



**Drilling Daily Report - 2022-01-24 - Day 8**  
**BLACKSPUR HZ LEDUC-WB 16-11-51-2 • 100/16-11-051-02W5/00 • #0502001**

LOCATION DATA							
NAME		LICENSE #	UWI	EVENT	AFE #	AFE \$	
BLACKSPUR HZ LEDUC-WB 16-11-51-2		0502001	100/16-11-051-02W5/00	Initial Drill	21DR0012	\$1,657,265.00	
DRILLING DATA							
EVENT	STAGE	MOVE DATE	SPUD DATE	RELEASE DATE	RIG		
Initial Drill	DRILLING	2022-01-17	2022-01-19		Horizon #43		
SURVEYED	CUT / FILL	KB > GROUND	CF > GROUND	GROUND	KB ELEVATION	CF ELEVATION	
742.30 m	-0.29 m	5.50 m	0.00 m	742.01 m	747.51 m	742.01 m	
DAILY REPORT DETAILS							
REPORT DATE	DEPTH	DRILLING TIME	PROGRESS	AVG ROP	MAN HOURS	CUM. HOURS	NON-PRODUCTIVE
2022-01-24	1,865.00 m	4.00 hr	250.00 m	43.48 m/hr	132.00 hr	925.00 hr	0.00 hr
MUD		RENTALS		COSTS			
MUD	CUM. MUD	RENTALS	CUM. RENTALS	DRILLING DAILY	DRILLING TOTAL	EVENT DAILY	EVENT TOTAL
\$3,924.00	\$63,510.85	\$10,756.50	\$60,530.50	\$261,417.39	\$908,382.79	\$261,417.39	\$992,237.79
DAILY OPERATIONS							
<b>MORNING OPERATIONS</b>							
No safety concerns or environmental issues to report. Drill 159mm Lateral section f/ 1865mKB - 2006mKB Rotating ROP - 140m/Hr, Sliding ROP - 45m/Hr, Vis- 39, Mud Wt - 1050Kg/m, WL - 7, Gamma - 98API, Gas - 137units. Currently 0.11m below & 2.0m Left of line, Slid -14%, Rotate -86% Last survey @ 1992m, Inc: 89.8deg, Azm: 54deg, TVD: 1365.23m.							
<b>DAILY OPERATIONAL SUMMARY</b>							
Discussed with CVE Calgary Drilling Superintendent Derek Rae upcoming days operations of Tripping handling BHA & drilling 159mm main hole. The rig is running well with no safety or environmental issues to report. Held safety meeting w/ cementers, Cement w/ Trican. Pump 1m3 Optimum Flush, Pressure test to 36MPa, Pump 2m3 Optimum Flush at 1160kg/m3 containing 5Kg/m3 Optimum Flush + 36L/m3 MW-2W Mud Wash. Pump 3m3 (1.42t) Scavenger, Titanium 1400-S @ 1300Kg/m3 with 2% OGC-60 + 4% AFA-7. Pump 23.2m3 (14.57t) lead cement Titanium 1400-S @ 1400Kg/m3 with 2% OGC-60 + 4% AFA-7. Pump 17.04m3 tail cement at 1600 kg/m3 (16t) T.A.C.-S with 0.2% AFA-7 + 0.4% TWR-4 + 0.5% Gel + 0.2% TDH-2 + 0.2% CFR-12. Drop plug. Displace w/ 32.86m3 fresh water, Bump plug @ 5 MPa over circulating pressure and hold for 5 minutes. Bleed back & check floats, floats held with 200L back. 9m3 good cement returns to surface. Plug down @ 01:45. Pressure test the casing to 1.4MPa low & 14MPa high for 11min each. Flush BOP, Nipple down & lift stack, install slips & seal, set slips @ 40DaN, cut casing, lay out spools, install Tubing Head & X/O spool, nipple up, Pressure test breaks, install wear bushing, pick up directional assembly w/ 159mm Reed TKC63-B1, on 6/7 Lobe, 6.4Stg Adj motor set @ 1.83deg, MWD Tool, Typhoon reamer, Jars and ball drop agitator 700 meters above the BHA. RIH, Slip & Cut drillline, drill out float & shoe @ 17:15, displace well to Polymer mud. Drill ahead 159mm lateral section as per Phoenix directional plan # 5 f/ 1615mKB - 1865mKB. Rotating ROP - 140m/Hr, Sliding ROP - 50m/Hr, Vis- 38, Mud Wt - 1020Kg/m, WL - 8, Gamma - 78API, Gas - 76units.							
<b>DAILY FORECAST</b>							
Drill ahead 159mm lateral section as per Phoenix Directional Plan # 5							
TIMELOG					WEATHER		
FROM	TO	DUR	NPT CODE	DETAILS	TIME	TEMP	CONDITIONS
00:00	00:15	0.25 h	21	Safety meeting with cementers	06:00	2 °C	OVERCAST
00:15	02:30	2.25 h	12C	Rig in cementers and Cement w/ Trican. Pump 1m3 Optimum Flush, Pressure test to 36MPa, Pump 2m3 Optimum Flush at 1160kg/m3 containing 5Kg/m3 Optimum Flush + 36L/m3 MW-2W Mud Wash. Pump 3m3 (1.42t) Scavenger, Titanium 1400-S @ 1300Kg/m3 with 2% OGC-60 + 4% AFA-7. Pump 23.2m3 (14.57t) lead cement Titanium 1400-S @ 1400Kg/m3 with 2% OGC-60 + 4% AFA-7. Pump 17.04m3 tail cement at 1600 kg/m3 (16t) T.A.C.-S with 0.2% AFA-7 + 0.4% TWR-4 + 0.5% Gel + 0.2% TDH-2 + 0.2% CFR-12. Drop plug. Displace w/ 32.86m3 fresh water, Bump plug @ 5 MPa over circulating pressure and hold for 5 minutes. Bleed back & check floats, floats held with 200L back. 9m3 good cement returns to surface. Plug down @ 01:45. Pressure test the casing to 1.4MPa low & 14MPa high for 11min each	WIND STRENGTH		ROAD CONDITION
					CALM		VERY POOR
PERSONNEL							
DRILLING ENGINEER - On Site Derek Rae 403-701-0899 DRILLING CONSULTANT - On Site Mike Bowen 403-348-9127 DRILLING CONSULTANT - On Site Darren Burton 780-518-7767 DRILLING MANAGER - On Site Nick Stanford 403-804-0296							
MUD ADDITIVES							
PRODUCT		AMOUNT	UNIT				
PH DROP		16	pail				
UNISTAR		4	sacks				
UNIPAC HVD		4	sacks				
BARITE		20	Sx				
ENGINEERING		1	Chk				
MUD RECORD							
TIME		DEPTH	DENSITY				
00:30		1,614.00 m	1,050.00 kg/m³				
VISCOSITY		WATER LOSS	FLUID pH				
45.00 s/l		6.00 ml/30	12				
PVT		SOLIDS	OIL				
21		-	-				
LOCATION SHAKERS							
TIME		DEPTH	DENSITY				
23:00		1,852.00 m	1,020.00 kg/m³				
VISCOSITY		WATER LOSS	FLUID pH				
40.00 s/l		8.00 ml/30	10.5				
PVT		SOLIDS	OIL				
60		-	-				
LOCATION SHAKERS							
PUMPS							
Pump #1		Work Force	Pump #2		Work Force		
Model		1300	Model		1300		
Duplex		TRIPLEX	Duplex		TRIPLEX		
SPM		76	SPM		76		
Pressure		13,000 kpa	Pressure		13,000 kpa		

22:00	23:45	1.75 h	20A	Directional surveys, connections, work pipe	Hours Run	10.0 hr	Hours Run	5.3 hr		
23:45	00:00	0.25 h	7	Rig Service/ function HCR 2 secs to open	Liner Size	114.0 mm	Liner Size	114.0 mm		
BOTTOM HOLE ASSEMBLY (LAST)					HOLE CONDITION					
#	DESCRIPTION	OD	ID	LENGTH	DRAG UP	DRAG DN	TORQUE	FILL	DEPTH	
1	BIT	159.0 mm	0.0 mm	0.2 m	3.0 kdaN	13.0 kdaN	7,000.0 Nm	0.0 m	-	
1	MUD MOTOR	176.0 mm	0.0 mm	8.38 m	SOLIDS CONTROL					
1	PONY SLICK COLLAR	160.0 mm	70.0 mm	2.88 m	NAME	INTAKE	OVERFLOW	UNDERFLOW		
1	FLEX NMDC	160.0 mm	69.0 mm	9.33 m	centrifuge	1,020 kg/m³	1,010 kg/m³	1,890 kg/m³		
1	GAP SUB	163.0 mm	74.0 mm	1.7 m						
1	FLEX NMDC	160.0 mm	69.0 mm	9.27 m						
1	X/O	165.0 mm	64.0 mm	1.18 m						
1	DP( 4.5 DS40 )	165.0 mm	97.2 mm	9.58 m						
1	REAMER	165.0 mm	62.0 mm	4.07 m						
6	DP( 4.5 DS40 )	165.0 mm	97.2 mm	56.87 m						
1	JARS-HYD	165.0 mm	0.71 mm	4.0 m						
66	DP( 4.5 DS40 )	165.0 mm	97.2 mm	627.55 m						
1	AGITATOR	165.0 mm	0.0 mm	5.48 m						
116	DP( 4.5 DS40 )	165.0 mm	97.2 mm	1,132.19 m						
BIT RECORDS										
#	SIZE	MANUFACTURER	TYPE	IN	OUT	HRS				
	( mm )			( m )	( m )					
3	159.0 REED		TKC63-B1	1,615.0	0.0	0.00 hr				
3	159.0 REED		TKC63-B1	1,615.0	0.0	4.00 hr				
TOTAL					4.00 hr					
DRILLING PARAMETERS										
From Time	To Time	From Depth	To Depth	Activity	Rotary RPM	Weight on Bit				
17:15	23:00	1,615.0 m	1,865.0 m	DRILL	40	8.0 kdaN				
DEVIATION SURVEYS										
WELLBORE	MD	TVD	DEVIATION	DIRECTION	METHOD					
Original Hole	1,630.43 m	1,368.90 m	86.20°	88.00°						
Original Hole	1,640.03 m	1,369.55 m	86.00°	87.30°						
Original Hole	1,649.53 m	1,370.08 m	87.60°	87.10°						
Original Hole	1,659.03 m	1,370.34 m	89.20°	87.40°						
Original Hole	1,668.49 m	1,370.34 m	90.90°	87.50°						
Original Hole	1,677.99 m	1,370.19 m	90.80°	87.20°						
Original Hole	1,687.48 m	1,370.05 m	91.00°	86.60°						
Original Hole	1,697.08 m	1,369.86 m	91.20°	86.80°						
Original Hole	1,706.58 m	1,369.70 m	90.80°	86.70°						
Original Hole	1,725.56 m	1,369.36 m	91.20°	86.10°						
Original Hole	1,744.49 m	1,368.98 m	91.10°	85.30°						
Original Hole	1,763.49 m	1,368.54 m	91.60°	86.80°						
Original Hole	1,782.44 m	1,368.01 m	91.60°	86.70°						
Original Hole	1,801.51 m	1,367.47 m	91.60°	86.90°						
Original Hole	1,811.00 m	1,367.25 m	91.10°	86.60°						
Original Hole	1,820.46 m	1,367.05 m	91.30°	86.80°						
Original Hole	1,830.04 m	1,366.83 m	91.40°	85.30°						
Original Hole	1,839.54 m	1,366.62 m	91.10°	83.70°						
Original Hole	1,849.19 m	1,366.49 m	90.40°	82.00°						
Original Hole	1,858.68 m	1,366.42 m	90.50°	80.00°						
DAILY COSTS										
VENDOR	#	TOTAL								
ARRIVAL	1	\$395.00								
BLACK DIAMOND	1	\$464.50								
CODECO-VANOCO	1	\$3,000.00								
DIRECT CASING ACCESSORIES	1	\$3,256.26								
GFL	1	\$45.00								
HORIZON DRILLING	4	\$22,745.00								
IMPULSE DOWN HOLE TOOLS	1	\$1,500.00								
LIQUIDS TRANSLOADING LTD.	3	\$3,400.00								
MOOSE DOKTOR	1	\$70.00								
PASON	1	\$1,800.00								
PHOENIX DIRECTIONAL SERVICES	1	\$14,225.00								
PRECISION RENTALS	1	\$1,130.00								
ROCKBUSTERS OILFIELD PERFORMANCE LTD	1	\$300.00								
SEMERRA	1	\$2,313.00								
TALLMAN GEOLOGICAL	1	\$2,500.00								
TANGO DELTA	1	\$252.00								
TRICAN WELL SERVICES	1	\$30,455.77								
TRIMARK TUBULARS	1	\$157,500.00								
TROJAN SAFETY	1	\$660.00								
UNIQ ENERGY SOLUTIONS	1	\$3,924.00								
VDM TRUCKING SERVICES LTD	1	\$10,166.86								
WTS	1	\$1,315.00								
TOTAL		27	\$261,417.39							