

Well Name	Palm Valley 12 ST2		Petroleum Title	OL3	Basin	Amadeus		
Well Purpose	Petroleum Development		Status	Completed as Pacoota P1 Producer	Parent Well Name, if any	PV 12		
Spud Date	2/09/2022		TD Date	8/10/2022	Rig Release Date	21/10/2022		
Primary Objective	Pacoota P1		Rig(s) Name	Ensign 963				
Secondary Objective	NA		100K Map Sheet	Hermannsburg 5450				
Total Depth		MD	TVD		Side-Track Kick-off Depth, if applicable	1,331.0		
	Driller	3,039.0	1,910.0					
	Logger	3,039.0	1,910.0		Drill Datum Elevation Datum: AHD	GL Elevation: 845.78m Drill Datum Elevation: 852.94m		
Location	Coordinates	Surface	Bottom Hole					
(GDA94 Datum with GRS80 Ellipsoid using MGA94 Grid)	Latitude	23° 59' 54.74" S	24° 0' 36.192" S		<input type="checkbox"/> DF <input checked="" type="checkbox"/> RT <input type="checkbox"/> KB	Survey	Inline	Xline
	Longitude	132° 44' 01.03" E	132° 44' 9.006" E					
Zone	Easting	7,344,080.00 mN	269686.88 mE		Seismic Station, if applicable	PV2D 1994		M94-PV05
53	Northing	269,440.94 mE	7342808.11 mN			Shot point		575

Well Summary

The Palm Valley 12 ST2 sidetrack well was designed to accelerate production from the Pacoota P1 producing reservoir; targeting the southern area of the field where there were currently no well intersections. As with PV12 ST1, PV12 ST2 was oriented to give the best potential for intersecting open T2 fractures in that part of the field.

The proposed Total Depth of 3036 mMD was 'flexible' as the intention was to keep drilling until a potentially economic flow rate was identified via Flow Testing.

After abandoning PV12 ST1, a whipstock was run and anchored at 1326.69m and a window milled in 9 5/8" casing from 1320m to 1331m. The directional assembly was RIH, oriented and the 8 1/2" hole build section drilled ahead to 1860m, section TD. The 7" liner assembly was RIH to 1856 m and cemented, following which the tie back assembly/DDV/ control lines were run, landed and pressure tested.

After drilling the shoe track, an FIT of 12.1 EMW was obtained in 6" hole. Directional UB drilling BHA was RIH, unloaded kill fluids and drilled ahead to 1960m, at which depth the flare was ignited.

The 6" hole was directionally drilled to 2598m where Flow Test #1 was run in the P1 reservoir. Flow Test #2 was also run in the P1 at 2877m and 6" hole drilled ahead to 2883m where all returns were lost. Returns were regained and the well drilled to final TD at 3039 mMDRT. The well was circulated clean and Flow Tests #3, #4, #5 and #6 conducted.

The wellbore was then unloaded with N2.

After scraping the 7" casing from 1820m to 1840m the production packer was set, and pressure tested. The 7" tie back assembly was pulled and the 3 1/2" completion RIH to 1827.91m. The well was displaced to Completion Brine and upper and lower hanger seals, plus 3 1/2" tubing were pressure tested.

The Xmas Tree was nipped up and pressure tested. Gauge and Junk Catcher runs were conducted, followed by a drift run to SSD, with no obstruction encountered. Ensign Rig 963 was then rigged down and released on 21st October 2022.

Hole and Casing Design (Drillers Depths)						Drilling Fluid	
Type	Hole	Depth	Casing	Shoe mMD	Shoe mTVD	Hole Size	Type
	Size	(mMD)	Size				
Conductor (PV12)	24"	101.0	20"	99.4	99.4	24"	Gel Polymer
Surface Casing (PV12)	17 1/2"	1103.0	13 3/8"	1099.3	1099.3	17 1/2"	Gel Polymer
Intermediate Csg (window)	12 1/4"	1331.0	9 5/8"	1331.0	1331.0	12 1/4"	Gel Polymer
Production Casing	8 1/2"	1860.0	7"	1856.8	1770.8	8 1/2"	Gel Polymer
Open Hole	6"	3039	NA	NA	NA	6"	N2 Foam

  

Stratigraphy – Formation Tops (Loggers)				Formation Evaluation			
Formation	Depth			Run	Measurement	Depth Interval	
	mMD	mTVD	mTVDGL			From (mMD)	To (mMD)
Hermannsburg Sandstone	17.4	17.4	10.2		Wireline		
Parke Siltstone	397.0	397.0	389.8	S1R1	CBL-VDL-GR-CCL	1,171.0	1,847.0
Mereenie Sandstone	438.0	438.0	430.8				
Carmichael Sandstone	998.4	998.4	991.2		MWD/LWD		
Stokes Siltstone	1094.0	1094.0	1086.8	3800	PGRC-ROPA	1,314.0	1,475.0
Upper Stairway sandstone	1387.0	1387.0	1379.8	3900	PGRC-ROPA	1,314.0	1,668.0

Formation	Depth			Run	Measurement	Depth Interval	
	mMD	mTVD	mTVDGL			From (mMD)	To (mMD)
Middle Stairway Sandstone	1432.3	1432.3	1425.1	4000	PGRC-ROPA	1,314.0	1,703.0
Lower Stairway Sandstone	1583.6	1576.4	1569.2	4100	PGRC-ROPA	1,314.0	1,808.0
Horn Valley Siltstone	1750.0	1702.0	1694.8	4200	PGRC-ROPA	1,314.0	1,860.0
Pacoota P1 (P1A)	1883.0	1786.0	1778.8	4400	PGRC-ROPA	1,858.0	2,063.0
Pacoota P1 (P1G)	2437.2	1884.5	1877.3	4500	PGRC-ROPA	1,858.0	2,564.0
Total Depth	3039.0	1910.0	1902.8	4600	PGRC-ROPA	1,858.0	3,039.0
Mud Logging			Formation Testing (DST)			DFIT	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Total Gas and C1-C5 chromatograph from 0 mMD to 3039.0 mMD			No DST's were run, however, 6 flow tests were performed over the Pacoota P1 unit.			HF	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Coring	Hydrocarbon Shows						
NA	No hydrocarbon fluorescence was noted while drilling Palm Valley 12 ST2. However, significant hydrocarbon gas peaks were recorded and flow tested in the Pacoota P1 Formation.						
Completion							
An open hole packer was set from 2479.2m to 2480.8m, to control water production from the Sub-P1G interval. A production packer was set at 1827.9m and the 3 1/2" production tubing run and pressure tested. The Xmas Tree was nipped up and pressure tested.							