

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1120482

Form ACO-1 June 2009 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:	
			West
Address 2:		Feet from North / South Line of	Section
City: St	ate: Zip:+	Feet from Cast / West Line of	Section
		Footages Calculated from Nearest Outside Section Corner:	
(, , , , , , , , , , , , , , , , , , ,		County:	
		Lease Name: Well #:	
		Field Name:	
5			
		Producing Formation:	
Designate Type of Completion:	_	Elevation: Ground: Kelly Bushing:	
New Well	Entry Workover	Total Depth: Plug Back Total Depth:	
Oil WSW	SWD SIOW	Amount of Surface Pipe Set and Cemented at:	_ Feet
Gas D&A	ENHR SIGW	Multiple Stage Cementing Collar Used? Yes No	
OG	GSW Temp. Abd.	If yes, show depth set:	Feet
CM (Coal Bed Methane)		If Alternate II completion, cement circulated from:	
Cathodic Other (Core	e, Expl., etc.):	feet depth to:w/	sx cmt.
If Workover/Re-entry: Old Well Inf	o as follows:		
Operator:			
Well Name:		Drilling Fluid Management Plan (Data must be collected from the Reserve Pit)	
Original Comp. Date:	Original Total Depth:		
Deepening Re-perf.		Chloride content: ppm Fluid volume:	bbls
	Conv. to GSW	Dewatering method used:	
Plug Back:	Plug Back Total Depth	Location of fluid disposal if hauled offsite:	
Commingled	Permit #:	Operator Name:	
Dual Completion	Permit #:	Operator Name:	
SWD	Permit #:	Lease Name: License #:	
ENHR	Permit #:	Quarter Sec TwpS. R East	
GSW	Permit #:	County: Permit #:	
Spud Date or Date Rea Recompletion Date	Iched TD Completion Date or Recompletion Date		

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
Letter of Confidentiality Received
Date:
Confidential Release Date:
Wireline Log Received
Geologist Report Received
UIC Distribution
ALT I II Approved by: Date:

	Side Two	1120482
Operator Name:	Lease Name:	Well #:
Sec TwpS. R East _ West	County:	

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken (Attach Additional She	eets)	Yes No	□ L Nar	-	on (Top), Depth an	d Datum Top	Sample Datum
Samples Sent to Geolog	ical Survey	Yes No	Indi	ne		юр	Datum
Cores Taken Electric Log Run Electric Log Submitted E (If no, Submit Copy)	Electronically	YesNoYesNoYesNo					
List All E. Logs Run:							
		CASIN	G RECORD	lew Used			
		Report all strings se	et-conductor, surface, in	termediate, product	tion, 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 / SQUEEZE RECORD

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

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated					ement Squeeze Record I of Material Used)	Depth			
TUBING RECORD:	Siz	:e:	Set At:		Packer	r At:	Liner R	un:	No	
Date of First, Resumed P	Producti	on, SWD or ENHF	₹.	Producing N	1ethod:	ping	Gas Lift	Other (Explain)		
Estimated Production Per 24 Hours		Oil Bb	ls.	Gas	Mcf	Wate	ər	Bbls.	Gas-Oil Ratio	Gravity
DISPOSITION OF GAS: METHOD OF CO		OF COMPLE	TION:		PRODUCTION INT	ERVAL:				
		Open Hole	Perf.	Dually (Submit A	Comp. AC <i>O-5)</i>	Commingled (Submit ACO-4)				
(If vented, Subr	nit ACO	-18.)		Other (Specify)						

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Black Diamond Oil, Inc.
Well Name	S&W 1
Doc ID	1120482

All Electric Logs Run

Micro Log
Neutron / Density Log
Gamma Ray
Dual Induction

Form	ACO1 - Well Completion
Operator	Black Diamond Oil, Inc.
Well Name	S&W 1
Doc ID	1120482

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	3633-37	250 Gal 15% MCA	
1	3600	1000 gal 15% MCA	
1	3587	1000 gal 15% MCA	
1	3568	1000 gal 15% MCA	
4	3521-3525	250 gal 15% MCA, 750 gal 20% NE	
2	3452-3454	500 gal 15% MCA, 1500 gal 28% NE	

QUALITY OILWELL CEMENTING, INC.

20-2886107	#.D.!	xeT	Federal	
A REAL AND A				and the follow was

molet occlassionation transfer than a	undersense of the contract	Cell 785-324-1041
No. 6152	Home Office P.O. Box 32 Russell, KS 67655	Phone 785-483-2025
		chambelladid an the teant side of this part.

I Charge			-	<u> <u>Bailt</u></u>				- 77	Signature
Discount innocei		and OLMUTY will be	eomolish ihe i Comolish ihe i	00-00-0 0006-0	y quivitit T she Hindopendelli I	3NO	N Ar	NAHT.	and min co
Tax under the second Y		in permanan is see to	the MILL LIN	cousing	t of the second second	Canes o	I ONVITI	LA OL UR ANI	picysee in th
PA (JPA- LLA OF BUA PART RADIA BUARA (R)	NOTATION OF	19	Mileage 51	tgeber er Sir sinsen	uter an ann an	tepi ot u siro acika	encologices encologices	LG.	de by CLAI
work done or mercingu	11/5 50	inde Digg Yan	Pumptrk Cha	as	1920 use	- Del	ELE	0 O C	300A1
Z. More spearcely. (A) Notice (A)	alter ape	ill be constructed as	e manage p	GRIVE	81	000			G TEEL
special, incidental, of pus	~ 13	100 trog.	3/10/0	003(AO 1	naterials, produ	ota or an	iophes.		
the time tradegit of tradegitory	pund	1, 5h-1	Latch Down	un vide	a yaa onwhii.	<u>Y ahati r</u>	Not De 15	UBHBA	1300A-
ETHER DARFESS OR I	DI HEHAAR	.Sh-1	Float Shoe	9	ug dage	LGZI	d.q	iwnd a	BHSALL
When the CHARLES IN P	- defective	THIS IS THE SOLF	AFU Inserts	OF (sond ag	das	5-2	XS GHI C	sagmups
unip onder norm el use els	d service v meetiv linv	"Sh.	Baskets 3		a' mexe				
INVERTICE I OTVIT	505	aut"244.2	Centralizer		E 305K2				
3. Constit Y does a	of approved	early habitity of respe	Guide Shoe	a,	um ga.Ju	9,000	2230	found - d	LIMBUC
carrent gellegerent cost	LN:	FLOAT EQUIPME	maga reeuta	ase	TO WICH	3h a	rotta	EDONE	TAMAST!
2800 A MANY LA CANVELLA La MANY MANY MANY MANY MANY MANY MANY MANY	ser the man	CONSTRUCTION	Mileage	ACTTON	HED CIECU	SIIS	ATZ3	LIAG as	aggasa
- 2 Marshall and an	OLOGWEL	hk	Handling 4	0.501700	ere por el Const	05 01 07		100 bandora)	ad or an eith
<u>n ou sieu o galada a s</u>	meer, pl. g Uwitt mete		Sand	ionselo (autorita	SHAM	DEI	3900	:ollar@Cc	D troat C
(B) Oil ophile, politicito	n, surface	20110 CAF 38	CFL-117 or C	6 May	raservoir icas, (er den rege	je adalo	hh'b'	Baskets B
(A) Pathagie to prop	ilià gl iol p	500 GAL.	Mud CLR 48	MRP-res	nader ok at Alsa	843	11'5	3,5,7,	Centralizers
		#SL	Kol-Seal				<u>e renera e a</u>		eloH esuoN
ror iusa or dernage arrany rifiy defend, end held hav	Hicin die j Hicin die j	A Fry the assessment of the po	Flowseal	1 (4)(3 (1)	ion and agains	(19 <mark>0A 30</mark> 21010a 2	q 71 qay	0 JK2	S eloH 1sF
		nditiona beyond QUM	Salt S	OUM.	TY al-all not be	lisble to	n ingendes	to buobleud	Jemarks:
SELVICE COMOL SALISM NOT SOLA INSTER	dohis viat custabaci si	FINEN LIVES & OFF	slinH		BKS	AM38 &	BVICES		itice there ar
- DEVENDENT OHN	RGES UN	leas otherwise specifi	Calcium	in the second	s Contradi, a di	đ	2212	Y No. Driver	
- PHERMAGURAU CI	CINEL MARINE	n a juu anarar menana Olaileis will pan Cittal	Gel.		Lineuried by Gi	HONOLUS HAND	PONV	No. Driver	h1 # Anthing
the set of	a para by C	NOLONER.	Poz. Mix		an tara a regista	K	NIC	No. Ceme	Anthen a
entre additioned to get t	o or hom l	12 en els en 25	Common	(DALISAL) Internet of	AND DE STADOUOR	IENT	EQUIPM	or, if furging	IN CALIFIC CALIFIC
- 10 MI46 CHV96	ES: OUMU	TY will make a reaco	neble ettempt	to get	नवराटि ।	Displac	e deue e	ta own oquip	Meas Line
בארד - בליבישאו	31-00	DGCI bered 175C	omA tnemeO	ehell be		Shoe Jo	ices cha	.gs⊃ n	i ffed freed
of owner agent or contractor.	noisivnaqus l	s done to satisfaction and	The above was	nuter (suchus	,1781	Depth	in and	SALLO	1309 1001
1007207,0	State K	2	CITY HAY			Depth			Size . bd
- VILONMEN LENG	in the jot	14JX08.	Street Po	- Secon	UIL'S	Depth	(ma	N-911	-SH .esc
contract are null and void	QUC	ACK DIAM	Charge BL		7018	. .О.Т	C	8/2	C esis elot
ctor to do work as listed.	st or contra	I helper to assist owne	cementer and	la Pér ge. Mérikat	NECONSTRUCTION N. D. D. D. D. C. S.	1000 000 000 2000 000	puz	ar2: do	A dol aqvi
nipment and furnish	e pnitneme	well Cementing, Inc.	You are hereb	No ma	alinim lagai cur	1997) (SI	07	# MPC	Contractor L
<u>1993 (2016) Abb 1960 (2019)</u> 2020 (2017) 100 (2008) (2019)	du	PTK DTAMO		RELOC. E éxeme	FIF ON HON	1	operanticat en la nome	C :	S esse
QLNI	:m-	WE-JE-JN	MUDAJ II	Locatio	ed at a rote of	18 perci	eni part	nunu pug	pairt. Notwill
wdgh:h	SINGLASSING AN	KANSAS	NOTA	ON	39	h	80	C1-46	-Ol etec
	On Loc	State of state	Ajuno	a abite Lister	Валде	.dwT	.09S	and date there and	a anitter ries

adia las	SIGNATURE
before tan	
DISCOUNT 2143, 28 IF PAID IN 30 DAYS	PRINTED NAME _ NOV BUT BOOM DETURN
TOTAL CHARGES 8 2 43, 2 8 IF PAID IN 30 DAYS	.0
Z E E 6 7 8 SUDUVID THEOR	LEKWS WND CONDITIONS" listed on the reverse side.
55 949	tone to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL
JATOT	und furnish cementer and helper(s) to assist owner of
@	o: Allied Oil & Gas Services, LLC.
	OLL sectores and a life being a
PLUG & FLOAT EQUIPMENT	ITY STATE ZIP
ENAMINOLEYO H U SHAL	TRAEETZIPZIP
Sh'HOSZ TYLOL	ARGETO: 15/90 K 1/19/19/19
	, , , , , , , , , , , , , , , , , , , ,
08'078 0h'h @ IWAT 28	24041
	The fire the fire
EXTRA FOOTAGE	0+ 34 B/1121 9 P.P. 4 4413
PUMPTRUCK CHARGE 1512.25	hite
DEPTH OF JOB -2.18	fode gistfaced 13 661 at water
SERVICE	10 5) + 05 new 8% 234 csg received
3/102 0 19101	REMARKS:
MILEAGE 68276 +1/4 266 62	
Q1 55h 862 @ EAS 15 EST DNIINVH	DBIAEK FK LKNCK
	N 12/18M MANNA OLL
@	LK TRUCK
0	WPTRUCK CEMENTER ROSECT Y V
0	
0	EGOILMENT
V3C 07.62 0 67.62 0 7.8	CES.
DEL 02 101 00 10 1	NEAT LEFT IN CSG. 1.5
SURVER OF THE OFT NORMON	MUMINIM XAM.2
	DEBLH
	INC 2IZE DELTH
WOUNT ORDERED 170 COM 3% CC. 2 20201	INC SIZE 82% 53 + DELTH ZZZ'81
CEMENT	EOFJOB Surface
ликев	A Mark 1973 AND
solu lorb or mars 31	ORAEW (Circle one)
IC. 3 N. W. M. 40 Nordon K.S.	E SOL WELL# LOCATION Edward
WOS'L YOD'L	10-20-15 5-8 1 5-25 2EC LAG 6VAGE CVLL
ED OUT ON LOCATION JOB START JOB FINISH	
SERVICE COURS	KLTO FOR BOX 31
S0-5975804 S0-5975804	A.M. A.I x6T l619b97
	ALLIED OIL & GAS
SEBNICES FLC 056559	

DOCTORNAL PROPERTY.

ALLIED OIL & GAS SERVICES, LLC 056615

Federal Tax I.D.# 20-5975804 SERVICE POINT: REMIT TO P.O. BOX 31 RUSSELL, KANSAS 67665 Kusell Ks JOB FINISH JOB START ON LOCATION CALLED OUT RANGE TWP. SEC 8 2 DATE 6.6.13 COUNTY STATE Edmond Ks LOCATION LEASE 58W WELL # W into 22 0 rd 5 OLD OR NEW (Circle one) e to Cascher Well OWNER CONTRACTOR BAULSIde - mise. TYPE OF JOB CEMENT T.D. HOLE SIZE AMOUNT ORDERED DEPTH CASING SIZE 41.91 DEPTH TUBING SIZE DEPTH DRILL PIPE DEPTH @17.90 TOOL 18.2 SK COMMON MINIMUM PRES. MAX 78.85K @ 9,35 POZMIX SHOE JOINT MEAS. LINE @ 97.U GEL SA CEMENT LEFT IN CSG @ CHLORIDE PERFS. @ ASC DISPLACEMENT @ EQUIPMENT @ @ 0 lony PUMPTRUCK CEMENTER. \mathcal{D} @ 408 HELPER Northan @ BULK TRUCK @ DRIVER 410 BARAN @ BULK TRUCK 3@ 2.48 \$ 629.34 HANDLING 263.77 9 DRIVER \$ 1,395. MILEAGE 536.65 Tim 2.60 TOTAL 5,040.95 **REMARKS:** (1 GD 40 0 SERVICE 50 cement DEPTH OF JOB 2,158.75 Coment 40 cincu PUMP TRUCK CHARGE @ EXTRA FOOTAGE to Us \$ 385.00 @ 7.70 MILEAGE Heavy 50 m @4.40\$220,00. 11 50m MANIFOLD ____ @ a Black Diamon TOTAL\$ 2763.75 CHARGE TO: STREET PLUG & FLOAT EQUIPMENT ZIP_ STATE CITY. @ @ @ To: Allied Oil & Gas Services, LLC. @ You are hereby requested to rent cementing equipment @ and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was TOTAL ____ done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL SALES TAX (If Any) TERMS AND CONDITIONS" listed on the reverse side. 104. TOTAL CHARGES ____ IF PAID IN 30 DAYS 2341.42 DISCOUNT Jul 5463.32 PRINTED NAME SIGNATURE for 185-621-2090 625-589

Phone 785-483-2025 Cell 785-324-1041		Iome Office	P.O. B	ox 32 Rus	sell, KS 6766	attraction in the first	NO	907
Se	c. Twp.	Range	NER	County	State	On Loca	ation	Finish
Date 6-2-13	64) 30' 26''''''' 66' 30'''''''''''''''	a ons "contesic Unavi to invita	NO	Mon	<u>KS</u>		7,0	opim-
line and they have believe w	s interned 6	i to simila in	Locat	ion Edma	ond JE	2122 0	Winto	<u>en in talen il</u>
ease Skw	fra to siza d Instruction	Well No. L	10099000 	Owner	avene fastaria i	191 (1.192) (1.197) 1912-1923 (1.197) 1912-1923 (1.197)	offerite Method	and grooms and of early
Contractor Caschler	ne ,eter los	ntheo legel mu	mission b	1 x / La la mare	ilwell Cementing	rant comenting ec	quipment and f	iurnish
ype Job / "Rackside	NJALKO 15	neligo entre lo	OMER"	cementer an	d helper to assis	t owner or contrac	ctor to do work	as instea.
Hole Size 27/8	T.D.	en logi conserta-s	4.444.4.520	Charge To	Slock D.	rimond	Grow Store Berg	A CONTRACTOR OF
Csg. 4.012	Depth			Street		town of Hore Trees	set of possist	aner wich vo
ſbg. Size / `	Depth	825	(21) (15) (34.2	City	to call the second second	State	the Martin and Stand	- deletion - to re-
Fool	Depth	ia amhadha féi	ie (m)	The above wa	as done to satisfact	ion and supervision	of owner agent	or contracto
Cement Left in Csg.	Shoe	XBT 10 CONTRACTOR	an color da Colorado Nati	Cement Am	ount Ordered	350 00/40	> 40/06	EL
Vieas Line	Displa	- Distantion of the second second	र। यह हिंदू इ.स. हिंदू	a hal	e en succión a contra de	pw.milbali.e	TOMARC 2M	MICIT -
	UIPMENT	19066 1. OK/673 4	t arrei , an	Common	10	53 10 1202060 68 	UDB of SABOU	an e marc aicea prai
Pumptrk / No. Cementer Helper	raig			Poz. Mix	140	Ciraulo va lundi	win of leaguest	a ed like 27
Bulktrk No. Driver	Cod I	origo CAMO D	NUO seets	- Gel. 13'	erd/or mon-neme	dol 1811 233061A	RO 200 AAR	NAN
No. Driver	avid	0880 5 00880	D BAT N	Calcium		No see at 8 Miles	SAMO COMM	MARI
JOB SERVI	CES & REN	IARKS	benghno	Hulls	olvise dosé stře	gaw starab bragaisth	2 60 1947 2008 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	NONG JOSIN UNITAR
Remarks:	i ogernarit y isini tot aldi	shail not be shail not bo	VALAU	Salt	Nuel No Eliterati		ing here reality	
Rat Hole	d lienta terin	nandlae, Cueto	hë marci	Flowseal	do[edi to edin	motion perform	phierie analy	db 10 each - Administra
Mouse Hole	enter anno 1977 anno 1977	(5. 144 (DCK) 35. 15(12)	11011-3848	Kol-Seal	a chiosta, agente	C. T. & Landadar Balana	ALTER CONTRACTOR	- have personally of
Centralizers	n indexding	vi by any perso	ignorid a	Mud CLR 4	18	in which be the the	negoto of egen	MAN (A)
Baskets	ine onamei	interior lasis, ar c	Same Law	CFL-117 of	r CD110 CAF 38	<u></u>	noisellen pilin	a 10 (0) -
D/V or Port Collar	stacoos pi	anitaner/brem	ia gnidali	Sand	To aproximution	CONTLIAL O HIN	noticenne ni	no la sua .
	mix	3505KK	1010.90	Handling	364	n in an Winder Marine The State	THO IS CARAGE	N 199 880 00
Distant Bas	arit of yravi	leb tests inne dei	ns iš beg	Mileage	a bijeraaans, kr	ine case or main		indities of
USplace.	Ny/	ADT	ali laol er	ther recover t	FLOAT EG	UIPMENT	A Y CLAUR OF	nnulei evo nelaen teen
Comos	M	1.10	10 88gs	Guide Sho	e agaan o said	el yns emuese	son reads (CD	a citat
	Circ	v later	la de la calca de com	Centralize	r shirt	Bandio to travel		ea ys bear BHT MAD CD
<u>in provinsi pre Karana nua</u> mini alto PMTLIAUO behn	xaan disa ini bos bek	ay in a sig inse manaer provic	e Birn ba	Baskets	noisi bae ballei	ani narfu eolara	turis cart la con-	<u></u>
nevenanciès veriente del	vite sol cit	obça all fe " <i>ili</i> ça	and vol sk	AFU Inser	ts	n of beginnli views		ne su si DO to ser
D MERCHANTABLE C.	'ea ytha	ARAW YNA E	NROU LO	Float Shoe	D TOAT ML GR	ISMI BAIMANNE	10 RO 2288	<u>ava (a.c</u>
defective merchand in and		1.01	and the second se		meno escola	LAR USE ON PU	N. EV.STRODI	New Constant
internation for any words of addition	ted for tet on euclideo	le VTUAUC b réalité productio	nis Krite Ve meter	one rwenten au tonico válaist	Nanoe kar okkan Illoa fróm ar eku	ADRE TO TOUTHER IN MART SOCIETION, CO	<u> séjurté to tajo</u> , instructions	negat ens
	and the second	the second s	_				visational	and K.
the to take the contrast	dalla orti to	THE CLUSTER I	O TTUN	Pumptrk (Charge Cim	Cemen	V and to be	lidena (A) - vis otrolo al
isamation, m this företelad	I State	lo ésperios	na ydan.	Mileage	55	inco od iletis tost	moo auit ni pii	изеИ (8)
	/ /	10 10 100001 10 31	e jans j	notion motion me	tion readings, ch and by the	in test to notes.	Tax	n a standarda The standards
DATE OF REAL PROPERTY OF THE	A CONTRACT	THOMAN PROPERTY	2 761 8 35 78 1	CONTRACTOR DE LE MORE			Discount	

RUSSELL, KANSAS 67665	SERVICE POINT: Russe // KS
WUSSELL, KANSAS GIOGS	
	LED OUT ON LOCATION JOB START JOB FINISH 5:00pm 5:30pm
	COUNTY STATE
SEW WELL# 1 LOCATION Edmond	KS ZEZIZN Winto Norton KS
(NEW)(Circle one)	
RACTOR Gaschler Pulling Service	OWNER
OF JOB Squeeze	
SIZE 7% T.D.	CEMENT.
NG SIZE 4/2 DEPTH 3703	AMOUNT ORDERED 350 AMD 10 gelanside
NG SIZE 278 DEPTH 4650 1592	• • •
LPIPE DEPTH protor DEPTH 16501542	
MAX MINIMUM	COMMON@
S. LINE SHOE JOINT	POZMIX @ GEL 10 @ 23.40 234.00
ENT LEFT IN CSG.	GEL <u>10</u> @ 23.40 23.400 CHLORIDE@
IACEMENT	ASC @
EQUIPMENT	AMD 350 @ 25.90 4063.00
	@
Glenn G PTRUCK CEMENTER Robert Y	@ @
417 HELPER Woody O	@
K TRUCK	@
481 DRIVER Joe G	@
K TRUCK DRIVER	HANDLING 575,44 (4) @ 2.48 1427.09
DRIVER	MILEAGE 12.71.75 +/m 2.60 3306.55
REMARKS:	TOTAL 14032.64
tubing and set packer at the for the try	
circulate mut up good 15 mix logel mix	SERVICE
SAMD & washing displace 6/2 bbl	DEPTH OF IOB 1650
eres to	DEPTH OF JOB <i>1650</i> PUMP TRUCK CHARGE 2249.84
A start st	MILEAGE 50 HUMI @ 7.70 38.5.00
and the second	MANIFOLD @ 1146 220.00
	MANIFOLD @ 4.46 220.00
ARGETON Black Diamond	TOTAL <u>2854,84</u>
RET	
OTATE 7IP	PLUG & FLOAT EQUIPMENT
YSTATE2	PLUG & FLOAT EQUILIDET
	@
····	
in a second second	@
: Allied Oil & Gas Services, LLC.	@
are hereby requested to rent cementing equipment	@
d furnish cementer and helper(s) to assist owner or intractor to do work as is listed. The above work was	TOTAL
to entiefaction and supervision of owner agent of	
Line They read and understand the GENERAL	SALES TAX (If Any)
RMS AND CONDITIONS" listed on the reverse side	
ir	IUIAL CHARGES I I I I I I I I I I I I I I I I I I I
1	DISCOUNT 42.2.1.87 IF PAID IN 30 DAYS
INTED NAME	net 12,665.61
(tilh)	- DISCOUNT FLEEN 12,665.61 - Defore tay
SNATURE	- mg mg
	Respiration in the statement of the statement

L CEMENT'NG, INC. QUALITY OF Federal Tax I.D.# 20-2886107 6938 No. Home Office P.O. Box 32 Russell, KS 67665 Phone 785-483-2025 Cell 785-324-1041 Finish On Location County State Range Twp. Sec CN Date Location × Well No. Owner Lease To Quality Oilwell Cementing, Inc You are hereby requested to rent cementing equipment and furnish Contractor cementer and helper to assist owner or contractor to do work as listed. Type Job Charge To T.D. Hole Size Depth Street Csq State City Depth Tbg. Size The above was done to satisfaction and supervision of owner agent or contractor. Depth Tool Cement Amount Ordered Shoe Joint Cement Left in Csg. l Displace Meas Line EQUIPMENT Common Cementer No. Poz. Mix Pumptrk Helper Driver No. Gel. Bulktrk Driver Driver No. Calcium Bulktrk Driver JOB SERVICES & REMARKS Hulls Salt Remarks: Flowseal 0 Rat Hole Kol-Seal Mouse Hole Mud CLR 48 Centralizers CFL-117 or CD110 CAF 38 Baskets Sand D/V or Port Collar 50 Handling Mileage FLOAT EQUIPMENT Viel OPSI Guide Shoe Centralizer Baskets **AFU** Inserts Float Shoe Latch Down Pumptrk Charge Mileage Tax Discount **Total Charge** X Signature

ell 785-324-1041	Sec.	Twp.	Range	Cou	unty	State	On Location	Finish 5:15 AM					
ate 5-24-13	28	45	22	Norte	on	ks	01.1						
SAW)			No sida e la	Location	Edmono	125 +0	Rd E5, 2/2 N, to	cattle gard					
Base Save B	AR		Vell No. 1	C	wher WA	2		Several and function for the base of the several sectors of the several sectors of the sector sectors of the sector sectors of the sectors of					
ontractor Express	ioene Ville	Net ion	into legal int	CONTRACTOR OF THE PARTY OF	a star the second starting of the second starting of the second starting of the second starting of the second starting	lwell Cementi by requested	to root compliant equilater	t and furnish					
pe Job Port colla	nten "TY (1.). Anto versio	ALIO" to n	ideo erê te h Sanî da dirê	c	cementer and helper to assist owner of contractor to do work as need								
ole Size 7 %	and the col	T.D.	5 1929 CF 107 0 1	T	Charge Black Diamond								
sg. 4%	nghi to sin T	Depth	enforce any	S	Street								
bg. Size 2'		Depth		(City State								
Depth 1805				da obha Milig	The above wa	as done to satis	faction and supervision of owner	r agent or contract					
ement Left in Csg. Shoe Joint					Cement Am	ount Ordered	350 andc 1/4 flo	t domini menory cos					
					ti <mark>umet</mark> ta sid	हरण्डली हो है?	at the Million Mapfal						
leas Line	CONTRACTOR OF CONTRACTOR	108117 08304 100800 0108		Common 5	350	ngg (15 g, ng sa ag ag ag ag The call of ag al ag ag ag a g	10900000000000000000000000000000000000						
Pumptrk 9 No. Ce	dy			Poz. Mix	4	inst the 10 set term brist of 1	Number of the						
Bulktrk 12 No. Dri	ay Ca	NEO FONACE	e O boats	Gel.									
Bulktrk PU No. Dri	V.J.	00.6.736101	<u>त्रा संस</u> ्था स	Calcium		CHARGES (Level officer	MINHOLAGO						
	and the second second	ARKS	tempetric etc	Hulls	902 Y 12 7 980 1	vit da chergèri escri sign fo ONOPONIA como suggi o	nobal kong me						
JOB SERVICES & REMARKS					Salt	and a	<u>an dinang panahan bas</u>	detributers where					
Remarks:					Flowseal	27#	arising from the parisiman	epartiti to allo el tetto bratalo					
Aouse Hole		n brish yf w	1. Carlos (1999)	CHARL CONSTR	Kol-Seal	niselise terrerin	O BU T LEADER STRATTER	The second second second second					
Centralizers	1800 pai	buloni , no	cibji any pare	opuerd ditt	Mud CLR 4	8	property or the bookly injury	A) Damaga (o) Aben sai					
Baskets	offenens	abameti	Not fore, or	oden Kenvil	CFL-117 o	CD110 CAF	38	a elliqe ilo (8)					
D/V or Port Collar	ina e mbi	regen des	narchandise	to provision of	Sand	to consimict	aution with CIUALITY'S pai	olis of or in original					
	1805		ran 10 M Clan		Handling	350	in stand and standard and a	The second state of the					
Port collar @	1001	of payor	ic having contribution	(ne le pabri	Mileage	penations, an	b pt in the case of merime o	oi arti maitraz o					
Plug@ 3245 circulated oil c	tal	the he	to with &	obbler	BVOGET TOUTS	FLOAT	EQUIPMENT	un autoritat uto Anto di Lindreu sa					
Tested tool to	1000	ne Hol	cl acend	portcolle	Guide Sho	enonantio	ikdeli yas emutes kaj seo	5 TUALD &					
Mix 350 5x QM	00 14.4	lo dia	alored wit	1 5 34LU	Centralize	r	BURN of water or other fight	noti ey containa Praakti eretti oo					
preshered up to	LADA	to tes	t toml f	Pan 5 Joint	Baskets	best/bne.br	listeri oertv erivies bris ed	<u>. Apropo sel co</u>					
presherd up to	1,000	10 10-	ingo al lo no	and tol some	AFU Inser	ts	to expressly limited to repair	destate side of					
washed out	ina craz	A VIDAS	- OM GMA Y BRAVI YMA (INCLUDING	Float Sho	NA BUODE NA LIN EACT (S	BLOW BRINGHTO HO.	stational age					
to ge mannen orient de	2 166 V.76	s of bridge	a n <mark>diw yba</mark> ma	n vino bria di	Latch Dov	OSE, OUS N	RTIQUEAR USE OR FURP	NG ROR 2233					
<u>i lina ponco jas a</u>	<u>en 1986 (</u> 199	<u>t harl timete</u> Doorde tes	s YTHAUC : Stabad Rie	no distrivos Istem suitos	a meneri es and by deta	and the ter cheane. In them, or call	uparante ar meneral antificarit a diferente contratoritatione a	o transmine fr					
41		mandana ng	and the second sec				:Vin:	2. More specific					
and in the part and to be	(gradiet)	la biti to	संतल्प्राजनने जोवे	HTYTLALAS	Pumptrk (Charge	pot Collar	ens granscovi (A.)					
nadhraul taléb ta inta		/		ono Voenese	Mileage	5511	intanco ed llarla toartrico sin	B) Notimus					
	/			NOR, ANTINS	SHTER FR	A Contraction	Interpretation of test, meter	Tax					
	1	1	NUMBER 2501	<u>n na manan</u>	BRITE FURNING		Disco	unt					



S & W #1 Back Side Cement from Port Collar to Surface

2425' FSL & 1875' FEL Sec. 28-4-22W Norton County, Kansas

May 24, 2013 Port collar at 1805', 350 sacks of cement. <u>Cement did not circulate.</u>

May 25, 2013 Temp survey: Top of cement 1800'.

May 28, 2013 Perforations at 1770', 350 sacks of cement. <u>Cement did not circulate.</u>

May 30, 2013 Temp survey: Top of cement at 1690', perforate at 1650'.

May 31, 2013 Pump 350 sacks of cement. <u>Cement did not circulate.</u>

June 1, 2013 Temp survey: Top of cement 1380'.

June 3, 2013 Ran 1" tubing between 8 5/8 and 4 ½, stacked out 848'. Pumped 325 sacks of cement at 825'. <u>Cement did not circulate.</u>

<u>June 4, 2013</u> Temp survey: Top of cement at 550'.

June 6, 2013 Ran 1", stacked out at 520'. Pumped 135 sacks of cement. <u>Cement circulated to surface.</u>

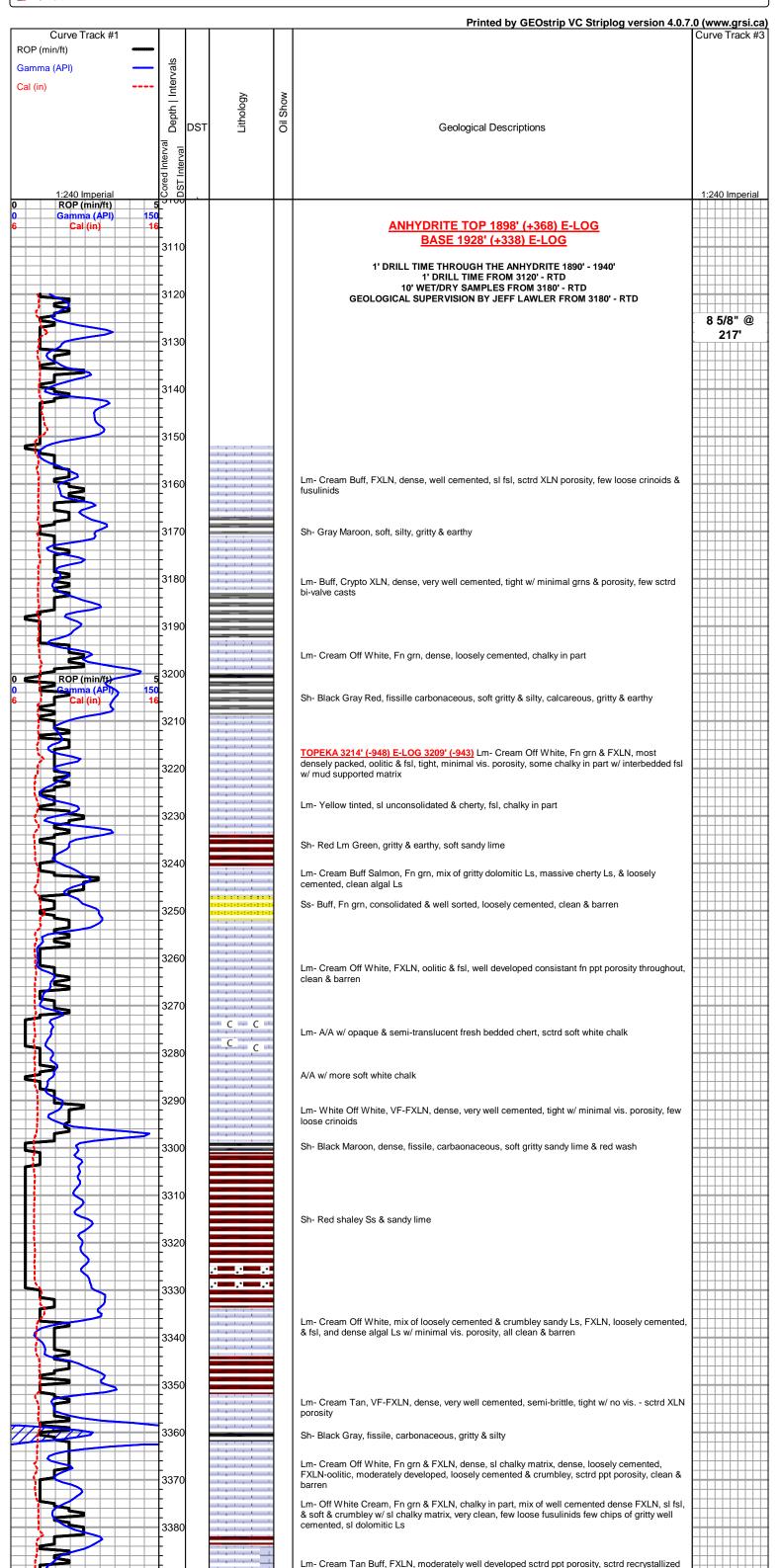
Company: Address:	BLACK DIAMOND C	RATOR DIL, INC.		
Contact Geologist: Contact Phone Nbr: Well Name: Location: Pool: State:	KENNETH VEHIGE (785) 625-5891 S <u>W</u> #1 NW NE NW SE 28-4	IS-22W API Field Country	: HANSON EST	0000 ATE NORTHWEST
	Scale 1:2	40 Imperial		
Well Name:				
Surface Location: Bottom Location:	NW NE NW SE 28-4	IS-22W		
API: License Number:	15-137-20622-0000			
Spud Date:	10/20/2012	Time	: 5:30 PM	
Region: Drilling Completed:	10/23/2012	Time	: 5:02 PM	
Surface Coordinates: Bottom Hole Coordinates:		·EL		
Ground Elevation: K.B. Elevation:				
Logged Interval: Total Depth:		То	: 3704.00ft	
Formation: Drilling Fluid Type:		WATER		
<u><u> </u></u>		D-ORDINATES		
Well Type:	Vertical			
Longitude: N/S Co-ord:		Latitude	: 39.6749206	
E/W Co-ord				
	LOGG	ED BY		
Company: Address:		ULTING		
Phone Nbr:		Nomo		
Logged By:	Geologist	Name	: JEFF LAWLEF	<
Contractor		ACTOR		
Rig #: Rig Type:				
Spud Date: TD Date:	10/20/2012	Time Time		
Rig Release:		Time		
	ELEVA	TIONS		
K.B. Elevation: K.B. to Ground:		Ground Elevation	: 2261.00ft	
DUE TO LOG ANALYSIS DECI ZONES WITH PERFORATION.	SION WAS MADE TO R			URTHER EVALUATE
		RESPECTFULLY SUBI JEFF LAWLER		
	WELL COMPA	RISON SHEET		
	BLACK DIAMOND OIL, INC.	BLACK DIAMOND OIL, INC.	BLACK DIAMOND OIL, INC.	X BLACK DIAMOND OIL, INC.
S&W#1	SPROUL #1 N2 N2 S2 28-4-22	WAGONER #2 NW SW SW NE 28-4-22	WAGONER #1 \$2 NE SW NE 28-4-22	SANSOM #5 S2 SW SE NE 28-4-22
KB 2266 LOGTOPS SAMPLETOPS FORMATION DEPTH DATUM DEPTH DATU	KB 2313 COMP.CARD LOG SMPL. M DEPTH DATUM CORR. CORR.		KB 2253 OMP.CARD LOG SMPL. H DATUM CORR. CORR.	

]		S&W#1				N2 N2 5	2 28-	4-22		N2 N2 S2 28-4-22				8-4-2	2		S2 NESW NE28-4-22						S2 SW SE			E NE 28-4-22			
	KB		2266		KB		2313		KB	KB 2272				_	КВ		2253		-	K			2261						
	LOG	TOPS	SAMPI	ETOPS	COMP	.CARD	LO	G	SMPL.		COMP	CARD		LOG		PL.	COMP.	CARD	LOG		SMPL.		COMP	.CARD	LOG		SMPL.		
FORMATION	DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	CO	RR.	CO	RR.	DEPTH	DATUM	со	RR.	со	RR.	DEPTH	DATUM	co	DRR.	СО	RR.	DEPTH	DATUM	СО	RR.	со	RR.	
ANHYDRITE TOP	1897	369	1898	368	1950	363	+	6	+	5	1904	368	+	1	+	0	1885	368	14	1	+	0	1890	371	-	2	-	3	
BASE	1927	339	1928	338																			1						
TOPEKA	3209	-943	3214	-948	3258	-945	+	2	1	3	3209	-937	-	6	27	11							3204	-943	+	0	84	5	
HEEBNER SHALE	3405	-1139	3405	-1139	3453	-1140	+	1	+	1	3437	-1165	+	26	+	26	3391	-1138	-	1	-	1	3400	-1139	+	0	+	0	
TORONTO	3433	-1167	3434	-1168																			3429	-1168	+	1	+	0	
LKC	3450	-1184	3450	-1184	3499	-1186	+	2	+	2	3452	-1180	-	4	127	4	3436	-1183	-	1	1	1	3446	-1185	+	1	+	1	
STARK SHALE																						-							
ВКС	3643	-1377	3643	-1377	3687	-1374	100	3	-	3	3637	-1365		12	ł	12	3620	-1367		10	1	10							
GORHAM SAND					3740	-1427						j j											-						
ARBUCKLE						1					3705	-1433					3691	-1438					34718	-32457					
REAGAN SAND																							3755	-1494					
RTD			3703	-1437							3710	-1438			+	1				Ĩ III			3796	-1535			+	98	
LTD	3704	-1438																					3796	-1535	+	97			

		ROCK TYPES		
Cht Lmst fw7>	shale, gry	shale, red	<mark>ାର୍କ୍ଟର୍ବ୍ଞୁତ୍ର</mark> Ss ଟ.କ.ରୁଙ୍ <u>ଛ</u> ୁ	

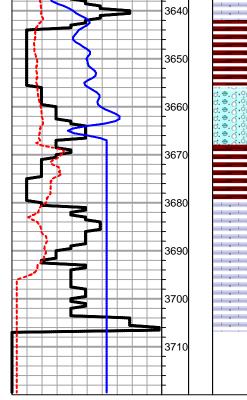
		ACCESSORIES
MINERAL .⁺ Sandy	TEXTURE C Chalky	





		H						H			
		H	H			H		H	H		
	-	H				H		H			
	-		-	-	H	H	-	H	-	-	
	-	\vdash		-	⊢	\vdash	⊢	\vdash		-	
	-	Н	\vdash	-	H	H	-	Н	\vdash	-	
	_	H		-	-		-	H		-	
	_	-		-	-		-	\square		-	
	_		_	_	-		-		_	-	
	_				L_		L_			L_	
					L_					L_	
,											
	_										
	-	H				H		H			
	-	H				H		H			
	-	Η				H		H			
		Η	\vdash			\vdash		Н	\vdash		
		H		-			-	H		-	
		Н	\vdash	\vdash	-	\vdash	-	Н	\vdash	-	
		Н	\vdash	\vdash	\vdash	\vdash	\vdash	Н	\vdash	\vdash	
	-	Н	\vdash	\vdash	H	\vdash	-	Н	\vdash	-	
		\vdash	\vdash	-	H	\vdash	-	\vdash	\vdash	-	
				-	-	H	-	H		-	
		\vdash	\vdash	-	-	\vdash	-	Н	\vdash	-	
	-	\vdash		-	-	\vdash	-	\vdash		-	
		\vdash		-	-	\vdash	-	\vdash		-	
					-		-			-	
				_	-		-			-	
				1.11					1	1.11	

-			3390			secondary porosity, sl fsl, loosely-well cemented, clean & barren, interbedded earthy red shale	+++	++	++	++-	ł
_			+				+++	++	++	++-	ł
									\square		l
_			-	<u> </u>		Chert- Smokey White sI fsI fresh bedded cherty Ls		\square	\square		ł
0		DOD(min/ft)	3400	A . A . A A		Chert- Smokey while shist hesh bedded cherty Ls	+++	++	++	++-	ł
		ROP(min/ft)	3				+++	++	++	++-	l
6							+++	++	++	++-	ł
Ž			1			HEEBNER 3405' (-1139) E-LOG 3405' (-1139) Sh- Black Gray, much soft, fissile,			\square		l
7	47		3410			carbonaceous, few gritty & earthy gray chips		\square	\square	Ц.	l
_			+				+++	++	++	++-	ł
-			-				+++	++	++	++	l
_			-				+++	++	++	++-	ł
			3420					++	+		ł
			13420			Sh- Maroon Brown Lm Green, red wash & mix of various colored sandy lime		\square	\square		ĺ
_			-				+++	++	++	_	ł
_							+++	++	++	++	l
_			+				+++	++	++	++-	ł
_			-3430				+++	++	++	++-	l
						TORONTO 3434' (-1168) E-LOG 3433' (-1167) Lm- Cream Off White, FXLN, dense, sctrd ppt		\pm	+		l
						porosity, chips of lightly pyrite speckled fresh bedded chert					l
_			-		•		+++	++	++	_	ł
-			3440			Lm- Tan, F-Med XLN, oolitic, sctrd GD ppt porosity, SCTRD DRK GSY STN, FR-GD SFO, FR	+++	++	++	++-	ł
-			-			GSY ODR	+++	++	++	++-	ł
								++	++	++-	ł
_						Sh- Red, soft gritty & earthy					l
_			3450			LKC 3450' (-1184) E-LOG 3450' (-1184) Lm- Cream Off White, FXLN, dense, well cemented,	+++	++	++	++-	ł
_	- i		-			mostly tight w/ sctrd XLN & fn ppt porosity, clean & barren	+++	++	++	++	l
_			-				+++	++	++	++-	ł
			F					⋣	\square		l
			3460				44	4	4	++	ł
_			+				+++	++	++	++	l
			+			Lm- Cream Off White, FXLN, dense, tight w/ minimal vis. porosity, fsl & sl oolitic, semi-brittle	+++	++	++	++	ł
			T					<u>_</u> ++			l
			3470								l
			+				++1	41	$+\downarrow$	++	l
-			+			Oh Managa with 0 appths	+++	++	++	++	l
	+		+			Sh- Maroon, gritty & earthy	+++	++	++	++	l
			2400					Ħ	<u></u>		l
			3480				\square	\square	\square		Ĺ
H			+			Lm- Cream Off White, FXLN, dense, sl oolitic, sctrd ppt porosity, 1-2 pcs w/ VRY WK STN, SL GSY SHN, VRY FNT ODR, DULL FLOR. NO WET CUT, much smokey white & semi-	++-	++	++	++	l
_			-		0	translucent fresh bedded chert	+++	++	++	++-	l
_			+				+++	++	++	++-	l
			3490					\pm	\pm		ſ
_			_			Sh- Brown Maroon, soft gritty sandy lime		\square	\square		ł
_			+			on blown waroon, son gnuy sandy inne	+++	++	++	++-	ł
_			+				+++	++	++	++	ł
	1		-3500			Lm- Off White Cream, VF-FXLN, dense, well cemented, semi-brittle, minimal vis. porosity,	+++	++	++	++-	l
						sctrd XLN porosity, clean & barren					l
_			-			Lm- Cream Off White, FXLN, sctrd development, mix of massive sl cherty Ls, speckled w/	+++	++	++	++-	ł
_			+		•	pyrite, sctrd fn ppt porosity, & dense, well cemented Ls w/ sctrd ppt porosity, DRK SCTRD	+++	++	++	++	ł
			-3510			STN, GD GSY SHN, PR-FR SFO, PR-FR GSY ODR	+++	++	++	++-	l
									\square		l
_			-			Sh- Red Maroon, gritty & earthy	+++	++	++	++-	ł
_			+				+++	++	++	++-	l
_			3520				+++	++	++	++-	ł
									\square		l
_					-	Lm- Cream Semi-Translucent, F-Med XLN, scrtd development, some oolitic & sl oolicastic, vry			\square		l
_			-		•	sctrd skeletal dissolution, sctrd intercastic connectivity, sctrd ppt-vuggy porosity, ALL W/ GD	+++	++	++	++	l
-			3530			DRK SCTRD STN, GD GSY SHEEN, FR-GD SFO, GD SULPHURIC GSY ODR	+++	++	++	++-	ł
_			-				+++	++	++	++	l
						Lm- mix of cream gritty, vry well cemented, dolomitic Ls and chert w/ vry fn consistant ppt					l
_			-			porosity, LT GSY STN, FR GSY SHEEN, SL GSY SFO, ODR A/A, & much smokey white/gray	+++	++	++	++	l
			3540			fresh bedded chert	+++	++	++	++	ł
			+				+++	++	++	++	l
			T			Lm- Cream Tan, Fn grn & FXLN, mostly soft, dense, sctrd XLN porosity, sctrd secondary		\pm	\pm		l
			Ŧ			recrystallized porosity, clean & barren	\square	\square	\square	1	l
	//		3550				++-	++	++	++	ł
F			+			Sh- Black Maroon Lm Green, vry well compacted, fissile, carbonaceous, gritty & earthy	+++	++	++	++	l
		⊢┲⇒⊢	+			on black maroon an oreen, wy wen compacted, noone, carbonaceous, yntty & eartfly	+++	++	++	++	l
			F					\Box	T		l
			3560				+	4	1	4	l
-			+				+++	++	++	++	l
\vdash			+			Lm- White Cream Tan, Fn grn & F-Med XLN, mix of dense sl chalky algal Ls, oolitic & well	+++	++	++	++	l
			E I			developed w/ GD interoolite porosity, few unconsolidated sp. w/ pyrite, & tan FXLN w/ consistant vry fn ppt porosity, GD GSY STN, GD SFO, GD GSY ODR, FR GSY SHN		\square	\Box		l
			3570				447	47	47	++	ł
-		┝┝┥╡	+				+++	++	++	++	l
			+			I m Buff En arn much donce well compared algol to w/ minimal vis associate	+++	++	++	++	l
			t			Lm- Buff, Fn grn, much dense, well cemented algal Ls w/ minimal vis. porosity		<u>+</u> †	\pm		l
			3580				1				l
_			+				++	41	$\downarrow\downarrow$	++	l
\vdash		┝┊╼╪╼╤╌┋╞╶╞╌┝	+				+++	++	++	++	l
\vdash			+			Sh- Gray Brown Maroon, gritty & earthy, soft gummy gray clumps	+++	++	++	++	l
			3590			, , , , , , , , , , , , , , , , , , ,					Ĺ
			+				$+ \Pi$	Д	4	Ŧ	l
\vdash	+	┝┼┟┝╤╤╝╲┼┼┼┼	+				+++	++	++	++	l
	+		+				+++	++	++	++	l
			- 3600		•	Lm- Tan, F-Med XLN, oolitic, mix of densely packed oolitic biomicrite w/ dense		Ħ			l
0		ROT (min/ft)	5 3000		~	cementation/matrix & moderately well developed oolitic w/ good ppt to sub-vuggy interoolitic porosity, LT STN, PR-FR SFO, FNT ODR, fsl eroded & reworked cherty Is, STN/ODR A/A	\square	TT.	\square	HT.	l
5		Gamma (API) 1	50			porosity, LT STIN, FINTIN SFO, FINT OUR, ISLETODED & TEWORED CRETTY IS, STIN/OUR A/A	+++	++	++	++	l
0			16-				+++	++	++	++	l
0 6			1			Sh- Brown Maroon, gritty & earthy, few chips of red ironstone	+++	++	++	++	l
0 6			-3610			on- prown waroon, gritty & earthy, rew onips of red fronstone		\square	Ħ		Ĺ
0 6							++	4	4	ļĹ	l
0 6			F				+++	11	- 1 L	++	
0 6			-						++		ļ
6					ļ	I.m. Cream Off White EXLN loosely cemented fsl & oplitic, vry well developed w/ GD	+++	+	+	++	
6			3620			Lm- Cream Off White, FXLN, loosely cemented, fsl & oolitic, vry well developed w/ GD consistant fn ppt interoolitic porosity throughout, LT GSY STN, SL FLAKEY, SL SFO, GD					
6			3620		۰	Lm- Cream Off White, FXLN, loosely cemented, fsl & oolitic, vry well developed w/ GD consistant fn ppt interoolitic porosity throughout, LT GSY STN, SL FLAKEY, SL SFO, GD SULPHURIC ODR					
6			3620		٠	consistant fn ppt interoolitic porosity throughout, LT GSY STN, SL FLAKEY, SL SFO, GD					
6					•	consistant fn ppt interoolitic porosity throughout, LT GSY STN, SL FLAKEY, SL SFO, GD					
0 6 			3620 3630		•	consistant fn ppt interoolitic porosity throughout, LT GSY STN, SL FLAKEY, SL SFO, GD SULPHURIC ODR					
					•	consistant fn ppt interoolitic porosity throughout, LT GSY STN, SL FLAKEY, SL SFO, GD SULPHURIC ODR Lm- Cream Tan, Med XLN, sl chalky, loosely cemented, fsl & sl oolitic, sctrd XLN & ppt					
					•	consistant fn ppt interoolitic porosity throughout, LT GSY STN, SL FLAKEY, SL SFO, GD SULPHURIC ODR					



BKC 3643' (-1377) E-LOG 3643' (-1377) Sh- Brick Red, soft, gritty & earthy, red wash shale

Ss- Red gritty Ss, well cemented

Ls Conglomerate, unconsolidated, sl fsl, loosely cemented & crumbley

Ss/Sh- Red & White tinted gritty shaley Ss

• Lm- Off White, FXLN, well cemented, oolitic & fsl, well developed w/ GD consistant ppt porosity, GD interstitial connectivity, DRK SAT STN, BLEEDING FO, FNT ODR

Lm- Off White, FXLN, dense, well cemented, sI unconsolidated w/ sctrd sub-rounded qtz. inclusions, clean & barren

Lm- White, Fn grn, sl chalky A/A, few chips of It purple tinted, loosely cemented Ss

Lm- Tan FXLN, sl sucrosic, dense, vry well cemented w/ dolomitic cementation, moderately well developed consistant fn ppt porosity

RTD 3706' (-1440) LTD 370' (-1438) @ 17:02 10-23-2012

_									
	F								
	F								
-	\vdash			H					
-		H		H	H				
		H		H	H			H	
-	⊢			H					
	⊢	H		H					
	⊢	H		Н	H				
	⊢	H	H	Н	H	H	H	H	H
-	⊢	H	H	Н	H	H	H	H	H
-	⊢	H	\vdash	H	\vdash	⊢	-		
H	⊢	H		H		-	-		-
-	⊢	\vdash	-	\vdash		⊢	-		-
-	⊢	\vdash	-	H		-	-		-
-	⊢	H	\vdash	Н	\vdash	⊢	-	\vdash	\vdash
-	⊢	H		Η		\vdash	-		
	⊢	H		H		-	-		-
-	⊢	H	\vdash	H	\vdash	⊢	-	\vdash	\vdash
	⊢	H		Н	H			H	
-	\vdash	H		H	H			H	
	-	H		H					
-	Ľ								
	s	Н		R				2	Γ.
	s		U	R	VI	E١		>	T
	s		U	R	VI	E١		>	T
	s		U	R	VI	E١		>	ΓΤ
	S		U	R	VI	E١		>	
	S		U	R	VI	E١		>	
	S		U	R	VI	E١		>	
	S		U	R	VI	E١		>	
	S		U	R	VI	E١			
	S		U	R	VI	E١			
	S		U	R	VI	E١			
	S		U	R	VI	E١			
	S		U	R	VI	E١			