


**1. WELL DATA CARD**

WELL SUMMARY			
 <b>PetroFrontier</b>	WELL NAME	Owen-3/3H	
	OFFSET WELL	Owen-2, 920m to the east	
	WELL CLASS	Exploration	
LOCATION DETAILS			
BASIN	Southern Georgina Basin	NORTHING	7523770.42 mN
LICENCE	EP 104	EASTING	802003.30 mE
LOCATION	Northern Territory	ZONE	53 S
SEISMIC SURVEY	Pacific Oil & gas 1989	LATITUDE	22° 21' 55.912" S
SEISMIC REF.	Line 89-303, 7mE SP 3907	LONGITUDE	137° 55' 56.850" E
ELEVATIONS	188.9mAHD (GL), 194mAHD (RT)	GRID	GDA'94
OPERATION DETAILS			
OPERATOR	PetroFrontier (Australia) Pty. Ltd	DRILLING RIG /	Ensign Rig 918
PRIMARY OBJECTIVE	Arthur Creek Formation 'Hot Shale'	SPUD DATE	08/07/2012, 19:00 hrs
STRUCTURE	Unconventional Stratigraphic	RIG RELEASE	01/09/2012, 06:00 hrs
WELL TYPE	Owen-3: inclined pilot hole, 3H: horizontal	TD DATE Owen-3	05/08/2012, 20:15 hrs
DRILLER TD Owen-3	1180.0mMDRT, 1129.9mTVDRT, 935.9mTVDSS	OPERATION DAYS	30
KICKOFF DEPTH 3H	958.0mMDRT, 928.1mTVDRT, 734.1mTVDSS	KICKOFF DATE 3H	10/08/2012, 21:15 hrs
DRILLER TD Owen-3H	2153.0mMDRT, 1073.5mTVDRT, 879.5mTVDSS	OPERATION DAYS	21

HOLE SUMMARY				
HOLE SIZE	HOLE DEPTH	CASING SIZE	SHOE DEPTH	CASING TYPE
<b>OWEN-3</b>				
17 ½" (445mm)	128.0mMD	13 3/8" (340mm)	128.0mMD	Conductor
12 ¼" (316mm)	635.0mMD	9 5/8" (244mm)	633.2mMD	36 ppf K55 BTC 43.5ppf P11 0BTC 47ppf P110 BTC
8 ½" (216mm)	1180.0mMD	N/A	N/A	N/A
<b>OWEN-3H</b>				
8 ½" (216mm)	1276.0mMD	7" (178mm)	1273.7mMD	29 ppf P110 VAM
6" (152mm)	2153.0mMD	4 ½"(114mm)-2133.0-117.8mMD	2133.0mMD	13.5ppf P110 BTC

FORMATION TOPS					
AGE	FORMATION	MDRT (m)	TVDRT (m)	TVDSS (m)	TVT (m)
<b>OWEN-3</b>					
Late Cambrian	Ninmaroo Formation	5.1	5.1	-188.9	212.9
	Arrinthunga Formation	218.0	218.0	24.0	357.9
	Chabalowe Formation; Hagen Member	576.0	575.9	381.9	36.0
Mid Cambrian	Arthur Creek Formation Steamboat Sandstone Equivalent	612.0	611.9	417.9	67.9
	Georgina Limestone	682.2	679.8	485.8	193.3
	Lower Arthur Creek Formation	886.8	873.1	679.1	170.8
	Arthur Creek Formation Hot Shale	1089.2	1043.9	849.9	15.9
	Thorntonia Formation	1106.0	1059.8	865.8	N/A
	Total Depth	1180.0	1130.0	936.0	N/A
<b>OWEN-3H</b>					
Mid Cambrian	Lower Arthur Creek Formation (kick-off)	958.0	928.1	734.1	n/a
	Arthur Creek Formation Hot Shale	1187.3	1047.2	853.2	24.7
	Thorntonia Formation	1642.5	1071.9	877.9	n/a
	Arthur Creek Formation Hot Shale (Re-Entry)	1851.0	1072.2	878.2	n/a
	Thorntonia Formation (Re-Entry after Fault)	1864.0	1071.8	877.8	n/a
	Arthur Creek Formation Hot Shale (Re-Entry)	1937.7	1068.2	874.2	n/a
	Thorntonia Formation	2102.0	1071.7	877.7	n/a

		Total Depth		2153.0	1073.5	879.5	n/a
<b>MWD-LWD &amp; LOGGING SUMMARY</b>							
RUN	IN (mMD)	OUT (mMD)	TOOLS STRING		REMARKS		
<b>OWEN-3</b>							
1	633.2	1096.0	6.75" Near Bit Inc-GR-ECD-RES-DIR		LWD Run 1: Casing shoe to coring point		
1	1079.5	633.0	SPDL-GRGC-GRSG-FE-NEUT-DENS- DSSL-DDLL-CAL-MRRS		Wireline Run 1: Max. BHT 44° at 1136.5mMD. Repeat: 1145.0-1075.0mMD		
	633.0	Surface	GR only				
2	1179.0	780.0	CMI CXD (Resistivity + Sonic Imager)		Wireline Run 2		
<b>OWEN-3H LWD</b>							
1	9	959.0	ECD-GR-RES-DIR		Run with x-treme motor set at 2.1 degrees. Owen-3H successfully kicked-off at 958.9mMD. POOH to reduce motor angle.		
2	959.0	964.0	ECD-GR-RES-DIR		Run with x-treme motor set at 0.6 degrees.		
3	964.0	1276.0	NBI-ECD-GR-RES-DIR		Rotary steerable assembly.		
4	1276.3	1738.0	GR-ECD-RES-DIR-ORD-CAL-CCN		Run with Motor OnTrak (GR + RES) and LithoTrak (Density + Porosity + Caliper)		
5	1738.0	1759.0	GR-ECD-RES-DIR-ORD-CAL-CCN		Run with Motor OnTrak (GR + RES) and LithoTrak (Density + Porosity + Caliper)		
6	1759.0	1823.0	NBI-GR-ECD-RES-DIR		Run with Motor OnTrak (GR + RES)		
7	1823.0	2153.0	NBI-GR-ECD-RES-DIR-ORD-CAL-CCN				
<b>CORING: OWEN-3</b>							
RUN	INTERVAL (mMDRT)		RECOVERY m, (%)		COMMENT		
1	1096.45 – 1108.42		11.42m, 95.4%		Wedged off		
2	1108.42 – 1111.42		3.10m, 103.3%		Wedged off – picked up bottom 0.1 m from run 1		
3	1111.42 – 1130.44		18.97m, 99.7%		Barrel full		
all	1096.45 – 1130.44		33.49m, 98.5%				
<b>SIDEWALL CORES</b>		No sidewall cores taken					
<b>FORMATION TESTS</b>		No formation tests completed					