 1/2"	1	EA	2,400.00	2,400.00
855.137					
82	FILL-UP UNIT	1	EA	45.00	45.00
855.02545					
50	FLUIDMASTER CENT 5 1/2 S-4	15	EA	50.00	750.00
807.93522					
504-043	PREMIUM CEMENT	325	SK	6.85	2,226.25
500-959	SUPER CBL	76	LB	21.50	1,634.00
507-775	HALAD-322	214	LB	5.95	1,273.30
508-002	POTASSIUM CHLORIDE	400	LB	.25	100.00
500-307	MILEAGE SURCHARGE-CEMENT MAT.	1093.400	TMI	.10	109.34
500-306	MILEAGE CMTG MAT DEL OR RETURN	1093.400	TMI	.75	820.05
500-207	BULK SERVICE CHARGE	325	CFT	1.10	357.50

RECEIVED  
STATE CORPORATION COMMISSION  
MAY 08 1991  
CONSERVATION DIVISION  
Wichita, Kansas

INVOICE SUBTOTAL  
DISCOUNT - (BID)  
INVOICE BID AMOUNT  
\*- KANSAS STATE SALES TAX  
\*- SEWARD COUNTY SALES TAX

*Ross 3-17  
R. Walker*

12,686.19  
2,537.23-  
10,148.96  
LOE \_\_\_\_\_  
W/O \_\_\_\_\_ 326.61  
CAP \_\_\_\_\_ 76.85  
APPROVAL \_\_\_\_\_

INVOICE TOTAL - PLEASE PAY THIS AMOUNT =====> \$10,552.42

TERMS INVOICES PAYABLE NET BY THE 20TH OF THE FOLLOWING MONTH AFTER DATE OF INVOICE. UPON CUSTOMER'S DEFAULT IN PAYMENT OF CUSTOMER'S ACCOUNT BY THE LAST DAY OF THE MONTH FOLLOWING THE MONTH IN WHICH THE INVOICE IS DATED. CUSTOMER AGREES TO PAY INTEREST THEREON AFTER DEFAULT AT THE HIGHEST LAWFUL CONTRACT RATE APPLICABLE BUT NEVER TO EXCEED 18% PER ANNUM. IN THE EVENT IT BECOMES NECESSARY TO EMPLOY AN ATTORNEY TO ENFORCE COLLECTION OF SAID ACCOUNT, CUSTOMER AGREES TO PAY ALL COLLECTION COSTS AND ATTORNEY FEES IN THE AMOUNT OF 20% OF THE AMOUNT OF THE UNPAID ACCOUNT

REMIT TO:  
P.O. BOX 951046  
DALLAS, TX 75395-1046  
KCC

ORIGINAL

ORIGINAL HALLIBURTON SERVICES

INVOICE

A Halliburton Company

INVOICE NO. 7  
DATE 01/16/1991  
043247  
CONFIDENTIAL

WELL/LEASE NO./PLANT NAME		WELL/PLANT LOCATION		STATE	WELL/PLANT OWNER	
ROSS 3-17		MEADE		KS	SAME	
SERVICE LOCATION		CONTRACTOR		JOB PURPOSE		TICKET DATE
LIBERAL		BRANOT DRLG		CEMENT SURFACE CASING		01/16/1991
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER		SHIPPED VIA	FILE NO.
273943	B J MCGRIFF				COMPANY TRUCK	09676

ENSIGN OPERATING COMPANY  
1515 AIR PARK AVENUE  
P.O. BOX 2161  
LIBERAL, KS 67901

DIRECT CORRESPONDENCE TO:  
FIRST OKLAHOMA TOWER  
210 WEST PARK AVENUE  
SUITE 2050  
OKLAHOMA CITY, OK 73102-5601

PRICE REF. NO.	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	AMOUNT
<b>PRICING AREA - MID CONTINENT</b>					
000-117	MILEAGE	40	MI	2.35	94.00
		1	UNT		
000-118	MILEAGE SURCHARGE-CEMENT-LAND	40	MI	.40	16.00
		1	UNT		
001-016	CEMENTING CASING	1632	FT	945.00	945.00
		1	UNT		
16A	CASING SHOE - 8 5/8" 8RD THD.	1	EA	161.00	161.00
830.2171					
24A	INSERT FLOAT VALVE - 8 5/8" 8RD	1	EA	171.00	171.00
815.19502					
27	FILL-UP UNIT 7"- 8 5/8"	1	EA	29.00	29.00
815.19414					
40	CENTRALIZER 8-5/8" MODEL S-4	3	EA	53.00	159.00
807.93059					
66	FASGRIP LIMIT CLAMP 8 5/8"	1	EA	13.75	13.75
807.64056					
350	HALLIBURTON WELD-A	1	LB	11.00	11.00
890.10802					
030-018	CEMENTING PLUG 5W, PLASTIC TOP	8 5/8	IN	100.00	100.00
		1	EA		
504-050	PREMIUM PLUS CEMENT	150	SK	7.08	1,062.00
504-120	HALL. LIGHT -PREMIUM PLUS	500	SK	6.29	3,145.00
507-210	FLOCELE	125	LB	1.30	162.50
509-406	ANHYDROUS CALCIUM CHLORIDE	12	SK	26.25	315.00
500-207	BULK SERVICE CHARGE	682	CFT	1.10	750.20
500-306	MILEAGE CMTG MAT DEL OR RETURN	2112.660	TMI	.75	1,584.50
500-307	MILEAGE SURCHARGE-CEMENT MAT	2112.66	TMI	.10	211.27

INVOICE SUBTOTAL

8,930.22

MAY 08 1991

STATE CORPORATION COMMISSION

CONSERVATION DIVISION  
Wichita, Kansas

\*\*\*\*\* CONTINUED ON NEXT PAGE \*\*\*\*\*

TERMS INVOICES PAYABLE NET BY THE 20TH OF THE FOLLOWING MONTH AFTER DATE OF INVOICE UPON CUSTOMER'S DEFAULT IN PAYMENT OF CUSTOMER'S ACCOUNT BY THE LAST DAY OF THE MONTH FOLLOWING THE MONTH IN WHICH THE INVOICE IS DATED. CUSTOMER AGREES TO PAY INTEREST THEREON AFTER DEFAULT AT THE HIGHEST LAWFUL CONTRACT RATE APPLICABLE BUT NEVER TO EXCEED 18% PER ANNUM. IN THE EVENT IT BECOMES NECESSARY TO EMPLOY AN ATTORNEY TO COLLECT ACCOUNTS DUE BY CUSTOMERS HEREON, ALL COLLECTION COSTS ARE TO BE PAID BY CUSTOMER.

ORIGINAL



HEMIT TO: KCC P.O. BOX 951046 DALLAS, TX 75395-1046

INVOICE

ORIGINAL HALLIBURTON SERVICES

MAY 17

CONFIDENTIAL

A Halliburton Company

INVOICE NO.	DATE
093510	02/22/1991
WELL/PLANT OWNER	
SAME	

WELL LEASE NO./PLANT NAME		WELL/PLANT LOCATION		STATE	WELL/PLANT OWNER	
ROSS 3-17		MEADE		KS	SAME	
SERVICE LOCATION		CONTRACTOR		JOB PURPOSE		TICKET DATE
LIBERAL		PATRICK		SQUEEZE HOLE IN CASING		02/22/1991
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER		SHIPPED VIA	FILE NO.
273943	B. J. MCGRIFF				COMPANY TRUCK	11325

RECEIVED MAR 18 1991

DIRECT CORRESPONDENCE TO:

ENSIGN OPERATING COMPANY 1515 AIR PARK AVENUE P.O. BOX 2161 LIBERAL, KS 67905-2161

ENSIGN OIL & GAS INC. 210 WEST PARK AVENUE SUITE 2050 OKLAHOMA CITY, OK 73102-5601

PRICE REF. NO.	DESCRIPTION	QUANTITY	U/M	UNIT PRICE	AMOUNT
PRICING AREA - MID CONTINENT					
000-117	MILEAGE	43	MI	2.35	101.05
		1	UNT		
000-118	MILEAGE SURCHARGE-CEMENT-LAND	43	MI	.40	17.20
		1	UNT		
011-205	MISCELLANEOUS PUMPING JOBS	2500	PSI	895.00	895.00
		1	UNT		
000-119	MILEAGE FOR CREW 2-23-91	43	MI	1.25	53.75
		1	UNT		
000-120	MILEAGE SURCHARGE-CEMENT CREW	43	MI	.20	8.60
		1	UNT		
009-134	CEMENT SQUEEZE	4830	FT	1,260.00	1,260.00
009-019		1	UNT		
504-043	PREMIUM CEMENT	100	SK	6.85	685.00
500-307	MILEAGE SURCHARGE-CEMENT MAT.	329	TMI	.10	32.90
500-307	MILEAGE SURCHARGE-CEMENT MAT.	658	TMI	.10	65.80
500-306	MILEAGE CMTG MAT DEL OR RETURN	329	TMI	.75	246.75
500-225	CEMENTING MATERIALS RETURNED	100	CFT	68.50	68.50
500-207	BULK SERVICE CHARGE	200	CFT	1.10	220.00
500-306	MILEAGE CMTG MAT DEL OR RETURN	658	TMI	.75	493.50

INVOICE SUBTOTAL

4,148.05

DISCOUNT-(BID) INVOICE BID AMOUNT

LOE \_\_\_\_\_

829.61-

W/O \_\_\_\_\_

3,318.44

CAP \_\_\_\_\_

\*-KANSAS STATE SALES TAX

135.56

\*-SEWARD COUNTY SALES TAX APPROVAL

31.90

RECEIVED STATE CORPORATION COMMISSION

MAY 08 1991

CONSERVATION DIVISION Wichita, Kansas

Ross 3-17 Patrick

INVOICE TOTAL - PLEASE PAY THIS AMOUNT = \$3,485.90

TERMS INVOICES PAYABLE NET BY THE 20TH OF THE FOLLOWING MONTH AFTER DATE OF INVOICE. UPON CUSTOMER'S DEFAULT IN PAYMENT OF CUSTOMER'S ACCOUNT BY THE LAST DAY OF THE MONTH FOLLOWING THE MONTH IN WHICH THE INVOICE IS DATED, CUSTOMER AGREES TO PAY INTEREST THEREON AFTER DEFAULT AT THE HIGHEST LAWFUL CONTRACT RATE APPLICABLE BUT NEVER TO EXCEED 18% PER ANNUM. IN THE EVENT IT BECOMES NECESSARY TO EMPLOY AN ATTORNEY TO ENFORCE COLLECTION OF SAID ACCOUNT, CUSTOMER AGREES TO PAY ALL COLLECTION COSTS AND ATTORNEY'S FEES IN THE AMOUNT OF 20% OF THE AMOUNT OF THE UNPAID ACCOUNT.