

New Plays from Old Basins™

This information brochure is an outline of a joint venture initiative between DSWPET Pty Ltd and AUSGEOS Pty Ltd to build working databases for **Australian Onshore Basins** which can then be processed to generate **new plays** and estimate **resources**.

Currently the databases are being constructed on a **Kingdom** software platform. The value-adding process (from database to play description and design of exploration program) is characterized by a **back-to-basics** approach where the base dataset, such as **mud logs** and **cuttings** descriptions, is scrutinized by experts with the experience necessary to accurately decipher the well dataset rather than rely on electric log interpretation. It is proven this approach has yielded **new plays in old basins** especially where **unconventional** plays are being explored.

This JV through AUSGEOS is collaborating with some of Australia's most **experienced** geoscientists with proven skills in the fields of **unconventional** reservoir evaluation, seismic acquisition, **seismic processing** and sequence stratigraphy, and these people will be used as required. The resource estimate approach will be based on a petroleum systems approach similar to that used by the USGS. All resource estimates will be compliant with SPE guidelines.

The project is underway with initial data being collected on 6 project areas.

- Otway Basin
- Nappamerri Trough - Cooper Basin
- Bonaparte Basin
- McArthur Basin
- Southern Georgina Basin
- CO2013A-D Cooper and Eromanga Basins, SA, Gazettal

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Stage 1 ► Data Pack

Seismic — All public 2D & 3D seismic
— QC'd line location and data
— In house reprocessed data

Seismic made clearer

Post stack
reprocessing

Geophysics — Regional Gravity and Magnetics

Cultural — Major Infrastructure
— Roads, Rail, Pipelines

Well Data — Petroleum Well Set
— Well information
— Formation Tops
— Electric Logs
— Key Well Set
— QC'd GR, DT, TGAS
— Hydrocarbon Shows

Back to Basics

All well data
including mud logs

Composite Logs — Digital template for all wells in project

Fresh look at raw data

Interpretations — Lithotype (key wells)
— Regional major horizons
— Major Faults

Well and seismic
data

Maps — Base map
— Regional time maps of major seismic horizons

X Sections — Geological
— Seismic

Data in XL Spreadsheets and loaded onto Integrated
Interpretation Platform - IHS Kingdom

**Stage 2 ▶ Petroleum
System modelling and
Potential Plays**

Data Analysis

Source pod assessment

- Identification of regionally significant source pods
- Characterization of potential source pods

Reservoir lithotype identification

Reservoir fluid identification

Reservoir pressure assessment

Regional depth maps

**Experienced local
expertise**

Unconventional
and Conventional

Back to Basics

Includes mud log
and drilling data

**Petroleum System
Modelling**

Identification of petroleum systems and assessment units

Regional correlation of assessment units

Potential play list with key success criteria

**Specialist local
expertise**

Sequence Stratigraphy
where possible

Play Reality Check

Play key criteria checked against well data

Screened plays list

Play Description

Maps

Seismic examples

Play X Sections

Tabulated descriptions

**Stage 3 ▶ Play
Prospective Resource
Assessment**

Play Description — Detailed Play Descriptions

Resource Estimate — Volumetric Parameters and Justification
Analog
Risk
Prospective Resource

Prospective Resource Classification

**Experienced local
unconventional play
specialists**

**Stage 4 ► Prospect
and Lead Generation**

Play Sweet Spot Identification

**Experienced local
unconventional play
specialists**

Targeted seismic reprocessing and interpretation

**In-house
expertise and
software**

Prospects and Leads

Maps
Volumetric Parameters and Justification
Analog
Risk analysis
Risked resource estimation

Resource Classification

**Stage 5 ▶ Exploration
Program Design and
Operation**

Exploration Program
Design and Execution

Integrated drilling and evaluation
Seismic acquisition
Seismic processing & reprocessing
Target Description
De-risking

**Experienced
unconventional play
specialists**

**Access to world
class in-house
seismic expertise**

Why would you use these products?

1. Back to raw data approach by experienced local geoscientists maximizes discovery of new plays - a fresh look
2. Product ready to use in ongoing exploration
3. Eliminates man-years of work for reasonable cost