

EAP Series 1 2021

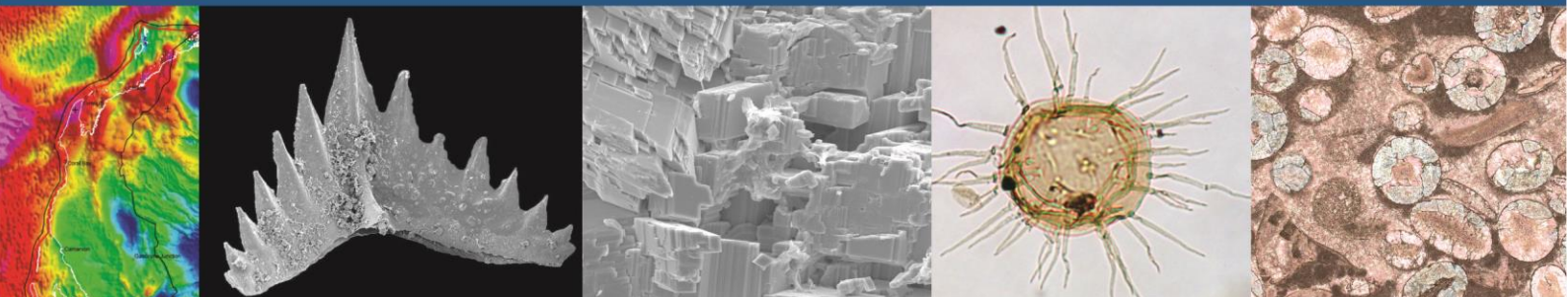
EIS Co-Funded Energy Analysis Program

FINAL REPORT

Chemostratigraphy of the Dongara-Wagina Fms

Company (Applicant) name: Energy Resources Limited

Applicant ID EAP Number: EAP2021S1/00028245



Government of **Western Australia**
Department of **Mines, Industry Regulation**
and **Safety**

EXPLORATION
INCENTIVE
SHEME

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Executive Summary

Energy Resources Limited (ERL) was successful in its EIS application to the government co-funded Energy Analysis Program for Series 1, 2021-2022, to apply chemostratigraphy to the Dongara-Wagina formations of the onshore north Perth Basin. This project was performed in conjunction with Mitsui E&P Australia Pty Ltd (MEPAU), in which the results from both studies were integrated.

The Late Permian Dongara and Wagina sandstone formations are key reservoir units for hydrocarbon exploration, however, due to the nature of the reservoirs these units can often be difficult to individually define. The objective of this study was to use elemental data to provide a regional chemostratigraphic framework across the north Perth Basin to refine the stratigraphic correlation and evaluation of these reservoir units.

A total of 812 samples from 15 wells were analysed for inorganic geochemistry through inductively coupled plasma – optical emission spectrometry (ICP-OES) and inductively coupled plasma – mass spectrometry (ICP-MS). Of these samples, 402 were from drill cuttings and 410 from core.

Two chemostratigraphically distinct packages were identified across the Late Permian stratigraphy based on intervals of different geochemical compositions. Package 6 and Package 7, representing the Wagina and Dongara respectively, were defined based on identifiable shifts of key elemental ratios and variations in heavy mineral abundance. Package 6, equivalent to the Wagina Sandstone, is characterised by consistent shifts in Ti/Nb ratio, indicative of changes in sediment provenance. Package 7, equivalent to the Dongara Sandstone, was identified by elevated V/Al and V/Sc ratios, highlighting the presence of illite and chlorite clay minerals. Key elemental ratios were further used to establish a chemostratigraphic zonation across the study area; providing insight into mineralogical variations, provenance, climate, depositional setting, diagenesis and overall reservoir quality.

The elemental dataset was further corroborated with data from the Hylogger to differentiate between different clay minerals such as kaolinite and chlorite which can have different effects on reservoir quality. Routine core analysis (RCA) points were also incorporated into the study to identify units with the highest permeability values. Overall, Package 7 exhibited better reservoir quality sands compared to Package 6. Thus, for reservoir refinement, interpreting the boundary between Package 6 to Package 7 will be critical.

This comprehensive chemostratigraphic analysis of the Late Permian formations provides an independent and unbiased dataset that complements traditional correlation methods from data such as wireline logs and biostratigraphy.

Project Details

Project Title: Chemostratigraphy of the Dongara-Wagina Fms

Applicant: Energy Resources Limited

Unique EAP Number (Application ID): EAP2021S1/00028245

Exploration/target commodity: Petroleum

Project Completion Date: 29/04/2022

Permit Number: EP368, EP320, EP469

Sampling Approval Number: G004249

Project Location:

The project area is located onshore North Perth Basin, Western Australia. The wells selected for this project by Energy Resources Ltd (ERL) are situated adjacent to the Lockyer Deep-1 gas discovery and northeast of the Waitsia and Beharra Springs fields (Figure 1). The study wells are situated within the ERL operated permit EP 368 and from adjacent permits including EP 320 (operated by Beach Energy Ltd) and EP 469 (operated by Strike Energy Ltd) (Figure 1).

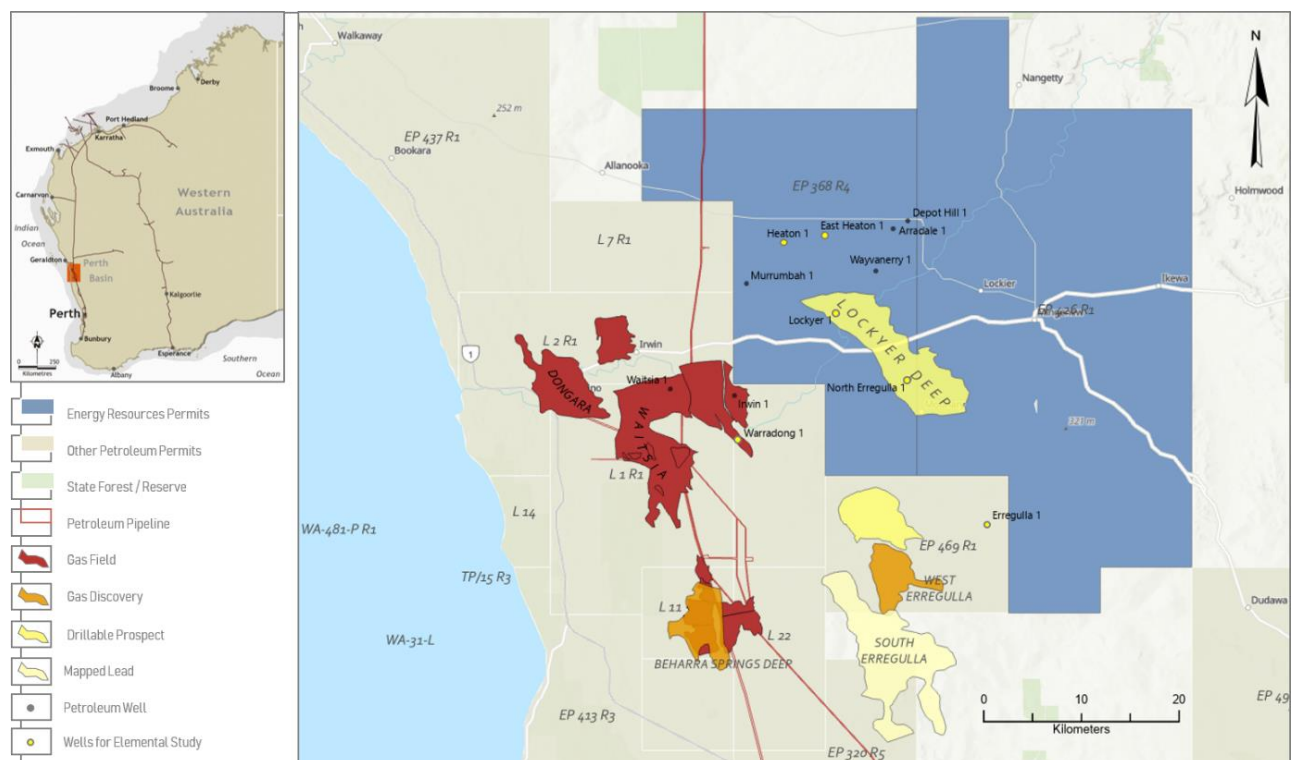


Figure 1. Location of the project area in the onshore north Perth Basin, Western Australia.

Project Summary

Prepared by: Jennifer Chandra

1. Provide a summary of your project including details of study area, analysis undertaken, and the main objective of your project.

Energy Resources Ltd (ERL) commissioned Chemostrat Australia Pty Ltd to analyse a total of 288 cutting samples and 63 core samples over six wells: Heaton-1, East Heaton-1, Lockyer-1, North Erregulla-1, Erregulla-1, and Warradong-1. The selected wells are situated in the onshore north Perth Basin (Western Australia) north of the Dandaragan Trough (Figure 2). This study was integrated with a concurrent chemostratigraphy study commissioned by Mitsui E&P on 9 different wells (highlighted in Figure 2) across the same stratigraphic age. In addition, chemostratigraphic data from 3 legacy wells: Depot Hill-1, Senecio-3 and Waitsia-1, were also incorporated.

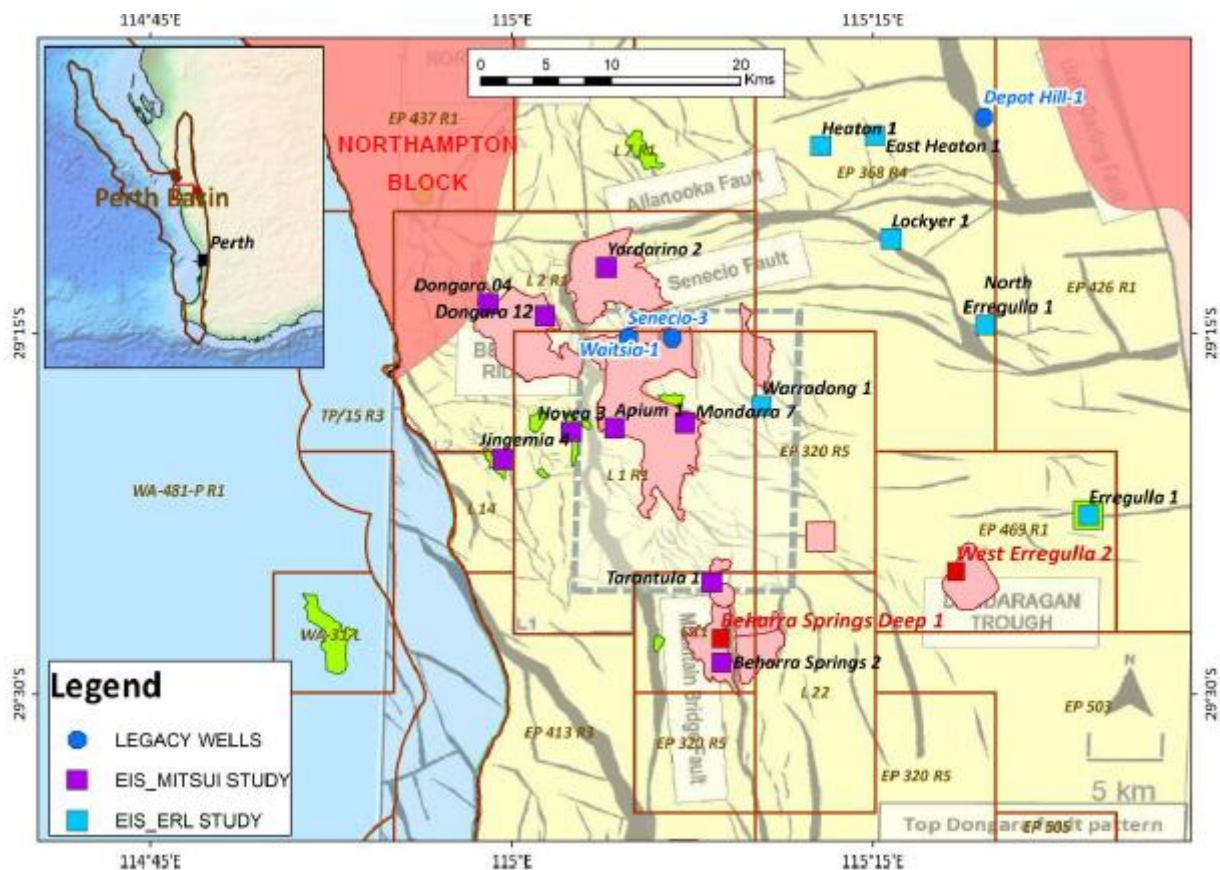


Figure 2. Location map of the study wells in the onshore north Perth Basin

Samples were selected over the Late Permian–Early Triassic stratigraphy (Figure 3), focusing on the Dongara–Wagina sandstone formations, with the Beekeeper Formation also geochemically characterised (where present). Sampling was performed at regular depth spacing intervals of 10 to 20m, however, where points of petrology or routine core analysis were available, sampling depths were aligned with existing datapoints. Each sample was subjected to analysis through inductively coupled plasma – optical emission spectrometry (ICP-OES) and inductively coupled plasma – mass spectrometry (ICP-MS) for elemental composition analyses.

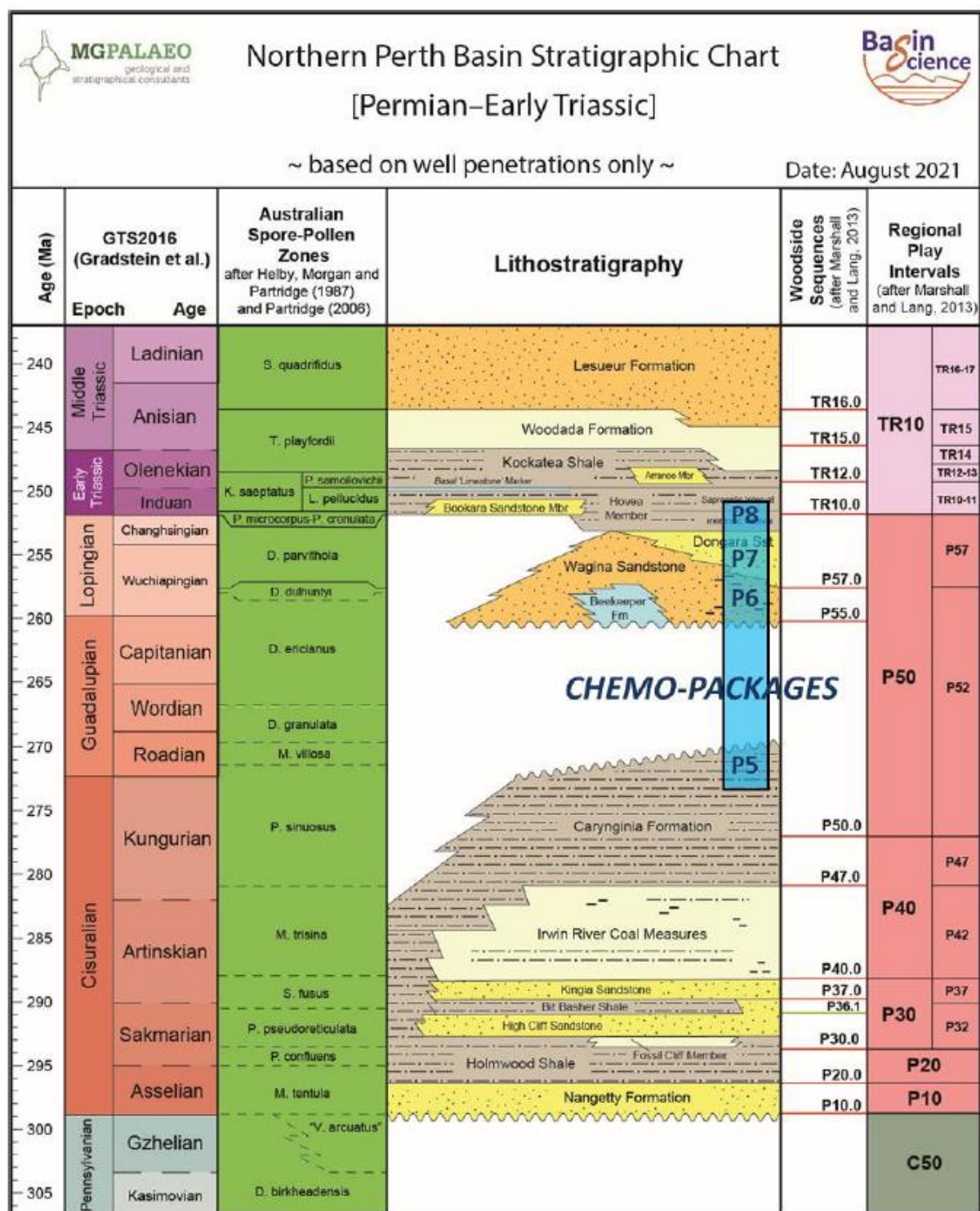


Figure 3 North Perth Basin stratigraphy (Image modified from Ferdinando et al., 2021)

The primary aim of the study was to evaluate the application of chemostratigraphy as a viable correlation tool for developing a uniform chemostratigraphic framework for the Late Permian stratigraphy across the onshore north Perth Basin. Traditional correlation methods such as wireline logs can become difficult in areas of increased subsidence (e.g. in the Dandaragan Trough) as sand bodies become thicker and increasingly homogenous with less muds and shales to distinguish stacking patterns. The onshore Perth Basin is also notoriously difficult for biostratigraphy as palymorphs are poorly preserved, particularly in sand intervals.

A secondary objective was to assess the mineralogical impacts on reservoir quality across the Dongara-Wagina formations and apply key findings for future exploration targets.

2. Discuss the key findings from your analysis, include maps, figures, correlation panels, or tables as appropriate. Discuss the application of these findings to the project objective/s.

402 cuttings samples and 410 core samples taken from across fifteen study wells were analysed by ICP-OES-MS to produce a suite of quantitative data for 50 elements. While most of the samples were of good quality, a few wells, notably Erregulla-1 and Warradong-1, produced a poor match between the calculated ChemGR ($\text{ChemGR} = (\text{K}_2\text{O} \times 13.55) + (\text{Th} \times 3.93) + (\text{U} \times 8.08)$) and the wireline acquired GR (Gamma Ray) indicating possible depth shift or contamination issues (Figure 4). Sample contamination is often highlighted by anomalous calcium Ca or Ba values as these elements are common additives of drilling mud. Re-picking of the sample was attempted and reanalysed however it did not improve the match. In these wells, the sample may not be representative of the specific interval. This affects the geochemical data and interpretation.

Chemostratigraphy is based on the geochemistry of sedimentary rocks typically being variable and sensitive to subtle changes in the mineralogy of the rocks. Uniform successions often have differences in the geochemistry of their component minerals or in the abundance and proportions of accessory minerals, such as heavy minerals and clay minerals, some of which have very distinctive trace element contents. The data from this study was incorporated into an existing chemostratigraphic framework for the onshore North Perth Basin from three legacy wells: Depot Hill-1, Senecio-3 and Waitsia-1 (Figure 2).

Two geochemically distinct “Packages” were interpreted across 15 wells in this study: “Package 6” and “Package 7” (Figure 5). Package 6 is equivalent to the Wagina Sandstone and Package 7 to the Dongara Sandstone. Elements are combined as ratios to highlight changes in the relative abundance rather than the absolute concentration of mineral components. Package 6 and Package 7 is further subdivided into seven and five units respectively, defined by consistent shifts in key ratios (Figure 5; Figure 6; Figure 7). Table 1 summarises the depth of each zonation across all the wells in this study. Table 2 outlines the key ratios used to define each unit and Table 3 lists the possible interpretations of each elemental ratio.

From the six study wells commissioned by ERL, Package 7 was not subdivided into higher resolution units due to the absence in Erregulla-1, a thinner package intersected in Heaton-1 and limited samples in the remaining wells (Figure 5). Wells located towards the southeast of the study area, displayed a thicker sequence of Package 6 (Figure 6; Figure 7), which evidently coincides with the onset of thermal sag in the Dandaragan Trough, implying increased accommodation in this area.

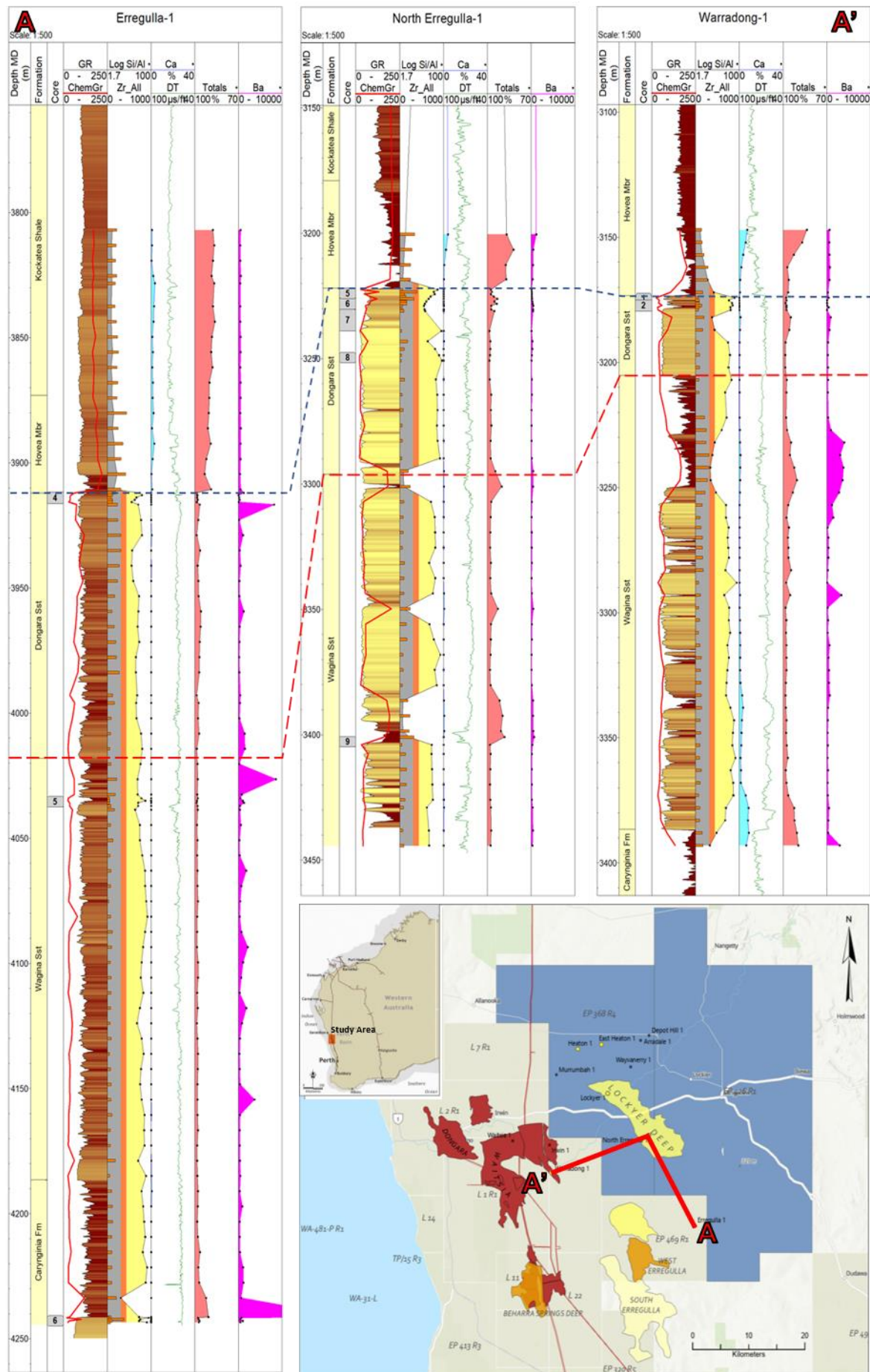


Figure 4. Study wells with poor ChemGR and wireline GR match.

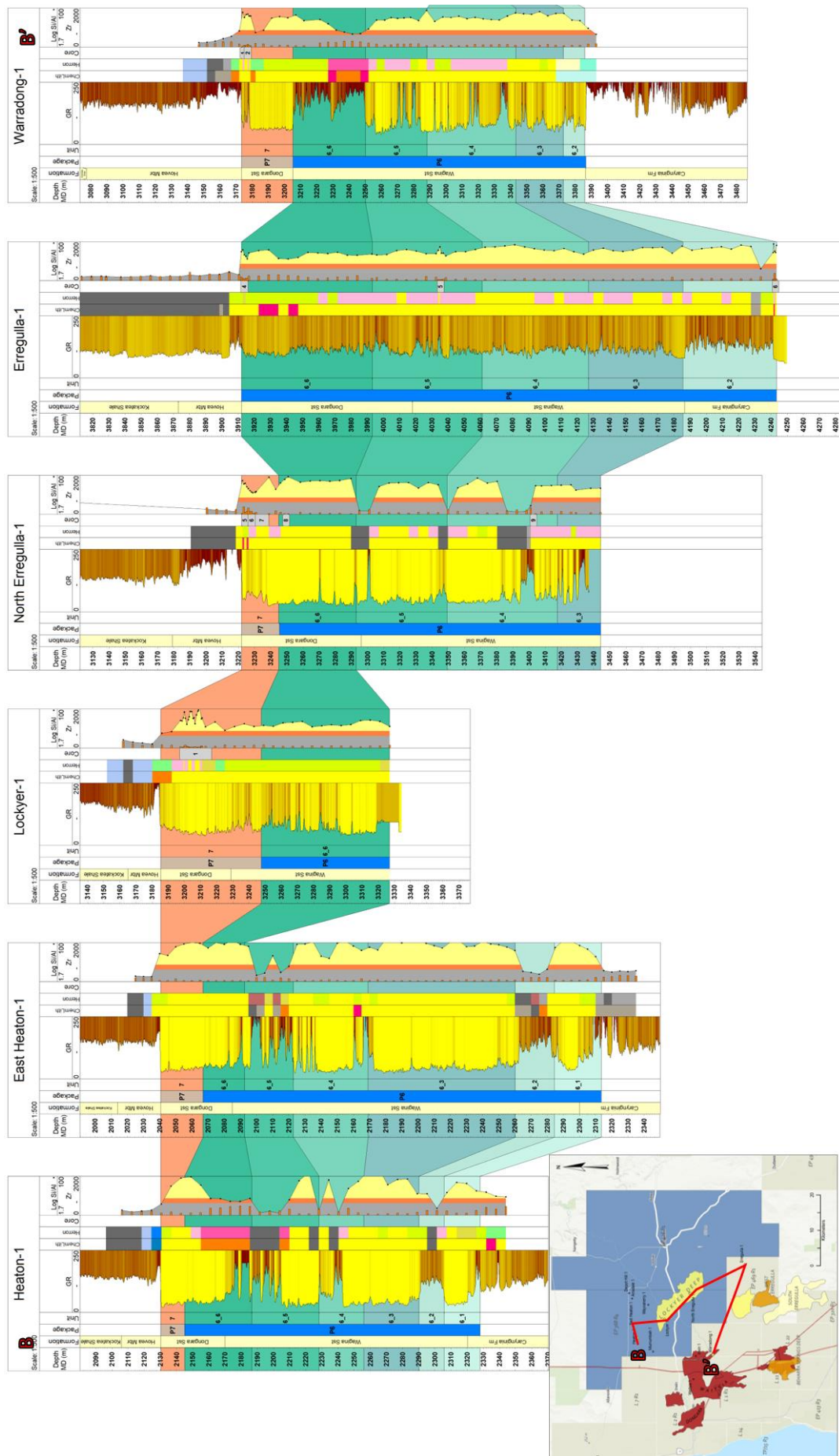


Figure 5. Chemostratigraphic correlation across study wells commissioned by ERL

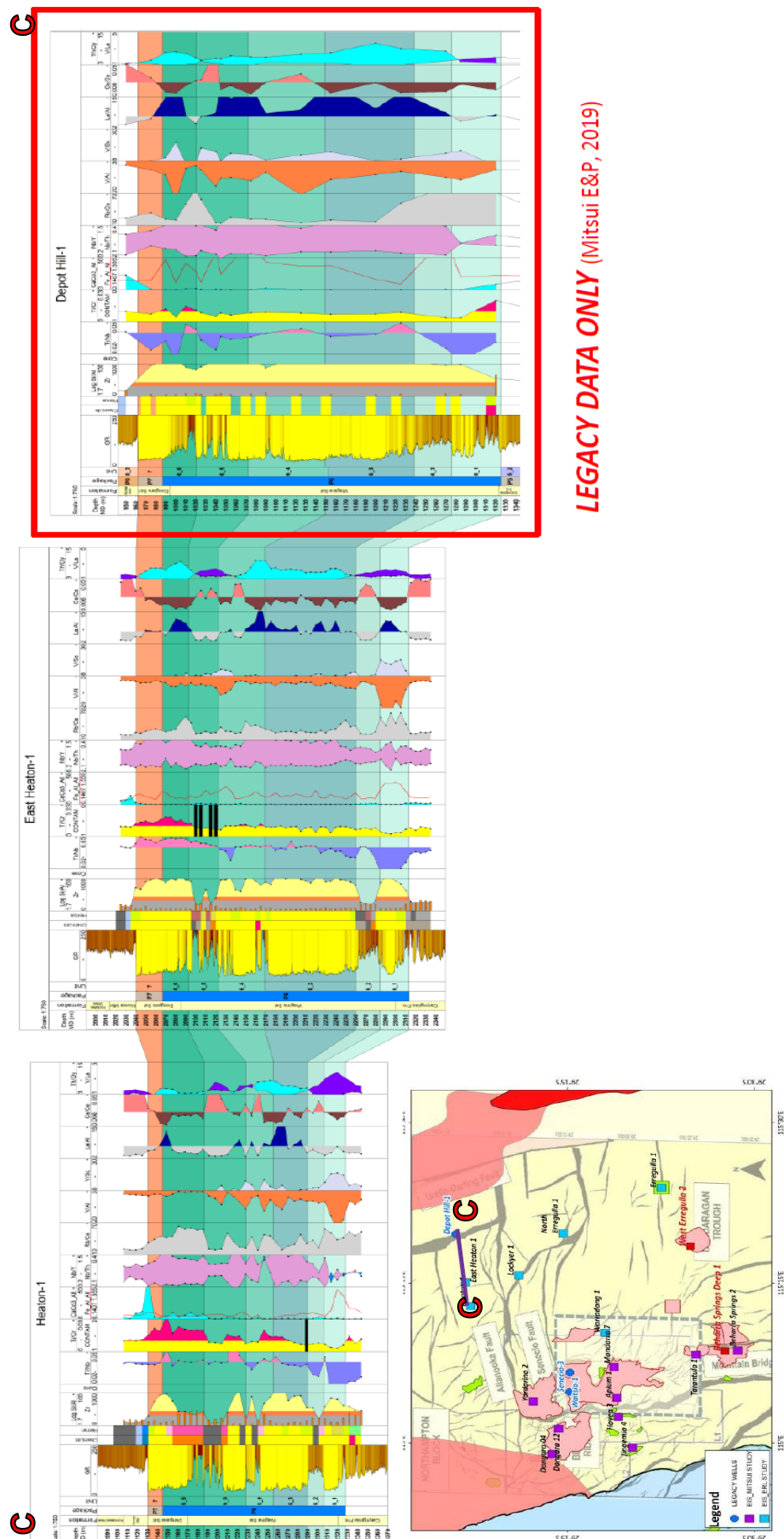


Figure 6 Chemostratigraphic units correlated across the Allanooka Terrace

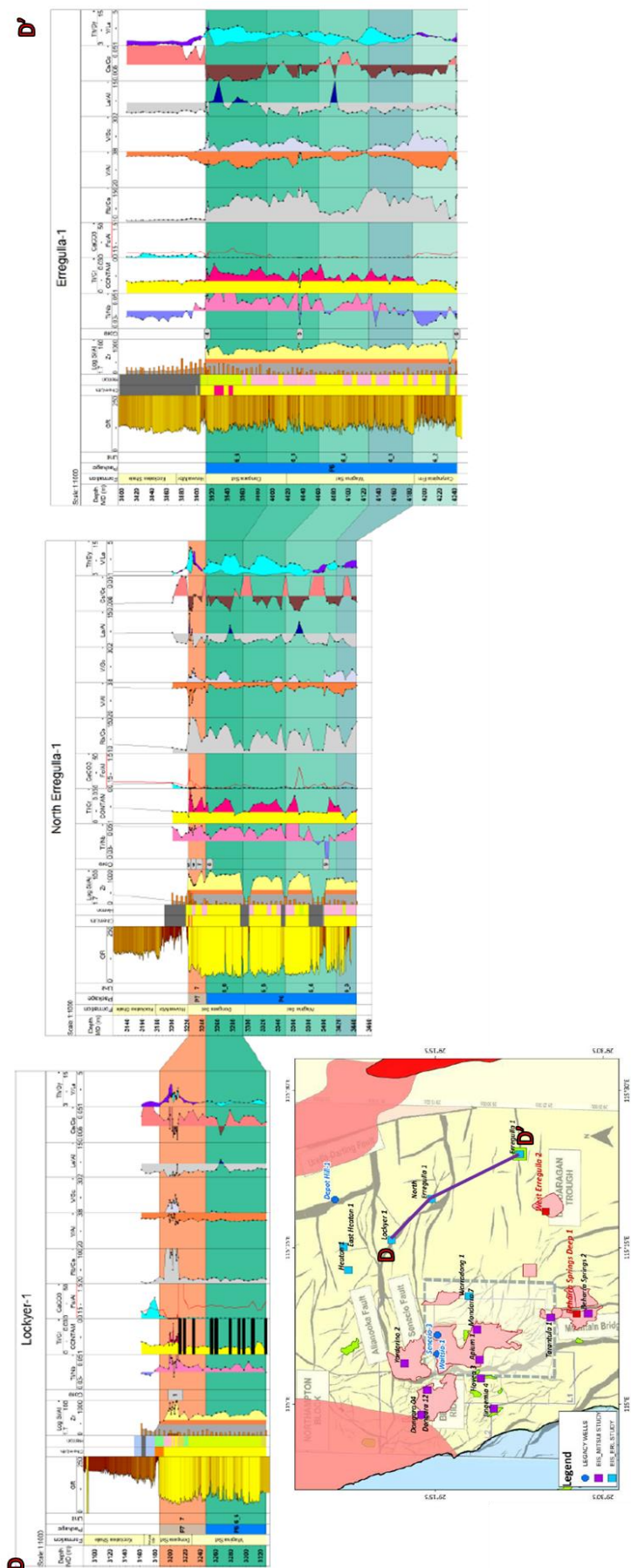


Figure 7 Chemostratigraphic units correlated across the north Dandaragan Trough

Table 1 Chemostratigraphic zonation depths

All depths are in metres and as measured depths

Package	Unit	Apium-1		Beharra Springs-2		Dongara-12		Dongara-4	
		Top Depth	Base Depth	Top Depth	Base Depth	Top Depth	Base Depth	Top Depth	Base Depth
P7	7_5	2760.3	2764						
	7_4	2764	2770.6						
	7_3	2770.6	2777						
	7_2	2777	2781.6						
	7_1	2781.6	2784.2						
P6	6_6	2784.2	2803.3			1630.8	1644.1	1688.3	1700.7
	6_5	2803.3	2828.4			1644.1	1655.3	1700.7	1719
	6_4	2828.4	2844.5	3332.8	3340.7	1655.3	1660	1719	1723.5
	6_3	2844.5	2860	3340.7	3347	1660	1663.9		
	6_2			3347	3353.6				
	6_1			3353.6	3365.1				
	6_0			3365.1	3387.88				
Package	Unit	East Heaton-1		Erregulla-1		Heaton-1		Hovea-3/ST1	
		Top Depth	Base Depth	Top Depth	Base Depth	Top Depth	Base Depth	Top Depth	Base Depth
P7	7_5							1992.2	1998.1
	7_4							1998.1	2006.4
	7_3	2040.7	2066.9			2130.2	2145	2006.4	2016.8
	7_2							2016.8	2023.8
	7_1							2023.8	2033.0
P6	6_6	2066.9	2092.7	3912.1	3993.1	2145.0	2186.6		
	6_5	2092.7	2122.9	3993.1	4061.2	2186.6	2228.3	2033.0	2037.7
	6_4	2122.9	2169.1	4061.2	4127.0	2228.3	2256.0	2037.7	2047.3
	6_3	2169.1	2260.2	4127.0	4185.4	2256.0	2290.1	2047.3	2091.7
	6_2	2260.2	2284.4	4185.4	4243.4	2290.1	2305.7		
	6_1	2284.4	2313.5			2305.7	2328.0		
	6_0								
Package	Unit	Jingemia-4		Lockyer-1		Mondarra-7		North Erregulla-1	
		Top Depth	Base Depth	Top Depth	Base Depth	Top Depth	Base Depth	Top Depth	Base Depth
P7	7_5	2406.2	2407.1			2713.7	2717.0		
	7_4	2407.1	2413.0			2717.0	2722.9		
	7_3	2413.0	2420.5	3185.3	3247.6	2722.9	2731.7	3221.9	3244.9
	7_2	2420.5	2426.6			2731.7	2740.1		
	7_1	2426.6	2433.7			2740.1	2747.6		
P6	6_6	2433.7	2442.0	3247.6	3327.0	2747.6	2762.3	3244.9	3293.0
	6_5	2442.0	2455.4			2762.3	2767.3	3293.0	3349.2
	6_4	2455.4	2464.5					3349.2	3417.4
	6_3	2464.5	2475.0					3417.4	3444.3
	6_2								
	6_1								
	6_0								
Package	Unit	Tarantula-1/ST1		Warradong-1		Yardarino-2			
		Top Depth	Base Depth	Top Depth	Base Depth	Top Depth	Base Depth	Top Depth	Base Depth
P7	7_5					2337.0	2340.2		
	7_4					2340.2	2348.9		
	7_3			3173.4	3205.2	2348.9	2359.2		
	7_2					2359.2	2365.5		
	7_1					2365.5	2369.3		
P6	6_6			3205.2	3250.2	2369.3	2385.9		
	6_5			3250.2	3288.3	2385.9	2407.4		
	6_4	3209.0	3216.4	3288.3	3343.3	2407.4	2415.8		
	6_3	3216.4	3228.8	3343.3	3372.8	2415.8	2428.7		
	6_2	3228.8	3258.0	3372.8	3386.0	2428.7	2432.9		
	6_1	3258.0	3275.1						
	6_0	3275.1	3288.2						

Table 2 Chemostratigraphic unit definitions

Unit	Lithostrat (approx.)	Definition
Units 6_0	Wagina Sandstone	Calcareous sand/siltstone - limestone and associated Mg-Fe enrichment, high La/Al, low Cs/Ce. Top is defined by sharp decrease in carbonate content.
Unit 6_1	Wagina Sandstone	Arenaceous interval with Nb enrichment at base.
Unit 6_2	Wagina Sandstone	Similar to Unit 6_0
Unit 6_3	Wagina Sandstone	Base is defined by a zone of Nb and Mn enrichment. High La/Al, low Cs/Ce, high V/Al & V/Sc. Top increase in Cs/Ce and decrease
Unit 6_4	Wagina Sandstone	Low Ti/Nb and low V/Al, although can be high at top. Low La/Al, high Cs/Ce, high V/La & low Th/Dy. Top decrease in Ti/Nb.
Unit 6_5	Wagina Sandstone	High Rb/Cs and high Ti/Cr & Ti/Nb.
Unit 6_6	Wagina Sandstone	Decreasing Rb/Cs Higher Ti/Cr & Ti/Nb. Low V/Sc & high La/Al
Unit 7_1	Dongara Sandstone	High V/Al, decrease in Ti/Cr
Unit 7_2	Dongara Sandstone	High V/Sc, low V/Al, low Ti/Cr
Unit 7_3	Dongara Sandstone	High Th/Dy, increasing V/Al
Unit 7_4	Dongara Sandstone	Decreasing Rb/Cs, high V/Sc at the top
Unit 7_5	Dongara Sandstone	Low P/Cs, high Cs/Ce. Often heavy mineral rich.

Table 3 Key ratios used in this study

Ratio/Element	Interpretation
Si/Zr & Si/Al	Si/Zr and Si/Al are both primarily a function of grain size, and therefore are attributed to geological process – particularly the energy within the environment of deposition. Higher Si/Al values are typical of sandstones, and therefore a higher environment energy, such as a shoreface or channel. Si/Zr reflects the abundance of quartz to the heavy mineral zircon; zircon and silt-fine sand sort within a similar manner, higher values reflect the accumulation of quartz over zircon implying coarser grain sizes.
Ca	Principally attributed to calcite, although can be present in clays and feldspars in lesser abundances.
Na	Plagioclase feldspar or NaCl contamination.
Mo	Mo is enriched in anoxic marine environments. Mo has affinities with pyrite, as well as heavy minerals and clay minerals.
Mn	Mn substitutes for Ca, Fe, Mg and Sr in a range of minerals that include clay minerals, mica, mafic minerals such as pyroxene and carbonate minerals like calcite, siderite, dolomite and ankerite.

Ti/Nb	Both elements will be present in Ti-bearing heavy minerals, clays & micas. Changes in this ratio are linked to changes in sediment provenance.
Ti/Cr	Both elements will be present in clay minerals, micas & heavy minerals. This ratio relates to changes in the assemblages of heavy & clay mineral and may be linked to sediment provenance.
Nb/Y	Likely related to heavy minerals and clays and changes may be linked to changes in sediment provenance. Y is relatively immobile and is found in heavy minerals, e.g., zircon and garnet, and can also be found in bone phosphate, where it is associated with P, Sr, the REE's, U and Th.
Nb/Th	Nb and Th are both associated with heavy minerals by substituting into the crystal lattice of Ti-oxides and zircons, or phosphatic heavy minerals, respectively. Minor amounts of Nb are also linked with biotite and chloritic clay minerals. High values are indicative of abundant Ti-oxide heavy minerals, while low values are indicative of zircon or in this case RE phosphates. Changes may be linked to changes in sediment provenance.
V/Sc	V is associated with clay minerals (chiefly illite and chlorite) and Sc is found in trace amounts in feldspar, clay minerals and mica, and in kaolinitic silty claystones, high Sc levels are often associated with Al, Ga and the LREEs. This ratio principally relates to changes in the assemblages of clay minerals and may be linked to sediment provenance.
V/La	Both elements will be present in clay minerals and La is also present in heavy minerals, notable monazite. Changes may be linked to changes in sediment provenance and higher values could suggest a more chlorite-rich interval or indicate anoxic deposition if associated with other paleoredox indications.
V/Al	V is associated with clay minerals (chiefly illite and chlorite) and organic matter as V is also sensitive to redox conditions. Normalising to Al will highlight V enrichment in the clays.
V/Ti	Both elements will be present in clay minerals (especially illite and chlorite) and Ti will also occur in a variety of heavy minerals. This ratio is primarily used to highlight changes in clay assemblage in sandstone, notably the presence of chlorite associated with porosity.
Cr/U	Cr is linked to heavy minerals and can also be associated with chloritic clay minerals and biotite. In Package 3 (Kingia Sandstone) higher values of this ratio have been linked to the enrichment of chlorite, and enhanced porosity preservation in the Waitsia wells.
P/Cs	Phosphate is typically an indicator of biogenic activity. High P values relative to Al, may reflect biogenic activity, but high values with other heavy mineral associated elements may reflect the occurrence of P-bearing heavy minerals. Ratio to Cs indicates enrichment relative to background clay composition.
Rb/Cs	Rb is associated with K-feldspar and especially illite, while Cs is primarily attributed to marine smectite. The ratio will highlight subtle changes in clay composition
K/Al	K is associated with the occurrence of K-feldspar and illite. High K/Al values (>0.35), in conjunction with high K/Rb values are indicative of K-feldspar abundance.
K/Rb	K and Rb are both associated with K-feldspar and illite, with the latter being preferentially enriched in Rb. High values are indicative of the K being present in K-feldspar, while lower values demonstrate relative illite abundance
K/Na	Ka typically reflects the abundance of K feldspar (+illite/mica), while the Na is typically associated with the abundance of plagioclase. This ratio examines the changes in feldspar population.
Ga/Rb	This ratio typically represents a kaolinite/illite ratio. Ga is preferentially enriched in kaolinite, while the Rb is enriched in illite. Changes in this ratio reflects a change in the clay mineral type. May also have implications within a climatic interpretation as kaolinite typically forms under enhanced tropical weathering of subaerially exposed sediment.
Fe/Al & Mg/Al	Fe is primarily associated with clay minerals, most likely chlorite. Both Fe and Mg may also be associated with carbonates, siderite and dolomite, or mafic minerals, such as pyroxene. Locally, Fe may be associated with S indicating the presence of pyrite or jarosite. Normalising to Al will highlight the enrichment in non-clay phases.
La/Al	La is present in clay minerals and heavy minerals. Monazite is known to be prevalent in the Dongara-Wagina and is concentrated in LREE. Normalising to Al will highlight the heavy mineral enrichment.

Th/Dy	Likely related to heavy minerals and clays and changes may be linked to changes in sediment provenance. Th is known to be the primary radioactive component in the Dongara-Wagina, and this is concentrated in the RE phosphates (monazite and xenotime).
Cs/Ce	Lower values reflect changes in clay composition and in this case likely reflect the occurrence of heavy mineral (especially RE phosphate) rich sediments. High ratio values possibly may indicate marine flooding events, with abundant smectite.

The subdivision of Package 6 is identified by consistent Ti/Nb shifts and fluctuations in the abundance of heavy minerals, both associated with changes in sediment provenance. The Ti/Nb signal becomes diluted towards the southeast as the section is expanded, however, the same ratio shifts are clearly observed in wells on the Dongara Terrace.

The enrichment of Ce (a proxy for the presence of monazite) in Unit 6_6 produces a characteristic “hot” sand response with ChemGR >100 due to its radioactive nature (from Th). This is particularly present in wells on the Dongara Terrace and Waitsia area. Towards the Dandaragan Trough, only sporadic Ce enrichments were observed associated with increase distance from the source area (the Northampton Complex) and/or dilution in an expanded section. This highlights the spatial and stratigraphic distribution of heavy mineral abundance.

Hovea-3/ST1 is the only well to show an absent Unit 6_6 (Table 1) at the base of Package 7 suggesting an erosional contact at the Package 6–7 boundary. No evidence from the geochemical data suggests a significant provenance change between Package 6 to Package 7.

Package 7 is subdivided in the Mitsui commissioned study wells and is defined based on the variability in detrital components and clay composition. Variations in the heavy mineral abundance are also observed in wells on the Dongara Terrace. Units 7_1 and 7_2 (Table 2) are characterised by enrichments in Vanadium (V) from the abundance of clay minerals, chiefly illite and chlorite (Table 3). Package 7 is not interpreted in wells towards the south in Beharra Springs-2, Tarantula-1/ST1 or Erregulla-1, nor on the Dongara Terrace (Dongara-4 and -12) (Table 1).

The elemental dataset also provides insight into the potential mineralogy impacting reservoir quality across the onshore Perth Basin. Observed changes in the detrital mineralogy between the Dongara and Wagina formations are attributed to changes in grain size and hydraulic regime. 452 routine core analysis (RCA) points plotted on a porosity-permeability crossplot demonstrated both the Dongara and Wagina Formations to be on a positive trend (Figure 8). The Dongara Sst (Package 7) shows higher permeability values when compared to the equivalent porosity in the Wagina Sst (Package 6) (Figure 8). The best quality sands are observed in the “quartz arenite” classified samples of Package 7 (Figure 8) which is defined by high Si/Al associated with higher energy environments capable of delivering larger grain sizes (Table 3). Units 7_1 and 7_2 recorded the highest permeability values in this study. Although, the reservoir

quality is sensitive to the presence of clays, likely kaolinite booklets which can inhibit pore space, as seen in Unit 7_2 in Jingemia-4. The wireline gamma ray response still presented a low gamma ray response indicative of a clean sand. This demonstrates the value of this study as inferring reservoir quality sands just based on wireline logs can be misleading.

As Package 7 has been identified to have the best reservoir sands, it is essential for ERL to understand where these packages are present for future exploration targets. Chemostratigraphic correlations can increase confidence in the interpretation of reservoir sections which may otherwise be misinterpreted if based only on wireline logs.

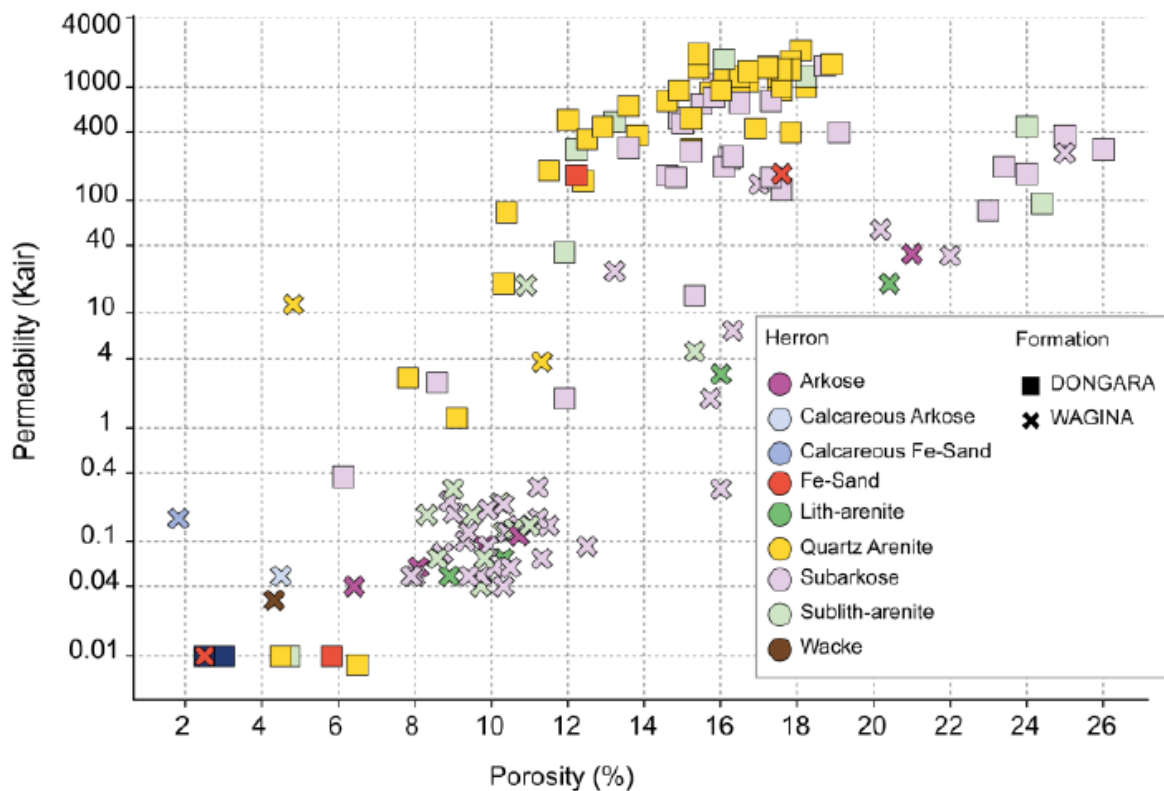


Figure 8. Routine core analysis points from the Dongara-Wagina Formations plotted on a porosity-permeability chart

The Hylogger spectral scanner was also used to increase confidence in the interpretation of clay minerals and distinguish between the types of clays, particularly the presence of chlorite as it can preserve reservoir quality by inhibiting diagenetic effects. This is observed in Units 6_3 and 6_4 which align with enrichments of Cr, Mg and Fe.

The results of this study have produced a comprehensive integrated dataset of inorganic geochemistry, petrology, routine core analysis and HyLogger information over 15 wells key wells. The collective dataset was used to expand the existing chemostratigraphic correlation framework and will now be integrated into ERL's stratigraphic interpretation. Furthermore, the observations on the mineralogical impact to reservoir quality has enhanced ERL's understanding of the reservoir characteristics of the Dongara–Wagina succession, improving future exploration assessments.

3. How did this work significantly add to the existing knowledge of the area?

The addition of new elemental data from the 15 wells in this integrated study considerably enriches the existing regional chemostratigraphic framework for the onshore north Perth Basin. The same ICP-OES-MS analysis over the Late Permian stratigraphic interval was previously performed on samples from only three wells: Waitsia-1, Senecio-3 and Depot Hill-1. One of the advantages with chemostratigraphy is the reproducible analysis technique which generates a consistent dataset. Any future wells undergoing the same analysis can be seamlessly integrated. Furthermore, this study has synthesised and incorporated several sources of data including petrology, XRD, RAMAN, HyLogger and routine core analysis to form a comprehensive dataset.

4. How will the findings and data generated from this analysis program enhance energy exploration in the sedimentary basin?

The Late Permian Dongara and Wagina sandstone formations are key reservoir units for several hydrocarbon producing fields in the northern Perth Basin. Some of the largest and longest producing fields in the basin, namely the Dongara field and Beharra Springs field, have produced from the Dongara and Wagina sandstone units since the 70's. Thus, refining the presence and distribution of the best reservoir quality sands will be in the exploration company's best interests.

This dataset can be implemented to improve well-to-seismic ties as previously indistinguishable sand units can now be subdivided. This study has shown that on average, the Dongara Sandstone (Package 7) exhibits better reservoir quality when compared to the Wagina Sandstone (Package 6) in the northern portion of the study area. Furthermore, Units 7_1 and 7_2 had the highest permeability measurements which can be correlated to other offset wells and subsequently evaluated in future prospect maturation.

Item Manifest

Item number	Submission item	Document/item name	Submission method
1.	Analysis provider's invoice_1	Chemostrat_Invoice_400_Data.pdf	Electronic
2.	Analysis provider's invoice_2	Chemostrat_Invoice_404_Report.pdf	Electronic
3.	Applicant's invoice	Tax Invoice_ERL.pdf	Electronic
4.	Raw digital data	Raw ICP Data.zip	Electronic
5.	Final Interpretive Report	PPAU50035_40 Chemostratigraphy of the Dongara-Wagina Fms_FINAL EIS.pdf	Electronic
6.	Analysis provider's receipt_1	Receipt_400.pdf	Electronic
7.	Analysis provider's receipt_2	Receipt_404.pdf	Electronic