

Preliminary Well Summary

1 Tanumbirini 3H Well Card

1.1 General

Well Name	Tanumbirini 3H		Petroleum Title	EP 161	Basin	McArthur		
Well Purpose	Exploration		Status	Plugged Back	Parent Well Name, if any	N/A		
Spud Date	23 August 2021		TD Date	N/A	Sidetrack Date	27 October 2021		
Primary Objective	Amungee Member B Shale				Rig(s) Name	Easternwell 106		
Secondary Objective	N/A				100K Map Sheet	Tanumbirini 5865		
Total Depth		MD	TVD	Side-Track Kick-off Depth, if applicable	3377m MDRT (side-tracked to Tanumbirini 3H ST1)			
	Driller	3760.6	3435.2					
	Logger	N/A	N/A	Drill Datum <input type="checkbox"/> DF <input checked="" type="checkbox"/> RT <input type="checkbox"/> KB	Elevation Datum: AHD (m)			
Location (GDA 94 Datum with GRS80 Ellipsoid using MGA94 Grid)	Coordinates	Surface	Bottom Hole		GL Elevation: 214.9			
	Latitude	16° 23' 58.51" S	16° 23' 41.10" S	Seismic Station, if applicable	Survey	Inline	Xline	
	Longitude	134° 42' 12.78" E	134° 41' 59.63" E		MCSAN 19-01	MCSAN 19-01	MCSAN 13-05	
Zone	Easting	468 346m	467 955m		Shotpoint	N/A	N/A	
53	Northing	8186 841m	8187 375m					

1.2 Well Summary

Tanumbirini 3H was spudded at 04:30hrs on 23rd August 2021 with the drilling rig Easternwell 106. The 17-1/2" conductor hole in this well was drilled from 31mMD to section TD at 236mMD with 13-3/8" conductor casing (casing while drilling). The 13-3/8" conductor was cemented with the shoe set at 233.2mMD. A top up cement job was conducted from the back-side. A Formation Integrity Test (FIT) was performed to 22.1ppg EMW. The 12-1/4" surface hole was then drilled to section TD at 1083mMD. The 9-5/8" casing was ran and cemented with the shoe set at 1079.6mMD. The 8-1/2" intermediate hole was then drilled to section TD at 3759mMD with multiple bit runs while building inclination to 80.2°. A wiper trip was performed to 3245mMD and back to bottom. The BHA was back reamed and pulled out of the hole to surface.

A string of 7" intermediate casing was ran with the hole packing off at 3735mMD. Circulated and cemented the 7" casing with the shoe set at 3717.2mMD. After drilling out the casing shoe and shoe track a Formation Integrity Test (FIT) was performed to 14.0ppg EMW. A cement stability plug was pumped 3759mMD to 3600mMD.

The cement plug was tagged and drilled out from 3693mMD to 3759mMD. The 6-1/8" production hole was drilled from 3759mMD to 3760mMD at which time the drill string became stuck. After attempting to free the string a blind backoff was conducted. A cement plug was set 3533mMD to 3371mMD above the fish.

After dressing the plug from 3371mMD to 3390mMD, a tri-mill and whipstock were ran in hole. The whipstock was set at 3373.7mMD inside the 7" casing, and a window was milled from 3367.4mMD to 3373.6mMD. A Formation Integrity Test (FIT) was performed to 14.0ppg EMW.

A 6-1/8" motor BHA was ran in hole. The hole was drilled ahead from 3373.6mMD to 3377mMD at which point 100% formation was observed. Tanumbirini 3H was side-tracked to Tanumbirini 3HST1 at 08:45hrs on 27th October 2021.

1.3 Well Details

Hole and Casing Design (Drillers Depths)						Drilling Fluid	
Type	Hole Size	Depth (mMD)	Casing Size	Shoe (mMD)	Shoe (mTVD)	Hole Size	Type
Conductor	17-1/2	236.0	13-3/8	233.2	233.2	17-1/2	KCL/Polymer
Surface	12-1/4	1083.0	9-5/8	1079.6	1077.9	12-1/4	KCL/Polymer
Intermediate	8-1/2	3759.0	7	3717.2	3426.5	8-1/2	KCL/Polymer/BaraHib Plus
Intermediate Window	6-1/8"	3373.6	7	3373.6	3283.8m	6-1/8"	BaraHib Plus
Stratigraphy – Formation Tops (Loggers Depths)				Formation Evaluation			
Formation	Depth			Run	Measurement	Depth Interval	
	mMD	mTVD	mTVDGL			From (mMD)	To (mMD)
Surficial Deposits	8.7	8.7	215.0	4	D&I-GR	239	1083
Gum Ridge Formation	54.7	54.7	169.0	5	D&I-GR-PWD	1083	1845
Inacumba Unit	201.5	201.5	22.0	6	D&I-GR-PWD	1845	2094
Cox Formation	586.3	584.6	-361.0	7	D&I-GR-PWD	2094	2361
Bukalara Sandstone	1154.0	1152.6	-929.0	8	D&I-GR-PWD	2361	2478
Kyalla Formation	1302.1	1300.6	-1077.0	9	D&I-GR-PWD	2478	2645
Lower Kyalla Sandstone	1826.9	1825.6	-1602.0	10	ABI-Azi GR-D&I-GR-PWD-Sonic	2645	3289
Moroak Sandstone	2069.3	2067.6	-1844.0	11	ABI-Azi GR-D&I-GR-PWD-Sonic	3289	3759
Wyworrie Member (VELK)	2642.4	2640.6	-2417.0	14	XBAT-Cal-PWD-Azi GR-SpecStar-D&I-GR-ABI-Vib	3759	3760
Amungee Member (VELK)	3174.8	3140.6	-2917.0		<i>*Formation evaluation only related BHA runs listed</i>		
Mud Logging				Formation Testing (DST)		DFIT	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
10m sample collected from 31m to 1280m, 3/5m samples from 1280m to 1570m, 3m samples from 1570m to 1609m, 5m samples from 1609m to 1655m, 3/5m samples from 1655m to 3760.6m (TD).				N/A		HF	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Coring			Hydrocarbon Shows				
N/A			One residual oil fluorescence show was encountered in the Kyalla Formation during drilling operations at Tanumbirini 3H with a gas peak of 42 units over a background of 10 units (57/25/12/5/1%). Several fair to very poor gas shows were observed, with total gas peaks of up to 882 units over a background of 30 units (94/5/1/Tr/Tr %) in the Lower Kyalla and Wyworrie Member. Several good gas shows were observed, with total gas peaks of up to 831 units over a background of 200 units (94/6/Tr/Tr/Tr %) in the Amungee Member Shales.				
Completion							
Tanumbirini 3H was plugged back and side-tracked to Tanumbirini 3HST1 at 08:45hrs on 27th October 2021.							

2 Tanumbirini 3HST1 Well Card

2.1 General

Well Name	Tanumbirini 3HST1	Petroleum Title	EP 161	Basin	McArthur		
Well Purpose	Exploration	Status	Cased & Suspended	Parent Well Name, if any	Tanumbirini 3H		
Spud Date	23 August 2021	TD Date	07 November 2021	Rig Release Date	19 November 2021		
Primary Objective	Amungee Member B Shale			Rig(s) Name	Easternwell 106		
Secondary Objective	N/A			100K Map Sheet	Tanumbirini 5865		
Total Depth		MD	TVD	Side-Track Kick-off Depth, if applicable	3377m MDRT		
	Driller	4857.0	3445.7				
	Logger	N/A	N/A	Drill Datum <input type="checkbox"/> DF <input checked="" type="checkbox"/> RT <input type="checkbox"/> KB	Elevation Datum: AHD (m)		
Location (GDA 94 Datum with GRS80 Ellipsoid using MGA94 Grid)	Coordinates	Surface	Bottom Hole		GL Elevation: 214.9		
	Latitude	16° 23' 58.51" S	16° 23' 10.30" S	Drill Datum Elevation: 223.6			
Zone	Longitude	134° 42' 12.78" E	134° 41' 41.89" E	Seismic Station, if applicable	Survey	Inline	Xline
	Easting	468 346m	467 427m		MCSAN 19-01	MCSAN 19-01	MCSAN 13-05
53	Northing	8186 841m	8188 321m		Shotpoint	N/A	N/A

2.2 Well Summary

Drilling of the 6-1/8" production hole proceeded from kick-off point at 3377mMD at 08:45hrs on 27th October 2021 to 3409mMD. After pulling out of hole the RSS and LWD tools were picked up. 6-1/8" production hole drilling resumed from 3409mMD to well TD at 4857mMD and was geosteered at high angle through the Amungee Member Shale reservoir. Well TD was reached at 03:45hrs on 7th November 2021. Circulated the hole clean and back reamed / pulled out of hole to surface.

Ran 4-1/2" production casing, worked casing down to 4453mMD. At 4441mMD the drill string stalled out and a pressure increase was observed. Circulated and cleaned the hole from 4445mMD to 4433mMD. Cemented 4-1/2" production casing with the shoe set at 4435mMD.

Tanumbirini 3HST1 has been cased and suspended for completion at a later date. The rig was released at 14:00 hours, 19th November 2021.

2.3 Well Details

Hole and Casing Design (Drillers Depths)						Drilling Fluid	
Type	Hole Size	Depth (mMD)	Casing Size	Shoe (mMD)	Shoe (mTVD)	Hole Size	Type
Conductor	17-1/2	236.0	13-3/8	233.2	233.2	17-1/2	KCL/Polymer
Surface	12-1/4	1083.0	9-5/8	1079.6	1077.9	12-1/4	KCL/Polymer
Intermediate	8-1/2	3759.0	7	3717.2	3426.5	8-1/2	KCL/Polymer/BaraHib Plus
Production	6-1/8	4857	4-1/2	4435.0	3439.4	6-1/8"	BaraHib Plus
Stratigraphy – Formation Tops (Loggers Depths)				Formation Evaluation			
Formation	Depth			Run	Measurement	Depth Interval	
	mMD	mTVD	mTVDGL			From (mMD)	To (mMD)
Surficial Deposits	8.7	8.7	215.0	19	D&I	3377	3409
Gum Ridge Formation	54.7	54.7	169.0	20	XBAT-Cal-PWD-Azi GR-SpecStar-D&I-GR-ABI-Vib	3409	4263
Inacumba Unit	201.5	201.5	22.0	21	XBAT-Cal-PWD-Azi GR-SpecStar-D&I-GR-ABI-Vib	4263	4857
Cox Formation	586.3	584.6	-361.0				
Bukalara Sandstone	1154.0	1152.6	-929.0				
Kyalla Formation	1302.1	1300.6	-1077.0				
Lower Kyalla Sandstone	1826.9	1825.6	-1602.0				
Moroak Sandstone	2069.3	2067.6	-1844.0				
Wyworrie Member (VELK)	2642.4	2640.6	-2417.0				
Amungee Member (VELK)	3174.8	3140.6	-2917.0		<i>*Formation evaluation only related BHA runs listed</i>		
Mud Logging				Formation Testing (DST)		DFIT	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3m samples collected from 3377m to 3560m, 5m samples from 3560m to 4857m (TD).				N/A		HF	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Coring			Hydrocarbon Shows				
N/A			No oil fluorescence shows were encountered during drilling operations at Tanumbirini 3HST1. Numerous good to fair gas shows were observed, with total gas peaks of up to 2519 units over a background of 150 units (95/4/1/Tr %) in the Amungee Shale.				
Completion							
Tanumbirini 3HST1 has been cased and suspended for completion at a later date. The rig was released at 14:00 hours, 19th November 2021.							