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GEL 157 - Callabonna

GEL 179 – Callabonna East

Combined Annual Report Year 1

16 February 2005 – 16 February 2006

GEL 157 – Callabonna

GEL 179 - Callabonna East

Combined Annual Report Year 1

16 February 2005 – 16 February 2006

Contents

1. Introduction

1.1 Licence Data

On 27 July 2004, Petratherm Ltd listed on the Australian Stock Exchange following the successful completion of a $4,000,000 dollar public offering. MNGI Pty Ltd, a wholly owned subsidiary of Petratherm Ltd, was granted GEL 157 (Callabonna) on 23 November 2004 and GEL 179 (Callabonna East) on 28 January 2005, each for a period of 5 years. The licence areas are located in the Arrowie Basin north of the Mt Painter and Mt Babbage Inliers in the Northern Flinders Ranges (Figure 1).

In December 2005 Petratherm applied for Variations to the Work Programs of each of the two Callabonna tenements with the view of amalgamating their work programs into a single regional project and streamlining compliance reporting. The proposed variations were approved by PIRSA, and GEL 157 has been suspended from 11th January to 6th April 2006 in order to align the anniversary dates. The revised first anniversary of the combined tenements is now 17th February 2006. In accordance with Section 33 of the Petroleum Regulations 2000, this report details work conducted during the first permit year of the licences, including all activities on the tenements for the 15 month period from November 2004 to 17th February 2006.

1.2 Overview

The Callabonna Hot Rock Project represents a new exploration play for hot rock energy informally known as the Thermally Anomalous Granite (TAG) model**.** This model focuses on areas where uraniferous granitic rocks, with associated high heat production rates, are covered by thick insulating sequences of sedimentary overburden which maximise the harbouring of heat derived from radiogenic decay.

Known high heat producing granites outcropping in the Mt Painter and Mt Babbage Inliers to the south of the Callabonna Project area are defined by a strong gravity low. Modelling of existing regional gravity and magnetic data suggests that a distinct area of low density within the Callabonna Project area, covering approximately 1200 km^2 immediately north-northeast of the outcropping Mt Painter and Mt Babbage Inliers, is an intrusive body underlying about 2-3 km of sedimentary overburden (Figure 2). This interpretation has been supported by new gravity data collected by Petratherm during the first permit year. Petratherm's two licenses, GEL157 and GEL179, cover about 1000 square kilometres over the centre of this body.

In May 2005 Petratherm was successful in obtaining a $140,000 South Australian Government "*Plan for Accelerating Exploration*" (PACE) grant to support the drilling and wireline logging of its geothermal evaluation well at Callabonna. Yerila-1 was spudded in early August 2005 and drilled to 693.5 metres to evaluate the geothermal potential of the Callabonna Gravity Low.

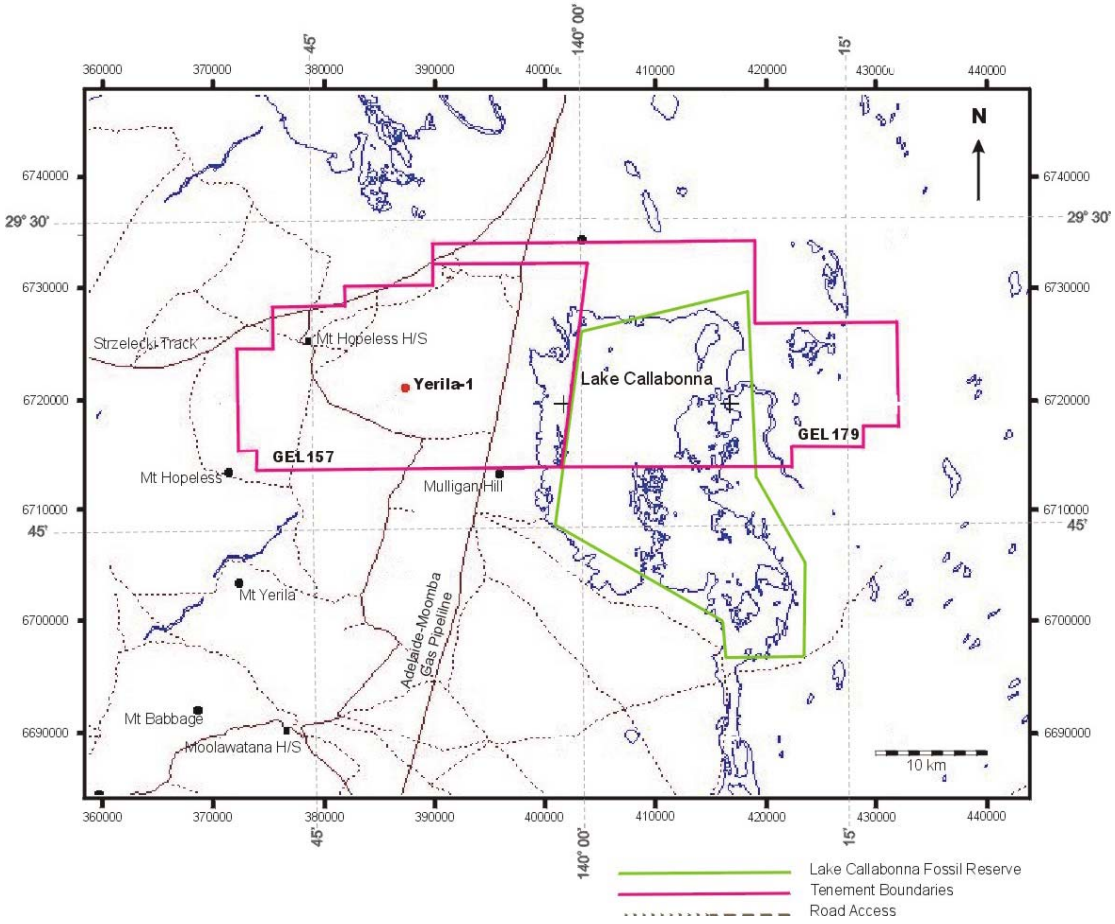

Figure 1. Map indicating the location of GEL157 Callabonna, GEL179 Callabonna East and the Yerila-1 well.

2. Work Requirements

The revised work program negotiated by MNGI Pty Ltd with Primary Industries and Resources South Australia (PIRSA) for the combined Callabonna tenements (GEL 157and GEL 179) is presented below.

Year of Licence	Work Program for Callabonna: GEL15 & GEL179
1	• Geological and geophysical review • Modelling and interpretation of geophysical data (including gravity & seismic data) • Historical bore hole thermal data collection (where possible) and analysis • Shallow geothermal gradient test well (500m depth) • Down hole temperature and wireline logging

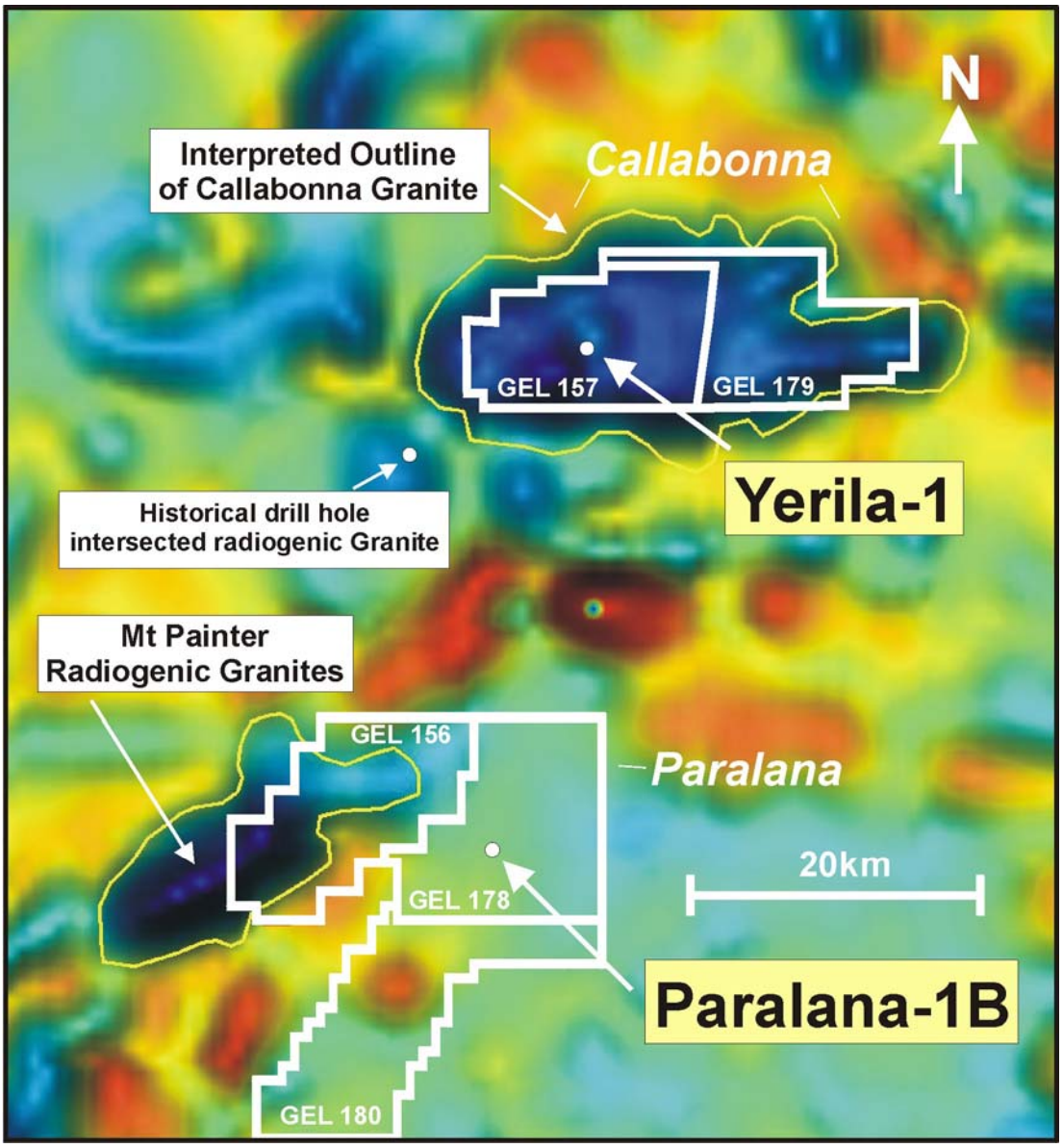

Figure 2. Regional 1VD Gravity Image, highlighting extent of the Callabonna Gravity Low (northern dark blue area) Petratherm's Licence Areas and the location of Yerila-1.

3. Work Conducted

3.1 Geological and geophysical review

During the first year of the licences, Petratherm has gathered and reviewed available open file data including well logs and well completion reports relating to the Callabonna tenements and surrounding areas. There has also been a review of published literature on the geology of the area and on the topics of heat production

from radiogenic granites, modelling of geothermal gradients using data from shallow wells and the influence of groundwater circulation.

3.2 Modelling and interpretation of geophysical data (including gravity and seismic data).

Compilation of existing seismic, regional aeromagnetic and gravity datasets and preliminary modelling of this data has been completed. A new 1km by 2km detailed regional gravity survey of the GEL157 Callabonna tenement has been acquired using geophysical survey contractors Haines Surveys. A final report on the results and interpretation of this data was prepared and submitted to PIRSA including a report on commissioned density-susceptibility modelling work performed by a contracted geophysicist, and the raw data gathered by Haines Surveys.

3.3 Historical bore hole thermal data collection (where possible) and analysis

Available thermal data from existing exploration holes has been collected and reviewed. In addition significant time has been spent collecting, collating and analysing thermal data from artesian bores in the region. This data was used in aiding in the target selection process.

3.4 Target Selection and Drilling of First Test Hole.

Yerila-1 was spudded on August 2nd, 2005 and drilled to 693 metres in order to evaluate the geothermal potential of the Callabonna Project area. Due to the nature of the local geology, the hole was designed to be drilled in two discreet stages, with the first stage hole comprising a rotary mud pre-collar through soft Mesozoic sediments and the Great Artesian Basin aquifer. The first stage was successfully completed on August 27th, 2005. Stage two drilling may be undertaken at a later date.

3.5 Downhole Temperature and Wireline Logging.

Yerila-1 was logged on 7-8th September & 26th September 2005. Preliminary results from the wireline logging are very encouraging and in line with Company expectations for the Project. Evaluation of the data collected from drilling operations is in progress and will be more thoroughly reported in the pending Yerila-1 Well Completion Report.

4. Year 1 Expenditure

A break down on the combined expenditure for the Callabonna tenements for Year 1 is presented below and amounts to $810,903.36

Combined Expenditure for the period up to 17/02/06 (Year 1)

Drilling Activities	$ 569,076.60
Seismic Activities	-

Technical Evaluation and Analysis	$ 10,311.17
Other Surveys	$ 56,369.16
Facility Construction or Modification	-
Operating and Administrative	$ 175,146.48
EXPENDITURE Year 1	**$810,903.36**

5. Operations Proposed for Year 2

The work program for Year 2 of the Paralana Project tenements will be aimed at extending our understanding of the depth to basement and the situ temperature and geothermal gradient. These aims will be accomplished by conducting a magneto-telluric trial survey of the area and by completing data collection, analysis and geophysical and thermal modelling studies initiated during the first year.

Year of Licence	Work Program for Paralana: GEL156, GEL178 & GEL180
2	• Commercial negotiations for funding • Magneto-telluric trial survey • MT modelling of basement • Revised themal modelling

6. Compliance with the Petroleum Act 2000 (Reg. 33).

a) Summary of the regulated activities conducted during the licence year.

Regulated activities undertaken by Petratherm in the Callabonna Project Area during the licence year include;

- Regional ground gravity survey – data collection, interpretation and environmental audit.
- First stage rotary mud drilling and wireline logging of Yerila-1 Geothermal Exploration Hole to 693 metres.

b) Report for the year on compliance with the Act, these regulations, the licence and any relevant statement of environmental objectives.

A Compliance Register is maintained for the Callabonna Project to ensure legislative compliance is achieved, and to document any breaches of the Petroleum Act, 2000. All infringements of the Petroleum Act and relevant SEOs occurring during the Annual Reporting period with respect to the Callabonna tenements are discussed below. No other breaches of the Act or relevant SEOs occurred.

1) Regional Gravity Survey

An internal environmental audit of the survey operations was conducted by Petratherm staff. A copy of the Audit Report has been provided to PIRSA. During

data collection by the contracted geophysical team, the regional gravity survey encroached over the northern and southern boundaries of the GEL157 Callabonna tenement. The area encroached upon is not held under any other licences, and did not affect other stakeholders. Details of this infringement were provided to PIRSA in correspondence dated 19/10/04. No other breaches of the Petroleum Act, or of the Statement of Environmental Objectives for Geophysical Operations in the Cooper Basin occurred with respect to this activity.

2) Drilling of Yerila-1

An independent consultant was engaged to prepare an Environmental Assessment Report for drilling operations at Yerila-1, and found that the existing EIR and SEO for Drilling Operations in the Cooper Basin were applicable and sufficient to guide operations at the Yerila site, with some minor modifications which were specifically addressed in the EAR.

During drilling of Yerila-1 a number of minor breaches of the SEO occurred. In the main these incidents related to small spills of diesel fuel or oil leaks from heavy machinery and pump equipment generally estimated at less than one litre each. Incident reports were generated for these incidents and information on each was provided to PIRSA in a quarterly report on reportable incidents. A copy of this report is attached as Appendix 1.

In most instances fuel or oil leaks from equipment were able to be repaired or bunded to prevent further loss or soil contamination. In accordance with the SEO, soil contaminated by fuel or other chemicals has either been disposed of in the sumps as part of the partial rehabilitation and fencing of the site, or is being allowed to volatilize and will be disposed of in sumps and buried in accordance with the SEO, once complete rehabilitation has been undertaken. Complete rehabilitation will not be undertaken until sumps at the site have dried and second stage drilling of the well is completed. This will avoid additional movement of heavy equipment causing rutting and further disturbance of soils at the site. The site has been fenced and signposted to prevent ingress of stock, wildlife or personnel.

The requirement to report these incidents could have been avoided by the construction of a full drilling pad at the operational site, as this constitutes a surface constructed to contain such spills. However construction of such a pad was felt to inflict greater material impact on the environment (e.g. construction of borrow pits and an increase of earthworks before and after drilling) than the minor spills that did occur. In addition, representatives of the Native Title claimants expressed a preference that pad construction and other major earthworks (e.g. borrow pits and road building) be avoided if possible. No other breaches of the Petroleum Act, or of the Statement of Environmental Objectives occurred.

c) Actions taken to rectify non-compliance with obligations imposed by the Act, these regulations or the licence, and to minimise the likelihood of the recurrence of any such non-compliance; and d) summarise any management system audits undertaken during the relevant licence year including information on any failure

or deficiency identified by the audit and any corrective actions that has, or will be, taken.

Petratherm Ltd recognises the importance of achieving regulatory compliance and is committed to achieving best practice in its management strategies, work practices and procedures, in an environmentally and socially responsible manner. Petratherm undertakes continuing review and improvement in developing its management systems to ensure it meets this commitment. At present documented management systems include an Environmental and Operational Health and Safety Manual, Field Operations Manual, and Standard Operating Procedures Manuals for individual tenements/projects.

Two on-site inspections by PIRSA inspectors were conducted during drilling of Yerila-1. Findings and recommendations of the inspections have been provided to Petratherm are currently being reviewed.

e) List all reports and data relevant to the operation of the Act generated by the licensee during the licence year,

Author	Title	Date	Activity	GEL	Submitted
Petratherm	Activity Application for Callabonna Regional Gravity Survey		Regional Gravity Survey	GEL157	18/08/04
Haines Surveys, Contractor	Callabonna Gravity Survey (report & raw data).	Sept 2004	Regional Gravity Survey	GEL157	11/03/05
Hanneson, J., Consultant	A regional Density-Susceptibility Model for the Callabonna Area, S.A.	Oct 2004	Regional Gravity Survey	GEL157	11/03/05
Hart, J. Petratherm	Results and Interpretation Callabonna Gravity Survey.	Oct 2004	Regional Gravity Survey	GEL157	11/03/05
Bendall, B. Petratherm	Environmental Audit of 2004 Callabonna Regional Gravity Survey.	Dec 2004	Regional Gravity Survey	GEL157	22/11/04
Petratherm	Activity Application for Callabonna Project Drilling Program	Apr 2005	Phase 1 Drilling Operations Yerila-1	GEL157	13/04/05
Fatchen Environmental, Consultant	Environmental Assessment Report Callabonna Hot Rock Project	May 2005	Phase 1 Drilling Operations Yerila-1	GEL157	06/06/05
Petratherm	Callabonna Hot Rock Project Standard Operating Procedures.	Apr 2005	Phase 1 Drilling Operations Yerila-1	GEL157	06/06/05
Geoscience Associates, Contractor	Wireline Logs for Yerila-1.	Oct 2005	Phase 1 Drilling Operations Yerila-1	GEL157	**21/11/05**

f) Report on any incidents reportable to the Minister under the Act and regulations during the relevant licence year.

Please see comments in section b) above and Appendix 1.

g) Report on any reasonably foreseeable threats that reasonably present , or may present, a hazard to facilities or activities under the licence, and report on any corrective action that has, or will be, taken.

No threats have been identified.

h) Operations proposed for the ensuing year

A discussion on the proposed work programs for Year 2 of GEL 157 is presented in Section 5 above.

Appendix 1

Report on Reportable Incidents
Third Quarter 2005

Petratherm Ltd: Reportable Incidents Report

3rd Quarter 2005

Tenement: GEL157: Callabonna Wells: Yerila -1

Well	Date	Quantity/Area Affected	Incident Description	Actions taken to clean-up / rehabilitate	Actions to Prevent Re-occurrence
Yerila -1	2/7-26/7	1m x 1m 15m SE of well head	Spill of diesel fuel onto ground due to slow dripping valve on diesel tanker	Temporary bund constructed under tanker until tanker could be moved to constructed bunded fuel area. Contaminated soil to be disposed of in sump. Complaint made to contractor to fix or replace tanker.	Bunded fuel storage area constructed. Tanker moved. Longer term: construction of operating pad.
Yerila -1	8/8	20cm x 40cm 20m NE of well head	Spill of fuel onto ground due to leaking hose connection on mud pump fuel tank.	Hose connection repaired. Contaminated soil to be disposed of in sumps during rehabilitation of site	Longer term: construction of full operating pad.
Yerila -1	8/8	0.5m x 0.5m 10m NW of well head	Spill of mud materials (bentonite) onto ground around pre-mix tank due to split in containing bag during transport by fork lift.	Contaminated soil to be disposed of in sumps during rehabilitation of site	Longer term: construction of full operating pad.
Yerila -1	10/8	30cm x 30cm 22m NE of well head	Spill of fuel onto ground due to drips from hose when refuelling mud pump fuel tank.	Contaminated soil to be disposed of in sumps during rehabilitation of site	Longer term: construction of full operating pad.
Yerila -1	13/8	2m x 1m 4m W of well head	Spill of grout onto ground east of well head during cementing of casing, while transferring cement from agitator to pumping tank.	Contaminated soil to be disposed of in sumps during rehabilitation of site	Longer term: construction of full operating pad.
Yerila -1	18/8	1m x 1m 10m NW of well head	Spill of mud materials (baryte) onto ground around pre-mix tank due to bags split in transport.	Contaminated soil to be disposed of in sumps during rehabilitation of site	Longer term: construction of full operating pad.
Yerila -1	26/8	1m x 1m 4m W of well head	Spill of grout onto ground east of well head during pressure cementing of casing, while transferring cement from agitator to pumping tank.	Contaminated soil to be disposed of in sumps during rehabilitation of site	Longer term: construction of full operating pad.
Yerila -1	9/9	2.5m x 1m 30m NE of well head	Spill of fuel onto ground under fuel bund during removal of fuel tanker – puncture to bund liner.	Contaminated soil to be disposed of in sumps during rehabilitation of site	Longer term: construction of full operating pad.

Appendix 2

Assessment of SEO Compliance

ASSESSMENT OF PETRATHERM'S PERFORMANCE IN ACHIEVING ENVIRONMENTAL OBJECTIVES DEFINED IN THE COOPER BASIN SEO & CALLABONNA ENVIRONMENTAL ASSESSMENT REPORT

WELL NAME: YERILA-1 GEL No.: 157 SPUD DATE: 02/08/05

Environmental objective	Possible impact	Main sources of risk	Avoidance, management, mitigation as per EAR	Performance Assessment
1. Minimise risk to public and third parties				
Minimise public and third party risks	Creation of new public risks: public using rig road; well blowouts; post-drilling; radiological issues.	Access risks, wellsite risks	Signage on station track/public road intersection, warning against trespassing, and warning of danger associated with truck movements. Liaison with landholders regarding movements. At drilling rig, regular integrity testing. Drilling may intersect uranium deposits: standard radiological monitoring procedures for shallow drilling followed, cuttings and groundwater disposed in drilling sump with eventual soil covering.	The design & operation of Yerila-1 was documented in the Activity Application & approved by PIRSA. All employees undertook safety induction prior to work. Signage was erected as required along access tracks and at site entrance. Scintillometer readings of cuttings routinely taken & monitored. Cuttings disposed of in sumps.
Minimise fire risk; prevent the spread of any fires to wellhead	Loss of resource & OH&S considerations	Drill site, campfires	Prevention of fires. Fire equipment available. Emergency response plan in place. Fire inductions. At present (early summer 2006) fuel loads are too low to support a wildfire.	All employees undertook safety induction prior to work. Fire equipment located at drill site and camp site & in vehicles. Emergency Response Plan in place.
2. Minimise disturbance and soil contamination				
Minimise soil impacts	Accelerated soil erosion, particularly in gibber (potential start-up of long	Access and pad construction	*General:* Paralana site is close to existing station or other service tracks and reachable by conventional vehicles. Access from tracks to drillpoint alternatives do not require formal track	No necessity to construct new access roads to site or camp, or construct borrow

	term irreversible erosion on gibber slopes >2%) Development of borrow areas.		construction but may require minor levelling. Vehicle movements are relatively light (truck-mounted drilling rigs). *Initial drillsite:* Site will need minor smoothing. Minor rehabilitation of wheel marks and scraped areas will be required, in particular scarifying of wheelmarks may be necessary on heaving clays. Movement on these heavy clays will not be undertaken under wet conditions, to avoid bogging and deep rutting No borrow areas are proposed. No major pad construction is proposed. Light grading and some watering may be necessary to temporarily eliminate crabholes. Surface scrapings of soil and plant material stockpiled on cleared edge for later re-spreading.	pits. Full rehabilitation of site to be undertaken at completion of diamond drilling stage. Soil stockpiled on site for re-spreading.
Avoid storage and loading facility spills; rapid cleanup and impact minimisation following spills	Pollution through local fuel tank or filling point spills	Vehicle and plant refuelling, drilling operations.	Most refuelling will be from trailers. Non-trailer (overhead tank) refuel areas or fuel/oil drum storage will be HDPE/clay floored and locally bunded (flooring and bunding clay sourced from sumps). Refuel areas' contaminated soil to be disposed in sump, with drilling muds, at end of drilling. In the event of spills on gibber surfaces, spills can be left to self-clean rather than risk disturbance of gibbers. Filling systems and storage tank operation in accordance with AS1940 *The Storage and Handling of Flammable and Combustible Liquids*	Fuel tanker stored in bunded area. Leakage of some diesel fuel from tanker prior to storage in bund. Incident report submitted to PIRSA. Number of minor spills occurred (generally <1 litre) during refuelling of equipment (see App 1-incident reports submitted to PIRSA). Contaminated soil disposed of in sumps. Review of Induction procedures & Drilling Contractor's procedures instigated.
3. Avoid introduction of pest species				
Prevent introduction of pest plants	Establishment of further alien species in the locality	Importation on vehicles	Requirement for contractor/other vehicles to be clean prior to entering district. Alien introduction due to drilling operation is a very low incremental risk, given the long-term pastoral use of both Paralana and Callabonna areas, and the high percentage of naturalised aliens already present in the Paralana block.	All equipment & vehicles cleaned before brought on to site.
4. Minimise disturbance to drainage patterns; avoid contamination of surface and shallow groundwaters				
Avoid drainage alterations	Downstream shifts; erosion	Access and pad construction	Existing access used. Although existing tracks do alter drainage, the proposed activities will not add any increment to existing track effects. Drilling sites have been selected to avoid drainage, particularly Paralana Ck floodouts.	Yerila-1 was not sited in an area where flooding from local watercourses was likely.

				No new tracks created for drilling program. Site and access will be lightly scarified during rehabilitation of site. No pad construction required.
Avoid storage and loading facility spills; rapid cleanup and impact minimisation following spills	Pollution through local fuel tank or filling point spills	Vehicle and plant refuelling, drilling operations.	See (2) above	See (2) above
Avoid other sources of surface and groundwater contamination	Mud or chippings contamination of surface and surface waters	Escape of drilling muds from sumps	No formation water released beyond area of drilling activity. Production water, either formation water or drilling brines, will be returned to the drilling sump for infiltrative disposal. No water will be released to evaporation or surrounding land. Drilling sites and sumps out of surface drainage, locally bunded	All formation water, drilling mud, chips etc contained or disposed of within sumps.
5. Avoid disturbance to sites of cultural and heritage significance				
Avoid disturbance to sites of Aboriginal and European heritage significance	Intrusion or physical site damage to areas of Aboriginal and European heritage significance	Access and pad construction, vehicle and people movement	Existing and proposed access and all potential drilling sites and supporting infrastructure including borrow areas have been inspected, modified for impact minimisation and cleared for indigenous heritage. Control of vehicle and personnel movement off pad and defined access. No sites of significant non-indigenous heritage near drilling sites.	All employees undertake safety & site induction prior to operations. No new access tracks or land clearance required for operations. Heritage clearance survey conducted & approval given.
Minimise visual impacts	Visual impacts through obtrusive access and pad development and/or visible long-term persistence of pad and access.	Access and pad construction	Minimal construction of drilling pad. Drilling areas selected and placed to minimise clearing of tall shrubs. Wheeltrack access from existing roads with minimal or no grading. No borrow requirements. Active rehabilitation of pad and local access on abandonment.	No new access tracks or land clearance required for operations. No borrow pits constructed.
6. Minimise loss of aquifer pressures and avoid aquifer contamination				
Minimise formation damage in drilling	Physical damage to formation beyond the drillhole.	Drilling	Low risk given rotary and diamond drilling: wells in area self-seal if not cased. Use of controlled water loss/low solids drilling muds. Casings applied and cemented at end of rotary drilling. Procedures and requirements given in Petratherm's Drilling Plan	The design & operation of Yerila-1 was documented in the Activity Application &

				approved by PIRSA. Yerila 1 was completely cased and cemented to surface as per Activity Application.
Prevent cross-connection between aquifers, and between aquifers and reservoirs	Contamination of higher-quality groundwater with lower-quality waters (salinity, trace elements).	Missing or inadequate casing or plugging post-drilling.	Casing design and cementing engineered to isolate GAB (Cadna-Owie, Eyre Formations) aquifers. Surface casing adequate to prevent blowout and for aquifer protection for subsequent diamond drilling of tails. Surface casing also isolates shallow aquifers in surficial formations. In case of abandonment, hole concrete-plugged. The drilling contractor required to run regular integrity tests. Procedures and requirements given via Petratherm's SOP	As above
7. Minimise disturbance to native vegetation and fauna				
Avoid impacts on high biological value or wilderness value areas	Direct physical impact on high biological or wilderness value areas; fires started at pad	Access and pad construction; fires	Not in high value area. Procedures/inductions and equipment to limit fire risks (under 1 above). Currently (early summer 2004) fuel loads will not carry wildfires.	Yerila 1 is not located in or near areas of high biological significance or wilderness values, hence drilling ops presented no long term impact to any such area.
Minimise disturbance to vegetation and habitat	Physical damage to soils, vegetation and habitat; wildfire	Access and pad construction or upgrade; Fires at drilling site	Maximised use of existing station and other roads. Drilling pad and local access placement has been selected to avoid clearing of mid-height (<2m) shrubs, and most of area is grassland or shortlived perennial dwarf shrubs. Stockpiling of surface soil and debris from scraped areas (drill pad, sumps, pits) for later use in rehabilitation. Post-operations rehabilitation works at wellsite. See procedures to limit risks of fires, under "Minimise fire risks" in 1 above.	No new access tracks or land clearance were required for the drilling operations. No borrow pits or drilling pad were constructed. Soil has been stockpiled for later rehabilitation of site.
Avoid disturbance to rare, endangered, vulnerable species and communities	Physical removal of rare, endangered, vulnerable species	Access and pad construction	Species not encountered at possible drilling sites or immediate access. Such species if present at wellsite can be expected to be found widely in the immediate district, as no specific habitat peculiarities exist at drilling sites. There are possibilities of such species being present along major watercourse areas but drilling will not impinge on these. Mound springs are far enough distant from the Paralana drilling sites not to be affected by the proposed drilling.	Yerila 1 is not located in or near areas of high biological significance or wilderness values, hence drilling ops presented no long term impact to any such area.
8. Minimise air pollution and greenhouse gas emissions				

Combustion by-products, particulates, vented hydrocarbon or CO2 release	Well testing, drilling	Any testing carried out in accordance with industry-accepted standards		No DSTs were conducted.
9. Maintain/enhance partnerships in community				
Liaison with local pastoral and mineral operations	Affected parties notified and consulted on proposed activities			Petratherm maintains regular contact with local landholders & stakeholders. Siting of Yerila-1& access to water approved by landholder. NOIEs were distributed to affected parties within 21 day timeframe. Wherever possible Petratherm employs local contractors & personnel in support service roles
10. Avoid or minimise disturbance to stakeholders and associated infrastructure				
Minimise adverse impact on livestock	Interference with stock	Disturbance to stock grazing	Drill site is temporary: activity will be sufficient to deter stock from pad and camp area but unlikely to otherwise affect stock. No alternative drilling site is close to stock water. Daily movement (water truck, crew) can be organised to minimise impact on stock waters. Liaison maintained with Station management	Petratherm maintains regular contact with local landholders & stakeholders. Organic beef certification held at this location. MSDS of drilling fluid materials provided to Landholder for review. Drillhole location, site access & water access were approved by landholder. Site fenced to exclude stock after ops.
Avoid contamination of	Interference with stock;	No	No formation water or brines released beyond actual drilling pad	All drilling fluids,

stockwaters with hydrocarbons	pollution of stock water	hydrocarbons expected		cuttings etc contained within sumps. No hydrocarbons intersected. Site, sumps & fuel bund fenced to exclude stock.
Minimise adverse impact on Regional Reserve operations	Not applicable in this area			Not applicable in this area
11. Optimise waste reduction and recovery				
Minimise waste handling and disposal impact	Creation of wastes: sewerage, litter, overflow and spillage	Disposal of wastes while drilling	Sewage disposed locally via short-term septic pits. Wastes on site confined by bins/skips. Disposal eventually to EPA-licenced waste disposal facility at Beverley. Minor non-toxic wastes, chippings and muds disposed in drill sump. Litter cleanup during and post-drilling.	All drilling fluids, cuttings etc contained within sumps. Waste was collected, stored &removed from site in covered bins/containers. Sewerage collected in chemical toilet/tanks and removed off site. Greywater disposed of locally in short-term septic pits.
12. Remediate and rehabilitate operational areas to agreed standards.				
Rehabilitate unsuccessful or suspended wellsite and access	wellsite and access permanently left in place if successful with visual impact, changed soil surfaces, colour contrasts	Post-drilling	Cleanup, sump and pits filled, facilities removed. Some scarification may be used to roughen pad surfaces. Topsoil stockpiled from levelled or cut areas respread over pad. Wheel-mark access lightly scarified.	Waste was collected, stored &removed from site. All equipment & materials removed from site. Contaminated soil removed & disposed of in sumps. Site, sumps & fuel bund temporarily fenced to exclude stock. Complete rehabilitation of site to take place after 2nd

				stage diamond drilling.
Undertake long-term planning for rehabilitation for potential producing wellsite	Not applicable in this case	Development of rehabilitation plans included in production management		Not applicable in this case
13. Minimise as far as reasonably practicable interruptions to natural gas supply.				
Not applicable in this case				Not applicable in this case

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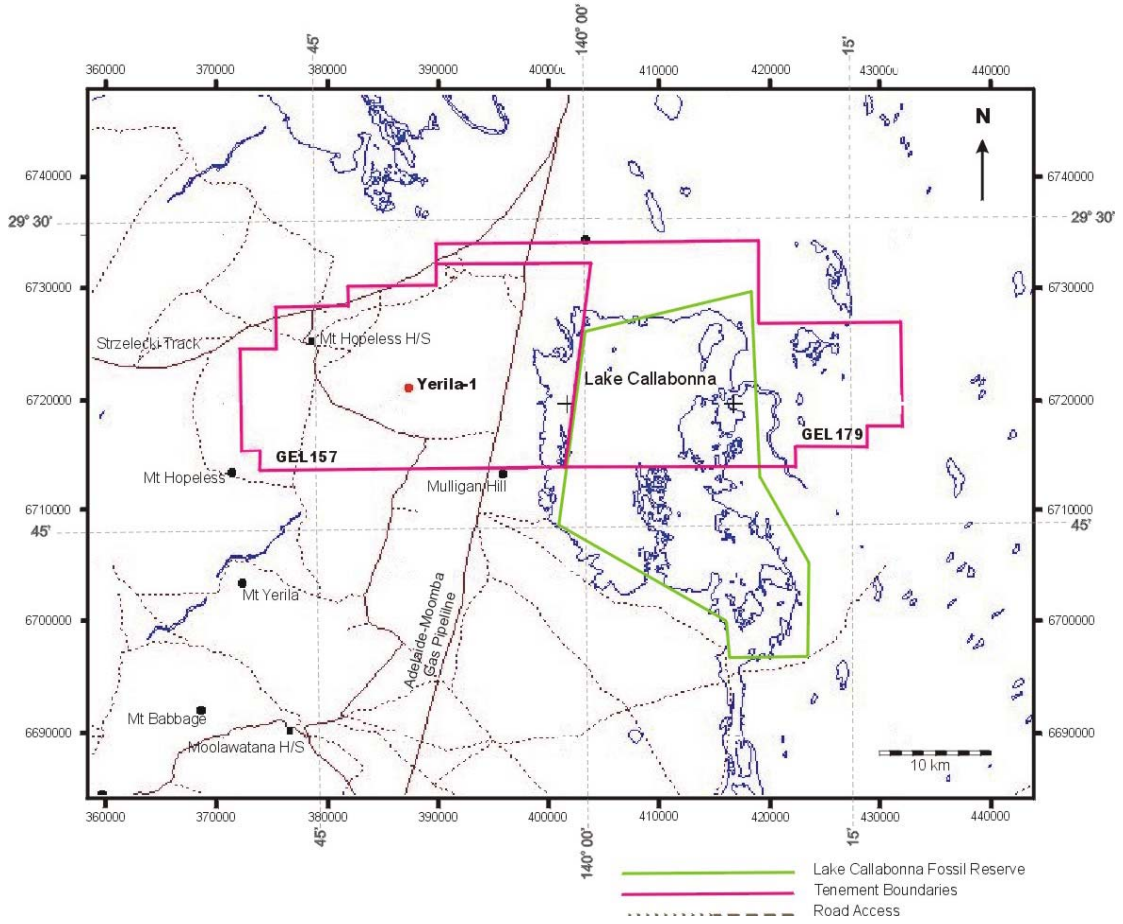

Figure 1. Map indicating the location of GEL157 Callabonna, GEL179 Callabonna East and the Yerila-1 well.

In December 2005 Petratherm applied for Variations to the Work Programs of each of the two Callabonna tenements with the view of amalgamating their work programs into a single regional project and streamlining compliance reporting. The proposed variations were approved by PIRSA, and the revised first anniversary of the combined tenements was the 17th February 2006. In accordance with Section 33 of the Petroleum Regulations 2000, this report details work conducted during the second permit year of the licences.

1.2 Overview

The Callabonna Hot Rock Project represents an exploration play for hot rock energy informally known as the Thermally Anomalous Granite (TAG) model (Figure 2). This model focuses on areas where uraniferous granitic rocks, with associated high heat production rates, are covered by thick insulating sequences of sedimentary overburden which maximise the harbouring of heat derived from radiogenic decay.

Known high heat producing granites outcropping in the Mt Painter and Mt Babbage Inliers to the south of the Callabonna Project area are defined by a strong gravity low. Modelling of existing regional gravity and magnetic data suggests that a distinct area of low density within the Callabonna Project area, covering approximately 1200 km^2 immediately north-northeast of the outcropping Mt Painter and Mt Babbage Inliers, is an intrusive body underlying about 2-3 km of sedimentary overburden (Figure 2). This interpretation has been supported by new gravity data collected by Petratherm during the first permit year. Petratherm's two licenses, GEL157 and GEL179, cover about 1000 square kilometres over the centre of this body.

In May 2005 Petratherm was successful in obtaining a $140,000 South Australian Government "*Plan for Accelerating Exploration*" (PACE) grant to support the drilling and wireline logging of a geothermal exploration well at Callabonna. Yerila-1 was spudded in early August 2005 and drilled to 693.5 metres to evaluate the geothermal potential of the Callabonna Gravity Low.

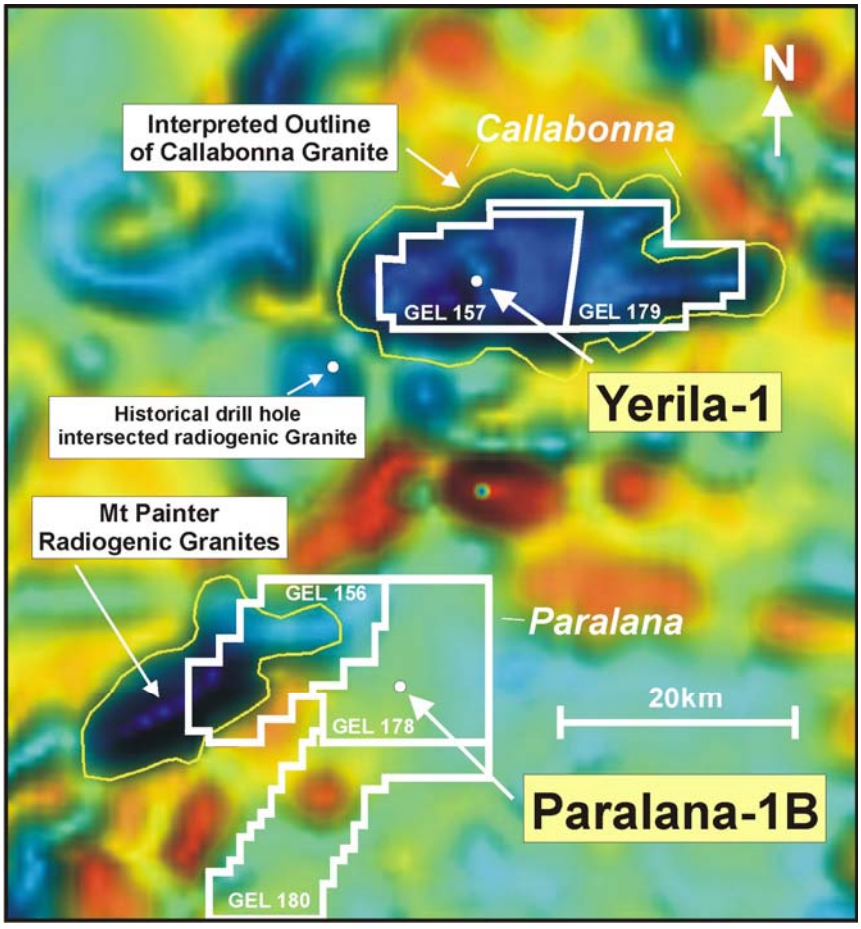

Figure 2: Regional 1VD Gravity Image, highlighting extent of the Callabonna Gravity Low (northern dark blue area), Petratherm's Licence Areas, and the location of Yerila-1.

2. Work Requirements

The revised work program negotiated by MNGI Pty Ltd with Primary Industries and Resources South Australia (PIRSA) for year 2 of the combined Callabonna tenements (GEL 157and GEL 179) is presented below.

Year of Licence	Work Program
2	• Commercial negotiations for funding • Magnetotelluric (MT) trial survey • MT modelling of basement • Revised thermal modelling

3. Work Conducted

3.1 Magnetotelluric Trial Survey

A 1600m Magnetotelluric survey was conducted over tenements 157 and 179 on the 27th June 2006. The survey was intended to be some 5000m long, however severe storm activity on the 27th June caused damage to the electronic equipment which could not be repaired in the field, resulting in cancellation of the remainder of the survey.

3.2 Modelling and interpretation of Magnetotelluric data

A final report on the results and interpretation of the magnetotelluric data has been prepared and submitted to PIRSA in accordance with Regulations.

3.3 Revised thermal modelling

The MT survey confirmed initial interpretations of the depth to basement, and was used to adjust thermal models in conjunction with new stratigraphic data gained from the drilling of Yerila-1 and thermal conductivity measurements from the Paralana1BDW1 drillhole.

3.4 Commercial negotiations for funding

Petratherm entered into discussions with a number of potential joint venture partners during Year 2 of the Callabonna licenses. The Company has successfully negotiated an exploration joint venture agreement with Beach Petroleum on the Paralana Project, and these negotiations include an intent to develop an Exploration Alliance Agreement. If the Alliance is formalised, Callabonna will be offered to Beach under the terms outlined in the agreement.

4. Year 2 Expenditure

A break down on the combined expenditure for the Callabonna tenements for Year 2 is presented below and amounts to $32,360.46

Combined Expenditure for the period up to 17/02/07 (Year 2)

Commercial in Confidence

5. Operations Proposed for Year 3

The work program for Year 3 of the Paralana Project tenements will be aimed at extending our understanding of the geothermal resource by drilling the diamond tail extension to the Yerila-1 rotary hole, and measuring varied properties of the cover sequence with the proposed wireline logging.

Year of Licence	Work Program
3	• Diamond tail extension to geothermal test well (1500m approx) • Downhole temperature and wireline logging • Revised thermal and reservoir models • Commercial feasibility and development study • Injection/Production well (3.5km) design process underway

6. Compliance with the Petroleum Act 2000 (Reg. 33)

a) Summary of the regulated activities conducted during the licence year.

Regulated activities undertaken by Petratherm in the Callabonna Project Area during the licence year include;

- Magnetotelluric survey – data collection, interpretation and environmental audit.

b) Report for the year on compliance with the Act, these regulations, the licence and any relevant statement of environmental objectives.

A Compliance Register is maintained for the Callabonna Project to ensure legislative compliance is achieved, and to document any breaches of the Petroleum Act, 2000. No breaches of the Act or relevant SEOs occurred during the Year 2 license period. An environmental audit of the Magneto-telluric survey was undertaken, and a report on the audit findings forwarded to PIRSA. Appendix 1 presents a synopsis of the Magneto-telluric environmental audit findings. The high GAS scores achieved throughout the audit indicate that these operations were carried out in accordance with the SEO and resulted in minimal disturbance or impact on the local environment.

c) Actions taken to rectify non-compliance with obligations imposed by the Act, these regulations or the licence, and to minimise the likelihood of the recurrence of any such non-compliance; and d) summarise any management system audits undertaken during the relevant licence year including information on any failure or deficiency identified by the audit and any corrective actions that has, or will be, taken.

Petratherm Ltd recognises the importance of achieving regulatory compliance and is committed to achieving best practice in its management strategies, work practices and procedures, in an environmentally and socially responsible manner. Petratherm has a policy of continuing review and improvement in the developing of management systems to ensure it meets this commitment.

At present documented management systems include an Environmental and Operational Health and Safety Manual, Field Operations Manual, and Standard Operating Procedures Manuals for individual tenements/projects. A computer based tracking system has been implemented to ensure compliance with all regulations and obligations under the Act.

e) List all reports and data relevant to the operation of the Act generated by the licensee during the licence year,

Author	Title	Date	Activity	GEL	Submitted
Petratherm	Year 1 Combined Annual Report GEL157 Callabonna & GEL179 Callabonna East	16/3/06	Annual Report	GEL157	7/3/06
Petratherm	Yerila 1 Well Completion Report	28/2/06	WCR	GEL157	10/3/06
Petratherm	Callabonna MT survey Activity Application	May 2006	MT survey	GEL 157	10/05/06
Petratherm	2006 MT survey environmental audit	15/08/06	MT survey	GEL 157	15/08/06
Zonge Engineering	Callabonna AMT Logistics Survey	June 2006	MT survey	GEL157	Dec 2006
Petratherm	Callabonna MT Operations Report	Nov 2006	MT Survey	GEL157	Dec 2006
Petratherm	Callabonna MT Interpretation Report	Dec 2006	MT Survey	GEL 157	Dec 2006

f) Report on any incidents reportable to the Minister under the Act and regulations during the relevant licence year.

No reportable incidents occurred during Year 2 of the Callabonna licences.

g) Report on any reasonably foreseeable threats that reasonably present , or may present, a hazard to facilities or activities under the licence, and report on any corrective action that has, or will be, taken.

No threats have been identified.

h) Operations proposed for the ensuing year

A discussion on the proposed work programs for Year 3 of tenements GEL 157 and GEL 179 is presented in Section 5 above.

Appendix 1

Assessment of SEO Compliance:
Excerpt from 2006 Callabonna Magneto-telluric Survey
Environmental Audit Report

Objective 2.

Monitor and manage those activities that have, or are likely to have, temporary impacts on biological diversity, cultural components of the environment, groundwater or other land users, and facilitate rehabilitation so as to minimise such impacts if they occur.

Goal 2.1 Minimise the impact on vegetation		**Gas Score**
Actions	**Comments**	
No land clearing is proposed.	No earthworks or land clearing was required or undertaken for this operation.	+2
Quad bikes and 4WD will use existing tracks or cleared areas wherever possible.	A single 4WD vehicle was used for the operation. Area is poorly serviced by roads and tracks necessitating crossing of open ground for much of the survey area. Inspection of individual stations and survey lines indicate minimal soil disturbance, however some vehicle tracks are visible. See Section 2.2.1 for examples	+1
Goal 2.2 Minimise the impact on fauna		**Gas Score**
Noise is to be kept at a minimum.	Contractor personnel camped at the Petratherm Paralana1BDW1 drilling camp. Crew consisted of 2 operators using a 4WD vehicle. No large generators, earthmoving equipment or other machinery were used.	+2
Field camp will be at an established off-site camp location.	Contractor personnel camped at the Petratherm Paralana1BDW1 drilling camp.	+2
No pets or other domestic animals are to be brought on-site.	Petratherm's Standard Operating Procedure does not allow pets or other domestic animals to be taken on-site. Contractor personnel camped at the Petratherm Paralana1BDW1 drilling camp.	+2
Goal 2.3 Minimise the impact on soil.		**Gas Score**
Vehicles to travel at appropriate low speed to prevent soil disturbance and dust hazard.	Inspection of individual stations and traverse lines indicate minimal soil disturbance, however vehicle tracks are visible. See Section 2.2.1 for examples.	+1
Minimal impact of use of 4WD and quad bikes (e.g. use of existing tracks) should result in low or no impact.	A single 4WD vehicle was used for the operation. Inspection of individual stations and traverse lines indicate minimal soil disturbance, however vehicle tracks are visible. See Section 2.2.1 for examples.	+1
Vehicles will be excluded from drainage lines and cross only at established fords.	Landscape in this region is flat-lying gibber plains. No major watercourses were impacted by the operations. Drainage lines were avoided where possible however flat-lying nature of country results in unavoidable crossing of large flood-prone areas by survey vehicle.	+1
Goal 2.4 Minimise the impact on surface drainage		**Gas Score**
No land clearing or earthworks are to be undertaken.	No earthworks or land clearing was required or undertaken for this operation.	+2
Vehicles are to use existing tracks and cleared areas wherever possible.	Area is poorly serviced by roads and tracks necessitating crossing of open ground for much of the survey area. Inspection of individual stations and survey lines indicate minimal soil disturbance, however some vehicle tracks are visible. See Section 2.2.1 for examples	+1

Creeks and drainage lines are to be avoided and crossing of watercourses by vehicles is only to occur at well defined existing fords.	Landscape in this region is flat-lying gibber plains. No major watercourses were impacted by the operations. Drainage lines were avoided where possible however flat-lying nature of country results in unavoidable crossing of large flood-prone areas by survey vehicle.	+1
Goal 2.5 Minimise the visual impact		**Gas Score**
Field camp will be at an established off-site camp location.	Contractor personnel camped at the Petratherm Paralana1BDW1 drilling camp.	+2
All litter is to be removed off-site.	Contractor personnel camped at the Petratherm Paralana1BDW1 drilling camp. All litter was collected and taken off-site for disposal. No litter was observed during field inspection.	+2
Base stations will be located along existing fencelines.	No permanent station markers were required to be erected.	+2
Individual stations will not be marked.	No permanent marking of magnetotelluric stations was necessary. Inspection of individual stations indicate no disturbance to soil or vegetation. Receiving stations are not visible, and pits dug for survey pots are barely visible. See Section 2.2.1 for examples.	+1
Goal 2.6 Minimise the impact on other land users		**Gas Score**
Consultation and permitting of affected landholders, managers and stakeholders including known Native Title Claimants.	Registered Native Title Claimants were identified via the National Native Title Tribunal. Notice of Intended Entry documentation was issued to all affected land holders, stakeholders and Native Title Claimants prior to operations commencing.	+2
Area not near major road routes.	Survey was performed over a very remote area. Most of the road routes are local station tracks. Only relatively heavily used road is the Strzelecki Track.	+2
Road operations to be conducted with full consideration of other road users.	Area is very remote and unfrequented except by local traffic. Strzelecki Track is only major traffic corridor also infrequently used. The survey did not cross any major roads.	+2
Water to be taken from dams and tanks only with consent of landholder, manager or statutory authority.	Water was required for personal use only, and was carried in from the off-site camp.	+2
Goal 2.7 Discourage third party use.		**Gas Score**
Field camp will be at an established off-site camp location.	Contractor personnel camped at the Petratherm Paralana1BDW1 drilling camp.	+2
Vehicles will only use existing tracks to gain access and entry.	Vehicles used existing tracks, roads and survey lines wherever possible to access survey lines. Travel to and from site was via the main station tracks. Area is poorly serviced by roads and tracks necessitating crossing of open ground for much of the survey area. Inspection of individual stations and survey lines indicate minimal soil disturbance, however some vehicle tracks are visible. See Section 2.2.1 for examples	+1

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GEL 157 - Callabonna

GEL 179 – Callabonna East

Combined Annual Report Year 3

17 February 2007 – 16 February 2008

GEL 157 – Callabonna

GEL 179 - Callabonna East

Combined Annual Report Year 3

17 February 2007 – 16 February 2008

Contents

1. Introduction

1.1 Licence Data

MNGI Pty Ltd, a wholly owned subsidiary of Petratherm Ltd, was granted GEL 157 (Callabonna) on 23 November 2004 and GEL 179 (Callabonna East) on 28 January 2005, each for a period of 5 years. In December 2005 Petratherm applied for Variations to the Work Programs of each of the two Callabonna tenements with the view of amalgamating their work programs into a single regional project and streamlining compliance reporting. The proposed variations were approved by PIRSA, and the revised first anniversary of the combined tenements was the 17th February 2006. In accordance with Section 33 of the Petroleum Regulations 2000, this report details work conducted during the third permit year of the licences.

The Callabonna Project licences are located in the northern Arrowie Basin on the gibber plains to the north of the Mt Painter and Mt Babbage Inliers of the Flinders Ranges (Figure 1).

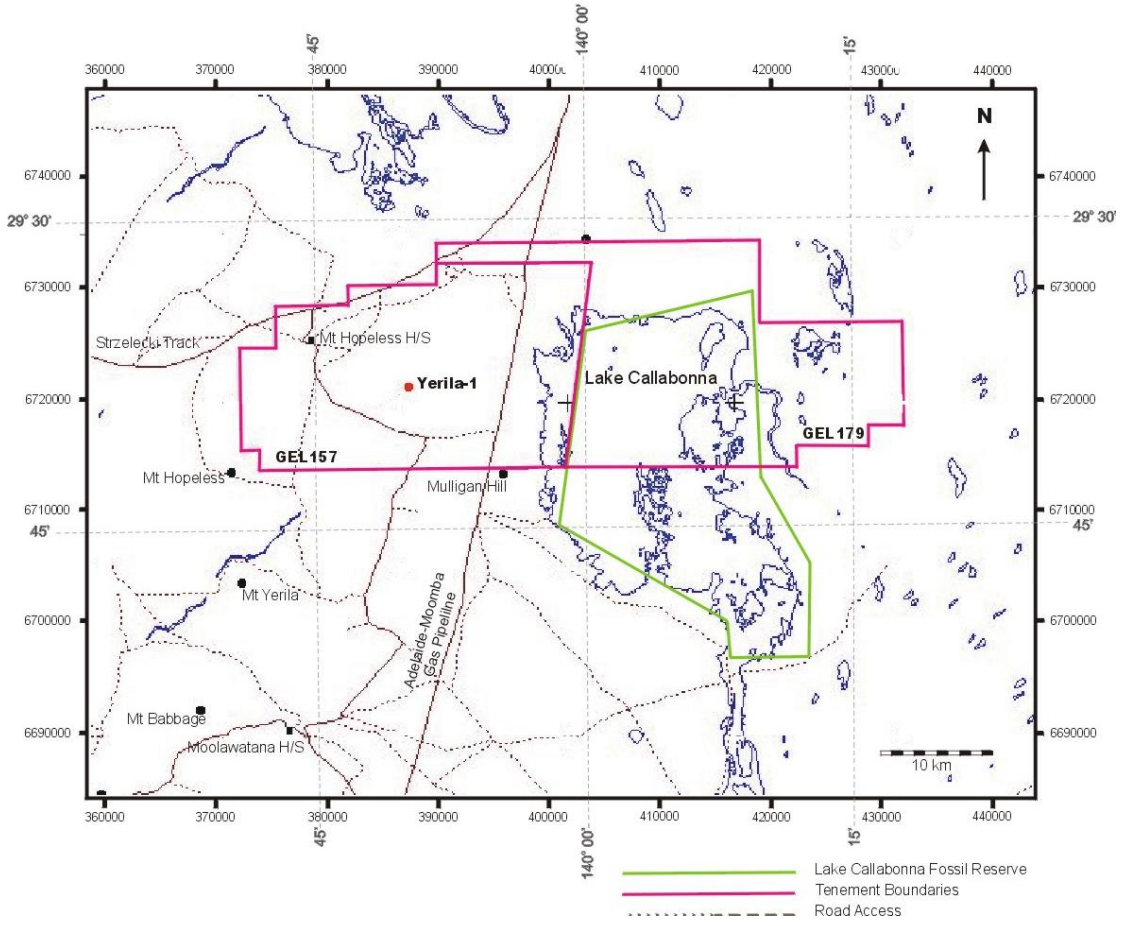

Figure 1. Map indicating the location of GEL157 Callabonna, GEL179 Callabonna East and the Yerila-1 well.

1.2 Overview

The Callabonna Hot Rock Project represents an exploration play for an Engineered Geothermal System (EGS) informally known as the Thermally Anomalous Granite (TAG) model (Figure 2). This model focuses on areas where high heat producing granitic rocks are covered by thick insulating sequences of sedimentary overburden, which maximise the local geothermal gradient.

Known high heat producing granites cropping out in the Mt Painter and Mt Babbage Inliers to the south of the Callabonna Project area, continue under cover to the north. Existing regional gravity and magnetic data suggests that a distinct low density area covering approximately 1200 km^2 immediately north-northeast of the Mt Painter and Mt Babbage Inliers, is an intrusive body underlying about 2-3 km of sedimentary overburden (Figure 2). Petratherm's two licences, GEL157 and GEL179, cover about 1000 square kilometres over the centre of this body.

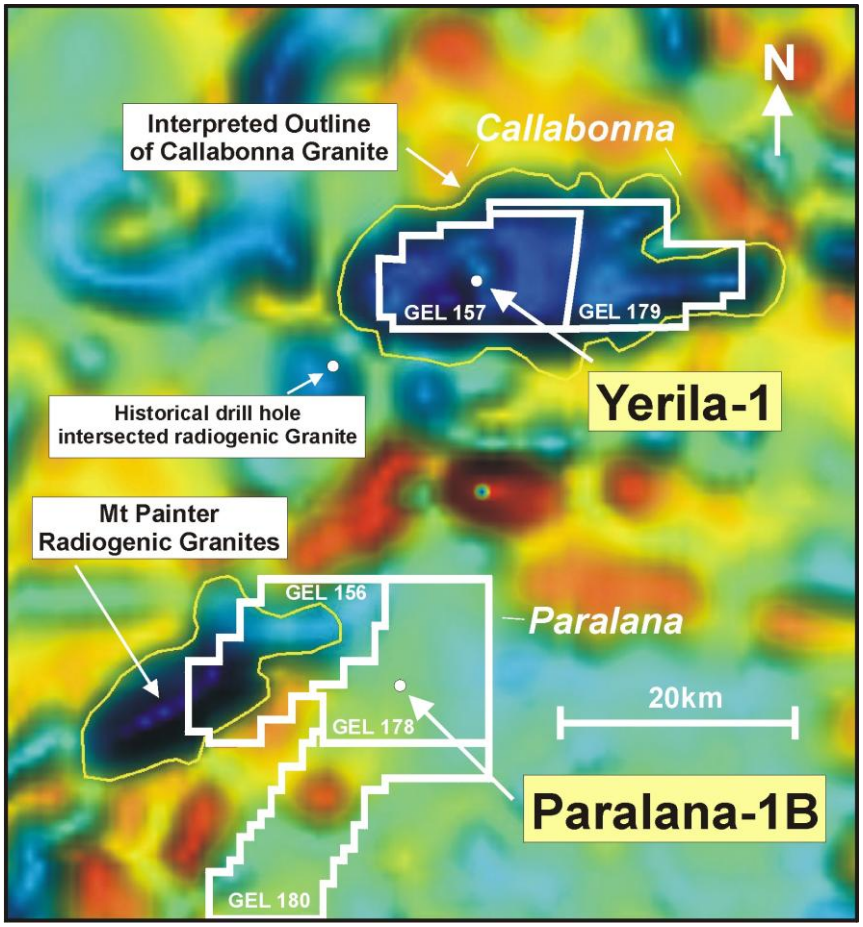

Figure 2: Regional 1VD Gravity Image, highlighting extent of the Callabonna Gravity Low (northern dark blue area), Petratherm's Licence Areas, and the location of Yerila-1.

2. Work Requirements

The combined work program for Year 3 of the Callabonna tenements (GEL 157 and GEL 179) is presented below.

Year of Licence	Work Program
3	• Diamond tail extension to geothermal test well (1500m approx) • Downhole temperature and wireline logging • Revised thermal and reservoir models • Commercial feasibility and development study • Injection/Production well (3.5 km) design process underway

3. Work Conducted

3.1 Magneto-telluric Survey

As reported in the Year 2 Annual Report, a Magneto-telluric survey was initiated over the Callabonna tenements in June 2006, however severe storm activity during the survey operations damaged the recording equipment, resulting in cancellation of the remainder of the survey.

A repeat attempt to conduct the full 5000m long survey was successfully undertaken from 1st to 5th December 2007 by Quantec Geoscience. A single linear traverse was recorded in a north-south orientation so as to intersect features of interest on regional gravity and magnetic data. The start point of the survey was 389200E, 6724900N (GDA94) and the orientation of the line was 000°T. A total of 5km of data were acquired with an average of 6 stations acquired per day, each station having a spacing of 500m, giving a total of 11 stations. A single site setup consisted of an L shaped E field array, with 100m dipoles and Hx, Hy and Hz Low frequency coils, remote referenced. Data was collected at an effective bandwidth of 0.005 to 300 Hz.

The main objective for the survey was to provide information on the depth to basement, estimated to be at about 3000m, and on the thicknesses of local stratigraphic units. Thermal and commercial modelling of data from Callabonna, has shown that the depth of the basement / cover interface is a critical factor in the commercial feasibility of this licence. Thus much of the work conducted in Years 2 and 3 has been aimed at better constraining the depth to the basement / sedimentary cover contact, and investigating the commercial feasibility of the project area based on possible outcomes from these survey results.

Data from this survey is currently being interrogated and an Operations and Interpretation Report will be submitted to PIRSA in due course in accordance with Regulations. The decision to drill a deep (injection) well, and the siting of such a well, will be contingent on the findings of the magneto-telluric survey and associated outcomes of commercial feasibility modeling.

3.2 Revised thermal and reservoir models

Preliminary results from the MT survey have been used to adjust thermal and reservoir models in conjunction with stratigraphic data gained from the drilling of Yerila-1, thermal conductivity measurements from the Paralana1BDW1 drillhole and regional 2D seismic data recorded over the Paralana tenements to the south. Modelling of the data is continuing as interpretation of the MT and seismic data progresses.

3.3 Commercial feasibility and development study

Petratherm continued discussions with a number of potential joint venture partners during Year 3 of the Callabonna licences. Economic modelling and discussions with interested parties indicated that commercial conditions were favourable for development, contingent on a number of technical factors. The foremost of these technical factors were drilling depth and target temperature which are intrinsically linked to the depth of the basement heat source / thickness and conductivity of the sedimentary cover, and the transmission solution for this location. Further information about these critical factors is required before further negotiations or feasibility assessments can be made.

3.4 Diamond tail extension

A diamond tail extension to Yerila-1 was not drilled in Year 3. Data gathered from the first stage drilling of Yerila-1 and drilling of Paralana-1BDW1 were considered sufficient to progress thermal and economic modeling, given that the Yerila-1 extension would only provide relatively shallow stratigraphic information at a single location. It was considered that more useful data could be gathered and incorporated into the modeling from interpretation and assessment of the Callabonna magneto-telluric survey in conjunction with extrapolations from the Poontana Regional 2D Seismic and Mt Hopeless Seismic surveys.

Petratherm recognises that this constitutes a breach of compliance of the negotiated work program for Year 3.

3.5 Downhole temperature and wireline logging

Downhole temperature and wireline logging was not undertaken in Year 3, due to the extension of Yerila-1 not being drilled.

3.6 Injection well design process underway

An initial internal doublet system scoping study has been undertaken incorporating well design elements developed for the Paralana project. The final selection of the most suitable drilling target in the tenement has yet to be made, and will be contingent on the results of depth to basement and potential deep basin stratigraphy modelling derived from the Callabonna magneto-telluric and Poontana seismic surveys.

4. Year 3 Expenditure

A break down on the combined expenditure for the Callabonna tenements for Year 3 is attached in Appendix 2.

5. Operations Proposed for Year 4

The work program for Year 4 of the Paralana Project tenements is intended to extend our understanding of the geothermal resource by drilling the first deep (injection) well into the geothermal resource target area, hence confirming the geothermal gradient and providing data on varied properties of the cover sequence and in situ stress regime via proposed wireline logging and downhole stress analysis.

Year of Licence	Work Program
4	• Injection/Production well (3.5km) design completed • Drill 3.5 km injection well • Down hole thermal analysis • Down hole stress analysis

While planning has commenced on well design aspects, Petratherm is concerned that the current tight market with respect to rig availability (particularly large rigs with the capability to drill >4km deep wells) may significantly impact on the likely timing of drilling at Callabonna, as has been the case in other licences.

6. Compliance with the Petroleum Act 2000 (Reg. 33)

a) Summary of the regulated activities conducted during the licence year.

Petratherm performed a regional magneto-telluric survey in the Callabonna Project Area, followed up by an environmental audit of these operations. An activity application submitted for the operation was approved by PIRSA and the work conducted under the SEO for ground based geophysical operations (non-seismic) in South Australia.

b) Report for the year on compliance with the Act, these regulations, the licence and any relevant statement of environmental objectives.

A Compliance Register is maintained for the Callabonna Project to ensure legislative compliance is achieved, and to document any breaches of the Petroleum Act, 2000.

As discussed above, Petratherm recognises it has been non-compliant with respect to fulfilling the Year 3 combined work program for the Callabonna licences, due to the failure to drill the diamond tail extension to the Yerila-1 exploratory hole. Reasons for this non-compliance are presented in section 3.4 above. Aside from this instance, no other breaches of the Act or relevant SEOs occurred during the Year 3 licence period.

An Environmental Assessment for the regional Magneto-telluric survey at Callabonna indicated that the existing SEO for Ground based Geophysical Operations (non-seismic) in South Australia was applicable and sufficient to guide this operation. The survey performed at Callabonna was undertaken with the approval of PIRSA, and no breaches of the SEO occurred.

An environmental audit of the survey area was undertaken early in 2008. A copy of the audit report is in preparation and will be submitted to PIRSA shortly. In general, the condition of the site was good. Minor rains have aided in reducing the visual impact of vehicle tracks and site disturbance, but the area has been in drought for a number of years, and the overall level of vegetation remains sparse. Appendix 1 presents a synopsis of the Magneto-telluric Environmental Audit findings.

c) Actions taken to rectify non-compliance with obligations imposed by the Act, these regulations or the licence, and to minimise the likelihood of the recurrence of any such non-compliance; and d) summarise any management system audits undertaken during the relevant licence year including information on any failure or deficiency identified by the audit and any corrective actions that has, or will be, taken.

Petratherm acknowledges that a variation to the work program for these tenements is required to rectify the work program non-compliance noted above, and will seek a variation to the work program through PIRSA to rectify the non-compliance. Details of this will be included with-in the Year 4 annual report and will be made evident in PIRSA's licence register.

Petratherm Ltd recognises the importance of achieving regulatory compliance and is committed to achieving best practice in its management strategies, work practices and procedures, in an environmentally and socially responsible manner. Petratherm has a policy of continuing review and improvement in the developing of management systems to ensure it meets this commitment, and is currently assessing and updating its Environment and OH&S Management System with assistance from Business SA.

e) List all reports and data relevant to the operation of the Act generated by the licensee during the licence year,

Author	Title	Date	Activity	GEL	Submitted
Petratherm	Year 2 Combined Annual Report GEL157 Callabonna & GEL179 Callabonna East	16/4/07	Annual Report	GEL157 & 179	16/4/07
Petratherm	2007 Callabonna MT survey Activity Application amendment	29/8/07	MT survey	GEL157	29/8/07
Petratherm	2007 Callabonna MT survey Notice of Intended Entry	Sept 2007	MT Survey NOIE	GEL157	Sept 2007
Petratherm	2007 Callabonna MT survey weekly progress report (1 of)	7/12/07	MT progress rpt	GEL157	7/12/07
Petratherm	Quarterly incident and cased hole activity reports 1st quarter 2007	Jan-Mar 2007		GEL157	Apr 2008
Petratherm	Quarterly incident and cased hole activity reports 2nd quarter 2007	Apr-Jun 2007		GEL157	Jul 2008
Petratherm	Quarterly incident and cased hole activity reports 3rd quarter 2007	Jul-Sept 2007		GEL157	Oct 2008
Petratherm	Quarterly incident and cased hole activity	Oct-Dec		GEL157	Jan 2008

	reports 4th quarter 2007	2007			

f) Report on any incidents reportable to the Minister under the Act and regulations during the relevant licence year.

No reportable incidents occurred during Year 3 of the Callabonna licences.

g) Report on any reasonably foreseeable threats that reasonably present , or may present, a hazard to facilities or activities under the licence, and report on any corrective action that has, or will be, taken.

No threats have been identified.

h) Operations proposed for the ensuing year

A discussion on the proposed work programs for Year 4 of tenements GEL 157 and GEL 179 is presented in Section 5 above.

Appendix 1

Assessment of SEO Compliance:
Summary from 2007 Callabonna Magneto-telluric Survey
Environmental Audit Report

Assessment Criteria	Goal	Comments	Outcome Achieved (Y/N) or GAS Score
Objective 1: Minimise disturbance to other land users			
All reasonable landowner complaints are addressed and resolved. Upon completion of the survey and after any rehabilitation or reparation (if determined prior to survey), the level of impacts on other land users is determined by the absence of existing stakeholder complaints.	No complaints are received	NOIEs were given to all stakeholders. Stakeholders were contacted personally prior to and after survey completed. Existing tracks were used wherever possible. Crew camped at site nominated by land owner & with land owners permission. No complaints were received No National Parks or other proclaimed areas exist within the area affected.	Y
Objective 2: Minimise disturbance to native vegetation, fauna and associated wildlife habitats.			
Vehicle access to survey area is to be via existing access tracks or existing seismic lines, except where they may have been rehabilitated.		Existing tracks used for access and survey line wherever possible. Inspection of individual stations and lines indicate minimal soil disturbance, however some tracks are visible.	+1
No off traverse driving.		Off traverse driving kept to the minimum necessary to avoid creeks and stands of vegetation	+1
No native vegetation clearance occurs.		No native vegetation or land clearance occurred.	+2
Appropriate measures to contain and prevent fuel and chemical spillages taken. Spillage response equipment available. Reporting system in place.		Waste disposal and refuelling undertaken at the base camp. No spillages reported or located.	+2
Objective 3: Avoid disturbance to sites of cultural and heritage significance			
Survey area scouted by appropriate personnel. Report prepared.	No sites are disturbed.	Cultural and Heritage site registers consulted.	Y

Identified sites flagged and avoided. New sites identified reported to appropriate agency.	No complaints are received from stakeholders or the general public. Any sites located are recorded and reported.	Area was scouted by appropriate personnel & approved. No sites located.	
Objective 4: Minimise the risk of introduction and/or spread of introduced species and bio-security threats.			
Weeds, feral animals or plant and animal diseases are not introduced to, or spread within South Australia.	No contamination of the area by new feral or pest species.	All vehicles & equipment were cleaned before arrival and departure from site. No pets or other animals were brought to site.	Y
Objective 5: Minimise the risk of initiation and/or propagation of wildfire.			
Appropriate plans in place and equipment available to identify hazards, initiate hazard mitigation and response training, fire-fighting equipment available.	No unintended or uncontrolled fires occurred. OH&S requirements were met. No injuries or property damage occurred through fire.	An Emergency Response Plan exists for the area and was explained to crew. Fire-extinguishers were present at camp and in vehicles. Emergency contacts made known to crew and were alerted to the crew's presence and activities.	Y
Objective 6: Minimise the visual impacts of geophysical operations			
Locate camp to minimise visual impact. Locate survey traverses to minimise visual impact. Remove all equipment and litter. Individual stations unmarked		Crew camped at a site nominated by the land owner. Site not in view of casual road users. Existing tracks used wherever possible. No significant earthworks or vegetation removed. All equipment & waste removed & disposed of at approved public facility (Innamincka). No permanent marking of MT stations is necessary. Inspection of individual stations indicates minimal disturbance to soil or vegetation. Stations only visible by vehicle access wheel marks, operator footprints & faint areas of soil	+2 +2 +2 +2

		disturbance	
Objective 7: Minimise generation of dust			
Drive at appropriate speed to minimise dust hazard particularly in vicinity of other crews or homesteads.	Dust nuisance is kept at a minimum. No complaints received from stakeholders or general public.	Crews made aware of their responsibilities via crew inductions.	Y
Objective 8: Minimise soil disturbance and contamination			
Locate campsites to minimise disturbance and contamination.		Crew camped at site nominated by land owner. No vegetation removed. Existing tracks used wherever possible. Only survey vehicles directly used in data acquisition accessed the area & camp.	Y
Vehicles to travel at appropriate speed to prevent soil disturbance and dust hazard		Crews made aware of their responsibilities via crew inductions.	Y
Refuel in allocated refuelling areas. Clean up and report all spills and leaks.		No spills reported or located.	+2
Dispose of waste appropriately.		All waste removed from survey sites & disposed of at approved public facility (Innamincka).	+2
Only vehicles engaged in data acquisition to traverse survey lines.		Only survey vehicles directly used in data acquisition accessed the survey lines.	+2
Objective 9: Optimise waste recovery			
Wastes (except sewerage and grey water) to be segregated, burnt or transported to an EPA waste disposal facility.	No wastes to be left onsite. All wastes to be disposed of appropriately.	Crew camped at site nominated by land owner. All waste removed & disposed of at approved public facility (Innamincka).	Y

Appendix 2

Combined Expenditure for the period up to 17/02/08 (Yr3)

Commercial in Confidence

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GEL 157 - Callabonna

GEL 179 – Callabonna East

Combined Annual and Final Report Year 4

17 February 2008 – 16 July 2009

GEL 157 – Callabonna

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Combined Annual Report Year 4

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Contents

1. Introduction

1.1 Licence Data

MNGI Pty Ltd, a wholly owned subsidiary of Petratherm Ltd, was granted GEL 157 (Callabonna) on 23 November 2004 and GEL 179 (Callabonna East) on 28 January 2005, each for a period of 5 years. In December 2005 Petratherm applied for Variations to the Work Programs of each of the two Callabonna tenements with the view of amalgamating their work programs into a single regional project and streamlining compliance reporting. The proposed variations were approved by PIRSA, and the revised first anniversary of the combined tenements was the 17th February 2006.

On the 17th September 2008, the Company received approval to suspend GEL's 157 and 179 (Callabonna Project) for a period of 12 months. At this date the Company also received approval to vary the Callabonna Project Work Program in order rectify timing of planned activities. On the 16th July 2009 following a request by the Company to PIRSA, the Callabonna Project was surrendered. In accordance with Section 33 of the Petroleum Regulations 2000, this report details work conducted during the fourth permit year of the licences.

The Callabonna Project licences are located in the northern Arrowie Basin on the gibber plains to the north of the Mt Painter and Mt Babbage Inliers of the Flinders Ranges (Figure 1).

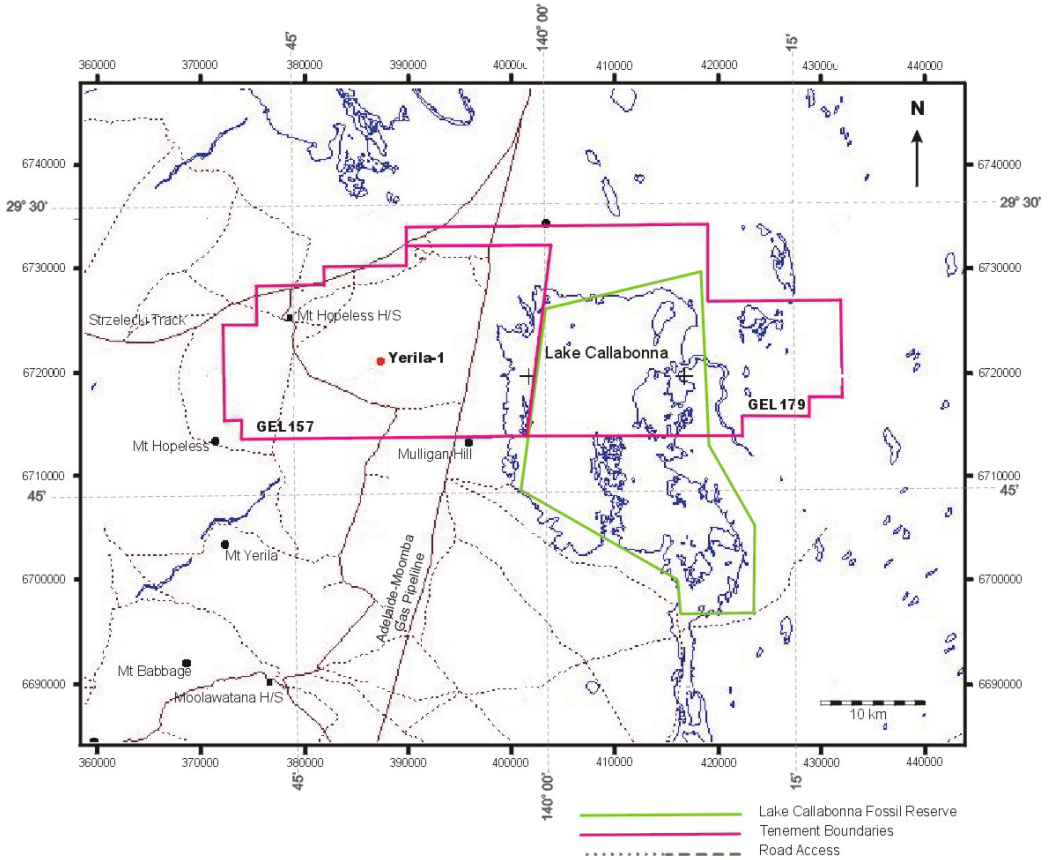

Figure 1. Map indicating the location of GEL157 Callabonna, GEL179 Callabonna East and the Yerila-1 well.

1.2 Overview

The Callabonna Hot Rock Project represents an exploration play for an Engineered Geothermal System (EGS) informally known as the Thermally Anomalous Granite (TAG) model (Figure 2). This model focuses on areas where high heat producing granitic rocks are covered by thick insulating sequences of sedimentary overburden, which maximise the local geothermal gradient.

Known high heat producing granites cropping out in the Mt Painter and Mt Babbage Inliers to the south of the Callabonna Project area continue under cover to the north. Existing regional gravity and magnetic data suggests that a distinct low density area covering approximately 1200 km^2 immediately north-northeast of the Mt Painter and Mt Babbage Inliers, is an intrusive body underlying about 2-3 km of sedimentary overburden (Figure 2). Petratherm's two licences, GEL157 and GEL179, cover about 1000 square kilometres over the centre of this body.

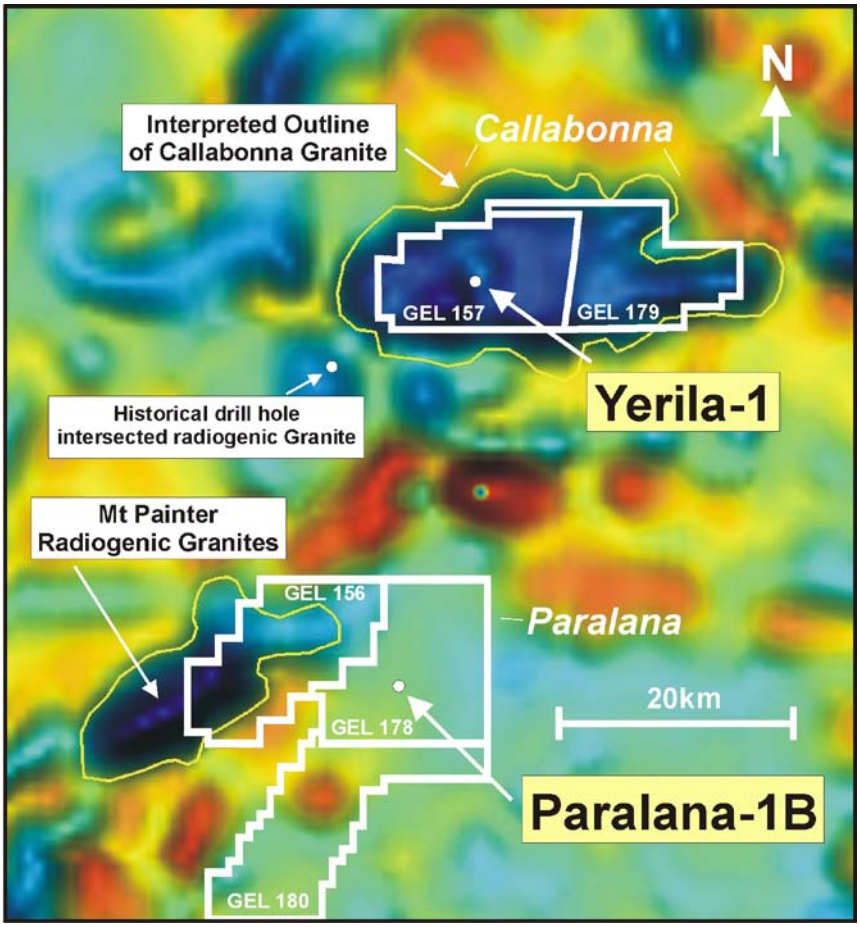

Figure 2: Regional 1VD Gravity Image, highlighting extent of the Callabonna Gravity Low (northern dark blue area), Petratherm's Licence Areas, and the location of Yerila-1.

2. Work Requirements

The combined work program for Year 4 of the Callabonna tenements (GEL 157 and GEL 179) is presented below.

Year of Licence	Work Program
4 Indicative Cost $80,000	• Magneto-telluric modelling of basement • Revised thermal model • Commercialisation plan • Site deep well • Aboriginal heritage and environmental approvals

3. Work Conducted

3.1 Magneto-telluric modelling of basement

The main objective was to provide information as to the depth to basement, the thicknesses of local stratigraphic units and to determine the suitability of the area to host a geothermal resource. The modelling work used soundings recorded along a north-south trending transect, and covered a distance of 5km. Sounding stations were spaced at 500m intervals. The data acquisition and processing contract was undertaken by Quantec Geoscience Australia; while the data inversion modelling was undertaken by Quantec Geoscience Canada. Data quality throughout the survey was generally good, although a number of stations required a repeat read where data quality was poor or acquisition error had occurred.

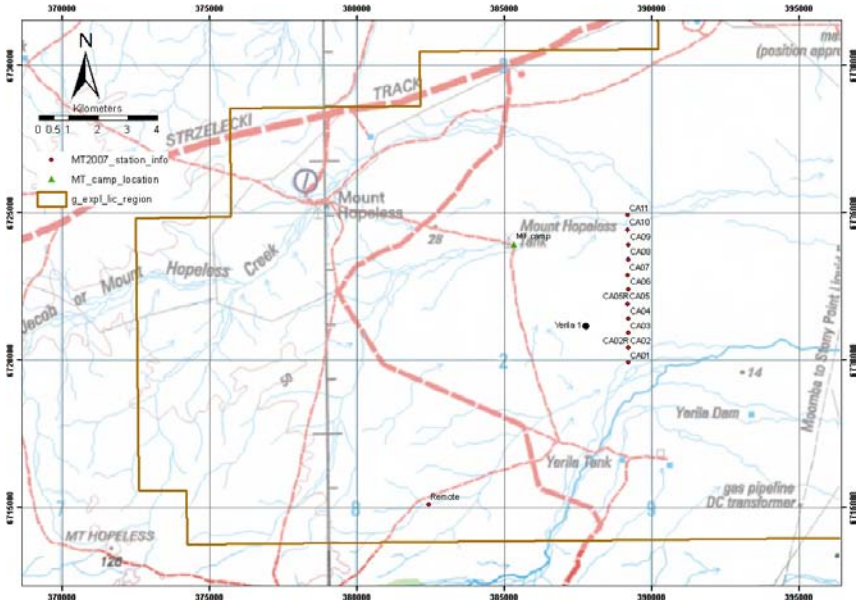

Figure 3 Callabonna MT line and remote reference station.

Data modelling and inversions

Prior to modelling the MT data, the data was rotated such that XY is TE, and YX is TM, this is the opposite convention to which the data was collected. This procedure ensures that the TM mode is perpendicular to geological strike and the TE mode is parallel to geological strike.

The resistivity data shows a conductive sequence down to approximately 0.5Hz, beneath which there is a thin, less conductive layer from 0.5 to 0.1 Hz. Underlying these two conductive bands is a more resistive layer with frequencies less than 0.1 Hz as shown on figure 4.

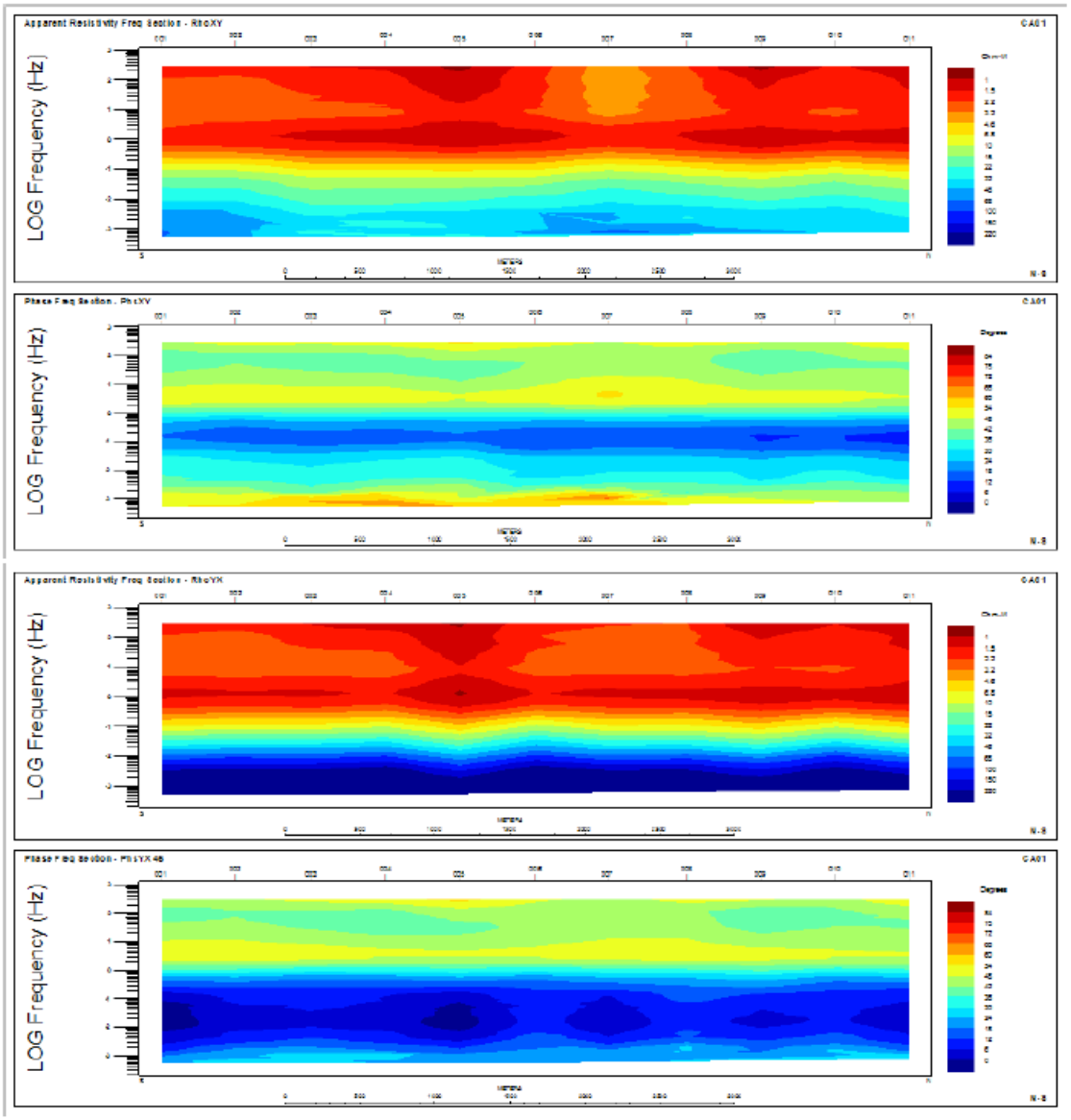

Figure 4 Raw data resistivity and phase profiles.

The phase data varies from high to low and suggests an increasing resistivity with depth, and this trend is confirmed by the resistivity data. A phase increase is noted at the very low frequencies and is indicative of an increased conductivity at depth; however there is no evidence for this in the resistivity data.

Bostick 1D Model

1 D inversions were performed using Bostick and Occam algorithms. The Bostick 1D inversions (figure 5) suggest a conductive layer of less than 10 ohms down to 1000 meters followed by a less conductive layer down to between 3000 and 3500meters. This is interpreted to be the depth to top of basement. Some variation is seen in the TE and TM modes; however the TM mode is believed to represent a more accurate model of the geology.

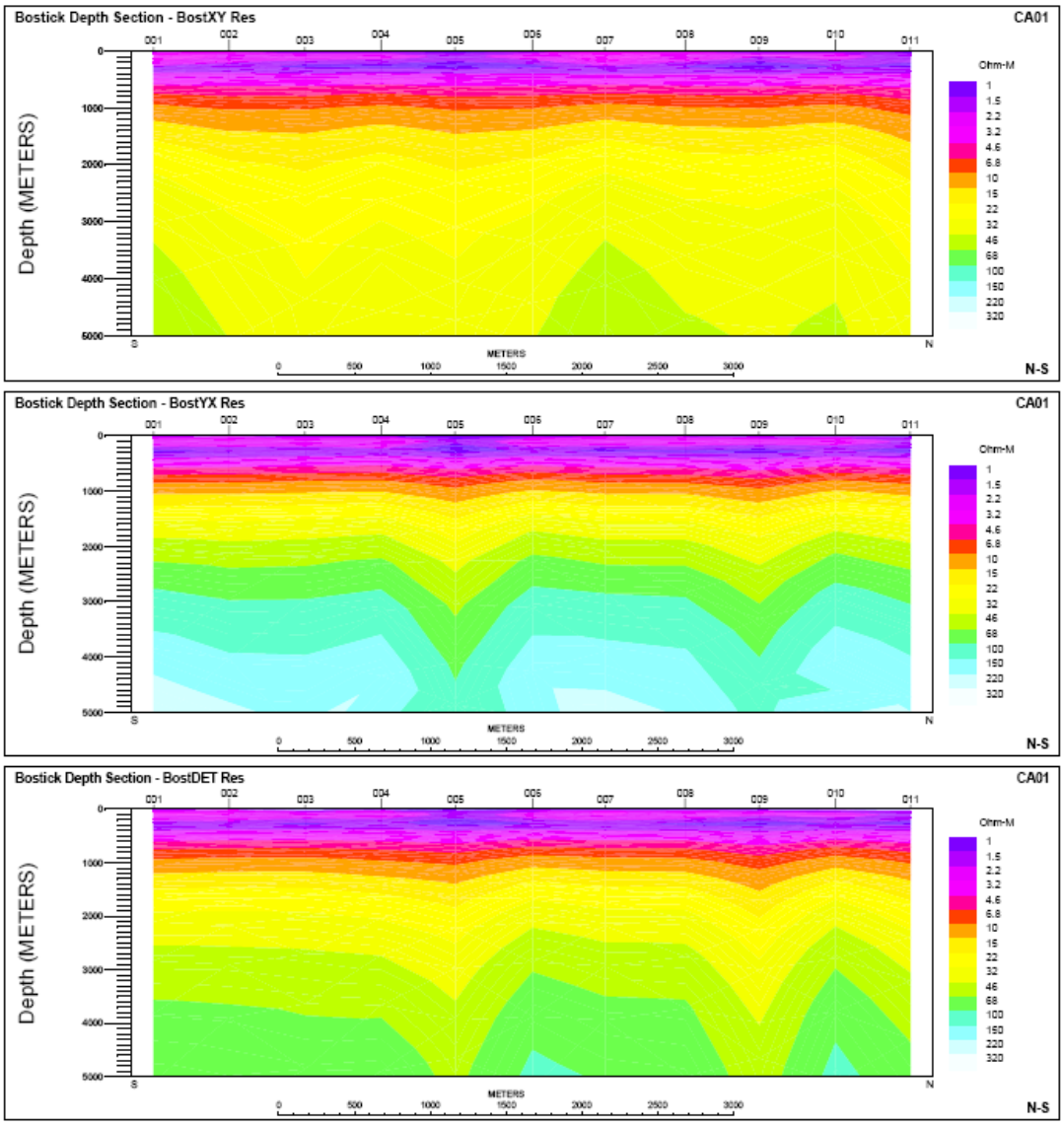

Figure 5 Bostick 1D inversion. a) 1D Cross-line (TE), b) 1D Inline (TM), c) 1D DET (avg)

Occam 1D Model

The Occam 1D inversion (figure 6) also gives a three layered response with the upper conductive unit extending to 1000 meters as seen in the Bostick 1D model. However the underlying less conductive layer in the Occam model extends to only 2000 meters depth, and as a result implies a shallower basement.

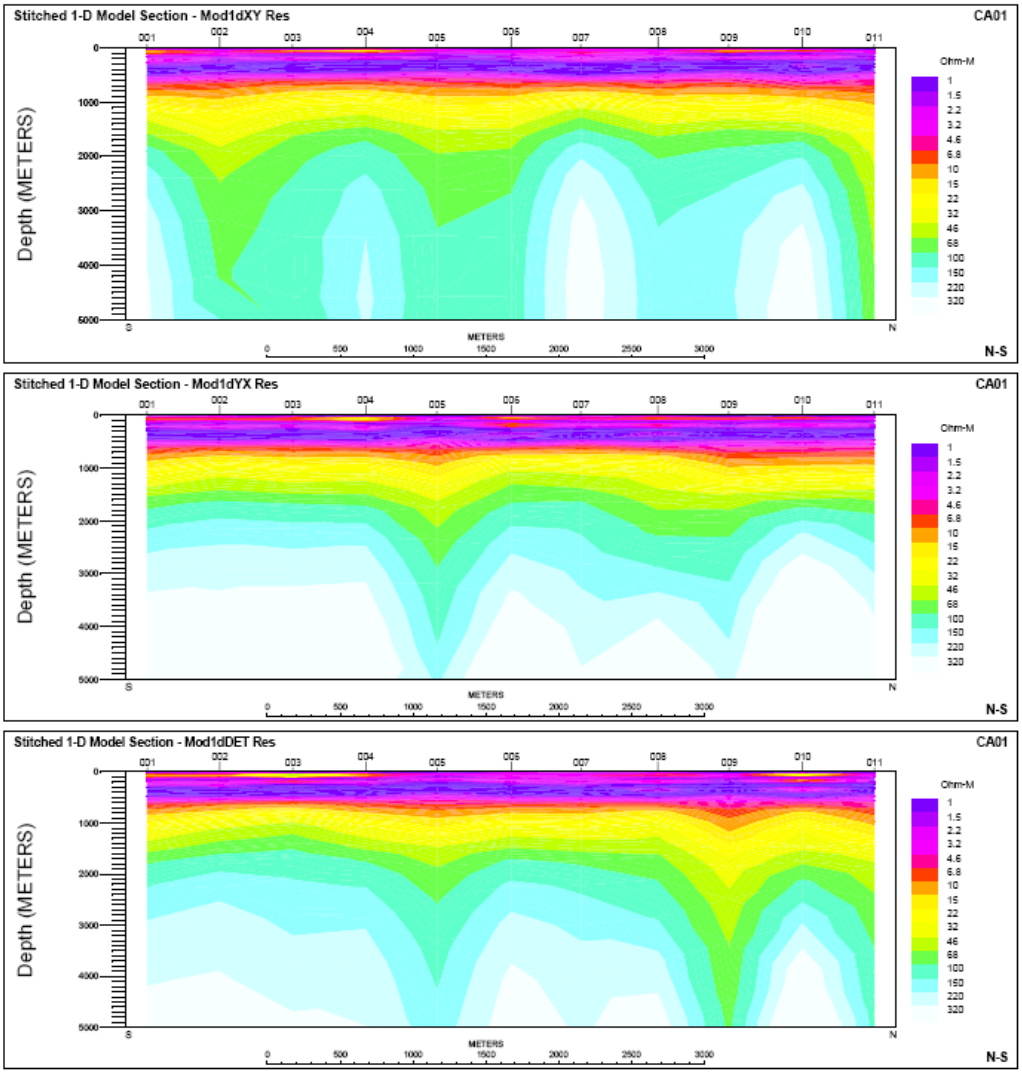

Figure 6 Occam 1D inversion. a) 1D Cross-line (TE), b) 1D Inline (TM), c) 1D DET (avg).

RLM 2D Model

2D models were also calculated using two different codes, RLM (Rodi and Mackie) and PW (de Lugao and Wannemaker). The RLM 2D inversion suggests a four layer resistivity model as shown in figure 7. This model further confirms the depth of the upper conductive unit to 1000m depth, and underlain by a thinner less conductive unit to 1500m. Between 1500m and 3000m an additional low resistivity unit is resolved; the base of this layer is interpreted to represent the top of the resistive basement at approximately 3000m. Deepening of all units at the start and end of the line is attributed to edge effects in the data.

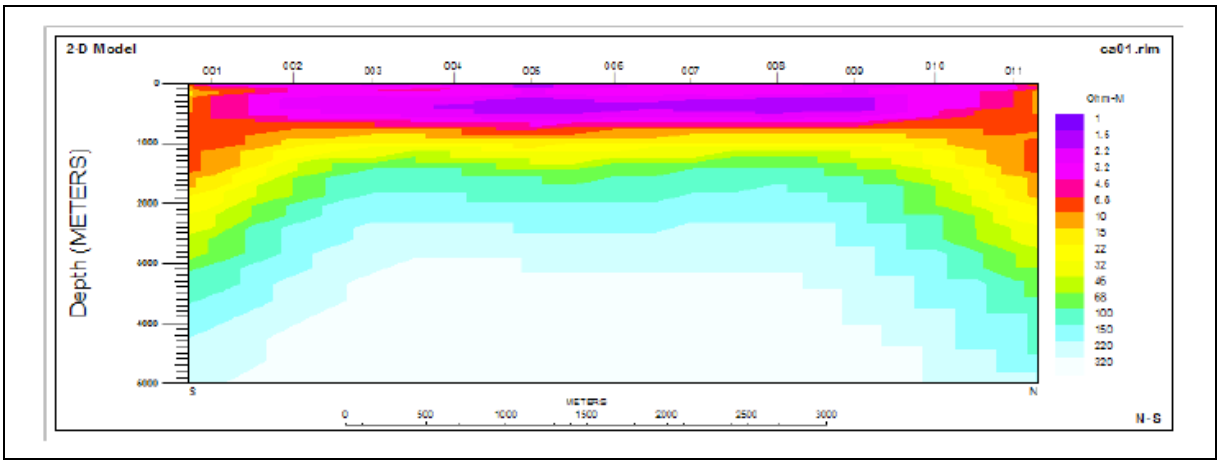

Figure 7 2D RLM resistivity inversion. TM rho/phs, TE phs, half space 100 ohm-m.

PW 2D Model

The PW 2D model results (figure 8) show similar results to the RLM model with a four layered model identified. The layer thickness, however, in each case is reduced and the depth to basement appears shallower in agreement with the Occam 1D inversion. The Occam and PW models are thought to provide more robust modelling of the MT data.

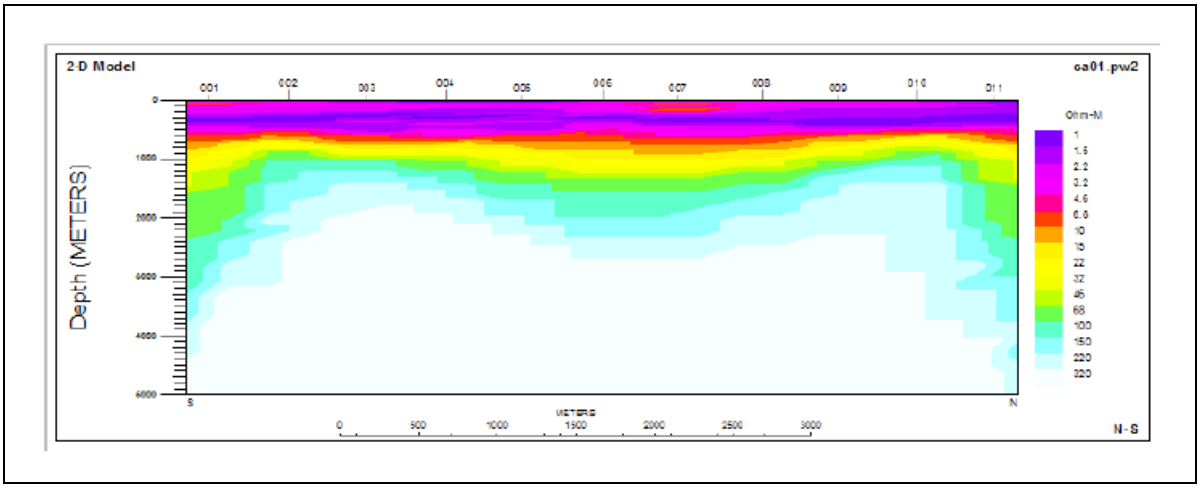

Figure 8 2D PW resistivity inversion. TM rho/phs, TE phs, RLM (final).

Conclusions and Recommendations
Modelling of the MT data and gravity data suggests a depth to basement of 2000m. Data quality throughout the survey was good; however it would be preferable to have the survey extended to the edge of the gravity anomaly in order that variation in the basement depth could be observed on the MT data.

3.2 Revised thermal model

A thermal evaluation was conducted at the Callabonna Prospect located approximately 80 km northwest of the Paralana Project on the eastern side of the Flinders Ranges in the mid North of SA. The purpose of the evaluation was to determine whether the area was a suitable site to host a geothermal resource.

Assumptions in the modelling.
The prospect was initially chosen on the basis of a well defined E-W trending ovoid gravity low (roughly 50 by 20 km in extent) in the region. Subsequent gravity modelling was not able to constrain the depth of the cover rocks, or adequately constrain the origin of the gravity low. A follow-up MT survey delineated an apparent resistivity gradient suggesting a cover sequence of approximately 2 km in thickness above the potential source of the gravity low.

PetraTherm drilled one well (Yerila-1) to depth of 695m in 2005 within the gravity low. The well penetrated Quaternary to Cretaceous sequences to around 649m where Cambrian red beds were intersected. T-logging indicated that the average thermal gradient in the upper 625m of the well was equivalent to 61.7°Ckm-1. No thermal conductivity or heat production rate measurements were made from Yerila-1.

2D thermal models were constructed for an E-W transect and a N-S transect (Figure 1-3) encompassing the gravity low. The parameters for the modelling are shown in Figures 1 & 3. A number of assumptions have been made:

1. The bulk thermal conductivity of the Quaternary to Cretaceous sequences is assumed to be 1.4Wm-1K-1. This value is based on the same sequences in PetraTherm's drill hole Paralana-1B to the SE. Although thermal conductivity has not been obtained from these sequences in Paralana-1B, a value of 1.4Wm-1K-1 provides a reasonable fit to the inferred heat flow (in the interval 110-129 mWm-2) from the Paralana-1B drill hole. If this thermal conductivity is adopted, a heat flow of 85.4mWm-2 is inferred for Yerila-1.

2. A heat production rate of 1uWm-3 has been assigned to the Quaternary to Cretaceous package.

3. The source of the gravity low is inferred to be granite with a heat production rate of 7.5uWm-3. The granite is assumed to be 4 km thick with a 2D extent of 50 by 20 km. Thermal conductivity for the granite is assigned to be 3.2 Wm-1K-1.

4. The Cambrian sequences above the granite are assumed to have a heat production rate of 1uWm-3 with a thermal conductivity of 3Wm-1K-1.
5. The deeper packages intruded by the granite are assumed to have a heat production rate of 2uWm-3 and a thermal conductivity of 3Wm-1K-1.
6. The surface heat flow above the centre of the granite is constrained to be 85mWm-2.
7. The surface temperature is assumed to be 23 degrees.

Results of the modelling

The results of the modelling are shown in Figures 1-3. Figure 1 shows the case for a 2D granite extent of 50km (inferred E-W extent). Given the granite is not equidimensional, if the selected parameters correspond closely to true values, the results in Figure 1c and 1d represent an upper end member result that will exceed to the true state.

Figure 1d shows that the modelled thermal gradients within the upper part of the granite (2-3km) are around 25-30°Ckm-1. Gradients within the mid and lower parts of the granite 3-5km are less than 25°Ckm-1. The results also show that the modelled gradient in the Quaternary to Cretaceous package is around 60-61°Ckm-1 above the inferred granite (Figure 1d). Figure 2a shows a detailed view of this result and shows it corresponds closely to the measured value (Figure 2b).

Maximum absolute temperatures are a function of assigned thermal conductivities however the following are likely to be indicative of the real state:

1. 3 km are 146.5°C
2. 3.5 km are 158°C
3. 4 km are 169.5°C
4. 4.5 km are 180°C
5. 5 km are 190°C

Figure 3 shows the case for a 2D granite extent of 20km (inferred N-S extent). Given the granite is not equant, if the selected parameters correspond closely to true values the results in Figure 3c and 3d represent a lower end member result.

Figure 3d shows that thermal gradients within the upper part of the granite (2-3km) would be around 25-20°Ckm-1. Gradients within the mid and lower parts of the granite 3-5km are around 20°Ckm-1 or less. The results also show that the modelled gradient in the Quaternary to Cretaceous package is around 50-55°Ckm-1 above the inferred granite (Figure 3d), reflecting the smaller modelled heat source extent.

Maximum absolute temperatures are a function of assigned thermal conductivities however the following are likely to be indicative of the real state:

1. 3 km are 141.7°C
2. 3.5 km are 153°C
3. 4 km are 164.5°C
4. 4.5 km are 175°C
5. 5 km are 185°C

3.3 Commercial feasibility study

Results from the thermal study concluded the maximum absolute temperatures presented in the table below

Depth	Temperature
3 km	146.5°C
3.5 km	158°C
4 km	169.5°C
4.5 km	180°C
5 km	190°C

The average gradient of 33 degrees per kilometre is not anomalous in the Australian context, and the Callabonna site is very remote to any potential market. Finacial modelling returned significantly negative net present value. These results conclude that the Callabonna target is not a viable geothermal site from which to generate commercially viable power.

3.4 Rehabilitation of Yerila-1 Well

Final rehabilitation was undertaken in May 2009. As prescribed by the EAR, the top 10 meters of the inner casing (4.5”) was cement plugged. Moreover, the headwork was cut about 40cm below surface and the ground levelled on the collar. An environmental audit report was submitted to PIRSA in May 2009.

4. Year 4 Expenditure

A break down on the combined expenditure for the Callabonna tenements for Year 4 is presented in the Table below.

Drilling Activities	$ 1,809.07
Seismic Activities	-
Technical Evaluation and Analysis	$ 7,634.68
Other Surveys	-
Facility Construction or Modification	-
Operating and Administrative	$ 13,969.89
EXPENDITURE Year 3	**$ 23,413.64**

5. Compliance with the Petroleum Act 2000 (Reg. 33)

a) Summary of the regulated activities conducted during the licence year.

Petratherm performed rehabilitation of the Yerila 1 gradient test well in the Callabonna Project Area, followed up by an environmental audit pursuant to the guidelines within the SEO for Drilling and Well Operations in the Cooper and Eromanga Basins, South Australia (November 2003). Following completion of the rehabilitation operation the Company became aware that the licence was still under suspension and therefore the Company was non-compliant.

b) Report for the year on compliance with the Act, these regulations, the licence and any relevant statement of environmental objectives.

Petratherm Ltd undertook rehabilitation of the shallow gradient test well, Yerilia 1, on the 12th May 2009. Following this work the Company later became aware that GEL 157 was still in suspension, and therefore the activity was non-compliant pursuant to section 11 of the Petroleum Act 2000. The Company apologizes for this failure of compliance, and has altered its internal tenement management and field operations procedures to ensure this will not occur again.

The tenements were surrendered before completion of the full year 4 work plan and therefore is non-compliant. The tenements were surrendered because the commercial feasibility study which was based on the exploration and modelling results, indicate the project was not commercially viable.

Table: Environmental Objectives and Performance Assessment of drilling operations conducted at the Yerila-1 site.

Environmental objective	Possible impact	Main sources of risk	Comments	Performance Assessment
1. Minimise risk to public and third parties				
Minimise public and third party risks.	Creation of new public risks: public using rig road; well blowouts; post-drilling.	Access risks, well site risks	NOIEs were sent to all stakeholders. Stakeholders were contacted personally prior to and after the drilling and rehabilitation operations. Existing tracks were used. Site was completely rehabilitated. All signage and equipment were removed and sumps backfilled. Hole was cement plugged and wellhead cut below ground level. Access tracks are not visible from public roads. No complaints were received.	Y
2. Minimise disturbance and soil contamination				
Minimise soil impacts	Accelerated soil erosion, particularly in gibber (potential start-up of long term irreversible erosion on gibber slopes >2%) Development of borrow areas.	Access and pad construction	Minor well pad construction was designed on flat land, with minimal disturbance, next to a fence. No borrow pits were constructed. Sumps have been backfilled and original stock-piled soil re-spread. Site was lightly graded and levelled back to natural contour. Wheel track access road is visible in places but blending in with growth of new vegetation.	+1
Avoid storage and loading facility spills; rapid cleanup and impact minimisation following spills	Pollution through local fuel tank or filling point spills	Vehicle and plant refuelling, drilling operations.	Contaminated soil from fuel bund has been disposed of in sumps and re-buried.	Y
3. Avoid introduction of pest species				
Prevent introduction of pest plants	Establishment of further alien species in the locality	Importation on vehicles	All equipment & vehicles cleaned before brought on to site.	Y
4. Minimise disturbance to drainage patterns; avoid contamination of surface and shallow groundwaters				
Avoid drainage alterations	Downstream shifts; erosion	Access and pad construction	Yerila-1 was positioned on an almost imperceptible northerly slope, distant from any defined drainage but not in the path of any floodout. No new tracks were created for the drilling program. Site and access areas were lightly graded and levelled back to natural contour**.**	+1
5. Avoid disturbance to sites of cultural and heritage significance				
Avoid disturbance to sites of Aboriginal and European heritage significance	Intrusion or physical site damage to areas of Aboriginal and European heritage significance	Access and pad construction, vehicle and people movement	Heritage clearance survey conducted in drilling and camp sites and approval given. Local station manager consulted.	Y
Minimise visual	Visual impacts	Access and	No new access roads or borrow pits were	+1

impacts	through obtrusive access and pad development and/or visible long-term persistence of pad and access.	pad construction	constructed. Sumps have been backfilled and original stock-piled soil re-spread. Minimal pad construction. No burrow requirements. Site lightly graded and levelled back to natural contour. Wheel track access road visible in places but blending in with growth of new vegetation.	
6. Minimise loss of aquifer pressures and avoid aquifer contamination				
Minimise formation damage in drilling	Physical damage to formation beyond the drillhole.	Drilling	Casing and cementing applied.	Y
Prevent cross-connection between aquifers, and between aquifers and reservoirs	Contamination of higher-quality groundwater with lower-quality waters (salinity, trace elements).	Missing or inadequate casing or plugging post-drilling.	3 casing annulus used and completely cemented from the bottom of the section to surface. 11 meters of cement and drilling mud within the inner casing at TD. Hole cased off to total depth. Adequate surface casing to prevent blow out. Hole cement plugged.	Y
7. Minimise disturbance to native vegetation and fauna				
Avoid impacts on high biological value or wilderness value areas	Direct physical impact on high biological or wilderness value areas; fires started at pad	Access and pad construction; fires	Yerila-1 is not located in or near areas of high biological significance or wilderness values. No new access tracks. Minor pad construction thanks to the use of a moderate scale trailer-mounted rig, with minor vegetation clearance.	+2
Minimise disturbance to vegetation and habitat	Physical damage to soils, vegetation and habitat; wildfire	Access and pad construction or upgrade; Fires at drilling site	Minimal drilling pad construction, no new access tracks or land clearance were required for the drilling operations. Drilling site selected to avoid clearing of mid-height shrubs and most area is grassland or short-lived perennial dwarf shrubs. Stockpiling of surface soil and debris from scraped areas (drill pad, sumps, and pits) and respreading during the final rehabilitation. Site was lightly graded and levelled back to natural contour. Wheel track access has disturbed some vegetation but blending in with new growth. Note that the area has been in drought with little rainfall to sustain germination or significant growth of perennial species.	+1
Avoid disturbance to rare, endangered, vulnerable species and communities	Physical removal of rare, endangered, vulnerable species	Access and pad construction	Yerila 1 is not located in or near areas of high biological significance or wilderness values, hence drilling ops presented no long term impact to any such area.	+2
8. Minimise air pollution and greenhouse gas emissions				

Combustion by-products, particulates, vented hydrocarbon or CO2 release	Well testing, drilling	Any testing carried out in accordance with industry-accepted standards		NA
9. Maintain/enhance partnerships in community				
Liaison with local pastoral and mineral operations	Affected parties notified and consulted on proposed activities		Petratherm maintains regular contact with local landholders & stakeholders. The location of Yerila-1 and access to water was approved by landholder. NOIEs were distributed to affected parties within 21 day timeframe. Wherever possible Petratherm employs local contractors & personnel in support service roles.	Y
10. Avoid or minimise disturbance to stakeholders and associated infrastructure				
Minimise adverse impact on livestock	Interference with stock	Disturbance to stock grazing	Organic beef certification held at this location. MSDS of drilling fluid materials provided to Landholder for review. Drillhole location, site access & water access were approved by landholder. The wellhead has been cut 40cm below the surface and the ground has been levelled on the top of the buried collar. All equipment, materials, contaminated soils and rubbish have been removed from site.	Y
Avoid contamination of stockwaters with hydrocarbons	Interference with stock; pollution of stock water	No hydrocarbons expected	All drilling fluids, cuttings etc contained within sumps. No hydrocarbons intersected.	Y
Minimise adverse impact on Regional Reserve operations	Not applicable in this area			NA
11. Optimise waste reduction and recovery				
Minimise waste handling and disposal impact	Creation of wastes: sewerage, litter, overflow and spillage	Disposal of wastes while drilling	Sewage disposed locally via short-term septic pits. Wastes on site confined by bins/skips. Disposal eventually to EPA-licenced waste disposal facility at Beverley. Minor non-toxic wastes, chippings and muds disposed in drill sump. Litter cleanup during and post-drilling.	Y
12. Remediate and rehabilitate operational areas to agreed standards.				

Rehabilitate unsuccessful or suspended wellsite and access	wellsite and access permanently left in place if successful with visual impact, changed soil surfaces, colour contrasts	Post-drilling	All equipment, waste & materials removed from site. Sumps have been backfilled and original stock-piled soil re-spread. Site lightly graded and levelled back to natural contour. The wellhead has been cut 40cm below the surface and the ground has been levelled on the top of the buried collar. Wheel track access road lightly scarified. They are visible in places but blending in with growth of new vegetation.	Y
Undertake long-term planning for rehabilitation for potential producing wellsite	Not applicable in this case	Development of rehabilitation plans included in production management		NA
13. Minimise as far as reasonably practicable interruptions to natural gas supply.				
Not applicable in this case				NA

c) Actions taken to rectify non-compliance with obligations imposed by the Act, these regulations or the licence, and to minimise the likelihood of the recurrence of any such non-compliance; and d) summarise any management system audits undertaken during the relevant licence year including information on any failure or deficiency identified by the audit and any corrective actions that has, or will be, taken.

Petratherm Ltd recognises the importance of achieving regulatory compliance and is committed to achieving best practice in its management strategies, work practices and procedures, in an environmentally and socially responsible manner. Petratherm has a policy of continuing review and improvement in the developing of management systems to ensure it meets this commitment.

As a result of the non compliance with respect to failure to un-suspend the Callabonna Licences prior to rehabilitation of Yerila-1, the Company has updated its HSE field activity check list (HSE CHK08). The revised check list ensures all operating staff have checked tenement status prior to the undertaking of any field operation.

A HSE Management Systems Compliance Audit was carried out by external contractors ISRM in March 2009. Subsequently, Petratherm completed a self assessment of the HSE management system in July 2009.

e) List all reports and data relevant to the operation of the Act generated by the licensee during the licence year,

Author	Title	Date	Activity	GEL	Submitted
Petratherm	Surrender Letter	4/3/09	Licence Surrender	GEL157 & 179	4/3/09
Petratherm	Year 4 Annual Report	9/9/09	Annual Report	GEL157 & 179	9/9/00
Petratherm	Yerila-1 Well Environmental Audit Report	May 09 2009	Environmental Audit	GEL157 & 179	May 09
Petratherm	Callabonna MT survey – Interpretation Report	4/12/09	Geophysical Interpretation	GEL 157 &179	4/12/09
Petratherm	Callabonna MT survey – Operations Report	5/12/09	Geophysical Operations	GEL 157 &179	5/12/09
Petratherm	MT Environmental Audit	15/4/08	Environmental Audit	GEL 157 &179	15/4/08
Petratherm	Quarterly incident and cased hole activity reports 1st quarter 2007	Jan-Mar 2008		GEL157	Apr 2008
Petratherm	Quarterly incident and cased hole activity reports 2nd quarter 2007	Apr-Jun 2008		GEL157	Jul 2008
Petratherm	Quarterly incident and cased hole activity reports 3rd quarter 2007	Jul-Sept 2008		GEL157	Oct 2008
Petratherm	Quarterly incident and cased hole activity reports 4th quarter 2007	Oct-Dec 2008		GEL157	Jan 2008
Petratherm	Quarterly incident and cased hole activity reports 1st quarter 2007	Jan-Mar 2009		GEL157	Apr 2009
Petratherm	Quarterly incident and cased hole activity reports 2nd quarter 2007	Apr-Jun 2009		GEL157	Jul 2009

f) Report on any incidents reportable to the Minister under the Act and regulations during the relevant licence year.

No reportable incidents occurred during Year 4 of the Callabonna licences.

g) Report on any reasonably foreseeable threats that reasonably present , or may present, a hazard to facilities or activities under the licence, and report on any corrective action that has, or will be, taken.

No threats have been identified.

h) Operations proposed for the ensuing year

Final year of Licence