#### KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1240291

Form ACO-1 August 2013 Form must be Typed Form must be Signed All blanks must be Filled

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

OPERATOR: License #	API No. 15
Name:	Spot Description:
Address 1:	
Address 2:	Feet from Dorth / South Line of Section
City: State: Zip:+	Feet from East / West Line of Section
Contact Person:	Footages Calculated from Nearest Outside Section Corner:
Phone: ()	
CONTRACTOR: License #	GPS Location: Lat:, Long:
Name:	(e.g. xx.xxxxx) (e.gxxx.xxxxx)
Wellsite Geologist:	Datum: NAD27 NAD83 WGS84
Purchaser:	County:
Designate Type of Completion:	Lease Name: Well #:
New Well Re-Entry Workover	Field Name:
	Producing Formation:
	Elevation: Ground: Kelly Bushing:
Gas D&A ENHR SIGW	Total Vertical Depth: Plug Back Total Depth:
OG GSW Temp. Abd.	Amount of Surface Pipe Set and Cemented at: Feet
Cathodic Other (Core, Expl., etc.):	Multiple Stage Cementing Collar Used?
If Workover/Re-entry: Old Well Info as follows:	If yes, show depth set: Feet
Operator:	If Alternate II completion, cement circulated from:
Well Name:	feet depth to:w/sx cmt.
Original Comp. Date: Original Total Depth:	
Deepening Re-perf. Conv. to ENHR Conv. to SWD	Drilling Fluid Monogoment Blon
Plug Back       Conv. to GSW       Conv. to Producer	Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)
	Chloride content: ppm Fluid volume: bbls
Commingled         Permit #:           Dual Completion         Permit #:	Dewatering method used:
SWD Permit #:	Location of fluid disposal if hauled offsite:
ENHR         Permit #:	Location of huld disposa in nation offsite.
GSW Permit #:	Operator Name:
	Lease Name: License #:
Spud Date or Date Reached TD Completion Date or	Quarter Sec TwpS. R East West
Recompletion Date Recompletion Date	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
Confidentiality Requested
Date:
Confidential Release Date:
Wireline Log Received
Geologist Report Received
UIC Distribution
ALT I II III Approved by: Date:

	Page Two	1240291
Operator Name:	Lease Name:	Well #:
Sec TwpS. R   East  West	County:	
INCTRUCTIONS. Chain important tang of formations panetrated De	toil all aaraa Danart all final	agniag of drill stamp tasts giving interval tastad, time task

INSTRUCTIONS: Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken (Attach Additional Sheets)		Yes No		-	Formation (Top), Depth a		Sample	
Samples Sent to Geolog	gical Survey	Yes No	Name	9		Тор	Datum	
Cores Taken Electric Log Run		☐ Yes ☐ No ☐ Yes ☐ No						
List All E. Logs Run:								
		CASING Report all strings set-o	RECORD Ne		ion, 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 / SQU	EEZE RECORD				
Purpose:	Depth	Type of Cement	# Sacks Used		Type and F	Percent Additives		

Purpose: Perforate	Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
Protoct Casing Protect Casing Plug Back TD Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?	Yes
Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?	Yes
Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?	Yes

No (If No, skip questions 2 and 3) No No

No

(If No, skip question 3) (If No, fill out Page Three of the ACO-1)

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated					e			ement Squeeze Record of Material Used)	Depth
TUBING RECORD:	Siz	ze:	Set At:		Packer	r At:	Liner R		No	
Date of First, Resumed	Product	ion, SWD or ENHF	<b>}</b> .	Producing M	ethod:	ping	Gas Lift	Other (Explain)		
Estimated Production Per 24 Hours		Oil Bb	ls.	Gas	Mcf	Wate	ər	Bbls.	Gas-Oil Ratio	Gravity
DIODOOITI					METHOD					
	DISPOSITION OF GAS: METHOD OF COMPLE		Comp.	Commingled	PRODUCTION IN	IERVAL:				
(If vented, Su		9-18.)		(Submit AC			,	(Submit ACO-4)		

Form	ACO1 - Well Completion
Operator	SandRidge Exploration and Production LLC
Well Name	Carothers 3206 2-34H 1L ST
Doc ID	1240291

## Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Conductor	30	20	75	90	Edge Services 10 sack grout	9	none
Surface	12.25	9.63	36	651	O-Tex Lite Premium Plus 65/35; Premium Plus (Class C)	345	(6% gel) 2% Calcium Chloride, 1/4 pps Cello- Flake, .2% X-Air
Intermedia te	8.75	7	26	5244	O-Tex Class A	335	.3% C-20, .1% C-37, .1% C-51, .2% FL- 17, 4% Gel, .2% X-Air



### **INVOICE**

DATE	INVOICE #
10/14/2014	5186

BILL TO	REMIT TO
SANDRIDGE ENERGY, INC. ATTN: PURCHASING MANAGER 123 ROBERT S. KERR AVENUE OKLAHOMA CITY. OK 73102	EDGE SERVICES, INC. PO BOX 609 WOODWARD, OK 73802

COUNTY	STARTING D					·
COONTI	STARTING D	WORK ORDER	RIG NUMBER	L	EASE NAME	Terms
HARPER	10/8/2014	3782	LARIAT #40	CARO	THERS 3206 2-34H	Due on rec
			Description			
DRILLED 6' OF 70 FURNISHED AND FURNISHED 90' ( FURNISHED WEI FURNISHED 9 YA FURNISHED4 YA DRILL MOUSE HO	D SET 6' X 6' TIN DF 20" CONDUCTO LDER AND MATER ARDS OF 10 SACK RDS OF 10 SACK OLE DF 16" CONDUCTO	HORN CELLAR DR PIPE RIALS GROUT FOR CONDUC GROUT FOR MOUSE H	CTOR HOLE IOLE			
		······		Sales Ta	ax (6.5%)	\$271.18
					TOTAL	\$18,271.18

	ال	OB SUM	MAR	Y			( 4393	TREETDATE	10/27/1	4
Harper	Kansas	dridge Exploi			duc	CUSTOMER REP	Rex Rogi	nair		
LEASE NAME Carothers 3206		JOB TYPE Surfac		10		EMPLOYEE NAME				
EMP NAME										
John Hall Roy Morris	0									
Flo Helkena								· · · · · · · · · · · · · · · · · · ·		
0.00				-		*1- <del>1-1-1-1-1-1-1-1-1</del> -1-1-1-1-1-1-1-1-1-				
Form. Name	Type:	****		ICa	led Out	On Locatio		ob Started	Lioh	Completed
Packer Type	Set At		Date		10/27/2014	10/27/2	2014	10/27/2014	1000	Completed 0/27/2014
Bottom Hole Temp. Retainer Depth	80 Press Total I and Accessorie	Depth 700	Time		130pm	500ar		1030am		100pm
Type and Size	Qty	Make	<b></b>		New/Used	Well [ Weight	Size Grad	e From	То	Max. Allow
Auto Fill Tube	0	IR	Casing			36#	9 5/8"	Surface	656	1,500
Insert Float Va	0	IR	Liner							
Centralizers	0	IR	Liner							
Top Plug HEAD	0	IR IR	Drill Pi				0			
Limit clamp	0	IR	Open ł		l	I	121/4"	Surface	651	Shots/Ft.
Weld-A	0	IR	Perfora				1			
Texas Pattern Guide Sh		IR	Perfora							
Cement Basket	0 laterials	IR	Perfora	On	ls _ocation	Operating	Hours	Descri	tion of the	
Mud Type WBM	Density	9 Lb/Gal	Date	3	Hours	Date	Hours Hours		otion of Jo	00
Disp. Fluid Fresh Wa	ter Density	8.33 Lb/Gal	10/2	7	8.0	10/27	2.5	Surface	1	
Spacer type Fresh Wate Spacer type	BBL. <u>10</u> BBL.	8.33								
Acid Type	Gal.	_%								
Acid Type	Gal.	%								
Surfactant	Gal.	In						]		
NE Agent	Gal. Gal/Lb									
	Gal/Lb	In								
Fric. Red.	Gal/Lb Gal/Lb	In								
MISC.	Gal/Lb	In	Total		8.0	Total	2.5			
Perfpac Balls	Otv		<b></b>			Der				
Other	G(1).	8	MAX		2.000 PSI	AVG.	essures 300 p	si		
Other							Rates in E	BPM		
			MAX		6 BPM	AVG	5 bpr			
Other			East		40	Cement	Left in Pi	pe		
Other			Feet		46	Reason	SHOE JO	1 1/11		
Stage Sacks C	Cement	1	Additive		nt Data			W/Ro	. Yield	1 halfert
1 180 TEX Lite P	remium Plus 65	(6% Gel) 2% Calc	ium Chlori	de -	%pps Cello-Fla	(e - 0.2% X-	Air	11.1		
2 165 Premium	Plus (Class C)	2% Calcium Chlo	ride - ¼pps	s Ce	llo-Flake	*****		6.32	1.32	14.80
3 *100 Premium	Plus (Class C)	*2% Calcium Chl	oride on si	de to	o use if necessa	ry		*6.32		
	······						1			
L		l	Sur	nm					l	
Preflush	Type:		Sul		Preflush:	BBI	10.00	Type:	Fres	h Water
Breakdown	MAXIN		12,000 PSI		Load & Bkdn:	Gal - BBI	N/A	Pad:Bb		N/A
			NO/FULL		Excess /Return		40	Calc.Di	sp Bbl	47
Average	Actual	Plug PSI:	SURFACE 900		Calc. TOC: Final Circ.	PSI:	SURFA 300	CE Actual Disp:Bl	Disp.	47.00 47.00
sip5 Min	10 Min				Cement Slurry		103.1		л —	41.00
			-7		Total Volume		160.1			
			1							
			An.	-	Colary	1-				
CUSTOMER REPR	RESENTATIO	E for	ani	/	Louis	SIQNATURE				
	C	1/	/			/				
					/					
	× 3	/			/					

# **O Tex** 7303 N. Highway 81 Duncan, OK 73533 Pumping, LLC

Sandridge Exploration & Production

Oklahoma City, OK 73102-6406

### Phone # (580) 255-3111

123 Robert S Kerr Ave

Bill To

# Invoice

Date: Invoice #: 11/6/2014 0000017764

	Description of Work
*.	HARPER,COUNTY KS AFE DC14259 API 15-077-22100-01-00
	Job Type: Kick off plug(plug back, Balanced Plug)

Field ]	Receipt	Terms	Service Date	Due Date			AFE No		 T	Lease/Well Na	ma
SOK	4418	Net 30	11/1/2014	12/6/2014		AFI	E DC14259			OTHERS 3200	
Item ML001	Dioku	De: p Mileage	scription		U/M	Qty	Price Each	Amount	Disc %	Disc Amt	Net Amount
ML001 ML003 MX001 CT005 CT015 ML014 AE014 PC003 JM001 AE017 AE007 CP002 CP004	Pump Bulk Bulk Pump Pump Fuel S Enviro Emplo Data A Swage 1" to 2 H (Pre	Truck/Heav Cement Deli- Matcrial Mix Charge 4000 Charge Addi Surcharge * onmental Fee syce/Supervis cequisition S , 4 1/2" - 13 " valves	ing Service Cha I-5000' itional Hours * sor Retention/pe ystem	rdiem	UNTMIL UNTMIL SCF 4-HRS UNTHRS JOB JOB PR/MAN JOB DAY JOB 24SACK LBS	100 100 838 358 1 6 1 1 1 1 1 1 1 1 1 355 133		426.00 732.00 2,472.10 1,170.66 4,312.44 3,528.36 653.40 228.69 1,306.80 1,437.48 457.38 424.71 10,934.01 1,802.15	40.00% 40.00% 40.00% 40.00% 40.00% 40.00% 40.00% 40.00% 40.00% 40.00%	-170.40 -292.80 -988.84 -468.26 -1,724.98 -1,411.34 -261.36 -91.48 -718.74 -574.99 -182.95 -169.88 -4,373.60 -720.86	255.60 439.20 1,483.26 702.40 2,587.46 2,117.02 392.04 137.21 588.06 862.49 274.43 254.83 6,560.41 1,081.29
Contact:	Sandrid	ge Explorat	ion & Product	ion			P	Discour Payment/Cred			29,886.18 469.96 -12,150.48 0.00
						Page: 1		Total No	et Amount		18,205.66

SOK 4418	Job Type Kickoff Plug Serv. Sup. Louis Arney Page 1of 1	314302A-Single 0 NET \$255.60 \$11,483.26 \$702.40 \$2,587.46 \$702.40 \$2,587.46 \$7137.21 \$588.06 \$862.49 \$137.21 \$588.06 \$862.49 \$137.21 \$588.06 \$862.49 \$137.21 \$588.06 \$862.49 \$137.21 \$588.06 \$862.49 \$137.21 \$588.06 \$862.49 \$137.21 \$588.06 \$862.49 \$137.21 \$588.06 \$137.21 \$558.06 \$137.21 \$558.06 \$137.21 \$558.06 \$137.21 \$554.83 \$556.40 \$137.29 \$1,081.29	\$17,735.68
Project Number:	JOB TYPE CASING SIZE	Pump # Pump 2 # a170.40 \$170.40 \$292.80 \$288.84 \$1,7724.98 \$1,774.98 \$1,411.34 \$261.36 \$391.48 \$718.74 \$574.99 \$182.95 \$169.88 \$169.88 \$169.88 \$169.88 \$1720.86 \$720.86	\$12,150.49
		<b>%DISC</b> 40% 40% 40% 40% 40% 40% 40% 40% 40% 40%	AGENT.
IEPT 27	Carothers 3206 2-34H Harper Kansas 15-077-22100-01-00 DC14259	GROSS \$426.00 \$732.00 \$732.00 \$7,472.10 \$1,170.66 \$4,312.44 \$3,528.36 \$4,312.44 \$3,528.36 \$4,312.44 \$3,528.36 \$4,57.38 \$458.38 \$458.38\$458.38 \$458.38\$\$468.38	\$29,886.17 S CUSTOMERS
FIELD RECIEPT 580-227-2727	Caro F H 15-077- D0	QUAN 100.0 100.0 838.0 358.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	HE SAME A
FIE. Phone number	Weli Name: Weli Number: County: State: API # AFE # PERMIT #	UNIT PRICE \$ 4.26 \$ 7.32 \$ 7.36 \$	THORIZED TO SIGN TI
		U OF MEAS. Per mile/ per Unit per mile/ per Unit per Ton-Mile per cuft (per 4 hrs) per nour/per unit per Job per Job per Job per Sk per Ib	ESENT THAT I AM AU
O = TEX $PUMPING LLCPervice Location Fairview, OklahomaPervice Address 601 Industrial Blvd 73737$	11/1/2014 Sandridge Exploration & Production Luiz Garza 281-840-6625	DESCRIPTION Pickup Mileage Pump Truck/Heavy Vehicle Mileage Bulk Cement Delivery/Return Bulk Material Mixing Service Charge Bulk Material Mixing Service Charge Pump Charge 4001-5000' Pump Charge 4001-5000' Pump Charge 4001-5000' Fuel Surcharge * Employee/Supervisor Retention/perdiem Data Acquisition System Swage, 4 1/2" - 13 3/8" 1" to 2" valves H (Premium Cement) (94 Ibs/ft3) CF-37 (Dispersant)	I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMERS AGENT Customer Authorized Agent:
O = THX Service Location Service Address	Service Date: Customer Address: City St Customer Rep Phone	REF # ML001 ML002 ML002 ML003 ML003 CT015 CT015 AE014 AE014 AE014 AE017 AE017 CP004 CP004	I HAVE READ AND Customer Authorized

RECEIVED NOV 9 5 2014

35 11-11

SOK 4418	Job Type Surface Serv. Sup. 0 Page 1of 1	0 NET \$255.60 \$433.20 \$1,483.26 \$7,483.26 \$7,46 \$7,483.26 \$7,483.26 \$7,483.26 \$7,483.26 \$3,117.02 \$3,214.0 \$137.21 \$588.06 \$862.49 \$274.43 \$254.83 \$254.83 \$56,560.40 \$1,081.29	\$17,735.68
Project Number:	JOB TYPE CASING SIZE Birnn #	Pump 2# disc \$170.40 \$282.80 \$288.84 \$468.26 \$1,724.98 \$1,411.34 \$261.36 \$91.48 \$718.74 \$574.99 \$18.74.99 \$182.95 \$169.88 \$4,373.60 \$720.86	\$12,150.49
	20	%DISC           40%	S AGENT.
EPT 17	Carothers 3206 2-34H Harper Kansas 15-077-22100-01-00 DC14259	GROSS \$426.00 \$732.00 \$2,472.10 \$1,170.66 \$4,312.44 \$3,528.69 \$1,306.80 \$1,437.48 \$457.38 \$457.38 \$457.38 \$457.38 \$457.38 \$10,934.00 \$1,802.15 \$1,802.15	ED TO SIGN THE SAME AS CUSTOMER
FIELD RECIEPT 580-227-2727	Carot H K( 15-0772	QUAN 100.0 838.0 358.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	THE SAME
FIEI Phone number	Well Name: Well Number: County: State: API # AFE # PERMIT #	UNIT PRICE 4.26 4.26 4.312.44 588.06 653.40 653.40 653.40 653.40 1,437.48 424.71 30.80 13.55	THORIZED TO SIGN
L		U OF MEAS. Der mile/ per Unit per Ton-Mile per Ton-Mile (per 4 hrs) per nour/per unit per nour/per unit per job per job per job per sk per lo	ESENT THAT I AM AU
<i>O = T.E.X. PUMPING LLC</i> Service Location Fairview, Oklahoma Service Address 601 Industrial Blvd 73737	11/1/2014 Sandridge Exploration & Production Luiz Garza 281-840-6625	DESCRIPTION Pickup Mileage Pump Truck/Heavy Vehicle Mileage Bulk Material Mixing Service Charge Bulk Material Mixing Service Charge Pump Charge 4001-5000' Pump Charge 4001-5000' Pump Charge 4 Environmental Fee* Employee/Supervisor Retention/perdiem Data Acquisition System Swage, 4 1/2" - 13 3/8" 1" to 2" valves H (Premium Cement) (94 lbs/ft3) CF-37 (Dispersant)	I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMERS AGENT Customer Authorized Agent:
<i>しー 11比入</i> Service Location Service Address	Service Date: Customer Address: City St Customer Rep Phone	REF# ML001 ML002 ML002 ML003 MX001 CT005 CT015 CT015 AE014 AE014 AE014 AE017 AE017 AE007 CP002 CP004	I HAVE READ AND UNDEF Customer Authorized Agent:

ç Adul -U

32062-34H AFE Number: DC 14259 Well Name: Carotters Code: 830.210 735.68 Amount: <u>B17, 73</u> Co. Man: <u>Lur'S (</u> Co. Man Sig.: <u>S</u> Notes:

Code:

Gar 29

#### SERVICE ORDER CONTRACT

Customer Name Sandridge	Exploration & Production	Ticket Number	SOK 4418	
Lease & Well Number	Carothers 3206 2-34H	Date	11/1/2014	

As consideration, The Above Named customer Agrees:

O-TEX Pumping L.L.C. shall not be responsible for and customer shall secure O-Tex pumping against any liability for damage to property of customer and of the well owner (if different from customer), unless caused by the willful misconduct or gross negligence of O-Tex pumping, this provision applying to but not limited to subsurface damage and surface damage arising from subsurface damage.

O-Tex makes no guarantee to the effectiveness of the products, supplies, or materials, nor of the results of any treatment or services. Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others, O-Tex personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others except where due to ()-Tex gross negligence or willful misconduct in the preparation or furnishing it.

Invoices payable NET 30 days following the date on the invoice.

Upon customers default in payment of the customers account by the last day of the month following the month in which the invoice is dated. Customer agrees to pay interest thereon after 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 25% of the unpaid account. Service order: I authorize work to begin per service instructions in accordance with terms and conditions printed on this form and represent that I have authority to accept and sign this order.

I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMERS AGENT. 12

**Customer Authorized Agent:** 

O Tex 7303 N. Highway 81 Duncan, OK 73533 Pumping, LLC

## Phone # (580) 255-3111

# Invoice

 Date:
 Invoice #:

 11/11/2014
 0000017888

Bill To

Sandridge Exploration & Production 123 Robert S Kerr Ave Oklahoma City, OK 73102-6406

0-01-00		
0001-00		
	00-01-00	00-01-00

	Receipt	Terms	Service Date	Due Da	ite		AFE No		т	.case/Well Na	
SOK	4453	Net 30	11/8/2014	12/11/20	14	AFE	DC14259			THERS 320	and the second
Item		De	scription		U/M	Qty	Price Each	Amount	Disc %	Disc Amt	
ML001	Picku	p Mileage			UNIM	L 100	4.26				Net Amount
MI.002	Pump	Truck/Heav	y Vehicle Milea	ge	UNTMI	100	4.20 7.32	426.00	60.00%	-255.60	170.40
ML003	Bulk	Cement Deli	very/Return		MILE	754	2.95	732.00	60.00%	-439.20	292.80
MX001	Bulk	Material Mix	ing Service Cha	urge	SCF	353	3.27	2,224.30	60.00%	-1,334.58	889.72
CC006		Charge 5001			4-HRS	1	4,671.81	1,154.31	60.00%	-692.59	461.72
CC015	Pump	Charge Addi	itional Hours		UNTHR	1 C C C C C C C C C C C C C C C C C C C	588.06	4,671.81	60.00%	-2,803.09	1,868.72
ML014	Fuel S	urcharge *			JOB	1	653.40	2,352.24	35.00%	-823.28	1,528.96
AE014		onmental Fee			JOB	1	228.69	653.40	100.00%	-653.40	0.00
PC003	Emplo	yce/Supervis	sor Retention/pe	rdiem	PR/MAN		1,306.80	228.69	100.00%	-228.69	0.00
JM001	Data A	equisition S	ystem		JOB		1,437.48	5,227.20	90.00%	-4,704.48	522.72
AE003	Circul	ation Equipm	nent(40' of equi	pment)	JOB	1	1,633.50	1,437.48	60.00%	-862.49	574.99
AE002	Cemer	t Head with	manifold		JOB	1	1,033.30	1,633.50	60.00%	-980.10	653.40
LT005	Lab Te	sting - Thick	ening Time		EACH	2	326.70	1,176.12	60.00%	-705.67	470.45
LT006	Lab Te	sting - Water	Analysis		EACH	1	326.70	653.40	0.00%	0.00	653.40
CL011	7" Top	Rubber Plug	5		EACH	1	203.28	326.70	0.00%	0.00	326.70
CSB002	50/501	oz With Pre	mium		SACK	235	203.28	203.28	35.00%	-71.15	132.13
CP002	H (Pres	niun Cemen	t) (94 lbs/ft3)		94SACK	100	30.80	5,235.80	53.00%	-2,774.97	2,460.83
CP005	GEL				LBS	1,295	0.68	3,080.00	53.00%	-1,632.40	1,447.60
CPC29	FL-171	FLA			LBS	58		880.60	53.00%	-466.72	413.88
CP034	CF - 51	(Anti settlin	g agent)		LBS	29	40.00	2,320.00	53.00%	-1,229.60	1,090.40
CP004	CF-37 (	Dispersant)			LBS	29	27.10	785.90	53.00%	-416.53	369.37
CP013	CF - 20	(Lignosulfat	e Retarder) (bel	ow 2	LBS	20 74	13.55	271.00	53.00%	-143.63	127.37
CPC43		(Antifoam)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		LBS	58	13.55	1,002.70	53.00%	-531.43	471.27
		· ·				80	8.80	510.40	53.00%	-270.51	239.89
	and the second second				AND AN ADDRESS						
								Subtot	al Amount Sales Tax		****
								Discour	sales Tax		****
Contact:	Sandrid	ge Explorat	ion & Product	ion			]	Pavment/Cred	it Amount	*	****
						Page: 1		Total Ne	et Amount	*	****



### Phone # (580) 255-3111

Invoice
 Invoice #:

Date: 11/11/2014

0000017888

Description of Work HARPER,COUNTY KS AFE DC14259 API 15-077-22100-01-00

Job Type: Intermediate

Bill To

Sandridge Exploration & Production 123 Robert S Kerr Ave Oklahoma City, OK 73102-6406

O <i><sup>∞</sup></i> ∏EX Service Location Service Address	PUMPING LLC Fairview, Oktahoma 601 Industrial Blvd 73737		FIE Phone number	FIELD RECIEPT 580-227-2727	EPT 77		Project Number:	SOK 4453
Service Date: Customer Address: City St Customer Rep	11/8/2014 Sandridge Exploration & Production Luis Garza		Well Name: Well Number: County: State: API # AFF #	Carot H H 15-077-5	Carothers 3206 2-34H Harper Kansas 15-077-22100-01-00		JOB TYPE CASING SIZE	Job Type Intermediate Serv. Sup. Arthur Setzer Page 1of 1
Phone	281-840-6625		PERMIT #	ž	0014203		Pump 1#	A245548-Serva
REF #	IDESCRIPTION						Pump 2 #	0
ML001	Pickun Mileade	U UL INIERS.	UNIT PRICE	QUAN	GROSS	%DISC	disc	NET
ML002	Pump Truck/Heavy Vehicle Mileage	per mile/ per Unit	5 4.26	100.0	\$426.00	60%	\$255.60	\$170.40
ML003	Bulk Cement Delivery/Return	per Ton-Mile	S 7.05	0.001	\$732.00	60%	\$439.20	\$292.80
MX001	Bulk Material Mixing Service Charge	per cuft		352.0	\$4,424.5U	%ng	\$1,334.58	\$889.72
CC006	Pump Charge 5001-6000'	(per 4 hrs)	4.67	1.0	\$4 671 84	60%	\$692.59	\$461.72
61000	Pump Charge Additional Hours	per hour/per unit		0.4	\$2 252 2X	0/.00	\$2,803.09	\$1,868.72
AF014	Fuel Surcharge *	per unit perjob	\$ 653.40	1.0	\$653.40	20/00 70/01	\$823.28 \$663 40	\$1,528.96
		per job		1.0	\$228.69	100%	\$228 BD	00.04
100MC	Data Acruisition System	per job	<b>.</b>	4.0	\$5,227.20	80%	\$4.704.48	\$522 72
AE003	Circulation Equipment 40' of equipment	rer Job		1.0	\$1,437.48	60%	\$862.49	\$574.99
AE000	Circulating hose (replacement)	per hose		1.0	\$1,633.50	60%	\$980.10	\$653.40
AE002	Cement Head with manifold	per job	00.02/01 4	1 7	\$0.00	%0	\$0.00	\$0.00
LT005	Lab Testing - Thickening Time	per test		D.1.	\$1,176.12	60%	\$705.67	\$470.45
LT006	Lab Testing - Water Analysis	per test			04.5004	%0	\$0.00	\$653.40
CEBUN	7" Top Rubber Plug	Each			\$203.08	0%0	20.03	\$326.70
C DDU2	50/50 Poz with Premium (Includes 2% Gel)	per sk		235.0	\$5.235.80	52%	C1.17¢	\$132.13
CPONS	CEI	per sk	\$ 30.80	100.0	\$3,080.00	53%	\$1 520 AD	\$2,400.83 \$4 447 50
CPC29	Fluid Loce Addition 80 1 400	per lb		1,295.0	\$880.60	53%	\$466.72	\$1,441.0U \$112 88
CP034		per Ib		58.0	\$2,320.00	53%	\$1.229.60	S1.090.40
CP004		per lb		29.0	\$785.90	53%	\$416.53	\$369.37
CP013	e Retarder) (helow 2201)	per lu		20.0	\$271.00	53%	\$143.63	\$127.37
CPC43	the second second		£	74.0	\$1,002.70	53%	\$531.43	\$471.27
		ner 19	8.80	58.0	\$510.40	53%	\$270.51	\$239.89
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				*****		Rhonag		
I HAVE READ AND	INDERCTAND TITLE CONTRACT ON THE				\$37,186.83		\$22 020 11	¢15 166 70
Customer Authorized A must	CUSEMME ANALYSIS AND THE CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMERS A GENT	ESENT THAT I AM	AUTHORIZED TO SIGN	THE SAME	AS CUSTOMER	S AGENT.		× 1001 501 ×
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Project Number: JOB TYPE CASING SIZE CASING SIZE Pump 1 # Pump 2 # Pum 2	O-Tex Pu	olimitic aron	24						6-11
JOB TYPE CASING SIZE Pump 1 # Pump 2 #	Service Locatio Service Addres:	Faírview, Oklah 601 Industrial B	.0		580-227-27	EPT 27		Project Number:	SOK 4453
Pump 1 # Pump 2 # Pump 2 # Pump 2 # <b>disc</b> \$1,375.29 \$439.20 \$1,375.29 \$439.20 \$1,375.29 \$653.40 \$2,862.49 \$862.49 \$862.49 \$862.49 \$980.10 \$0.00 \$706.67 \$0.00 \$1,653 \$1,529.60 \$1,529.60 \$1,529.60 \$1,529.60 \$1,529.60 \$1,529.60 \$1,529.60 \$1,529.60 \$1,529.60 \$1,520.61 \$1,520.61 \$22,152.04	Service Date; Customer Address;	11/8/2014 D. WEAR BANG	Marza Marza	Well Name: Well Number:	Caro	thers 3206 2-34H		JOB TYPE CASING SIZE	Job Type Intermodiate
Pump 1 # Pump 2 # Pump 2 # Pump 2 # \$555.60 \$433.20 \$1,375.29 \$692.59 \$2,803.09 \$2,803.09 \$2,803.09 \$2,803.09 \$2,803.09 \$2,803.09 \$2,803.09 \$2,803.09 \$2,803.09 \$2,803.09 \$2,803.09 \$2,803.09 \$2,803.09 \$2,803.09 \$2,774.97 \$0,00 \$7,74.97 \$0,00 \$7,74.97 \$0,00 \$7,74.97 \$1,653 \$2,774.97 \$1,653 \$2,174.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$1,653 \$2,774.97 \$2,774.97 \$2,774.97 \$1,655 \$2,774.97 \$2,775.94 \$2,775.9	city St Customer Rep Phone	Luís Garza 281-840-6625		County: State: API # AFE #	15-077- DQ	larper ansas 22100-01-00 214259			Serv. Sup. Arthur Setzer Page 1 of 1
Pump 2 #         alise         \$255.60         \$439.20         \$4,375.29         \$2,803.09         \$2,803.09         \$2,803.09         \$2,803.09         \$5653.40         \$2,803.09         \$565.40         \$2,803.09         \$562.59         \$52,803.09         \$52,803.09         \$52,803.09         \$52,104         \$22,152.04	Ref #	DESCRIPTION		PERMIT #				Pump 1 #	A245548-Serva
alsc     alsc       \$255.60     \$439.20       \$255.60     \$1,375.29       \$2862.59     \$2,803.09       \$2,803.09     \$2823.28       \$2,803.09     \$2823.28       \$2,803.09     \$2862.49       \$553.40     \$2228.69       \$4,704.48     \$3862.49       \$980.10     \$0.00       \$7705.67     \$0.00       \$1,632.40     \$1,632.40       \$1,632.40     \$1,653       \$21,632.40     \$1,653       \$21,653     \$1,622.40       \$21,653     \$1,622.40       \$21,653     \$21,653       \$21,653     \$21,653       \$22,152.04     \$1,522	ML001	Pickup Mileage	U OF MEAS.	UNIT PRICE	QUAN	GROSS	N,DICF	Pump 2 #	0
\$439.20 \$439.20 \$1,375.29 \$692.59 \$593.09 \$8653.40 \$22,803.09 \$523.28 \$653.40 \$22,869 \$980.10 \$705.67 \$0.00 \$705.67 \$1,632.40 \$0.00 \$70.51 \$1,632.40 \$2,774.97 \$1,632.40 \$2,774.87 \$1,632.40 \$2,774.87 \$1,632.40 \$2,774.87 \$2,775.84 \$2,774.87 \$2,774.87 \$2,774.87 \$2,774.87 \$2,774.87 \$2,774.87 \$2,775.84\$2,775.84 \$2,775.84 \$2,775.84\$2,775.	ML002	Pump Truck/Heavy Vehicle Mileade	per mile/ per Unit	\$ 4.26	100.0	\$426.00	/00/9 90%	CISC CORFED	NET
\$1,375.29 \$662.59 \$52,803.09 \$8623.40 \$2,803.09 \$8653.40 \$2,28.69 \$8653.40 \$228.69 \$865.40 \$705.67 \$0.00 \$705.67 \$0.00 \$705.67 \$0.00 \$705.67 \$1,632.40 \$71.15 \$1,632.40 \$71.15 \$1,632.40 \$71.653 \$1,632.40 \$71.653 \$1,632.40 \$71.653 \$1,632.40 \$71.653 \$1,632.40 \$71.653 \$1,632.40 \$71.653 \$1,632.40 \$71.653 \$1,632.40 \$71.653 \$1,632.40 \$71.653 \$1,632.40 \$71.653 \$1,632.40 \$71.653 \$1,632.40 \$71.653 \$1,632.40 \$71.653 \$1,632.40 \$71.653 \$1,632.40 \$71.653 \$2,776.67 \$1,632.40 \$71.653 \$2,776.67 \$2,776.775.775.775.775.775.775.775.775.775.	ML003	Bulk Cement Delivery/Return	per Ton-Mile	7.32	100.0	\$732.00	%09	\$439.20	\$1/0.40
\$2,803.09 \$2,803.09 \$8653.40 \$2,803.09 \$4,704.48 \$980.10 \$705.67 \$0.00 \$705.67 \$0.00 \$70.56 \$1,632.40 \$2,774.97 \$1,632.40 \$2,774.97 \$1,632.40 \$1,632.40 \$2,774.97 \$1,632.40 \$1,632.40 \$1,632.40 \$1,632.40 \$2,777.20 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,174.97 \$2,172.04 \$2,270.51 \$2,2	CC006	Pump Charge 5001-6000'			353.0	\$1,154.31	60% 60%	\$1,375.29 **********	\$916.86
\$23.28 \$653.40 \$553.40 \$228.69 \$4,704.48 \$862.49 \$980.10 \$705.67 \$9.00 \$705.67 \$0.00 \$705.67 \$0.00 \$705.67 \$1.632.40 \$71.15 \$2,774.97 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$1,632.40 \$71.65.3 \$2,774.87 \$1,632.40 \$71.65.3 \$2,774.87 \$531.43 \$531.43 \$52,75.65 \$531.43 \$52,755.65 \$52,755.755.75 \$52,755.755.755.755.755.755.755.755.75	CC015	Pump Charge Additional Hours		4	1.0	\$4,671.81	60%	\$2,803,09	\$461.72
\$228.69 \$4,704.48 \$862.49 \$980.10 \$705.67 \$0.00 \$705.67 \$0.00 \$705.67 \$0.00 \$705.67 \$0.00 \$705.67 \$1,632.40 \$1,233.50 \$1,220.50 \$1,220.50 \$1,220.50 \$2,172.20 \$2,172.20 \$2,172.20 \$2,172.20 \$2,172.20 \$2,172.20 \$2,172.20 \$2,172.20 \$2,172.20 \$2,277.2	AE014	Free Surcharge * Environmental Fee*			1.0	\$2,352.24 \$653.40	35%	\$823.28	\$1,528.96
\$4,704.48 \$862.49 \$980.10 \$0.00 \$705.67 \$0.00 \$705.67 \$705.67 \$705.67 \$71.15 \$7.74.97 \$71.15 \$7.74.97 \$71.632.40 \$71.632.40 \$71.632.40 \$71.632.40 \$71.229.60 \$416.53 \$143.63 \$531.43 \$531.43 \$172.04 \$270.51 \$1.222.50 \$1.222 \$52.152.04 \$	PC003	Employee/Supervisor Retention/perdiem		*	1.0	\$228.69	100%	\$228.69	\$0.00 \$0.00
\$862.49 \$9.00 \$705.67 \$0.00 \$705.67 \$0.00 \$71.15 \$71.15 \$71.15 \$71.15 \$71.15 \$71.15 \$71.497 \$16.72 \$1,229.60 \$416.53 \$143.63 \$531.43 \$531.43 \$531.43 \$91.22 \$1.22,152.04 \$270.51 \$270.51 \$270.51 \$531.43 \$531.62 \$531.52 \$532.55 \$532.55 \$531.52 \$531.52 \$532.55 \$531.52 \$531.52 \$531.52 \$531.52 \$531.52 \$531.52 \$532.55 \$531.52 \$531.52 \$532.55 \$552.55 \$552.55 \$552.55 \$552.55 \$552.55 \$552.55 \$552.5555\$5555\$	AE003	Data Acquisition System			0.4	\$5,227.20	%06	\$4,704.48	\$522.72
\$22,152.04 \$22,000 \$705.67 \$0.00 \$705.67 \$0.00 \$705.67 \$0.00 \$0.00 \$71.15 \$271.15 \$271.43 \$216.72 \$143.63 \$531.43 \$531.531.53 \$531.531.55 \$531.5501.5501.5501.5501.5501.5501.5501.5	AE000	Circulating hose (replacement)		<i>ب</i>	1.0	\$1,633.50	60%	\$862.49 \$980.10	\$574.99
\$705.67 \$0.00 \$0.00 \$71.15 \$71.15 \$71.15 \$71.4.97 \$1.632.40 \$466.72 \$1.632.40 \$46.72 \$1.229.60 \$416.53 \$143.63 \$531.43 \$531.43 \$1.220.51 \$91.22 \$531.43 \$531.43 \$531.43 \$531.43 \$531.43 \$531.43 \$531.43 \$531.43 \$531.43 \$531.43 \$531.43 \$531.43 \$531.43 \$531.43 \$531.43 \$531.43 \$531.43 \$532,750 \$532,750 \$532,750 \$532,750 \$532,750 \$532,750 \$532,750 \$532,500 \$522,5000\$520,5000\$520,5000\$520,5000\$520,5000\$520,5000\$5	AE002	Cement Head with manifold			, *	\$0.00	%0	\$0.00	\$0.00
\$0.00 \$71.15 \$71.15 \$71.15 \$71.15 \$71.632.40 \$466.72 \$166.72 \$143.63 \$531.43 \$531.43 \$91.22 \$91.22 \$52,152.04 \$	LT006	Lab Testing - Thickening Time		2.	2.0	\$1,176.12 \$653 40	60%	\$705.67	\$470.45
\$71.15 \$2,774.97 \$1,632.40 \$466.72 \$1,529.60 \$416.53 \$143.63 \$531.43 \$531.43 \$91.22 \$91.22 \$270.51 \$91.22 \$22,152.04 \$	CL011	7" Top Rubber Plug	st		1.0	\$326.70	%0	\$0.00 \$0.00	\$653.40
\$2,774.97 \$1,632.40 \$466.72 \$1,229.60 \$416.53 \$143.63 \$531.43 \$91.22 \$91.22 \$270.51 \$22,152.04 \$	CSB002 CP002	50/50 Poz with Premium (Includes 2% Gel)	~		1.0	\$203.28	35%	\$71.15	\$132.13
\$1,052,40 \$466.72 \$1,229.60 \$416.53 \$143.63 \$531.43 \$270.51 \$91.22 \$91.22 \$27,152.04 \$	CP005	GEL			100.0	\$3,080,00	53%	\$2,774.97	\$2,460.83
\$1,229.60 \$416.53 \$143.63 \$531.43 \$270.51 \$91.22 \$91.22 \$22,152.04	CPC29	0-140F	a 4		1,295.0	\$880.60	53%	\$466.72	\$1,447.60
\$416.53 \$143.63 \$531.43 \$91.22 \$91.22 \$22,152.04	CP004				58.0	\$2,320.00 \$785 00	53%	\$1,229.60	\$1,090.40
\$531.43 \$270.51 \$91.22 \$22,152.04	CP013	arder) (below 220")			20.0	\$271.00	53%	\$416.53 \$143 62	\$369.37
\$270.51 \$91.22 \$22,152.04	CPC43				74.0	\$1,002.70	53%	\$531.43	\$121.37
\$91.22 \$22,152.04	CFUUG			00	58.0	\$510.40	53%	\$270.51	\$239.89
\$22,152.04					2.4	71.2116	53%	\$91.22	\$80.90
\$22,152.04			× 1						
\$22,152.04	unt utau a/vyh i								
	Customer And ANL	UNDERSTAND THIS CONTRACT AND REPRI	ESENT THAT I AM AUT	THORIZED TO SIGN	Tarra anu	\$37,426.80		\$22,152.04	\$15,274.76

#### SERVICE ORDER CONTRACT

Customer Name Sandridge Exploration & Production Ticket Number SOK 4453 Lease & Well Number Carothers 3206 2-34H Date 11/8/2014

As consideration, The Above Named customer Agrees:

O-TEX Pumping L.L.C, shall not be responsible for and customer shall secure O-Tex pumping against any liability for damage to property of customer and of the well owner (if different from customer), unless caused by the willful misconduct or gross negligence of O-Tex pumping, this provision applying to but not limited to subsurface damage and surface damage arising from subsurface damage.

O-Tex makes no guarantee to the effectiveness of the products, supplies, or materials, nor of the results of any treatment or services. Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others, O-Tex personnel will use their best efforts in gathering such information and their best judgment in interpreting it, but Because of the uncertainty of variable well conditions and the necessity of relying on facts and supporting services furnished by others except where due to O-Tex gross negligence or willful misconduct in the preparation or furnishing it.

Invoices payable NET 30 days following the date on the invoice.

Upon customers default in payment of the customers account by the last day of the month following the month in which the invoice is dated. Customer agrees to pay interest thereon after 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 25% of the unpaid account. Service order: I authorize work to begin per service instructions in accordance with terms and conditions printed on this form and represent that I have authority to accept and sign this order.

I HAVE READ AND UNDERSTAND THIS CONTRACT AND REPRESENT THAT I AM AUTHORIZED TO SIGN THE SAME AS CUSTOMERS AGENT.

**Customer Authorized Agent:** 

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#### Frac the MISSISSIPPI (Stage 1) as follows using the chemical concentrations below:

	Surfactant (gpt)	ClO <sub>2</sub> (ppm)	Scale Inhibitor (gpt)
Archer/Cimarron	0	2-3	0.1

NOTE: Pump FR as required to obtain minimum rate of 75 bpm. DO NOT EXCEED 0.75 gal/1000 concentration of FR without prior discussion with engineer.

			ST	FAGE 1				
			Port @	9,658	1			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, m
15% HCI acid	20	750	18					0.9
Slickwater	100	14100	335					3.4
Slickwater	100	16800	400	40/70	0.25	Genoa	4200	4.0
Slickwater	100	4200	100					1.0
Slickwater	100	16800	400	40/70	0.50	Genoa	8400	4.0
Slickwater	100	4200	100					1.0
Slickwater	100	16800	400	40/70	0.75	Genoa	12600	4.0
Slickwater	100	4200	100					1.0
Slickwater	100	16800	400	40/70	1.00	Genoa	16800	4.0
Slickwater	100	13342	318		5 C			3.2
TOTAL		107,992	2,571				42,000	26.4
							0	

Frac the MISSISSIPPI (Stage 2) as follows:

Drop 2.000" ball. Reduce rate to 5-10bpm as +/- 214 bbls (50 bbls before ball seats). 264.7 bbls to sleeve

			ST	AGE 2				
			Port @	9,469	L.			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, m
15% HCI acid	20	750	18			-		0.9
Slickwater	100	9600	228					2.3
Slickwater	100	11600	276	40/70	0.25	Genoa	2900	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11400	271	40/70	0.50	Genoa	5700	2.7
Slickwater	100	2850	68					0.7
Slickwater	100	11333	270	40/70	0.75	Genoa	8500	2.7
Slickwater	100	2833	67					0.7
Slickwater	100	11400	271	40/70	1.00	Genoa	11400	2.7
Slickwater	100	13219	315					3.1
TOTAL		77,886	1,854			and and a second	28,500	19.3
		86 C.U					0	

Frac the MISSISSIPPI (Stage 3) as follows:

Drop 2.063" ball. Reduce rate to 5-10bpm as +/- 212 bbls (50 bbls before ball seats). 262.5 bbls to sleeve

			ST	AGE 3				
			Port @	9,323	1			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, mi
15% HCI acid	20	500	12					0.6
Slickwater	100	9800	232					2.3
Slickwater	100	11600	276	40/70	0.25	Genoa	2900	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11600	276	40/70	0.75	Genoa	8700	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11600	276	40/70	1.00	Genoa	11600	2.8
Slickwater	100	13124	312					3.1
TOTAL		78,524	1.868				29,000	19.2

5 RIDGE NDA

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Frac the MISSISSIPPI (Stage 4) as follows:

Drop 2.125" ball. Reduce rate to 5-10bpm as +/- 210 bbls (50 bbls before ball seats). 260.2 bbls to sleeve

	-		S1	TAGE 4				
			Port@	9,179	•			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, m
15% HCI acid	20	500	12					0.6
Slickwater	100	9800	231					2.3
Slickwater	100	11600	276	40/70	0.25	Genoa	2900	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11600	276	40/70	0.75	Genoa	8700	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11500	274	40/70	1.00	Genoa	11500	2.7
Slickwater	100	13030	310					3.1
TOTAL		78,330	1,863				28,900	19.1
						0		

Frac the MISSISSIPPI (Stage 5) as follows:

Drop 2.188" ball. Reduce rate to 5-10bpm as +/- 207 bbls (50 bbls before ball seats). 258.0 bbls to sleeve

	1. 1.		SI	AGE 5				
			Port@	9,033 '				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, mi
15% HCI acid	20	500	12					0.6
Slickwater	100	10000	237					2.4
Slickwater	100	12000	286	40/70	0.25	Genoa	3000	2.9
Slickwater	100	3000	71			/		0.7
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	2.8
Slickwater	100	2950	70					0.7
Slickwater	100	11867	283	40/70	0.75	Genoa	8900	2.8
Slickwater	100	2967	71					0.7
Slickwater	100	11800	281	40/70	1.00	Genoa	11800	2.8
Slickwater	100	12935	308					3.1
TOTAL		79,819	1,899				29,600	19.5
							0	

Frac the MISSISSIPPI (Stage 6) as follows: Drop 2.250" ball. Reduce rate to 5-10bpm as +/- 205 bbls (50 bbls before ball seats). 255.8 bbls to sleeve

			ST	AGE 6				
2			Port@	8,892	•			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, m
15% HCI acid	20	500	12					0.6
Slickwater	100	9400	224					2.2
Slickwater	100	11200	267	40/70	0.25	Genoa	2800	2.7
Slickwater	100	2800	67					0.7
Slickwater	100	11200	267	40/70	0.50	Genoa	5600	2.7
Slickwater	100	2800	67					0.7
Slickwater	100	11200	267	40/70	0.75	Genoa	8400	2.7
Slickwater	100	2800	67					0.7
Slickwater	100	11200	267	40/70	1.00	Genoa	11200	2.7
Slickwater	100	12844	306					3.1
TOTAL		75,944	1,808				28,000	18.6
					0			



Frac the MISSISSIPPI (Stage 7) as follows:

Drop 2.313" ball. Reduce rate to 5-10bpm as +/- 203 bbls (50 bbls before ball seats).

253.6 bbls to sleeve

			ST	AGE 7				
			Port@	8,750	ı			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, m
15% HCl acid	20	500	12					0.6
Slickwater	100	9600	228					2.3
Slickwater	100	11600	276	40/70	0.25	Genoa	2900	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11400	271	40/70	0.50	Genoa	5700	2.7
Slickwater	100	2850	68					0.7
Slickwater	100	11333	270	40/70	0.75	Genoa	8500	2.7
Slickwater	100	2833	67					0.7
Slickwater	100	11400	271	40/70	1.00	Genoa	11400	2.7
Slickwater	100	12751	304					3.0
TOTAL		77,168	1,837				28,500	18.8
							0	

Frac the MISSISSIPPI (Stage 8) as follows:

Drop 2.375" ball. Reduce rate to 5-10bpm as +/- 201 bbls (50 bbls before ball seats).

#### 251.5 bbls to sleeve

			SI	FAGE 8				
			Port @	8,617				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, m
15% HCI acid	20	500	12					0.6
Slickwater	100	9300	220					2.2
Slickwater	100	11200	267	40/70	0.25	Genoa	2800	2.7
Slickwater	100	2800	67					0.7
Slickwater	100	11000	262	40/70	0.50	Genoa	5500	2.6
Slickwater	100	2750	65					0.7
Slickwater	100	10933	260	40/70	0.75	Genoa	8200	2.6
Slickwater	100	2733	65					0.7
Slickwater	100	10900	260	40/70	1.00	Genoa	10900	2.6
Slickwater	100	12664	302					3.0
TOTAL		74,781	1,779				27,400	18.3
							0	

Frac the MISSISSIPPI (Stage 9) as follows:

Drop 2.438" ball. Reduce rate to 5-10bpm as +/- 199 bbls (50 bbls before ball seats).

249.3 bbls to sleeve

			ST	FAGE 9				
			Port@	8,472				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, m
15% HCI acid	20	500	12					0.6
Slickwater	100	10000	236					2.4
Slickwater	100	12000	286	40/70	0.25	Genoa	3000	2.9
Slickwater	100	3000	71		-			0.7
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	2.8
Slickwater	100	2950	70					0.7
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	2.8
Slickwater	100	2933	70					0.7
Slickwater	100	11800	281	40/70	1.00	Genoa	11800	2.8
Slickwater	100	12570	299					3.0
TOTAL		79,287	1,886				29,500	19.3
							0	



Sleeve 10 will not be shifted Remove 2.500" ball from set.

0.0 bbls to sleeve

0013 10 3160			ST	AGE 10				
			Port @	8,327 '				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, Ibs	ime, mi
			Or	mI	ſ.			
TOTAL		0	0				0	0.0
							0	

Frac the MISSISSIPPI (Stage 11) as follows: Drop 2.563" ball. Reduce rate to 5-10bpm as +/- 194 bbls (50 bbls before ball seats).

#### 244.8 bbls to sleeve

			ST	AGE 11				
			Port @	8,185				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, mi
15% HCI acid	20	500	12				11	0.6
Slickwater	100	9800	231					2.3
Slickwater	100	11600	276	40/70	0.25	Genoa	2900	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11600	276	40/70	0.75	Genoa	8700	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11500	274	40/70	1.00	Genoa	11500	2.7
Slickwater	100	12383	295					2.9
TOTAL		77,683	1,847				28,900	18.9
							0	

Frac the MISSISSIPPI (Stage 12) as follows: Drop 2.625" ball. Reduce rate to 5-10bpm as +/- 192 bbls (50 bbls before ball seats).

242.6 bbls to sleeve

			ST	AGE 12				
			Port@	8,040				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, mi
15% HCl acid	20	500	12					0.6
Slickwater	100	9800	232					2.3
Slickwater	100	11600	276	40/70	0.25	Genoa	2900	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11600	276	40/70	0.75	Genoa	8700	2.8
Slickwater	100	2900	69				2.4.6	0.7
Slickwater	100	11600	276	40/70	1.00	Genoa	11600	2.8
Slickwater	100	12289	293					2.9
TOTAL		77,689	1,848				29,000	19.0



Frac the MISSISSIPPI (Stage 13) as follows:

Drop 2.688" ball. Reduce rate to 5-10bpm as +/- 190 bbls (50 bbls before ball seats). 240.3 bbls to sleeve

			ST	<b>AGE 13</b>				
			Port@	7,895	L			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, m
15% HCl acid	20	500	12					0.6
Slickwater	100	9700	230					2.3
Slickwater	100	11600	276	40/70	0.25	Genoa	2900	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11467	273	40/70	0.75	Genoa	8600	2.7
Slickwater	100	2867	68					0.7
Slickwater	100	11500	274	40/70	1.00	Genoa	11500	2.7
Slickwater	100	12194	290					2.9
TOTAL		77,228	1,838				28,800	18.9
							0	

Frac the MISSISSIPPI (Stage 14) as follows: Drop 2.750" ball. Reduce rate to 5-10bpm as +/- 188 bbls (50 bbls before ball seats).

238.1 bbls to sleeve

			ST	AGE 14				
			Port@	7,752				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, m
15% HCI acid	20	500	12					0.6
Slickwater	100	9300	221					2.2
Slickwater	100	11200	267	40/70	0.25	Genoa	2800	2.7
Slickwater	100	2800	67					0.7
Slickwater	100	11000	262	40/70	0.50	Genoa	5500	2.6
Slickwater	100	2750	65					0.7
Slickwater	100	11067	263	40/70	0.75	Genoa	8300	2.6
Slickwater	100	2767	66					0.7
Slickwater	100	11000	262	40/70	1.00	Genoa	11000	2.6
Slickwater	100	12101	288					2.9
TOTAL		74,485	1,773				27,600	18.2
							0	

Frac the MISSISSIPPI (Stage 15) as follows:

Drop 2.813" ball. Reduce rate to 5-10bpm as +/- 186 bbls (50 bbls before ball seats).

236.0 bbls to sleeve

	2		ST	AGE 15				
			Port @	7,615	•			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, mi
15% HCI acid	20	500	12					0.6
Slickwater	100	9700	230					2.3
Slickwater	100	11600	276	40/70	0.25	Genoa	2900	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11467	273	40/70	0.75	Genoa	8600	2.7
Slickwater	100	2867	68					0.7
Slickwater	100	11500	274	40/70	1.00	Genoa	11500	2.7
Slickwater	100	12012	286					2.9
TOTAL		77,045	1,834				28,800	18.8



Frac the MISSISSIPPI (Stage 16) as follows:

Drop 2.875" ball. Reduce rate to 5-10bpm as +/- 183 bbls (50 bbls before ball seats).

233.8 bbls to sleeve

		5. K	ST	AGE 16		2		P.
			Port @	7,471				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, m
15% HCI acid	20	500	12					0.6
Slickwater	100	10000	236					2.4
Slickwater	100	12000	286	40/70	0.25	Genoa	3000	2.9
Slickwater	100	3000	71					0.7
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	2.8
Slickwater	100	2950	70					0.7
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	2.8
Slickwater	100	2933	70					0.7
Slickwater	100	11700	279	40/70	1.00	Genoa	11700	2.8
Slickwater	100	11919	284					2.8
TOTAL		78,535	1,868				29,400	19.2
	21				0			

Frac the MISSISSIPPI (Stage 17) as follows:

Drop 2.938" ball. Reduce rate to 5-10bpm as +/- 181 bbls (50 bbls before ball seats). 231.5 bbls to sleeve

			ST	<b>AGE 17</b>				
			Port @	7,326	1			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, m
15% HCI acid	20	500	12					0.6
Slickwater	100	10000	236					2.4
Slickwater	100	12000	286	40/70	0.25	Genoa	3000	2.9
Slickwater	100	3000	71					0.7
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	2.8
Slickwater	100	2950	70					0.7
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	2.8
Slickwater	100	2933	70		-			0.7
Slickwater	100	11700	279	40/70	1.00	Genoa	11700	2.8
Slickwater	100	11824	282					2.8
TOTAL		78,440	1,865				29,400	19.1
							0	

Frac the MISSISSIPPI (Stage 18) as follows:

Drop 3.000" ball. Reduce rate to 5-10bpm as +/- 179 bbls (50 bbls before ball seats).

229.3 bbls to sleeve

			ST	<b>AGE 18</b>				
			Port@	7,183				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, mi
15% HCI acid	20	500	12					0.6
Slickwater	100	9700	230					2.3
Slickwater	100	11600	276	40/70	0.25	Genoa	2900	2.8
Slickwater	100	2900	69				1	0.7
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11467	273	40/70	0.75	Genoa	8600	2.7
Slickwater	100	2867	68					0.7
Slickwater	100	11500	274	40/70	1.00	Genoa	11500	2.7
Slickwater	100	11731	279					2.8
TOTAL		76,764	1,827				28,800	18.7



Frac the MISSISSIPPI (Stage 19) as follows:

Drop 3.063" ball. Reduce rate to 5-10bpm as +/- 177 bbls (50 bbls before ball seats). 227.0 bbls to sleeve

			ST	AGE 19	-			
			Port@	7,036	1			
Fluid	Rate	Vol, gal	Vol, bbl	Ргор	Prop Con	Prop type	Prop, lbs	lime, mi
15% HCI acid	20	500	12					0.6
Slickwater	100	10000	237					2.4
Slickwater	100	12000	286	40/70	0.25	Genoa	3000	2.9
Slickwater	100	3000	71			_		0.7
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	2.8
Slickwater	100	2950	70					0.7
Slickwater	100	11867	283	40/70	0.75	Genoa	8900	2.8
Slickwater	100	2967	71					0.7
Slickwater	100	11800	281	40/70	1.00	Genoa	11800	2.8
Slickwater	100	11635	277					2.8
TOTAL		78,519	1,868				29,600	19.2
							0	

Frac the MISSISSIPPI (Stage 20) as follows:

Drop 3.125" ball. Reduce rate to 5-10bpm as +/- 205 bbls (50 bbls before ball seats).

224.8 bbls to sleeve

			ST	AGE 20				
			Port@	6,889	L.			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, m
15% HCl acid	20	500	12					0.6
Slickwater	100	10000	237					2.4
Slickwater	100	12000	286	40/70	0.25	Genoa	3000	2.9
Slickwater	100	3000	71					0.7
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	2.8
Slickwater	100	2950	70					0.7
Slickwater	100	11867	283	40/70	0.75	Genoa	8900	2.8
Slickwater	100	2967	71					0.7
Slickwater	100	11800	281	40/70	1.00	Genoa	11800	2.8
Slickwater	100	11540	275					2.7
TOTAL		78,423	1,866				29,600	19.1
							0	

Frac the MISSISSIPPI (Stage 21) as follows:

Drop 3.188" ball. Reduce rate to 5-10bpm as +/- 203 bbls (50 bbls before ball seats).

222.5 bbls to sleeve

			ST	AGE 21				
			Port @	6,742				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, mi
15% HCI acid	20	500	12					0.6
Slickwater	100	9800	232					2.3
Slickwater	100	11600	276	40/70	0.25	Genoa	2900	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11600	276	40/70	0.75	Genoa	8700	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11600	276	40/70	1.00	Genoa	11600	2.8
Slickwater	100	11444	272					2.7
TOTAL		76,844	1,828				29,000	18.8



Frac the MISSISSIPPI (Stage 22) as follows:

Drop 3.250" ball. Reduce rate to 5-10bpm as +/- 201 bbls (50 bbls before ball seats).

220.3 bbls to sleeve

			ST	AGE 22				
			Port@	6,599				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, m
15% HCI acid	20	500	12					0.6
Slickwater	100	10000	236			-		2.4
Slickwater	100	12000	286	40/70	0.25	Genoa	3000	2.9
Slickwater	100	3000	71					0.7
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	2.8
Slickwater	100	2950	70					0.7
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	2.8
Slickwater	100	2933	70					0.7
Slickwater	100	11700	279	40/70	1.00	Genoa	11700	2.8
Slickwater	100	11351	270		5 J			2.7
TOTAL		77,968	1,854				29,400	19.0
		2	3007				0	

Frac the MISSISSIPPI (Stage 23) as follows:

Drop 3.313" ball. Reduce rate to 5-10bpm as +/- 199 bbls (50 bbls before ball seats). 218.0 bbls to sleeve

			ST	AGE 23				
			Port @	6,451	1			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, m
15% HCI acid	20	500	12					0.6
Slickwater	100	10000	237					2.4
Slickwater	100	12000	286	40/70	0.25	Genoa	3000	2.9
Slickwater	100	3000	71					0.7
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	2.8
Slickwater	100	2950	70					0.7
Slickwater	100	11867	283	40/70	0.75	Genoa	8900	2.8
Slickwater	100	2967	71					0.7
Slickwater	100	11800	281	40/70	1.00	Genoa	11800	2.8
Slickwater	100	11255	268					2.7
TOTAL		78,138	1,859				29,600	19.1
						0		

Frac the MISSISSIPPI (Stage 24) as follows:

Drop 3.375" ball. Reduce rate to 5-10bpm as +/- 197 bbls (50 bbls before ball seats).

215.7 bbls to sleeve

			ST	AGE 24				
2			Port @	6,308	•			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, Ibs	ime, mi
15% HCI acid	20	500	12					0.6
Slickwater	100	9700	229					2.3
Slickwater	100	11600	276	40/70	0.25	Genoa	2900	2.8
Slickwater	100	2900	69					0.7
Slickwater	100	11400	271	40/70	0.50	Genoa	5700	2.7
Slickwater	100	2850	68					0.7
Slickwater	100	11467	273	40/70	0.75	Genoa	8600	2.7
Slickwater	100	2867	68					0.7
Slickwater	100	11400	271	40/70	1.00	Genoa	11400	2.7
Slickwater	100	11161	266					2.7
TOTAL		75,845	1,804				28,600	18.5
							0	



Frac the MISSISSIPPI (Stage 25) as follows:

Drop 3.438" ball. Reduce rate to 5-10bpm as +/- 205 bbls (50 bbls before ball seats).

213.5 bbls to sleeve

			ST	AGE 25			1. X	
			Port @	6,162				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, m
15% HCl acid	20	500	12			,		0.6
Slickwater	100	10000	236					2.4
Slickwater	100	12000	286	40/70	0.25	Genoa	3000	2.9
Slickwater	100	3000	71					0.7
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	2.8
Slickwater	100	2950	70					0.7
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	2.8
Slickwater	100	2933	70					0.7
Slickwater	100	11700	279	40/70	1.00	Genoa	11700	2.8
Slickwater	100	11066	263					2.6
TOTAL		77,683	1,847				29,400	18.9
							0	

Frac the MISSISSIPPI (Stage 26) as follows:

Drop 3.500" ball. Reduce rate to 5-10bpm as +/- 203 bbls (50 bbls before ball seats). 211.4 bbls to sleeve

		1	ST	AGE 26				
			Port@	6,027	1			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	ime, mi
15% HCI acid	20	500	12					0.6
Slickwater	100	9300	220					2.2
Slickwater	100	11200	267	40/70	0.25	Genoa	2800	2.7
Slickwater	100	2800	67					0.7
Slickwater	100	11000	262	40/70	0.50	Genoa	5500	2.6
Slickwater	100	2750	65					0.7
Slickwater	100	10933	260	40/70	0.75	Genoa	8200	2.6
Slickwater	100	2733	65					0.7
Slickwater	100	11000	262	40/70	1.00	Genoa	11000	2.6
Slickwater	100	10978	261					2.6
TOTAL		73,195	1,742				27,500	17.9
							0	

Frac the MISSISSIPPI (Stage 27) as follows:

Drop 3.563" ball. Reduce rate to 5-10bpm as +/- 201 bbls (50 bbls before ball seats).

209.1 bbls to sleeve

			ST	<b>AGE 27</b>				
			Port@	5,881				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, m
15% HCI acid	20	500	12					0.6
Slickwater	100	10000	236					2.4
Slickwater	100	12000	286	40/70	0.25	Genoa	3000	2.9
Slickwater	100	3000	71					0.7
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	2.8
Slickwater	100	2950	70					0.7
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	2.8
Slickwater	100	2933	70					0.7
Slickwater	100	11800	281	40/70	1.00	Genoa	11800	2.8
Slickwater	100	10883	259					2.6
TOTAL		77,600	1,846				29,500	18.9



Frac the MISSISSIPPI (Stage 28) as follows:

Drop 3.625" ball. Reduce rate to 5-10bpm as +/- 199 bbls (50 bbls before ball seats). 206.8 bbls to sleeve

			ST	AGE 28				
			Port@	5,734				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, m
15% HCI acid	20	500	12					0.6
Slickwater	100	13100	311					3.1
Slickwater	100	15600	371	40/70	0.25	Genoa	3900	3.7
Slickwater	100	3900	93					0.9
Slickwater	100	15600	371	40/70	0.50	Genoa	7800	3.7
Slickwater	100	3900	93					0.9
Slickwater	100	15600	371	40/70	0.75	Genoa	11700	3.7
Slickwater	100	3900	93					0.9
Slickwater	100	15600	371	40/70	1.00	Genoa	15600	3.7
Slickwater	100	10788	257					2.6
TOTAL	and the second second	98,488	2,344				39,000	23.9
							0	

Frac the MISSISSIPPI (Stage 29) as follows:

Drop 3.688" ball. Reduce rate to 5-10bpm as +/- 197 bbls (50 bbls before ball seats).

203.9 bbls to sleeve

			ST	AGE 29				
			Port@	5,541	,			
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, m
15% HCI acid	20	500	12					0.6
Slickwater	100	13000	309					3.1
Slickwater	100	15600	371	40/70	0.25	Genoa	3900	3.7
Slickwater	100	3900	93					0.9
Slickwater	100	15400	367	40/70	0.50	Genoa	7700	3.7
Slickwater	100	3850	92					0.9
Slickwater	100	15467	368	40/70	0.75	Genoa	11600	3.7
Slickwater	100	3867	92					0.9
Slickwater	100	15400	367	40/70	1.00	Genoa	15400	3.7
Slickwater	100	10662	254					2.5
TOTAL		97,646	2,324				38,600	23.7
			and a second				0	

Frac the MISSISSIPPI (Stage 30) as follows:

TOTAL VOLUMES w/ ball displacement:

Drop 3.750" ball. Reduce rate to 5-10bpm as +/- 205 bbls (50 bbls before ball seats).

200.9 bbls to sleeve

	-		ST	AGE 30				
			Port@	5,353 '				
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	lime, mi
15% HCI acid	20	500	12					0.6
Slickwater	100	13500	319					3.2
Slickwater	100	16000	381	40/70	0.25	Genoa	4000	3.8
Slickwater	100	4000	95					1.0
Slickwater	100	16000	381	40/70	0.50	Genoa	8000	3.8
Slickwater	100	4000	95					1.0
Slickwater	100	16000	381	40/70	0.75	Genoa	12000	3.8
Slickwater	100	4000	95					1.0
Slickwater	100	16000	381	40/70	1.00	Genoa	16000	3.8
Slickwater	100	10540	251					2.5
TOTAL		100,540	2,392				40,000	24.4
							0	
TOTAL FRAC JO		AES:		55.639	bbls		881,900	lbs, Pro

62,165

bbls

9)

Suck manifold and iron dry with vacuum truck. RDMO frac crew. ND wellhead isolation tool. Transfer bottoms to 2 frac tanks.

lbs, Garnet

-

Directional	Measured	Sub-Sea	Vertical	True Vert	Northings (+)	Eastings (+)	Vert	DLS				
Survey	Depth	Incl.	Azim.	Depth	Southings (-)	Westings (-)	Section	deg/100'				
Calculations	(ft)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(deg)	FNL	FSL	FWL	FEL
SHL	0	0.00	0.00	0.00	0.00	0,00	0.00	0.00	5500	-200	3951	1318
BHL	9770	85,50	357.70	4445.75	5184.65	858,26	5255.20	0.00	333	4971	4785	409
Miss Entry	4679	75.07	1.14	4399.91	293.75	-2.83	289.26	9.61	5206	94	3946	1318
Top Port	5353	88.23	4.35	4436.57	965.40	2.91	952.67	6.28	4535	766	3949	1306
Bottom Port	9658	86,32	358.07	4437.69	5073.02	862.41	5145.79	2.04	445	4859	4790	406

Survey Points

X NW Corner XY Coord 2155464 SW Corner XY Coord 2155440 NE Corner XY Coord 2160654 SE Corner XY Coord 2160706

Y 203811 198528 203918 198613

X Y Surface XY 2159390 198392

 m

 North Line slope
 0.0206166

 East Line slope
 -0.0098021

 South Line slope
 0.0161413

 West Line slope
 0.0045429

	Measured	Sub-Sea	Vertical	True Vert	Northings (+)	Eastings (+)	Vert	DLS				
	Depth	Incl.	Azim.	Depth	Southings (-)	Westings (-)	Section	deg/100'				
	(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(deg)	FNL	FSL	FWL.	FEL
	0	0.0	0	0	0	0	0	0	5500	-200	3951	1318
	250 553	0.36 0.72	210.5 210.5	250.00	-0.68	-0.40	-0.73	0.14	5501	-200	3950	1319
	651	0.72	210.5	552.98 650.98	-3.14 -4.10	-1.85 -2.42	-3.40 -4.44	0.12 0.13	5503 5504	-203 -204	3949 3948	1320 1321
	698	1.1	210.5	697.97	-4.70	-2.77	-5.09	1.09	5505	-204	3948	1321
	970	0.4	188.5	969.95	-7.89	-4.23	-8.48	0.27	5508	-208	3946	1322
	1428	0.4	86,4	1427.94	-9.37	-2.87	-9.71	0.14	5509	-209	3948	1321
	1713	7.1	182.1	1712.21	-26.93	-2.53	-26.98	2.51	5527	-227	3948	1321
	1807 1902	6.3	167.6 170.3	1805.58	-37.77	-1.63	-37,53	1.98	5538	-238	3949	1320
	2376	9.3 8.8	182.9	1899.69 2367.83	-50.43 -124.41	0.78 5.40	-49.62 -121.81	3.18 0.43	5550 5624	-250 -324	3952 3957	1318 1314
	2849	9	178.7	2835,14	-197.53	4.41	-194,10	0.14	5698	-397	3956	1316
	3321	6.6	166.5	3302.77	-260.83	11.58	-255.35	0.62	5761	-461	3963	1309
	3511	6.1	183.9	3491.62	-281.52	13.44	-275.45	1.04	5782	-481	3965	1307
	3542	5.9	181	3522.46	-284.75	13.30	-278.66	1.17	5785	-485	3965	1308
	3575 3606	4.5	174.6	3555.32	-287.74	13.40	-281.59	4.59	5788	-488	3965	1308
	3637	1.4 2.4	149.3 19.5	3586.27 3617.27	-289.28 -288.99	13.70 14.11	-283.06 -282.71	10.61 11.18	5789 5789	-489 -489	3966 3966	1307 1307
	3669	5.1	13.8	3649.19	-286.98	14.11	-280.63	8.51	5787	-485	3967	1306
	3701	7.8	13.2	3680.99	-283.48	15.51	-277.04	8.44	5784	-483	3967	1305
	3733	10.2	10.6	3712.59	-278.58	16.53	-272.04	7.61	5779	-479	3968	1304
	3764	11.6	8.2	3743.03	-272.80	17.48	-266.18	4.75	5773	-473	3969	1303
	3796 3828	13.2	3.1	3774.29	-265.96	18.14	-259.33	6.05	5766	-466	3970	1303
	3859	15.7 18.4	0.2 0.6	3805.27 3834.91	-257.99 -248.90	18.35 18.41	-251.43 -242.45	8.13 8.72	5758 5749	-458 -449	3970 3970	1302 1302
	3891	21.4	2.1	3864.99	-238.01	18.68	-231.67	9.51	5738	-438	3970	1302
	3922	24.5	3.3	3893.54	-225,94	19.26	-219.67	10.11	5726	-426	3971	1301
	3954	26.6	2.3	3922.41	-212.15	19.93	-205.97	6.70	5713	-412	3972	1300
	3962	26.8	2.1	3929.55	-208.56	20.07	-202.40	2.74	5709	-409	3972	1300
	3994 4025	26.6 26.8	359.2 353.5	3958.14 3985.84	-194.19 -180.30	20.23 19.34	-188.20 -174.65	4.12 8.28	5695 5681	-394 -380	3972 3971	1300 1301
	4023	27.6	349	4014.30	-165.86	17.11	-160.77	6.90	5666	-366	3968	1301
	4089	28.2	347.6	4042.59	-151.20	14.07	-146.81	2.78	5651	-351	3965	1306
	4120	29.7	348.1	4069.71	-136.53	10.92	-132.86	4.90	5637	-336	3962	1309
	4152	32.2	347.5	4097.15	-120.44	7.44	-117.57	7.87	5621	-320	3959	1312
	4184	34.8	347.4	4123.83	-103.21	3.60	-101.20	8.13	5603	-303	3955	1316
	4215 4247	37.3 39.3	348.8 351.2	4148.90 4174.01	-85.36 -65.83	-0.16 -3.59	-84.21 -65.52	8.49 7.79	5585 5566	-285 -266	3951 3947	1319 1322
	4278	42.1	352.6	4197.51	-45.81	-6.43	-46.25	9.50	5546	-245	3944	1325
	4309	44.8	354.7	4220.01	-24.63	-8.78	-25.74	9.88	5524	-224	3942	1327
	4341	47.3	357.5	4242.22	-1.65	-10.34	-3.33	10.03	5501	-201	3940	1329
	4372	50.1	359.6	4262.68	21.63	-10.92	19.53	10.37	5478	-178	3940	1329
	4403 4435	53.8	0.6 1.2	4281.79	46.03	-10.87	43.61	12.20	5454	-154	3940	1329
	4435	57 59.3	1.4	4299.96 4316.84	72.37 99.54	-10.45 -9.83	69.65 96.56	10.12 7.21	5427 5400	-127 -100	3940 3940	1328 1327
	4499	61.3	2.2	4332.69	127.32	-8.96	124.10	6.62	5372	-72	3941	1326
	4531	63.9	2.5	4347.42	155.70	-7.79	152.29	8.17	5344	-44	3942	1324
	4562	66.4	2.4	4360.45	183.81	-6.59	180.20	8.07	5316	-16	3943	1323
	4594	68.2	2.4	4372.79	213.30	-5.35	209.50	5.62	5287	14	3944	1321
	4626 4658	70	2.1 1.4	4384.21	243.17	-4.18	239.15	5.69	5257	43	3945	1320
	4690	73.1 76.1	1.4	4394.34 4402.83	273.51 304.35	-3.26 -2.61	269.23 299.75	9.91 9.45	5226 5196	74 105	3946 3947	1319 1318
	4722	79	0.5	4409.73	335.59	-2.20	330,63	9.19	5164	136	3947	1317
Top of Tangent	4767	83.9	0.2	4416.42	380.08	-1.93	374.56	10.91	5120	180	3947	1316
@ 4861'	4816	86,4	0.2	4420.56	428,90	-1.76	422.74	5.10	5071	229	3947	1316
	4861	87.6	0.6	4422.92	473.83	-1.45	467.11	2.81	5026	274	3947	1315
	4911 4956	88.9 90.2	0.8 0.5	4424.44 4424.80	523.80 568.80	-0.84 -0.33	516.50 560.96	2.63	4976	324	3947	1314
	4956	90.2 88.7	0.5	4424.80	617.79	-0.33	560.96 609.36	2.96 3.07	4931 4882	369 418	3948 3948	1313 1312
	5050	87.7	0.1	4426.68	662.77	0.42	653.77	2.48	4837	463	3948	1312
Btm of Tangent	5100	86.5	359.9	4429.21	712.70	0.42	703.02	2.43	4787	513	3948	1311
@ 5145'	5145	87.2	359.6	4431.68	757.64	0.22	747.30	1.69	4742	558	3947	1311
	9/189	88.6	359.7	4433.30	801.60	-0.05	790.63	3.19	4698	602	3947	1310
	5272 5304	89.6 88.7	359.4 0.7	4434.60 4435.07	884.59 916.59	-0.70 -0.67	872.37 903.93	1.26 4.94	4615 4583	685 717	3946 3946	1310 1310
	0004	00.7	0.7	1100.07	010.00	-0,07	000,00	-1,0-1	-1000	717	0040	1010

Measured	Sub-Sea	Vertical	True Vert	Northings (+)	Eastings (+)	Vert	DLS				
Depth	Incl.	Azim.	Depth	Southings (-)	Westings (-)	Section	deg/100'				
(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(deg)	FNL	FSL	FWL	FEL
5398	87.8	7.7	4437.95	1010.23	6.21	997.43	7,50	4490	810	3952	1302
5494	88	13	4441.47	1104.57	23,44	1093.32	5,52	4396	904	3969	1284
5588	88.7	15.8	4444.18	1195.57	46.80	1186.92	3.07	4305	995	3992	1260
5683	89.2	18.8	4445.92	1286.25	75.04	1281.02	3.20	4215	1085	4020	1231
5777	90.7	24.6	4446.00	1373.54	109.78	1372.85	6.37	4129	1172	4054	1195
5872	91.9	29.4	4443.84	1458.14	152.89	1463.39	5.21	4045	1256	4097	1151
5964	92.5	29.2	4440.31	1538.31	197.88	1549.89	0.69	3966	1335	4142	1105
6055	89.8	29.9	4438.48	1617.45	242.74	1635.34	3.07	3887	1414	4186	1060
6146	88.4	30.3	4439.91	1696.17	288.37	1720.50	1.60	3810	1492	4231	1013
6237	91	29.9	4440.39	1774.89	334.01	1805.67	2.89	3732	1570	4277	967
6327	91.7	32.2	4438.27	1851.97	380.41	1889.34	2.67	3656	1646	4323	920
6418	89.4	29.7	4437.40	1930.00	427.20	1974.02	3.73	3579	1723	4369	872
6509	90.3	28.9	4437.63	2009.35	471.73	2059,63	1.32	3500	1802	4413	827
6600	89.5	29.2	4437.79	2088.90	515.92	2145.38	0.94	3422	1881	4457	782
6690	90.2	29	4438.03	2167.54	559.69	2230,16	0.81	3344	1959	4500	737
6781	91.3	28.9	4436.84	2247.16	603.74	2315.95	1.21	3265	2038	4544	692
6874	89.8	29,6	4435.95	2328.30	649.17	2403.47	1.78	3185	2118	4589	646
6965	91.3	28.6	4435.07	2407.81	693.43	2489.18	1.98	3106	2197	4633	601
7056	91.9	26.7	4432.53	2488.38	735.64	2575.61	2.19	3027	2277	4675	558
7147	91.8	19.8	4429.59	2571.89	771.52	2663.90	7.58	2944	2360	4710	521
7210	90.3	14.9	4428.43	2632.00	790.30	2726.28	8.13	2884	2419	4729	502
7305	90.9	10.1	4427.44	2724.71	810.85	2821.11	5.09	2792	2512	4749	481
7400	90.6	9.4	4426.20	2818.33	826,94	2916.10	0.80	2699	2605	4765	464
7495	91.4	8.3	4424.54	2912.18	841.55	3011.08	1.43	2605	2699	4779	448
7590	91.6	5.7	4422.05	3006.44	853.12	3105.95	2.74	2511	2793	4790	436
7685	90.8	2.8	4420.06	3101.14	860.16	3200.52	3.17	2417	2888	4797	428
7805	89.3	2.1	4419.96	3221.03	865,29	3319.61	1.38	2297	3007	4801	421
7899	91.1	1	4419.63	3314.99	867.83	3412.71	2.24	2203	3101	4803	418
7994	92.3	0.9	4416.81	3409.93	869.41	3506.61	1.27	2108	3196	4805	415
8089	92.7	359.7	4412.66	3504.84	869.90	3600.30	1.33	2013	3291	4805	414
8183	90.9	359.9	4409.71	3598.79	869,58	3692.91	1.93	1919	3385	4804	413
8277	87.9	359.9	4410.70	3692.77	869,41	3785.58	3.19	1825	3479	4803	413
8372	88.8	359.4	4413.43	3787.73	868.83	3879.14	1.08	1730	3574	4802	412
8467	89.3	358.9	4415.01	3882.70	867.42	3972.58	0.74	1635	3669	4800	413
8562	89.9	359	4415.67	3977.69	865.68	4065.98	0.64	1540	3764	4798	413
8656	89	359.2	4416.57	4071.67	864.21	4158.43	0.98	1446	3858	4796	414
8751	88.9	358.5	4418.31	4166.63	862.30	4251.78	0.74	1351	3953	4794	415
8847	89.5	0	4419.65	4262.61	861.04	4346.24	1.68	1255	4049	4792	415
8941	91.9	359,9	4418.51	4356.60	860.96	4438.93	2.56	1161	4143	4792	415
9036	90.3	0.9	4416.68	4451.57	861.62	4532.71	1.99	1066	4238	4792	413
9130	88	1.1	4418.08	4545.54	863.26	4625.67	2.46	972	4332	4793	410
9223	88.8	0.8	4420.67	4638,49	864,81	4717.60	0.92	879	4425	4794	408
9318	86.3	1.1	4424.73	4733.39	866.38	4811.45	2.65	784	4520	4795	405
9414	88.2	359,9	4429.34	4829.27	867.22	4906.16	2.34	689	4616	4796	404
9508	89.3	359	4431.39	4923.24	866.31	4998.69	1.51	595	4709	4795	404
9602	87.3	358,5	4434.18	5017.17	864.26	5091.00	2.19	501	4803	4792	405
9705	85.5	357.7	4440.65	5119.90	860.86	5191.77	1.91	398	4906	4788	407
9770	85.50	357.70	4445.75	5184.65	858.26	5255.20	0.00	333	4971	4785	409

