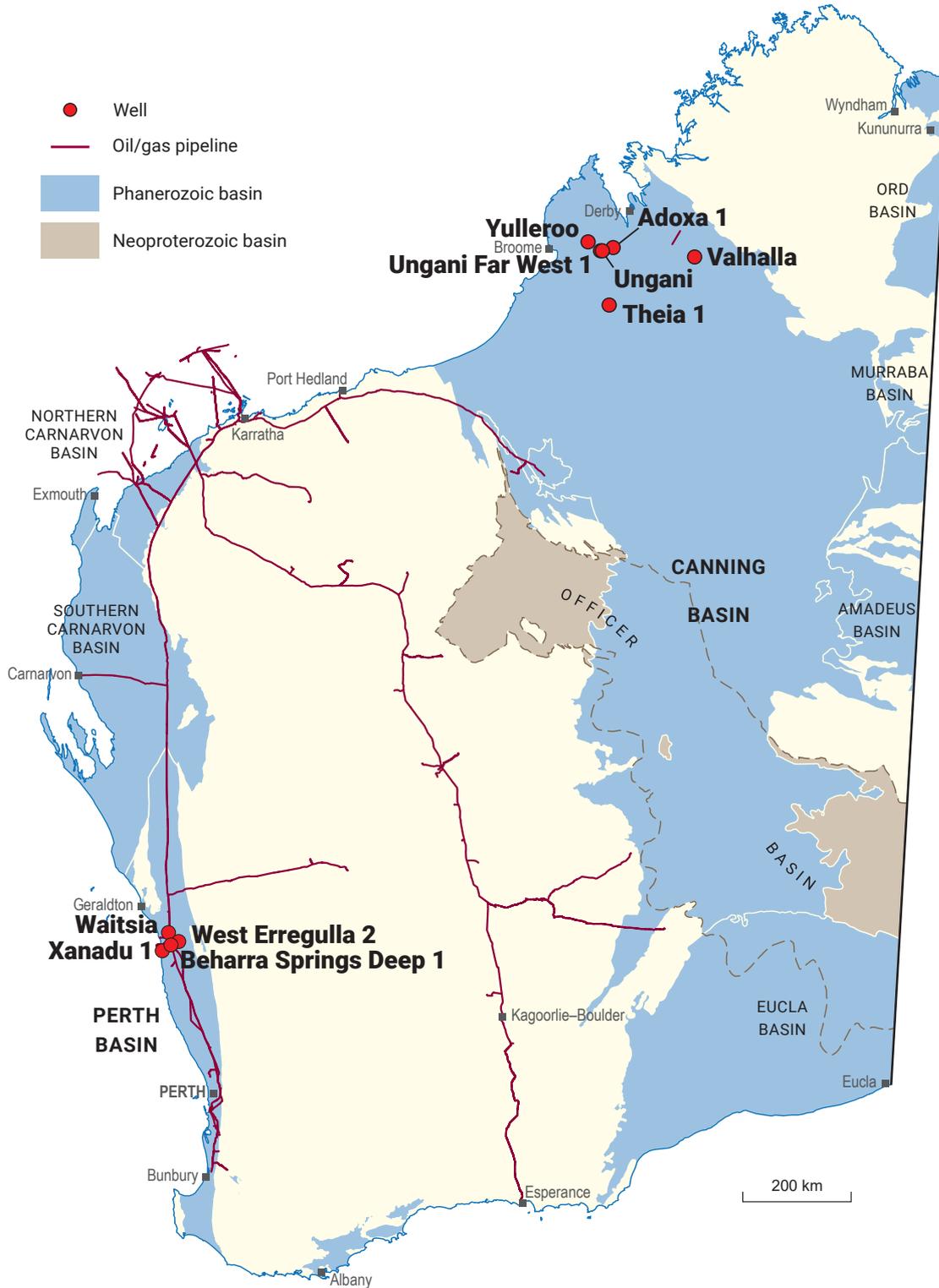


PETROLEUM SUCCESSES

ONSHORE and STATE WATERS

WORLD-CLASS RESOURCE PROVINCE | SECURE INVESTMENT LOCATION
WORLD-LEADING GEOSCIENTIFIC DATA | GLOBAL MINING SERVICES INDUSTRY



PERTH BASIN

DISCOVERY/ ACCUMULATION/ PLAY	OPERATOR/ ORGANIZATION	COMMENT
Waitsia Gas Field	Mitsui	In 2014, AWE (the predecessor to Mitsui E&P Australia) made the biggest discovery of conventional gas in onshore Australia for more than 40 years. This occurred while appraising the Senecio Gas Field. The discovery became known as the Waitsia Gas Field and opened up a new deeper Permian sandstone play. By August 2016, less than two years later, AWE sent the first gas from Waitsia down the Parmelia Gas Pipeline to Perth. Since then, Mitsui has expanded the Waitsia gas production capacity and increased the reach to market by connecting to the Dampier to Bunbury Natural Gas Pipeline. (Source: Mitsui)
West Erregulla 2	Strike Energy	In August 2019, Strike announced it had made a major gas discovery with its West Erregulla 2 well. Several Permian sandstone reservoirs were intersected, including the Kingia Sandstone, with a gross gas column of at least 97 m. Subsequent testing of the Kingia reservoir gave a gas flow rate of approximately 69 MMSCFD, through a two-inch choke and 700 PSIG wellhead pressure over a one-hour period, confirming the high-quality reservoir with excellent productivity. At 5100 m depth, this was the deepest well drilled and the deepest hydrocarbons discovered in onshore Australia up until that time. (Source: Strike Energy)
Beharra Springs Deep 1	Beach Energy	In October 2019, Beach Energy announced a new conventional gas discovery in the Beharra Springs Deep 1 exploration well. Preliminary estimates were net gas pay of 36 m and reservoir porosities of up to 21% in the Kingia Sandstone at a depth between 3935 and 4000 m. In December 2019, it was announced that the high quality of the Kingia Sandstone reservoir was confirmed by a test giving flow rates of up to 46 MMSCFD constrained by tubing size. (Source: Beach Energy)
Xanadu 1 (State Waters)	Norwest Energy	In 2017, Norwest Energy drilled the Xanadu oil discovery well targeting a structure on the Beagle Ridge. The well was drilled from an onshore coastal location and deviated to a State Waters location. A wireline tool recovered 34.7° API oil. The discovery subsequently proved to be subcommercial, after completion of a 3D seismic survey in 2019. However, the presence of oil at Xanadu is a positive outcome as it increased the probability of oil migration in to additional prospects located to the west, more proximal to the oil source kitchen. (Source: Norwest Energy)

CANNING BASIN

DISCOVERY/ ACCUMULATION/ PLAY	OPERATOR/ ORGANIZATION	COMMENT
Ungani Oil Field	Buru Energy	Pre-drill, Ungani 1 was targeting gas in a sandstone reservoir. However, when it was drilled in 2011, a new play was discovered with 37° API oil flowing on DST at rates of up to 1647 bpd on a 32/64 inch choke from Devonian–Carboniferous dolomite. Oil from Ungani Field is delivered by road tanker to the northern Australian port of Wyndham for export to Southeast Asian refineries. In late 2017, Ungani 5 flowed over 1200 bopd. In May 2018, Buru Energy sold 50% of Ungani Oil Field to Roc Oil. (Source: Buru Energy)
Theia 1	Theia Energy (formerly FINDER Exploration)	Theia 1 was drilled in July–August 2015. Assessment appears to validate the geological model and de-risk the Ordovician Goldwyer Formation liquids rich resource play. The well had gas and oil shows as well as indications of overpressure. (Source: Theia Energy)
Valhalla	Bennett Resources	In 2011, Valhalla 2 was a successful appraisal of a significant gas accumulation. The thickness of the gas charged Laurel Formation section is in excess of 1300 m. The accumulation can be interpreted to be either a basin-centred accumulation or a combination structural/stratigraphic trap against the flank of the basin. It is assessed to have a potential volume of recoverable hydrocarbons of several TCF gas and in excess of 50 mmbbls liquids. Valhalla North 1, drilled in the first quarter of 2012, indicated that Valhalla is a geographically widespread resource accumulation. (Source: Buru Energy). As of 2021, Bennett Resources' proposal to drill and stimulate up to 20 wells is under assessment by the Environmental Protection Authority. (Source: EPA)
Yulleroo accumulation	Buru Energy	Gas–wetness ratios and inferred pressure data from Yulleroo 3, which spudded in 2012, indicate that the Yulleroo accumulation within the Carboniferous Laurel Formation is possibly part of a broader basin-centred gas accumulation in the area. In 2013, it was reported that Yulleroo 4 appraisal well encountered gas shows over a total interval of 1684 m. (Source: Buru Energy)
Adoxa 1	Buru Energy	In August 2019, Buru Energy announced excellent oil shows were encountered in cuttings samples and live oil was observed over the shakers at the surface. A potential 11 m oil pay zone in the Lower Carboniferous Anderson Formation was subsequently identified by Buru Energy after completing wireline operations. (Source: Buru Energy)
Ungani Far West 1	Buru Energy	Spudded in 2015, this Anderson Formation sandstone oil discovery was a new play for the area. The well also encountered an interpreted 15 m oil column in Ungani Dolomite. (Source: Buru Energy)

New players may take up onshore acreage through farm-in opportunities or by applying for acreage released for work program bidding by the Western Australian Department of Mines, Industry Regulation and Safety

For more information

 Geological Survey of Western Australia www.dmirs.wa.gov.au/gswa

MINEDEX www.dmirs.wa.gov.au/minedex

GeoVIEW.WA www.dmirs.wa.gov.au/geoview

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