ORIGINAL 2/09/10



Kansas Corporation Commission Oil & Gas Conservation Division

Form ACO-1 October 2008 Form Must Be Typed

CONSERVATION DIVISION WICHITA, KS

CONFIDENTIAL

WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 31514	API No. 15 - 135-24872 2550
Name: Thoroughbred Associates, LLC	Spot Description:
Address 1: 8100 E. 22nd St North	NW _NE _NE _SW Sec. 4 Twp. 19 S. R. 22 East \(\text{West} \)
Address 2: Bldg, 600, Suite F	
City: Wichita State: KS zip: 67226 +	2013 Feet from East / West Line of Section
Contact Person: Robert C. Patton	Footages Calculated from Nearest Outside Section Corner:
046 605 4540	□NE □NW □SE ☑SW
Phone: (310) 685-1312 CONTRACTOR: License # 5147	County: Ness
Name: Beredco Inc. PEB 0 9 2009	Lease Name: BK Well #: 1-4
Wellsite Geologist: Bryan Bynog	Field Name: N/A
Purchaser: N/A	Producing Formation: N/A
Designate Type of Completion:	Elevation: Ground: 2154 Kelly Bushing: 2163
New Well Re-Entry Workover	Total Depth: 4504 4500 Plug Back Total Depth:
OilSWDSIOW	Amount of Surface Pipe Set and Cemented at: 257 Feet
Gas ENHR SIGW	Multiple Stage Cementing Collar Used? Yes No
CM (Coal Bed Methane) Temp. Abd.	If yes, show depth set:Feet
Ory Other	If Alternate II completion, cement circulated from:
(Core, WSW, Expl., Cathodic, etc.)	
If Workover/Re-entry: Old Well Info as follows:	feet depth to: w/ PA - Dig - 4/20/09
Operator:	Drilling Fluid Management Plan
Well Name:	(Data must be collected from the Reserve Pit)
Original Comp. Date: Original Total Depth:	Chloride content: 21000 ppm Fluid volume: 1500 bbls
Deepening Re-perf. Conv. to Enhr. Conv. to SWD	Dewatering method used: Vacuum Truck
Plug Back: Plug Back Total Depth	Location of fluid disposal if hauled offsite:
Commingled Docket No.:	Operator Name: Ritchie
Dual Completion Docket No.:	Lease Name: Sears SWD License No.: 4767
Other (SWD or Enhr.?) Docket No.: 4 11 33 38	QuarterSec. 6 Twp. 20 S. R. 21 East V West
11/20/08 11/30/08 12/1708	County: Ness Docket No.: D-11577
Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date	County: Noss Docket No.: Driving
Kansas 67202, within 120 days of the spud date, recompletion, workover or of side two of this form will be held confidential for a period of 12 months if re	th the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information equested in writing and submitted with the form (see rule 82-3-107 for confidenwell report shall be attached with this form. ALL CEMENTING TICKETS MUST form with all temporarily abandoned wells.
	e the oil and gas industry have been fully complied with and the statements herein
are complete and dorrect to the best of new Innowledge.	
Signature:	KCC Office Use ONLY
Title: Managing Hartner Date: 2-10-20	309 Y
10 int 11.	Letter of Confidentiality Received
	If Denied, Yes Date:
20 09	Wireline Log Received Geologist Report Received RECEIVED
Notary Public: Notary E Dell	Geologist Report Received RECEIVED UIC Distribution KANSAS CORPORATION COMMI
Date Commission Expires: 729 10,00 (/	A E BELL TOMO

Amary Public - State of Kansas By April Expires 8 -/0 - //

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**************************************	<i>*</i> ***			Side			KCC				
Coperator Harries	oughbred Assoc			Lease N	Name:	SK FEB	0 9 2009	Well #: _1-4	·		
Sec. 4 Twp. 19	S. R. <u>22</u>	East 🗸] West	County:	Ness	CONIC	THEATTIE				
instructions: Show time tool open and clos recovery, and flow rates surveyed. Attach final of	ed, flowing and sho if gas to surface to	ut-in pressure: est, along with	s, whether	shut-in press	sure read	ched static level	, hydrostatic pres	ssures, bottom	hole temp	erature, fluid	
Drill Stem Tests Taken (Attach Additional Sh	neets)	✓ Yes	□No		V L0	og Formatio	on (Top), Depth a	nd Datum		Sample	
Samples Sent to Geolo		✓ Yes	□No		Nam Heeb			Тор 3634		Datum 147 1	
Cores Taken	gicai Sui vej	☐ Yes	☑ No		LKC	iei		3679		1516	
Electric Log Run		X Yes Yes ✓ Yes X Yes Yes X Yes X Yes Yes X Yes Yes Yes Yes Yes Yes Yes Ye	No		ВКС			3982		1819	
(Submit Copy)					Ft. Sc	ott		4175	-	2012	
List All E. Logs Run: 1/2	REVSLY,	SUBMI	TED !	E-1095	Miss			4270	-	2107	
		Report a		G RECORD	Ne	w Used rmediate, product	ion, etc.		ANTO CONTROL C		
Purpose of String	Size Hole Drilled	Size C Set (In		Weig Lbs./		Setting Depth	Type of Cement	# Sacks Used		and Percent dditives	
Surface	12.25"	8.625"		20		257	Common	165	2% ge	l, 3% cc	
				,						:	
	To the same	<i>F</i>	ADDITIONA	AL CEMENTIN	NG / SQU	EEZE RECORD	<u> </u>				
Purpose: Perforate	Depth Top Bottom	Type of (Cement	#Sacks	Used		Type and	Percent Additives	\$.		
Protect Casing Plug Back TD Plug Off Zone			e	5		too-salityselliittinaittein käsittiitivaksiksi toopooleest	and the second s				
			······································								
Shots Per Foot		ION RECORD Footage of Eac				Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used) Dep					
				- 1	-				RECE		
	Ø	<i>></i> :				to all the second secon		KANSAST	CURPURA	TION COMMIS	
in a second seco	7	The state of the s	nnarana	· · · · · ·		- 111.400 - 1.11100 - 11811 - 1181 - 1191 - 1191 - 1191 - 1191 - 1191 - 1191 - 1191 - 1191 - 1191 - 1191 - 119			EB 1	1 2009	

									
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		g						KANSAS CORPORA	HON CONNENSS
diamental control of the control of	**************************************		THE THE PERSON NAMED IN TH	·		E-a maken-da Hiller ed Rifferen Riff Harriston Andrew Hiller (1971)		FEB 1	1 2009
and the state of t							*	CONSERVATI	
TUBING RECORD:	Size:	Set A	At:	Pack	er At:	Liner Run:	es 🗌 No	WICHI	IA, NO
Date of First, Resumed	Production, S	SWD or Enhr.	Producing	Method:	Flowing	Pumping	Gas Lift	Other (Explain)
Estimated Production Per 24 Hours		Oil Bbls.	Gas	Mcf	Wate	er Bbls.	Gas	s-Oil Ratio	Gravity
DISPOSITIO	ON OF GAS:			METHOL	OF COMPLE	TION:		PRODUCTION INTER	VAI ·

Dually Comp. Commingled

Perf.

Open Hole

Other (Specify)

☐ Vented ☐ Sold ☐ Used on Lease

(If vented, Submit ACO-18.)

ALLIED CEMENTING CO., INC.

28945

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

SERVICE POINT:

145

DATE 11-30-0%	SEC.	TWP.	RANGE スユル	CALLED OUT	ON LOCATION	JOB START 830 AW	JOB FINISH 930 NW
LEASE BK	WELL#	-4	LOCATION Baz	ne Zwest To	AARD	COUNTY NCS	STATE K >
OLD OR NEW (Cir				west south		7000	<u>_ ~></u>
CONTRACTOR TYPE OF JOB R. HOLE SIZE 7 % CASING SIZE	Bered stary	plus	4500	OWNER T			
TUBING SIZE		DEP		- Hos	Ment ALI	160/10	661
DRILL PIPE	14		TH 1560	- 			
TOOL	•	DEP					
PRES. MAX		MIN	IMUM	_ COMMON	135M	@ <u>/3.6S</u>	1842.75
MEAS. LINE		SHO	E JOINT	POZMIX		@ 7.60	
CEMENT LEFT IN	CSG.			_ GEL	9 84	@ 20,40	183,60
PERFS.				_ CHLORIDE _		@	
DISPLACEMENT			fresh water	_ ASC		_ @·	
	EQU	IPMENT '	3BBLS Roqued	TO SEA	<u> 56*</u>	@ Z.HS @	137,20
	CEMENTI	ER way	12~ D			- @	
	IELPER	Galien	- <u>O</u> -	_	. 3	e KC	·
BULK TRUCK						-@FEB	009
	DRIVER	Boppa	y-K			CONFIDE	
BULK TRUCK						- SUNFIUE	K i by
# I	DRIVER	·		- HANDLING	23604	@ 235	53/100
				MILEAGE	23604	10 IOM	3/2.00
·	REM	IARKS:					360,55
1 plug 1500	5054	-7.97 B	BLS Displace	•		1017112	
WIAL 5 BBLO	of wa	He- 13	BBLS Ris M	ud	SERVIO	CE	
2nd Plus 65	0 80s	8 12.47	Displace				
with 23-08	LS ALC	sh way	er 3nd plus	T DEPTH OF JO	B 1500		
276 505X	Mix 7	47 BB1	S Mas Displ	44C PUMP TRUCK	CHARGE		1000.00
MEUT HTT	ping C	XIM DO	205x 3,16 B	B&S EXTRA FOOTA	4GE	@	
Kat Hole	155x	m x 2.	39 BBLS	MILEAGE	10	@ 7.00	70.00
Mouse 105x	mi,x	1.59 BB	25 washyp	- MANIFOLD _		@	
Kis Dound							
			•				
CHARGE TO: The	raushi	oved As	Sociates	-			
STREET			A'A	RECEIVED NSAS CORPORATION COMM	ISSIO [†]	TOTAL	1070.00
CITY	STA	TE	ZIP	FEB 1 1 2009	LUG & FLOAT	EQUIPMENT	2
				CONSERVATION DIVISI WICHITA, KS	<u> </u>		
	•	,		MICHINA	100	@	
To Alliad Comment	C T			<u> </u>		<u></u>	
To Allied Cementi	ng Co., II	1C	per .		The state of the s	@	Consideration of the second of
You are hereby rec	fuested to	rent ceme	nting equipment	~		@	
and furnish cemen	ter and ne	aper to ass	sist owner or	· · · · · · · · · · · · · · · · · · ·			
contractor to do we						TOTAL	
done to satisfaction contractor. I have	i and sup	ervision of	owner agent or	•		IOIAL .	
				TAX			
CONDITIONS" lis	sicu on th	e reverse s	aue.		•		
				TOTAL CHARG	GE		
				DISCOUNT -		IF PAID	IN 30 DAYS
	٠	~ ^					
SIGNATURE C	Jouls	Som	JA	X Char	les Schn	iepp	**************************************

ALLIED CEMENTING CO., LLC. 33598

REMIT TO P.O. B RUSS		NSAS 6766			SERV	Vess	City
DATE \-200 6	SEC	TWP 195	RANGE 22W	CALLED OUT 5.00 pm	on Location 8',00 pm	JOB START	JOB FINISH 3: 30 pm
LEASE BL	WELL#	* 1	1 ^	ine, Bu to "AA" F	Ed. 15 BW	COUNTY	STATE
OLD OR NEW (Ci		1-1	LOCATION POLE	/ 4. 1	31, 1, 000	ردن،	
	· · · · · · · · · · · · · · · · · · ·	4 10		Sinto	つ	ا	•
CONTRACTOR (Seredica	y # 10		OWNER /~	Serexco	· · · · · · · · · · · · · · · · · · ·	
TYPE OF JOB 30	irface		000		•		
HOLE SIZE	<u>y</u>		251.85	CEMENT	11 /		2/10
CASING SIZE 85	<u> </u>		тн <i>857,85</i>	AMOUNT OF	DERED 1653	X Common,	210CC,
TUBING SIZE		DEI			- Ali Ge	2/	
DRILL PIPE TOOL		DEI DEI	PTH PTH				
	50 651		NIMUM -	COMMON	1 89 5Ks	@ 13 <u>65</u>	2752 35
MEAS. LINE	+		DE JOINT /5F4	POZMIX	+15 5Ks	0-740	50160
CEMENT LEFT IN	N CSG. /	15 FH	•	GEL	3 5Ks	@ 2040	$-61\frac{20}{20}$
PERFS.				CHLORIDE _	6 5Ks	_@_ <i>57<u>15</u></i>	342 40
DISPLACEMENT	Fresh	water		ASC		_@	
	EQ	UIPMENT		 		_ <u>@_KCC</u>	,
							19
PUMP TRUCK	CEMENT	TER TYTO	CF	<u> </u>			• •
	HELPER	Alvin				CONFIDEN	
BULK TRUCK		77.7				_	
	DRIVER	2647					
BULK TRUCK	DRIVER					_@	
π	DKIVEK			HANDLING_	1714-5Ks	_ <i>@2<u>23</u></i>	39/50
•				MILEAGE	10 fpr sklu		31200
10.11		MARKS:	112 200			TOTAL	
pipe on bot			culation MIX				3,359
1655x, 3/0CC	Joge 1	Shuta	own, Release		SERVI	CE	
Shutdown C			Fresh water	- DEDELL OF 10	DB 257, 85		
Cement did		1	down,	DEPTH OF JO PUMP TRUC			90000
SCHICHT OUT	<u> </u>	ciaic -		EXTRA FOO		@	
				MILEAGE		-@ <u>-700</u>	7000
				— MANIFOLD.	1 1 1 1	_	111 00
	7	. 20 71				_ @	
CHARGE TO:	JERE,	<u> </u>		RECEIVED	ANICCIOR		60
STREET				KANSAS CORPORATION COM	(MISSIO)	TOTAL	11180-
				FEB 1 1 2009			
			ZIP	CONSERVATION DIVIS	BLUG & FLOA	Γ EQUIPMEN	T
1/2 au	X		•	WICHITA KS	. •	_	
Non	11011			818 waden	Aluc	@	6900
	4000	`		O VINICALIS	ping	_	
To Allied Cemen	ting Co	HC					
You are hereby re			nenting equipmen	f			
and furnish ceme						@	
			he above work wa	ıs			1000
done to satisfacti	on and su	apervision	of owner agent or	•		TOTAL	6700
the state of the s		^	nd the "GENERA	L			
TERMS AND CO	ONDITIO	ONS" listed	on the reverse si	uc.	(If Any)		
				TOTAL CHA	RGES		
DRINTED MANAE	V m	ari	R Tail	DISCOUNT		דאמו בוז	D IN 20 DAVE
I KINTED NAME	A//	NINA		DISCOUNT -		IF PAL	DIADODAIS
SIGNATURE X	M	ani	B. July				

Mud-Co / Service Mud, Inc.

100 S. Máin St., Suite #310, Wichita, Ks. 67202 6 Report: Date: 11/25/08 Depth: 3488 Daily Drilling Mud Report Rig No. Contractor Operator Thoroughbred Associates, LLC. **Beredco Drilling** 10 Spud Date Address Address 11/20/08 Rig Rig Section Report for Mr. Range Report for Mr Two 195 Charlie Schniepp 22W Rob Patton/ Bryan Bynog 4 State Well Name & No. County #1-4 BK Kansas Ness Circulation Data Mud Volume (BBL) Operation Casing Liner Size Opposite Drill Pipe Present Activity Hole Stroke Pump Pressure 331 400 16 8 5/8 258 CTCH/ weight up in. at Intermediate Opposite Drill Collars Bit Size (in.) Total Circulating Vol. Est. Hole/DS capacities Pump Make 2.573 364 731 Ideal 7 7/8 in. at Volume in Storage Production / Liner BBI/ Strk Strk / Min. Bottoms Up (Min.) Pump Model Drill pipe sz Туре 0 0.156 52 35 C-250 4 H90 in. at Drill Collar size Drilling mud type BBL./Min. GAL/Min. System Total (Min) Critical GPM DC/DP 341 90 523 8.1 166 261 chemical 6 1/4 Cumulative Mud Cost Daily Mud Cost Sample from Flowline _x_ or Pit 11,594.80 4.507.75 **Mud Properties** Flowline Temperature **MUD PROPERTIES SPECIFICATIONS** 2:30 AM Time Sample Taken 9:45 AM LCM Mud Wt.(lbs/gal.) Viscosity Filtrate Depth (Ft.) 9.2-9.5 42-45 8-12.0 as needed 3,488 3.509 Drilling Weight (lb/gal.) 9.1 8.9 Suggest... Mud Gradient (psi/ft.) 0.473 0.462 36 Funnel Viscosity (Sec/qt. API) 36 Water - only as needed to control mud wt. 9.2-9.5 #/gal. 6 Plastic Viscosity cp 5 7 9 Yield Point (lb/100 sq.ft.) Do not cut #2 pit in until mud wt. is 9.3 #/gal. Gel Strength 10 sec/10 min. 6/17 0.4 9.0 pH 🦠 🤻 🔭 👡 😁 8.5 After bit trip, mix the following into existing premix, then add Filtrate API (ml/30 min.) 25.6 28.4 to system over 1 1/2 hours through pump Cake Thickness 32nd 2 2 KCC Alkalinity, Mud (Pm) 4 sx Soda Ash 3 Caustic Alkalinity, Filtrate (Pf/Mf) .38/-.12*I*-FEB 0 9 2009 Chloride Content, ppm 17,300 15,400 1 Lignite 480 640 1 1/2 sx Pac Calcium. ppm CONFIDENTIAL Gel for viscosity Sand Content (% by Vol) Tr Tr 4.7 3.4 Solids Content (% by Vol.) Trip slowly while making bit trip and don't shake pipe, 0.0 Oil Content (% by Vol.) 0 96.4 break circulation 3-4 times on TIH w/ bit Water Content (% by Vol.) 95.3 LCM, lbs/bbl. 0 0 3.034 3034 After bit trip and resume drilling: Revnold's #DP 6.121 Maintain 42-45 sec/qt. viscosity with the following premix Reynold's # DC 6121 ECD lb/gal 9.59 9.59 after above premix is added RECEIVED KANSAS CORPORATION COMMISSIC DRILLING MUD INVENTORY 50 bbls fresh water/ 50 bbls pit mud 3 Soda Ash Products: Prior Day Delivery On Hand Used Cost FEB 1 1 2009 2 Caustic 1,394.25 568 425 143 1 Lignite Premium Gel 1/2 sx Pac 1 1 **CONSERVATION DIVISION** Lime 20 10 10 · 252.50 Gel as needed Soda Ash 12 sx Barite (Add Bar if mud wt. is below 9.2 #/gal.) 16 16 Caustic Soda 14 12 2 56.00 Lignite 142 142 LCM as needed with c/s hulls C/S Hulls 3 3 **Drill Pak** 2 1 sx Caustic Tourly while drilling: Desco 1/2 sx Lianite 1 Poly Plus *Add tourly at chemical bbl or in 40 bbls pit mud through 35 165 2.805.00 40 160 Barite premix, add to system over 2 hours Xcide Sapp Barite THANK YOU! MilGuard Home Address Telephone Number Mud-Co / Service Mud Representative Great Bend, Kansas 620-792-4544 **Jason Whiting** Telephone Number Warehouse Location Cell: 620-282-0556 Hays, Kansas 785-621-4323

Mud-Co / Service Mud. Inc.

100 S. Main St., Suite #310, Wichita, Ks. 67202 Report: Date: 11/26/08 Depth: 3945 Daily Drilling Mud Report Operator Contractor Ria No. Thoroughbred Associates, LLC. Beredco Drilling 10 Spud Date Address 11/20/08 **Operators Address** Rig Report for Mr. Section Range Report for Mr Twp Charlie Schniepp **19**S 22W Rob Patton/ Bryan Bynog 4 State Well Name & No County #1-4 BK Ness Kansas Circulation Data Operation Mud Volume (BBL) Casing Pump Pressure Opposite Drill Pipe Present Activity Hole Liner Size Stroke drilling 8 5/8 258 400 16 231 950 355 6 in. at Total Circulating Vol. Est.Hole/DS capacities Opposite Drill Collars Pump Make Bit Size (in.) No Intermediate 2 755 9 2.573 420 G-D 7 7/8 in. at BBI/ Strk Strk / Min. Pump Model Bottoms Up (Min.) Volume in Storage Drill pipe sz Type Production / Liner 32 **FXH** 0.156 60 4 1/2 ΧН in. at BBL./Min. GAL/Min. System Total (Min) Critical GPM DC/DP Drilling mud type Drill Collar size 393 81 266 377 6 1/4 523 chemical 9.4 Cumulative Mud Cost Daily Mud Cost Sample from Flowline x or Pit 16.356.00 4.761.20 **Mud Properties** Flowline Temperature **MUD PROPERTIES SPECIFICATIONS** 10:20 AM Mud Wt.(lbs/gal.) Viscosity LCM Time Sample Taken Filtrate 46-50 8-10.0 as needed 3.945 9.2-9.6 Depth (Ft.) Weight (lb/gal.) 9.6 0.499 Suggest... Mud Gradient (psi/ft.) Funnel Viscosity (Sec/qt. API) 52 Run small stream of water at flowline while drilling to control Plastic Viscosity cp 13 mud wt. 9.2-9.6 #/gal. Yield Point (lb/100 sq.ft.) 18 11/44 Gel Strength 10 sec/10 min. Mix and add the following premix to system, allow #2 pit to 10.5 back fill with this premix and cut #2 pit in as volume allows Filtrate API (ml/30 min.) 11.2 80 bbls fresh water Cake Thickness 32nd 1 Soda Ash Alkalinity, Mud (Pm) Alkalinity, Filtrate (Pf/Mf) *Add premix as needed for vis or to 1.19/-1 Caustic control mud wt. Add to system over 1 Lianite 11,600 Chloride Content, ppm 1/2 sx Pac 1 1/2 hours 40 Calcium, ppm Sand Content (% by Vol) Tr Gel as needed *Use 50 bbls pit mud/ 50 bbls fresh water if mud wt. is Solids Content (% by Vol.) 8.6 9.3 #/gal. or below KCC Oil Content (% by Vol.) 0.0 Water Content (% by Vol.) 91.4 FEB 0 9 2009 LCM as needed with c/s hulls at flowline LCM, lbs/bbl. 1 2,128 Revnold's #DF Tourly while drilling: 1 sx Caustic CONFIDENTIA Revnold's # DC 3,600 1/2 sx Lignite ECD lb/gal 10.34 *Add tourly at chemical bbl or in 40 bbls pit mud through DRILLING MUD INVENTORY premix, add to system over 2 hours Prior Day Products: Delivery On Hand Used Cost Suggest short trip prior to DST #1, trip slowly and don't 249 176 1,716.00 425 Premium Gel shake pipe, break circulation on all TIH w/ bit 11.00 Lime 10 <u>10</u> 252.50 Soda Ash Circulate hole clean prior to all trips and keep hole full 4 786.60 16 12 Caustic Soda 8 12 4 112.00 Lignite 142 120 22 386.10 C/S Hulls 3 990.00 3 Drill Pak RECEIVED 2 2 Desco KANSAS CORPORATION COMMISSION 7 1 184.00 Poly Plus 35 16 19 323.00 Barite FEB 1 1 2009 THANK YOU! Xcide **CONSERVATION DIVISION** Barite WICHITA KS MilGuard Mud-Co / Service Mud Representative Home Address Telephone Number **Great Bend, Kansas** 620-792-4544 **Jason Whiting** Warehouse Location Telephone Number Cell: 620-282-0556 785-621-4323

Hays, Kansas

Mud-Co / Service Mud. Inc.

100 S. I	Main St.,	Suite #	310, Wic	hita,Ks	. 67202						Report:	8
Daily Dri	lling M ud	Report							Date:	11/27/08	Depth:	4206
Operator	Tl			-4 1	10	Contractor	U:			Rig No.	40	
Address	Inorou	gnored	l Associ	ates, L	LC.	Beredco Dril	ung			Spud Date	10	· .
	Operate	ors Add	dress			Rig					/20/08	
Report for I		44a m / D	D.			Report for Mr.				Section	Twp	Range
Well Name		ιτοn/ Β	ryan By	под		Charlie Schr	перр		State	4	<u> 19S</u>	22W
TTOM ITAMINO	#1-4 BH	(Ness	Ness Kansa					
Operation			Casing			d Volume (BBL) Pits	l in an Oine	Otrolia		culation Data	Duma Dana	
Present Activ		8 5/8	in. at	258	358	400	Liner Size 6	Stroke 16	Opposi	ite Drill Pipe 231	Pump Press 90	00 00
Bit Size (in.)	No		Intermediate		Total Circula	ating Vol.	Est.Hole/DS	capacities	Oppos	ite Drill Collars	Pump Make	
7 7/8	2		in. at			758	8.5		0.4	420	Ide	
Drill pipe sz 4 1/2	Type XH	,	Production / Lin in. at	er	Volume in S	otorage 100 bbls	BBI/ Strk 0.156	Strk / Min.	воπот	s Up (Min.) 32	Pump Model C-2	
Drill Collar si	ze	Drilling mud	type				BBL./Min.	GAL/Min.	Systen	Total (Min)	Critical GPN	DC/DP
6 1/4	523		chemic	al			9.4	393		81	295	412
Sample from Flowline Te	n Flowline _	orPit_	Т	Mud Prop	nortica	Daily Mud Cost	2,56		Сити	lative Mud Cost	18,92	00 45
Flowing 16	mperature _		1	Muu Fio	Jeilles 	<u> </u>			S SPEC	CIFICATIONS	10,32	.0.43
Time San	nple Taken		10:30 AM			Mud Wt.(lbs/gal.)	Visco		0 01 20	Filtrate	LC	M
Depth (Ft	•		4,206			9.2-9.6	46-	50		8-10.0	as ne	eded
Weight (It			9.5			S						
	dient (psi/ft.)		0.494			Suggest						
Plastic Vi	scosity (Sec	c/qt. API)	69 16			Run small stre	am of wa	nter at flo	hwlin	e while drilli	na to co	ntrol
	nt (lb/100 sc	ı.ft.)	20			mud wt. 9.2-9.		itor at in	J V V () ()	C Willie Gilli	ing to co	i iti Oi
	gth 10 sec		16/49		 		·g					
pH	1.00		10.5			Maintain 46-50		viscosity	with	the followir	ng premi	X
	PI (ml/30 mi		8.8			80 bbls fres						
	kness 32n	d	1		ļ	1 Soda Ash 1 Caustic *Add premix as needed for vis, or 1 Lignite to control mud wt.						
Alkalinity,	Filtrate (Pf/	Mf	.95/-									
	Content, ppr		8,700	·		1/3 sx Pac		10 001111	O	uu 171.		
Calcium. p	opm		40			Gel as need	ded	Add to s	syste	m over 1 1/2	2 hours	
	tent (% by		Tr		<u> </u>					•		
	ntent (% by nt (% by Vo		8.0		<u> </u>	LCM as neede	d with c/s	s nuils				
	ntent (% by		92.0			Tourly while dr	illina:	1 sx Ca	ustic	:		
LCM, lbs/t		10,	Tr			l county within an	g.	1 sx Lig				
Reynold's	#DP		1,866			*Add tourly at	chemical	bbl, add	d to s	system over	2 hours	if
Reynold's			3,052			no premix is a	dded on y	your tou	r			
ECD lb/ga		NG MUD IN	10.22 IVENTORY		<u> </u>	Suggest short	trin nrior	to DST	#1 +	rin slowly ar	nd don't	
Products:		Delivery	On Hand	Used	Cost	shake pipe, br					ia aon t	
Premium Gel	249	280	354	175	1,706.25	Circulate hole	clean pri	or to all	trips	and keep h	ole full	
Lime							-		·	·	(CC	
Soda Ash		14 10	<u>9</u> 8	5	126.25	Divert all DST	recovery	to resei	ve p	"		
Caustic Soda Lignite	<u>4</u> 8	5	8	<u>6</u> 5	393.30 140.00	X .				FEB	o 9 2009	
C/S Hulls	120		117	3	52.65					~~!-	CEIVEU	IAL
Drill Pak		4	3	1	330.00			THANK	YOU	JI KANSAS CORF	EUEIVEU ODATION CO	MMICCION
Desco	2		2		404.00					INDU GAGILAN	OMMINION	MINIOOIQ!
Poly Plus Barite	16		16	1	-184.00					FEB	1 1 200	9
Cide _												_
Sapp											RVATION DIVI	SION
Barite						#				V	ICHITA. KS	
MilGuard						#					· · · · · · · · · · · · · · · · · · ·	
Mud-Co/Se Jason W	ervice Mud R hitina	epresentati	ve		Home Addr	ess end, Kansas				one Number 792-4544		
					Warehouse	Location		• • •	Teleph	one Number		
Cell: 620	-282-055	6			Hays, Ka	ansas				621-4323		

Mud-Co / Service Mud. Inc. 100 S. Main St., Suite #310, Wichita, Ks. 67202 9 Report: Date: 11/28/08 **Daily Drilling Mud Report** Depth: 4206 Operator Contractor Rig No. Thoroughbred Associates, LLC. Beredco Drilling 10 Address Address Spud Date Operators Address Rig 11/20/08 Report for Mr. Report for Mi Section Twp Range Charlie Schniepp **19S** Rob Patton/ Bryan Bynog 22W 4 Well Name & No. County State #1-4 BK Ness 0 Operation Mud Volume (BBL) Circulation Data Casing Present Activity Liner Size Stroke Opposite Drill Pipe Pump Pressure CCH after DST1 358 231 8 5/8 258 400 16 in. at Bit Size (in.) Intermediate Total Circulating Vol. Est. Hole/DS capacities Opposite Drill Collars Pump Make 2 7 7/8 2.573 **758** 8.5 420 G-D in. at Volume in Storage Drill pipe sz Type Production / Liner BBV Strk Strk / Min. Bottoms Up (Min.) Pump Model 4 1/2 ХН 80 0.156 32 60 FXH in. at Drill Collar size Drilling mud type BBL./Min. GAL/Min. System Total (Min) Critical GPM DC/DP 6 1/4 *5*23 9.4 393 Chemical 81 255 347 Daily Mud Cost Sample from Flowline x or Pit Cumulative Mud Cost 192.90 Flowline Temperature 19,113.35 **Mud Properties MUD PROPERTIES SPECIFICATIONS** Time Sample Taken 9:40 AM 9:15 AM Mud Wt.(lbs/gal.) Viscosity Filtrate LCM Depth (Ft.) 4,206 4,206 9.2-9.6 46-50 8-10.0 as needed Weight (lb/gal.) 9.4 8.9 Gascut Mud Gradient (psi/ft.) 0.489 Suggest... Funnel Viscosity (Sec/qt. API) 44 73 Today - to mud currently in premix add an additional 1 sx Plastic Viscosity cp 14 25 Pac and 1 sx caustic - Lower volume and add to system Yield Point (Ib/100 sq.ft.) 15 23 over 1 1/2 hours Gel Strength 10 sec/10 min. 22/44 31/73 10.0 11.5 Hq Filtrate API (ml/30 min.) 12.2 8.8 Reserve Run small stream of water at flowline while drilling to control Cake Thickness 32nd Pit Alkalinity, Mud (Pm) mud wt. 9.2-9.6 #/gal. Alkalinity, Filtrate (Pf/Mf) 43/-9/-Chloride Content, ppm 21,000 10.700 10,000 Maintain 46-50 sec/qt. viscosity with the following premix 40 bbls fresh water/40 bbls pit mud Calcium. ppm 80 40 **Estimated** Sand Content (% by Vol) $\overline{\mathsf{TR}}$ TR Volume 1 Soda Ash Solids Content (% by Vol.) 7.1 3.7 1500 bbls 1 Caustic If mud wt less than 9.3 use all Oil Content (% by Vol.) 0.0 0 1/2 Lignite pit ud Water Content (% by Vol.) 92.9 96.3 1/2 sx Pac LCM, lbs/bbl. TR 0 Gel as needed Add to system over 1 1/2 hours Reynold's #DP 2.393 Reynold's # DC 3,722 LCM as needed with c/s hulls ECD lb/gal 10.11 DRILLING MUD INVENTORY Circulate hole clean prior to all trips and keep hole full Products: Prior Day Delivery On Hand Used Cost Divert all DST recovery to reserve pit 354 350 4 39.00 Premium Gel KCC Lime 9 8 25.25 Soda Ash FEB 0 9 2009 8 7 1 65.55 Caustic Soda 8 1 28.00 Lianite 117 115 2 CONFIDENTIAL 35.10 C/S Hulls 3 3 THANK YOU! RECEIVEL Drill Pak 2 2 KANSAS CORPORATION COMMISSION Desco 1 1 **Poly Plus** 16 16 FEB 1 1 2009 Sapp **CONSERVATION DIVISION** WICHITA, KS Mud-Co / Service Mud Representative Home Address

Mud-Co / Service Mud Representative
Rick Hughes
Great Bend, Kansas
Felephone Number
620-792-5425
Warehouse Location
Hays, Kansas
Telephone Number
785-621-4323

Mud-Co / Service Mud. Inc. 100 S. Main St., Suite #310, Wichita, Ks. 67202

100 Ş. N	Ŋain St.,	Suite #	310, Wi	chita,Ks	. 67202						Report:	10	
Daily Dril	Iling M ud	Report						,	-	11/29/08 Rig No.	_ Depth:	4465	
	Thorou	ıghbred	Assoc	iates, L	LC.	Contractor LC. Beredco Drilling					10		
Address	Operat	ors Add	iress			Address Rig				Spud Date 11/20/08			
Report for N				/noa		Report for Mr. Charlie Sch	niepp			Section 4	19S	Range 22W	
Well Name	& No.		· y y			County Ness			State 0			 	
Operation	#1-4 BI	\	Casing		Mu	d Volume (BBL)			Cir	culation Data			
Present Activ		8 5/8	•	258	380	Pits 400	Liner Size 6	Stroke 16	Opposi	te Drill Pipe 231	Pump Pressu	ire	
Bit Size (in.)	No	0 3/0	in. at Intermediate		Total Circula	ting Vol.	Est.Hole/DS	capacities	Opposi	te Drill Collars	Pump Make		
7 7/8 Drill pipe sz	2 <i>Type</i>	P	in. at roduction / Li	ner	Volume in S	780 Storage	8.5		Bottom	420 s Up (Min.)	G- Pump Model		
4 1/2	ХН	,	in. at			0 pit mud	0.156	60		34	FX	H	
Drill Collar siz	523	Drilling mud	type Chemi e	cal			BBL./Min. 9.4	GAL/Min. 393	System	Total (Min) 83	Critical GPM 324	480	
Sample from		xorPit_	T	-		Daily Mud Cost			Cumu	lative Mud Cost	<u></u>		
Flowline Ter	mperature_			Mud Proj	perties		165		0.0056	NEICATIONS	19,27	8.95	
Time Sam	nple Taken		9:15 AM			Mud Wt.(lbs/gal.)	Visco		SSPEL	Filtrate	LC	M	
Depth (Ft.			4,465			9.4-9.6	50-			8-10.0	as ne	eded	
Weight (It			9.65			C							
	lient (psi/ft.		0.502	ļ	 	Suggest							
Plastic Vis	scosity (Se	c/qt. API)	54 15		 	Run small stre	eam of wa	iter at flo	owlin	e while drilli	ina to co	ntrol	
	nt (lb/100 so	n ft)	27		 	mud wt. 9.4-9							
	gth 10 sec		36/75	 	 		•						
рН	3		10.5			Maintain 50-5					ng premi	X	
	PI (ml/30 m		10.0			40 bbls fre		40 bbls	pit m	ud			
	kness 32r	nd	2	ļ		1 Soda Asi		د امریما کا	ممالمه	a than 0.2	uoo oli		
Alkalinity,		(A.4.6)			ļ	1 Caustic 1/2 Lignite		pit mud	ME ICS	s than 9.3	use an		
	Filtrate (Pf. Content, pp		.54/- 10,000			1/2 Eighte		pit maa					
Calcium. p		111	40		+	Gel as nee		Add to s	syste	m over 1 1/	2 hours		
	tent (% by	Vol)	TR						•				
	ntent (% by		9.0			LCM as neede	ed with c/s	s hulls					
	nt (% by Vo		0.0						4		I - F II		
	ntent (% by	/ Vol.)	91.0			Circulate hole	clean pri	or to all	trips	ana keep r	iole tuli	•	
LCM, lbs/t			TR		 	Divert all DST	rocovona	to mea	n/a n	iŧ	•		
Reynold's Reynold's			1,467 2,704	<u> </u>	<u> </u>	Divert all DST	1600very	10 10301	νομ	ıı			
ECD lb/ga			10.47	-	1								
		ING MUD IN											
Products:	Prior Day	Delivery	On Hand	Used	Cost					ŀ	CCC		
Premium Gel	350		343	7	68.25						0 9 2009		
Lime Soda Ash	8		6	2	50.50							. 1	
Caustic Soda	$\frac{3}{7}$		8	<u>-1</u>	-65.55					CONF	IDENT	AL	
Lignite	7		8	-1	-28.00								
C/S Hulls	115		107	8	140.40			丁山AA!! /	VOI		RECEIVE		
Drill Pak	3	2	5					THANK	TUL	'' KANSAS CO	RPORATION	COMMISSION	
Desco Poly Plus	1		1							L.L.	D 11 nn	nn	
Barite	16	14	30							rt	B 1 1 20	บว	
Xcide										CONS	SERVATION DI	VISION'	
Sapp				-					-	00110	WICHITA KS		
Barite						#							
MilGuard					T.,	<u> </u>			Talas	ana Nurahar			
Mud-Co / Se Rick Hug		kepresentati	ve		Home Addi	ress end, Kansas				none Number 792-5425			
					Warehouse	Location				none Number			
Cell: 62	0-791-76	23			Hays, K	ansas			785-	621-4323			