Piper Preston Pty Ltd (Wholly owned subsidiary of Salt Lake Potash Ltd)

Combined Annual Report

EL 29787

and

EL29903

For the Period 08 July 2019 to 07 July 2020

Amalgamated Reporting: GR376

Title Page

Name of Title Holder:	Piper Preston Pty Ltd
Name of Project Operator:	Salt Lake Potash Ltd
Report Title:	EL29787 and EL29903 "Lake Lewis" Group Annual Report for the period 08 July 2018 to 07 July 2019
Reporting Period:	08 July 2019 to 07 July 2020
Project Name:	Lake Lewis Project, Northern Territory
Author:	JS Hodgins BSc (hons)
Date of Compilation:	15 September 2020
Target Commodities:	Sulphate of Potash (SOP); Sulphate of Potassium Magnesia (SOPM); Sulphate of Magnesia (Epsomite)
Ref. Map Sheets:	1:100,000: Mount Wedge (5352); Napperby (5452) 1:250,000: NAPPERBY (SF 53-9)
Contact Details:	Justine Hodgins, c/- Salt Lake Potash Ltd, Ground Floor 239 Adelaide Terrace, Perth, WA, 6000

Contents

Abstract	4
Copyright	5
Introduction	6
Tenure History	8
Location, Physiography and Access	10
Geological and Hydrogeological Setting	11
General Observations and Recommendations	12
Work Completed During the Reporting Period	13
Gravity Survey	13
Gravity Data Review	15
References	17

List of Figures

Figure 1 Location of the Lake Lewis Project EL29787 & EL29903	7
Figure 2 Access to Lake Lewis	11
Figure 3 DEM of Lake Lewis basin showing playa (solid black) and 560m topograp	hic contour
(English2001)	12
Figure 4 Map of Gravity Stations Locations	14
Figure 5 Modelled cover thickness	16

List of Tables

Table 1 Lake Lewis EL 29787 & EL29903	7
Table 2 EL29903 relinquished blocks	2

List of Tables Appendix 1 – Salt Lake Potash Limited Lake Lewis Project Gravity Survey, Interpretations and Modelling

Abstract

Lake Lewis Project, incorporates the EL 29787 and EL 29903, is situated about 200 km westnorthwest of Alice Springs on the NAPPERBY 1:250,000 Geological Series Map Sheet, SF 53-9 map sheet. The EL 29787 is comprised of 48 blocks and was granted on July 8th 2013 to Piper Preston Pty Ltd (now a wholly-owned subsidiary of Wildhorse Energy Ltd). The prime commodity sought is Sulphate of Potash (SOP); however, as this mineral does not naturally or directly crystallise from salt lake brines the exploration rationale is based on systematic exploration, evaluation and confirmation of replenishable brine resources contained in the tenement proper, prior to mineral process engineering evaluations and establishment of recoverable SOP from mineral brine resources. As the definition of groundwater recharge capacity of the lake is a prime importance for mineral brine resource evaluations, work carried out by the Company on the EL 29787 and EL29903 geophysical review of all available data and re-interpretation and water sampling a total of 50 samples (EL29787 22 and EL29903 28 samples) taken.

During the reporting period Piper Preston completed a ground based gravity survey across the tenement holding. The survey included 527 gravity stations on 21 south east to north east trending traverses and was completed by Haines Survey out of Adelaide. Preliminary interpretation of the survey was also complete during the reporting period.

Previous work completed on the tenement includes:

- Commencement of gravity (2019)
- Review of project (2019)
- Brine Sampling (2018)
- Purchase and review of available geophysical data by Resources Potentials (2017)
- AAPA survey clearance (2016)

Copyright

This document and its content are the copyright of Salt Lake Potash Ltd. The document has been written by JS Hodgins for submission to the Northern Territory Department of Primary Industry and Resources as part of the tenement reporting requirements as per the Minerals Titles Act (NT). Any information included in the report that originates from historical reports or other sources is listed in the "References" section at the end of the document. All relevant authorisations and consents have been obtained.

Salt Lake Potash Limited (SO4) authorise the department to copy and distribute the report and associated data.

Introduction

This report documents exploration activities carried out by Salt Lake Potash Ltd (SLP) on EL 29787 and EL 29903 during the period 8 July 2019 to 7 July 2020. Title to the EL is held by Piper Preston Pty Ltd, a wholly owned subsidiary of SLP. The Lake Lewis Project, incorporating EL 29787 and EL29903, is situated about 200 km west-northwest of Alice Springs on the NAPPERBY 1:250,000 Geological Series Map Sheet, SF 53-9 map sheet and the 1:100 000 Nappery and Mount Wedge map sheets (Figure 1).

The prime commodity sought is Sulphate of Potash (SOP). Considering that SOP does not naturally or directly crystallise from salt lake brines and requires evaporation of salt lakes brines for the production of intermediate salt (Sulphate of Potassium Magnesia, SOPM) followed by mineral processing and conversion step, and target resources are mineral brines in the in the playa sediments of the Lake Lewis. Accordingly, the exploration objective is to assess mineral brine resources of the EL's for production of SOP. This requires successive stages of geological and hydrological evaluations and mineral processing studies leading to establishment of the feasibility of commercial production of SOP and associated salt minerals from bine resources identified in the tenement areas. This report provides an outline work exploration work completed during the reporting period and summary outcomes and follow up work planned for more advance exploration work in the EL's area.



Lake Lewis Project

Legend



SO4 Tenure



Figure 1 Location of the Lake Lewis Project EL29787 & EL29903

Tenure History

EL 29787 is comprised of 34 blocks and was granted on 8th July 2013 to Piper Preston Pty Ltd. EL29903 was granted on 20th of February 2014 and is comprised of 15 blocks.

Tenement No.	Holder	Related Party	Granted On	Area (Blocks)
EL 29787	Piper Preston	Salt Lake	8/07/2013	34 Blocks
	Pty Ltd	Potash Ltd		
EL29903	Piper Preston	Salt Lake	20/02/2014	15 Blocks
	Pty Ltd	Potash Ltd		

Table 1 Lake Lewis Project Tenure Details

EL29787 has entered its sixth year of grant while EL29903 has entered its fifth year of grant. Application to amalgamate reporting was lodged on 6 November 2015 and approved 10 December 2015 GR 376. The reporting period of this group is 08 July to 07 July each year.

Two relinquishments have occurred across the tenement group a total of 26 blocks have been dropped from EL29903 (6 during the reporting period) and 14 from EL29787 during the reporting period. Below (Table 2) are the relinquished blocks, relinquishment reports have been lodged previously with the Department.

Relinquished 2017/2018				
EL29903				
SF53	2381	М		
SF53	2381	Ν		
SF53	2381	R		
SF53	2381	S		
SF53	2381	Т		
SF53	2381	Р		
SF53	2381	U		
SF53	2381	Х		
SF53	2453	В		
SF53	2453	G		
SF53	2382	L		
SF53	2382	Q		
SF53	2382	W		
SF53	2382	Х		
SF53	2382	Υ		
SF53	2382	Z		
SF53	2383	V		
SF53	2454	E		
SF53	2455	A		

	SF53 24	55 B	
--	---------	------	--

Relinquished 2018/2019 Period			
EL29787			
SF53	2453	М	
SF53	2543	N	
SF53	2453	Т	
SF53	2454	N	
SF53	2454	0	
SF53	2454	Р	
SF53	2454	S	
SF53	2454	Т	
SF53	2454	U	
SF53	2454	V	
SF53	2455	L	
SF53	2455	Q	
SF53	2527	В	
SF53	2527	G	
EL29903	EL29903		
SF53	2454	D	
SF53	2454	J	

SF53	2454	К
SF53	2455	F
SF53	2455	G
SF53	2455	Н

Table 2 History of Relinquished Blocks

Location, Physiography and Access

The Lake Lewis Potash Project is located at Lake Lewis approximately 160km west-northwest of Alice Springs.

Access to the project is via road north form Alice Springs on the Stuart Highway and west on the Tanami Road. The Tanami Road passes directly north of Lake Lewis. The two nearest runways are located at Tilmouth Well Roadhouse and Mount Wedge Airport.

Access is prohibited to areas that have special significance to the traditional owners these sites include Wirmbrandt Rock (South of lake) parts of Stuart Bluff Range and an area to the south of Mr Chapple around Woody Bore.

The physiography of the project is dominated by the Lake Lewis playa and its surrounding lacustrine plain, broad alluvial plains, mountain ranges and inselbergs surrounding the lake.



Figure 2 Access to Lake Lewis

Geological and Hydrogeological Setting

Lake Lewis is a large hydrologically closed intermontane basin, situated about 200 km westnorthwest of City of Alice Springs in the Northern Territory. The basin has a catchment area of 14,075km2 and was developed during the Cainozoic Era (English, 2001). It overlies and is surrounded by geologic units of the Lower Proterozoic Arunta Complex and the Late Proterozoic –Palaeozoic Amadeus and Ngalia basin successions. Basement outcrops in the Lake Lewis area are commonly excellent as a result of the steep nature and resulting high relief of the mountain ranges, consequently, the geology of the region encompassing Lake Lewis has been well mapped.

According to Australian government seismic surveys the depth to the basement beneath Lake Lewis ranges between 30m and 80m, and geological literature and exploration reports point to up to 200m of Cainozoic sedimentation in the southern part of the basin. Mineral exploration drilling records indicate that the drainage channels incised into the Tertiary sands and palaeosols are filled in with Quaternary fluviatile and lacustrine sediments. With the onset of a major phase of aridity, the drainages in the region, including that of Lake Lewis progressively contracted and silted up, eventually giving way to the development of internal drainage system (Arakel, 1986).



Figure 3 DEM of Lake Lewis basin showing playa (solid black) and 560m topographic contour (English2001)

General Observations and Recommendations

Lake Lewis is one of the few Australian salt lakes that is known as an "amplifier lake" system where in the hydrological balance in the lake playa system is primarily controlled by a continuous aquifer recharge. The continuity of recharge is most probably because of the lake's high catchment/lake area ratio and the physiographic setting as reflected in the characteristic centripetal groundwater flow pattern, towards the lake's central depression (Geoscience Australia, 2013).

The closed hydrological setting of the lake, together with significant recharge capacity and elevated concentration of potassium, magnesium and sulphate elements in the lake's brine pool

collectively point to the high prospectivity of the Lake Lewis Project and thus warrant for detailed follow-up field investigations, exploratory drilling and experimental evaporation trials.

A systematic exploration program is planned and recommended for implementation, subject to securing APPA permit. Work will involve systematic geological mapping and a grid-based pit water sampling campaign to evaluate the lateral extant and chemistry of near surface brine field identified in the Lake Lewis playa lake, in the exploration license areas. Water samples collected will be analysed by an independent external laboratory and results used in the follow up desktop hydro-chemical modeling and preparation of scientific reports by SLP's technical team.

Work Completed During the Reporting Period

During the reporting period SLP undertook the following:

- Completion of ground based gravity survey and
- Review of data collected as part of the round Based Gravity Survey Undertaken by Haines Surveys during the 2019/2020 reporting period

Gravity Survey

SO4 contracted Haines Surveys mobilized out of Adelaide to complete a ground based gravity survey over the Project.

SO4 has used Gravity as effective geophysical tool to determine the depth to basement as it penetrates through the lacustrine clay units. When used in conjunction with other geophysical techniques it can pick up deep buried paleochannel structures that have the capacity to hold large amounts of brine at depth. These paleochannel offer an additional source of brine



Figure 4 Map of Gravity Stations Locations

Gravity Data Review

Gravity results were provided as part of the 2019 reporting information. Gravity station spacing was 200 meters, while line spacing was 1000meters. The data were gridded at cell size of 150 meters to take advantage of the along line resolution. Meaning, that the areas between the lines are prone to aliasing and false anomalies dur to minimum curvature and interpolation error.

The aim of the gravity survey was to determine the depth to basement. The modelling has limitations and assumptions implicit in this modelling which must be taken into consideration. As such, the results of this modelling should be used as a guide to focus further exploration work into certain areas, and should be used towards any kind or resource estimations or evaluation. It is recommended that more survey work be completed as infill lines



Figure 5 Modelled cover thickness

Estimates are poorer outside the 200m buffer zone as shown on map

References

Arakel, A.V., 1986. Evolution of calcrete in palaeodrainages of the Lake Napperby area, Central Australia. Palaeogeography, Palaeoclimatology, Palaeoecology, 54, 1283-303.

English, P. (2001). Cainozoic evolution and hydrogeology of Lake Lewis Basin, central Australia. PhD Thesis, Australia National University

Geoscience Australia (2013). A Review of Australian Salt Lakes and Assessment of their Potential for Strategic Resources. Record 2013/39.