

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

Operator: License # 30129
Name: Eagle Creek Corporation
Address 107 N. Market #509
City/State/Zip Wichita, Kansas 67202

Purchaser: Farmland Industries
Operator Contact Person: Dave Callewaert
Phone (316) 264-8044
Contractor: Name: Patrick Well Service
License: 7547
Wellsite Geologist: Duane E. Mordock

Designate Type of Completion
 New Well Re-Entry Workover
 Oil SWD SLOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Reentry: Old Well Info as follows:
Operator: Ensign Operating Co.
Well Name: Ross#3-17
Comp. Date 3/15/91 Old Total Depth 6500
 DRILLED OUT BRIDGE PLUG
Deepening Re-perf. Conv. to Inj/SWD
Plug Back PBD
 Commingled Docket No. applied for
 Dual Completion Docket No. 10-31-97
 Other (SWD or Inj?) Docket No. 4-7-97
Date of START Date Reached TD Completion Date of OF WORKOVER WORKOVER

API NO. 15- 119-20,824-0001
County Meade
-SW-NE Sec. 17 Twp. 34 Rge. 28 E
3200 Feet from NW (circle one) Line of Section
1980 Feet from SW (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
NE, NW or SW (circle one)
Lease Name Ross Well # 3-17
Field Name Irish Flats

Producing Formation Morrow Sand, Novinger, Marmaton A
Elevation: Ground 2432 KB 2438
Total Depth 6500 PBTD 5981
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 cmt.

Drilling Fluid Management Plan REWORK JR 4-27-98
(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 No. _____
Quarter Sec. Twp. S Rng. E/W
County _____ Docket No. _____

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information 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 geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature [Signature]
Title President Date 12-29-97
Subscribed and sworn to before me this 29th day of December, 19 97.
Notary Public [Signature]
Date Commission Expires 6-12-99

NOTARY PUBLIC - State of Kansas
VICCI L. LORTZ
My Appt. Exp. 6-12-99

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
Distribution KCC SLD/Rep NGPA
 KGS Plug Other
RECEIVED
KANSAS CORPORATION COMMISSION
DEC 30 1997
12-30-97

SIDE TWO

Operator Name Eagle Creek Corporation Lease Name Ross Well # 3-17

Sec. 17 Twp. 34 Rge. 28 East West
 County Meade

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 (Attach Additional Sheets.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datums	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
List All E.Logs Run:	see attached		see 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	12-1/4	8-5/8"	24#	1628	Lite Prem	+ 500	2% cc and 1/4#/sk Flocele
					Cl. C	150	2% CC
Production	7-7/8	5-1/2"	15.5	6026	Cl H	325	3% KCL, .7%

ADDITIONAL CEMENTING/SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input checked="" type="checkbox"/> Plug Off Zone	4842-48	Class H	100	none

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated		Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used) Depth	
	4842-48 4'	4842-48	350 g. 7.5%	Squeezed
4	5782-90 Morrow Sand	450 Gall	7.5%	5782-90
4	5224-5235 Marmaton	600 gall	7.5%	5224-5235
4	5292-98 Novinger	no stimulation		5292-98

TUBING RECORD		Size	Set At	Packer At	Liner Run
		2.875	5051	none	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Date of First, Resumed Production, SWD or Inj.		Producing Method			
11-26-97		<input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	20	0	350		32

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

METHOD OF COMPLETION: Open Hole Perf. Dually Comp. Commingled Other (Specify)

Production Interval: Marm 5224-35, Nov. 5292-98, Mo. 58 5782-90

ORIGINAL

Perforation Record

15-119-20824-0001

Shots/Foot	Perforation Record	
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 Aquaflor & 1 Gal I10-D	5782-5790'
600 Gals 7-1/2% Fe-HCl, .1% LoSurf 300, .1% HAI-80, 5000 Gals 20% FE-HCl	5224-5235'
350 Gals 7-1/2% Fe-HCl, .1% LoSurf 300, .1% HAI-80	4842-4848'
Sqz w/100 sx Cl "H"	4842-4848'

11/97 Drilled out bridge plugs and commingled Morrow Sand 5782-90, Novinger 5292-98, and Marmaton A 5224-5235. Set tubing at 5051 and ran 2.25" Tubing pump. Restarted production 11-26-97.

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WICHITA, KS

FORMATION TOPS

ORIGINAL

	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'
Kriider	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
 6177
 6338
 6339
 3900
 3900

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 CONSERVATION DIVISION
 WICHITA, KS

ORIGINAL
INVOICE

HALLIBURTON SERVICES
A Halliburton Company

POST OFFICE BOX 951046
TX 75395-1046
FEB 20 1991
INVOICE NO. 93335
DATE 02/04/19

WELL LEASE NO./PLANT NAME		WELL/PLANT LOCATION		STAGE		WELL/PLANT OWNER	
ROSS 3-17		MEADE		KS		SAME	
SERVICE LOCATION		CONTRACTOR		JOB PURPOSE		TICKET DATE	
LIBERAL		BRANDT DRLG #2		CEMENT PRODUCTION CASING		02/04/19	
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER	SHIPPED VIA		FILE	
273943	TERRY MAXWELL			COMPANY TRUCK		104	

ORIGINAL

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
	INVOICE SUBTOTAL				12,686.19
	DISCOUNT-(BID)				2,537.23
	INVOICE BID AMOUNT				10,148.96
	*- KANSAS STATE SALES TAX				326.61
	*- SEWARD COUNTY SALES TAX				76.85
	INVOICE TOTAL - PLEASE PAY THIS AMOUNT				\$10,552.42

*Ross 3-17
P. Walker*

LOE _____
W/O _____
CAP _____
APPROVAL _____

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 FEES AND COSTS.

ORIGINAL

P.O. BOX 951046
DALLAS, TX 75395-1046

INVOICE

HALLIBURTON SERVICES

A Halliburton Company

INVOICE NO.	DATE
043247	01/16/1999

WELL LEASE NO./PLANT NAME		WELL/PLANT LOCATION		STATE	WELL/PLANT OWNER
ROSS 3-17		HEADE		KS	SAME
SERVICE LOCATION	CONTRACTOR		JOB PURPOSE		TICKET DATE
LIBERAL	BRANOT DRLG		CEMENT SURFACE CASING		01/16/1999
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER	SHIPPED VIA	FILE NO.
273943	B J MCGRIFF			COMPANY TRUCK	0967

ORIGINAL

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	UM	UNIT PRICE	AMOUNT
PRICING AREA - MID CONTINENT					
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 SW, 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	THI	.75	1,584.50
500-307	MILEAGE SURCHARGE-CEMENT MAT.	2112.66	THI	.10	211.27
	INVOICE SUBTOTAL				8,930.22

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CONSERVATION DIVISION

***** 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

INVOICE

HALLIBURTON SERVICES

A Halliburton Company

INVOICE NO. DATE

093510 02/22/199

WELL LEASE NO./PLANT NAME		WELL/PLANT LOCATION		STATE	WELL/PLANT OWNER	
ROSS 3-17		HEADE		KS	SAME	
SERVICE LOCATION		CONTRACTOR		JOB PURPOSE		TICKET DATE
LIBERAL		PATRICK		SQUEEZE HOLE IN CASING		02/22/199
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER		SHIPPED VIA	FILE NO.
273943	B. J. MCGRIFF				COMPANY TRUCK	1132

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MAR 12 1991

DIRECT CORRESPONDENCE TO:

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

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

ORIGINAL

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)					LOE _____ 829.61-
INVOICE BID AMOUNT					W/O _____ 3,318.44
*-KANSAS STATE SALES TAX					CAP _____ 135.56
*-SEWARD COUNTY SALES TAX APPROVAL					_____ 31.90
INVOICE TOTAL - PLEASE PAY THIS AMOUNT					\$3,485.90

Ross 3-17
Patrick

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

ORIBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL

Drill-Stem Test Data 15-119-20824-0001

Well Name & No. <u>ROSS #3-17</u>		Test No. <u>1</u>	Date <u>1/23/91</u>
Company <u>ENSIGN OPERATING COMPANY</u>		Zone Tested <u>10KA 10CA</u>	
Address <u>621 17th #1800 DENVER CO</u>		Elevation <u>2439 KB</u>	
Co. Rep./Geo. <u>MR DUANE MOREDUCK</u>	Cont. <u>BRANDT DRLG</u>	Est. Ft. of Pay <u>7</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>4824-4854</u>	Drill Pipe Size <u>4.5" XH</u>
Anchor Length <u>30</u>	Top Choke — 1" _____ Bottom Choke — 1/4" _____
Top Packer Depth <u>4819</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>4824</u>	Wt. Pipe I.D. — 2.7 Ft. Run <u>0</u>
Total Depth <u>4854</u>	Drill Collar — 2.25 Ft. Run <u>583</u>
Mud Wt. <u>9.1</u> lb/gal.	Viscosity <u>47</u> Filtrate <u>9.0</u>
Tool Open @ <u>4:01 PM</u> Initial Blow <u>OFF BOTTOM IN 30 SECONDS</u>	
<u>GAS TO SURFACE IN 30 MINUTES-GAUGED 8.84</u>	
Final Blow <u>OFF BOTTOM IN 30 SECONDS-GAS 16.7 TO 3.56</u>	
<u>SURFACE BLOW ON FINAL SHUTIN</u>	

Recovery — Total Feet <u>677</u>	Flush Tool? _____
Rec. <u>507</u> Feet of <u>MUD CUT GASSY OIL</u>	
Rec. <u>170</u> Feet of <u>WATER</u>	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	
Rec. <u>0</u> Feet of _____	
BHT <u>120</u> °F Gravity <u>41</u> °API @ <u>70</u> °F Corrected Gravity <u>40</u> °API	
RW <u>.20</u> Chlorides <u>62</u> ppm Recovery Chlorides <u>45000</u> ppm System Chlorides <u>2500</u> ppm System	
(A) Initial Hydrostatic Mud <u>2337.7</u> PSI AK1 Recorder No. _____ Range _____	
(B) First Initial Flow Pressure <u>76.5</u> PSI @ (depth) <u>4826</u> w/Clock No. <u>27573</u>	
(C) First Final Flow Pressure <u>148.6</u> PSI AK1 Recorder No. <u>10248</u> Range <u>4400</u>	
(D) Initial Shut-in Pressure <u>1406.7</u> PSI @ (depth) <u>4849</u> w/Clock No. <u>31152</u>	
(E) Second Initial Flow Pressure <u>180.1</u> PSI AK1 Recorder No. <u>0</u> Range <u>0</u>	
(F) Second Final Flow Pressure <u>261.2</u> PSI @ (depth) <u>0</u> w/Clock No. <u>0</u>	
(G) Final Shut-in Pressure <u>1440.0</u> PSI Initial Opening <u>30</u>	
(H) Final Hydrostatic Mud <u>2364.4</u> PSI Initial Shut-in <u>60</u>	
Final Flow <u>60</u>	
Final Shut-in <u>120</u>	

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 KANSAS CORPORATION COMMISSION
 DEC 30 1997
 CONSERVATION DIVISION
 WICHITA, KS

MR MARK HERSKUWITZ

1050

Our Representative _____

TOTAL PRICE \$ _____

TRILOBITE TESTING COMPANY

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL

Drill-Stem Test Data

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

Interval Tested	5190-5244	Drill Pipe Size	4.5" XH
Anchor Length	54	Top Choke - 1"	Bottom Choke - 1/4"
Top Packer Depth	5185	Hole Size - 7 7/8"	Rubber Size - 6 3/4"
Bottom Packer Depth	5190	Wt. Pipe I.D. - 2.7 Ft. Run	0
Total Depth	5244	Drill Collar - 2.25 Ft. Run	553
Mud Wt.	9.1 lb/gal.	Viscosity	53 Filtrate 7.6

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	728	Flush Tool?	
Rec.	240	Feet of	WATER
Rec.	20	Feet of	OIL & GAS CUT MUD
Rec.	468	Feet of	VERY GASSY MUD CUT OIL
Rec.	0	Feet of	
Rec.	0	Feet of	

BHT	122	% Gravity	45	%API @	70	% Corrected Gravity	44	%API
RW	.14	% Chlorides	60	ppm Recovery	60000	Chlorides	2400	ppm System
(A) Initial Hydrostatic Mud	2520.3	PSI	AK1 Recorder No.	2023	Range	4000		
(B) First Initial Flow Pressure	126.1	PSI	@ (depth)	5192	w/Clock No.	27573		
(C) First Final Flow Pressure	182.4	PSI	AK1 Recorder No.	10248	Range	4400		
(D) Initial Shut-In Pressure	1522.0	PSI	@ (depth)	5239	w/Clock No.	31152		
(E) Second Initial Flow Pressure	195.9	PSI	AK1 Recorder No.	0	Range	0		
(F) Second Final Flow Pressure	319.8	PSI	@ (depth)	0	w/Clock No.	0		
(G) Final Shut-In Pressure	1590.3	PSI	Initial Opening	30				
(H) Final Hydrostatic Mud	2460.8	PSI	Initial shut-in	60				

Final Flow 120
Final Shut-In 180

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Drill-Stem Test Data

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

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

Recovery — Total Feet <u>1186</u>	Flush Tool? <u> </u>
Rec. <u>350</u> Feet of <u>VERY HEAVY GAS CUT OIL</u>	
Rec. <u>180</u> Feet of <u>VERY HEAVY GAS CUT FROTHY OIL</u>	
Rec. <u>657</u> Feet of <u>OIL & GAS CUT WATER</u>	
Rec. <u>0</u> Feet of <u> </u>	
Rec. <u>0</u> Feet of <u> </u>	

BHT <u>130</u> °F Gravity <u>36</u> °API @ <u>60</u> °F Corrected Gravity <u>36</u> °API
RW <u> </u> °F Chlorides <u> </u> ppm Recovery Chlorides <u>2100</u> ppm System
(A) Initial Hydrostatic Mud <u>2811.1</u> PSI AK1 Recorder No. <u>2023</u> Range <u>4000</u>
(B) First Initial Flow Pressure <u>254.8</u> PSI @ (depth) <u>5736</u> w/Clock No. <u>27573</u>
(C) First Final Flow Pressure <u>230.9</u> PSI AK1 Recorder No. <u>10248</u> Range <u>4400</u>
(D) Initial Shut-In Pressure <u>1784.1</u> PSI @ (depth) <u>5759</u> w/Clock No. <u>31152</u>
(E) Second Initial Flow Pressure <u>479.1</u> PSI AK1 Recorder No. <u>0</u> Range <u>0</u>
(F) Second Final Flow Pressure <u>463.2</u> PSI @ (depth) <u>0</u> w/Clock No. <u>0</u>
(G) Final Shut-In Pressure <u>1712.2</u> PSI Initial Opening <u>30</u>
(H) Final Hydrostatic Mud <u>2718.0</u> PSI Initial Shut-In <u>60</u>
Final Flow <u>60</u>
Final Shut-In <u>120</u>

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Drill-Stem Test Data

Well Name & No.	ROSS #3-17	Test No.	4	Date	1/31/91
Company	ENSIGN OPERATING CO	Zone Tested	TERRA ROSSA		
Address	621 17th #1800 DENVER COLORADO	Elevation	2439 KB		
Co. Rep./Geo.	MR DUANE MOREDOCK	Cont.	BRANDT DRLG	Est. Ft. of Pay	0
Location: Sec.	17	Twp.	34S	Rge.	2BW
		Co.	MEADE	State	KANSAS

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

Recovery -- Total Feet	65	Flush Tool?	
Rec.	65	Feet of	MUD
Rec.	0	Feet of	
Rec.	0	Feet of	
Rec.	0	Feet of	
Rec.	0	Feet of	
BHT	132	°F Gravity	°API @ 0 °F Corrected Gravity 0 °API
RW	0	°F Chlorides	ppm Recovery Chlorides 13308 ppm System 4700
(A) Initial Hydrostatic Mud	2861.2	PSI	AK1 Recorder No. Range
(B) First Initial Flow Pressure	51.2	PSI	@ (depth) 6094 w/Clock No. 27573
(C) First Final Flow Pressure	64.3	PSI	AK1 Recorder No. Range 10248 4400
(D) Initial Shut-In Pressure	110.2	PSI	@ (depth) 6112 w/Clock No. 31152
(E) Second Initial Flow Pressure	75.4	PSI	AK1 Recorder No. Range 0 0
(F) Second Final Flow Pressure	75.4	PSI	@ (depth) 0 w/Clock No. 0
(G) Final Shut-In Pressure	110.2	PSI	Initial Opening 30
(H) Final Hydrostatic Mud	2820.3	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>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. <u>9.0</u> lb/gal.	Viscosity <u>56</u> Filtrate <u>6.0</u>
Tool Open @ <u>4:22 PM</u>	Initial Blow <u>STRONG BLOW BOTTOM OF BUCKET IN</u>
<u>30 SECONDS-ISI: BLEW OFF BLOW-WEAK BLOW-BUILT TO BOTTOM OF BUCKET</u>	
Final Blow <u>BOTTOM OF BUCKET SOON AS TOOL OPEN-GAS TO SURFACE IN 24 MIN</u>	
<u>FSI: OFF BOTTOM THROUGHOUT-GAS GAUGED @2.24 MCF</u>	

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 <u>140</u> °F Gravity _____ °API @ <u>0</u> °F Corrected Gravity <u>0</u> °API	
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides <u>3000</u> ppm System <u>5075</u>	
(A) Initial Hydrostatic Mud <u>3088.7</u> 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 <u>60</u>
	Final Shut-In <u>120</u>

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