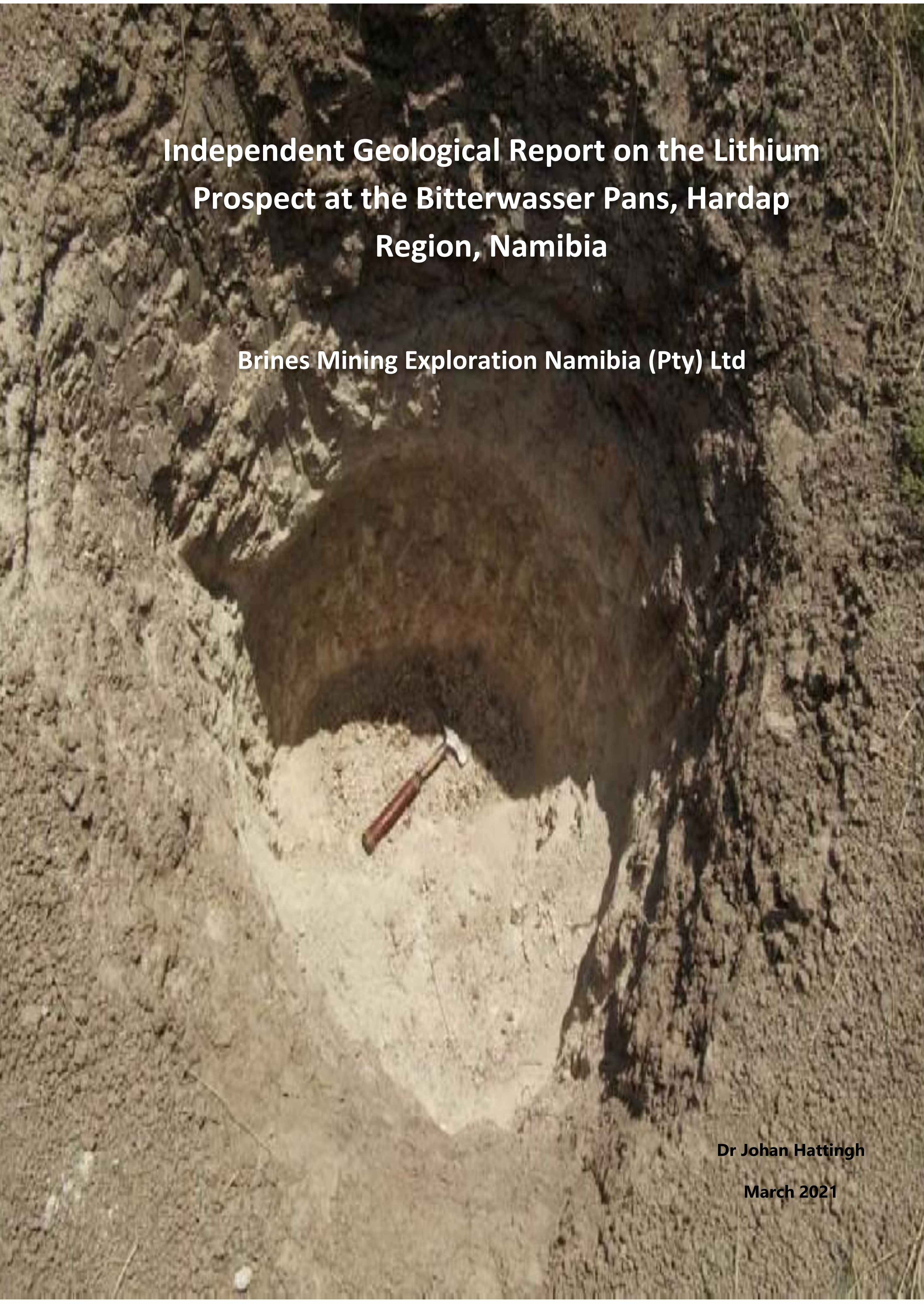

# Independent Geological Report on the Lithium Prospect at the Bitterwasser Pans, Hardap Region, Namibia

**Brines Mining Exploration Namibia (Pty) Ltd**

**Dr Johan Hattingh**

**March 2021**

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# 1. Executive Summary

Brines Mining Exploration Namibia (Pty) Ltd (BME) is a Namibian registered company and owner of Exclusive Prospecting Licences (EPLs) covering the Bitterwasser Project located in the Hardap Region in the southern-central part of Namibia, approximately 190 km south southeast of the capital Windhoek.

The Bitterwasser Project is comprised of four exclusive exploration licences, EPLs 7614, 8101, 8102, 8103 all held by BME, and EPL 8104 which is shortly to be transferred to BME by Mr Lisias Pius, a director of BME, at no cost after the approval of an application to transfer the licence has been approved by the Ministry of Mines and Energy ("MME"). Together with EPL 8104 the project covers a total area of 343,894 hectares.

The company is in the process of advancing a lithium project that is situated in the western part of the Kalahari Desert. The area is characterized by reasonable road access and a wide expanse on Karoo geology substrate that is covered by red Kalahari sand dunes and well developed saltpans. Work to date was mainly done on the Bitterwasser pan complex situated on the farms between the settlements of Kalkrand and Hoachanas, in the Hardap region of central Namibia. The potential of Bitterwasser type mineralization does however extend to a number of similar pans in the region.

The Bitterwasser saltpan complex adheres to first order geological and environmental principles that are required for the development of significant lithium clay and brine deposits. These requirements include, geographic placing within an arid latitudinal belt, the presence of Cenozoic-aged fault-bound terrestrial sedimentary basins, proximity to older felsic, carbonatitic and/or alkali volcanic sequences and the presence of regionally extensive brine aquifers.

The Bitterwasser saltpan complex is comprised of several individual lithium-, potassium- and boron bearing clay substrate saltpans and is associated with the depositional development of the western portions of the greater Kalahari basin. It lies remarkably close to the inferred source of mineralisation, which is the Brukkaros volcanic field and elevated groundwater temperatures, as high as 39 °C, have been reported from water-supply boreholes in close proximity to the saltpans. These aspects suggest the presence of a deep-seated geothermal heat source and mineralisation provenance. The thickness of the sedimentary packages which make up the Bitterwasser saltpans ranges from 30 m to more than 100 m thick and are of sufficient size and porosity to accommodate substantial brine aquifers.

On neighbouring EPLs, prospecting work was done on the main Bitterwasser saltpan and consisted off the drilling off a number of hand-auger drill holes, which confirmed anomalous Li values in the clays of the pan. A ground electrical conductivity survey (EM) was conducted and the results indicated the existence of an anomalous electrical-conductive body situated approximately 20 meters below the current groundwater level. It is likely that this represents a dense saline and/or brine aquifer that will be a highly prospective target for lithium brines.

This potential is also supported by geological and environmental indicators identified through reconnaissance exploration efforts which include water-quality data indicating high total dissolved solids, the electrical conductivity anomaly, the high grades of lithium from hand auger drilling and the presence of structural features that indicate an enclosed basin setting.

Typically, economically significant saltpan complexes around the world are associated with anomalous K and B values. The reduced clay-rich lithology documented at Bitterwasser's main saltpan yielded B values of > 400 ppm and K values consistently > 1.8 wt. %. This emphasises the geochemical similarities with other globally significant saltpan complexes.

The Project does not contain any Ore Reserves or Mineral Resources, as defined by the JORC Code. Under the definition provided by the ASX and in the VALMIN Code, the Bitterwasser Project is classified as an 'exploration project', which is inherently speculative in nature. BME's Projects are considered to be sufficiently prospective, subject to varying degrees of risk, to warrant further exploration and development of their economic potential, consistent with the programs proposed by Creo.

# 2. Introduction and Terms of Reference

## 2.1. Introduction

This report has been prepared as a technical review document recording the current status of exploration work at EPLs 7614, 8101, 8102, 8103 and 8104 and it therefore reflects exploration results to date and declares resources that were defined by results from the current exploration campaign.

The report was prepared at the request of the Board of BME and in the execution of the mandate, a technical assessment has been prepared for BME in compliance with and to the extent required by the JORC Code issued by the Australasian Institute for Mining and Metallurgy ("AusIMM"), under whose technical jurisdiction these mineral resources fall. The guidelines as set out in the JORC Code are considered by BME be a concise recognition of the best practice reporting methods for this type of mineral development, and accord with the principles of open and transparent disclosure that are embodied in internationally accepted Codes for Corporate Governance.

This report describes the reconnaissance work and potential mineral resource at the EPLs 7614, 8101, 8102, 8103 and 8104 and is based upon reconnaissance data provided by the geologists of BME, which has been thoroughly due diligence by the author.

## 2.2. Competent Person, Site Visit and Data Validation

The Competent Person of this Technical Report states that he is a competent person for the areas as identified in the appropriate "Certificate of Competent Person" attached to this report. Johan Hattingh employed by Creo as a geologist with more than 30 years of experience, is the author responsible for the preparation of this report. Johan Hattingh is a Competent Person, as defined by the JORC Code. The Competent Person considers the JORC Code to be the appropriate standard for the Public Reporting of Exploration Results, Mineral Resources and Ore Reserves. The JORC Code sets out minimum standards, recommendations, and guidelines for Public Reporting.

Johan Hattingh, in his capacity as Competent Person, conducted several site inspections visits since 2010 to the Bitterwasser area. During these visits, first hand field surveys were performed. The technical information used in this CPR was provided by Brines Mining Exploration Namibia (Pty) Ltd and was used in good faith by Creo. Where possible, Creo have satisfied itself that such information is both appropriate and valid to ensure JORC compliance in terms of the level of disclosure.

# 3. Corporate structure

## 3.1. Location

The Bitterwasser Project area is east of Kalkrand in south central Namibia, some 190 km south of Windhoek. Exploration work done to date was on the farms between the settlements of Kalkrand and Hoachanas, in the Hardap Region of central Namibia (Figure 1). The project area abuts the western edge of the greater Kalahari Desert.

## 3.2. Company Details

BME is a Namibian registered company.

## 3.3. Mineral Tenure

Creo's Competent Person has reviewed the mineral tenure related to the BME exploration areas at Bitterwasser and has independently verified the legal status and ownership of the Permits including underlying property and mining agreements.

The Bitterwasser Lithium Brines Project comprise of five exclusive exploration licences, EPLs 7614, 8101, 8102, 8103 all held by BME and EPL 8104 that has been issued to Lisias Pius and a transfer to BME has been lodge with MME. The current project, together with EPL 8104 covers a total area of 343,894 hectares.

*Table 1: Bitterwasser Lithium Brines Project current issued EPL information.*

| | |
|---|---|
| **Licence:** | Exclusive Prospecting Licence |
| **Licence Number:** | EPL 7614 |
| **Holder:** | Brines Mining Exploration Namibia (Pty) Ltd. |
| **Size:** | 12,578 hectares |
| **Commodities:** | Base and Rare Metals, Industrial Minerals, Precious Metals |
| **Farms:** | Mbela 200, Reussenland 561 |
| | |
| **Licence:** | Exclusive Prospecting Licence |
| **Licence Number:** | EPL 8101 |
| **Holder:** | Brines Mining Exploration Namibia (Pty) Ltd. |
| **Size:** | 87,902 hectares |
| **Commodities:** | Base and Rare Metals, Industrial Minerals, Precious Metals |
| **Farms:** | Awasab, Néiss, Alwynkoppie, Nooitgedacht, Benoud East, Benoud, Heide West, Blokwater, |

| | |
|---|---|
| | Einop, Friesland, Wilderness, Lekkerwater, Erreich, Ellof, Avro, Houmoed, Boplaas, Pokweni & Kaukerus |
| | |
| **Licence:** | Exclusive Prospecting Licence |
| **Licence Number:** | EPL 8102 |
| **Holder:** | Brines Mining Exploration Namibia (Pty) Ltd. |
| **Size:** | 95,561 hectares |
| **Commodities:** | Base and Rare Metals, Industrial Minerals, Precious Metals |
| **Farms:** | Alwynkoppie, Tsumis East, Smalhoek, Kunineib, Lekkerwater West, Kunineib South, Gous, Petrusdal, Ella West, Karunab, Einop , Kubuyus, Ella East, Wilderness, Lekkerwater_Sukses, Lekkerwater, Battle, Duinekamp, Munya, Pokweni, Stryfontein, Ituga, Madube, Ponjola & Kalkfontein |
| | |
| **Licence:** | Exclusive Prospecting Licence |
| **Licence Number:** | EPL 8103 |
| **Holder:** | Brines Mining Exploration Namibia (Pty) Ltd. |
| **Size:** | 92,745 hectares |
| **Commodities:** | Base and Rare Metals, Industrial Minerals, Precious Metals |
| **Farms:** | Kurunab, Ella West, Groenveld, Bossiekolk, Vlakplaas, Middelpos, Langverwag, Groenveld East, Duineveld, Seiderus, Uitkoms, Bos, Moedhou, Kalahariplaas, Goudini, Gurus, Imperani, Ponjola, Kentani, Croxley & Eden |
| | |
| **Licence:** | Exclusive Prospecting Licence |
| **Licence Number:** | EPL 8104 |
| **Holder:** | Lisias Pius<br><br>Transfer to Brines Mining Exploration Namibia (Pty) Ltd has been lodge with MME |

| | |
|---|---|
| **Size:** | 55.108 hectares |
| **Commodities:** | Base and Rare Metals, Industrial Minerals, Precious Metals |
| **Farms:** | Arbeidsgenot, Holmdene, The Farm, Meerkat, Argentine. Twilight |

## 3.4. Land Use Agreement

A land-use agreement, including access to the property for exploration has been obtained through the Ministry of Agriculture, Water and Forestry of Namibia giving access to the water resources on various farms and allowing fourteen exploration brine boreholes to be drilled in the area.

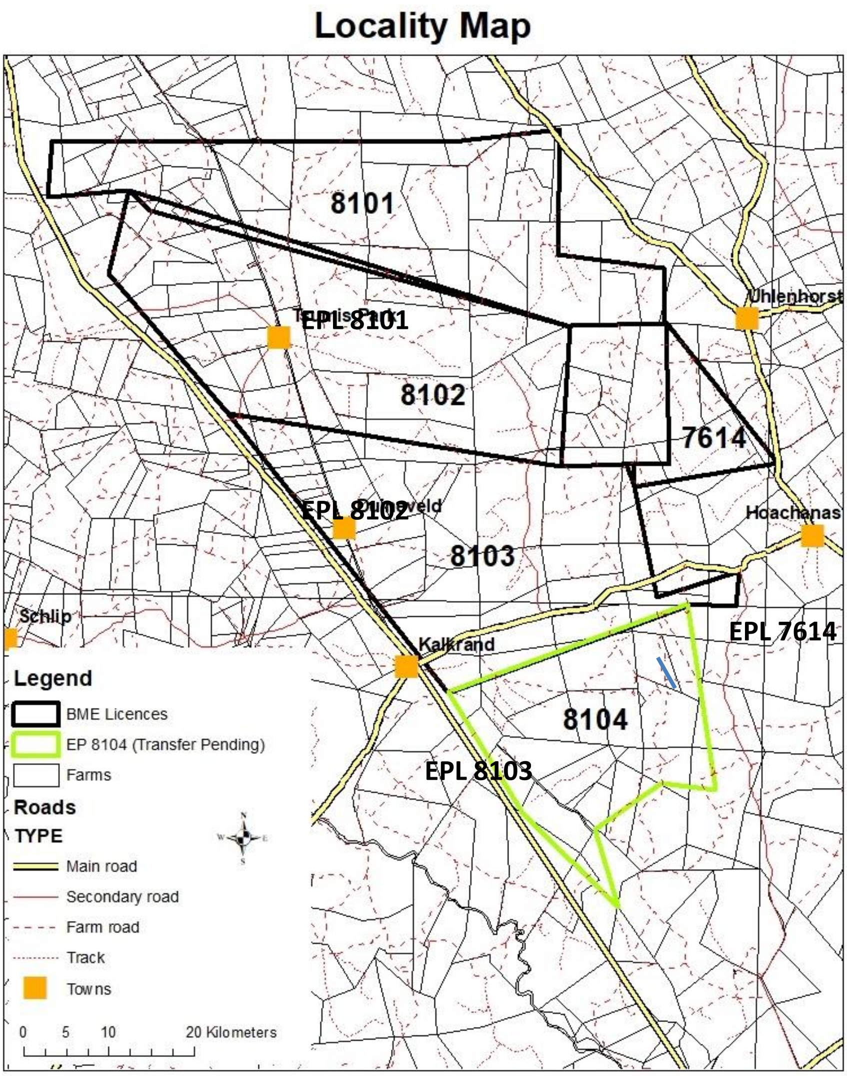


*Figure 1: Location of the Bitterwasser Lithium Project area.*

# 4. Accessibility, Climate, Infrastructure and Physiography

## 4.1. Accessibility

Overall, the area is very accessible with good regional and local road network being present. Well maintained gravel roads give access from the B1 main road to the farms Kentani 181 and Eden 183 where the Bitterwasser Pan occurs. An airfield capable of handling small aircraft is located on the eastern edge of the pan.

## 4.2. Topography

The Bitterwasser Project is located on a vast interior plateau to the east of the escarpment, with an elevation of some 1 200 m above mean sea level (amsl). This plateau is continuous southwards towards the Orange River, on the border with the Republic of South Africa and north towards the Khomas Highlands near Windhoek.

More locally, the licence area is characterised by extremely flat terrain covered in north-northwest orientated longitudinal red sand dunes where a number of pans are developed in the inter dune areas.

## 4.3. Drainage

The Bitterwasser Project is located in the watershed area between the Auab - and Fish Rivers. Due to the low rainfall and flat topography the drainage systems here are poorly developed resulting in the development of large perennial pans.

## 4.4. Climate, Vegetation and Wildlife

The prospecting area itself is present within a hot desert climatic area with very hot summers and extremely warm winters (with warm days and cold nights). The average annual precipitation is 194 mm. The average sunshine hours per day ranges between 9 – 10 hours, resulting in an annual average temperature of 18 - 19°C. Summer temperatures can however exceed 35°C.

Vegetation is sparse, typically consisting of grass cover, as well as camelthorn and sheppard trees in inter dune areas. Sparse xerophytic vegetation consisting mainly of occasional karoo-type shrubs and succulents can also be found in the inter dune areas.

The area includes numerous faunal species such as gemsbok, kudu, zebra and some small game, but none of these species are exclusive to the exploration area.

# 5. Geological background

## 5.1. General stratigraphy of the Main Bitterwasser Pan

The Main Bitterwasser Pan ("Bitterwasser Pan"; 1550 ha in surface area) forms part of the Cenozoic aged Kalahari Group and comprises a lithium, potassium and boron enriched sulphate-, chlorite- and carbonate- saltpan. The pan sediments are dominated by massive clays, silty-clays and sandy-clays (Figure 4). These sediments occur within the unconsolidated red-coloured aeolian sands of the Recent Gordonia Formation, while conformably overlying the gravels and pebbly gravels of the Mokalanen Formation and the intra-formational duricrusts layers (mainly carbonates/calcretes) of the Obogorop Formation (e.g. Partridge *et al*., 2005).

Deacon and Lancaster (1988) give good insight into the regional and local geological settings and pan development processes in the south-western Kalahari. Exploration reports recording periodic prospecting of the Bitterwasser Pan proposes the occurrence of graded stratigraphic successions. Courser sediment content (sand, grit and pebbly-grit) occurs towards the basal succession, while silt and clay content increases with increasing stratigraphic height (Figure 4) (Botha & Hattingh, 2017; Van der Merwe, 2015). The course sediment increases towards the margins of the pan, while the finer sediments dominate the central section, thus suggesting persistent terrestrial sediment input during the progressive deepening and widening throughout the pan development processes of deflation and sedimentation (Deacon and Lancaster, 1988). The terrestrial sediment input within the Bitterwasser Pan sediments likely constitutes re-deposition of eroded Gordonia-, Mokalanen- and Obogorop Formation sediments within the pan itself.

Generally, the pan can be divided into two stratigraphic units. Firstly, a lower, relatively lithium poor, partially consolidated and/or lithified, poorly sorted and graded unit; dominated by sand, grit and pebbly-grit, with minor to moderate clay constituents the Lower Unit (LwU). Secondly, an upper, relatively lithium enriched, unconsolidated, well sorted and reasonably homogenous unit; dominated by clay and silty-clay Upper Unit (UpU) (Figure 4). The contacts between the LwU and UpU are gradational and are stratigraphically relative uniform throughout the entire Bitterwasser Pan, while it also marks the onset of partial lithification within the pan. The UpU reaches the greatest stratigraphic thicknesses along the central axis of the pan (Figure 4) (Van der Merwe, 2015).

### 5.1.1. Oxidation-reduction zonation

A well-developed redox (reduction-oxidation) boundary occurs throughout the pan which crosscuts both the UpU and LwU units. The redox boundary is recognized through a change in colour of the clays with increasing depth. Near surface oxidized clay exhibit white, brown, grey-brown or orange (sometimes mottled) colours, while the colour of the deeper reduced clays gradually changes from light olive green to dark olive green with increasing depth (Figure 4). The redox boundary also appears to represent the vadose zone. The vadose zone specifies the boundary between the soil-water zone where saline fluids are affected by capillary action, evaporation and oxidation and the phreatic zone where (likely more dense) reduced saline fluids pooled towards the basal portions of the pan are unaffected by capillary action, evaporation and oxidation. The redox boundary and its association with the vadose zone may also indicate the presence of a shallow perched water table below surface.

The redox boundary present within the UpU, subsequently divides the unit into a lower reduced UpU (Lower clay RUpU) and an upper oxidized UpU (Upper clay – OUpU), (Table 2).

*Table 2: Subdivision of the Upper Unit and Lower Unit based on oxidation state.*

| **Unit** | **Oxidation state** |
|---|---|
| Upper sedimentary UNIT (UPU) | Oxidized (Upper clay) |
| | Reduced (Lower clay) |
| Lower sedimentary UNIT (LWU) | Reduced? |

## 5.2. Mineralization model

The Bitterwasser Pan is in terms of geology and climate setting comparable to the known economically significant Li and B hosting saltpans and associated brine deposits of Nevada, United States of America (e.g. Bradley *et al.,* 2013; Le Roux, 2019) (Figures 2 & 3). Extensively developed post-Cretaceous Brukkaros alkaline volcanics and sub-volcanics, which are typically fissure controlled carbonatites, andesites and basalts, underlie the Kalahari Group (and saltpan complex) in the area and are potential source rocks for the lithium (Le Roux, 2019). Hot brine springs with water temperatures exceeding 38°C have been reported in the immediate area of the Bitterwasser Pan. This suggests the presence of an active deep-seated connate/hydrothermal water circulation network which acts as a transport mechanism for lithium bearing brines into the overlying Gordonia Formation pan sediments (Bradley *et al*., 2013). The high evaporation rates (>3200 mm/year) occurring in the area are favourable for brine formation and salt-concentration within the Bitterwasser Pan (Le Roux, 2019).

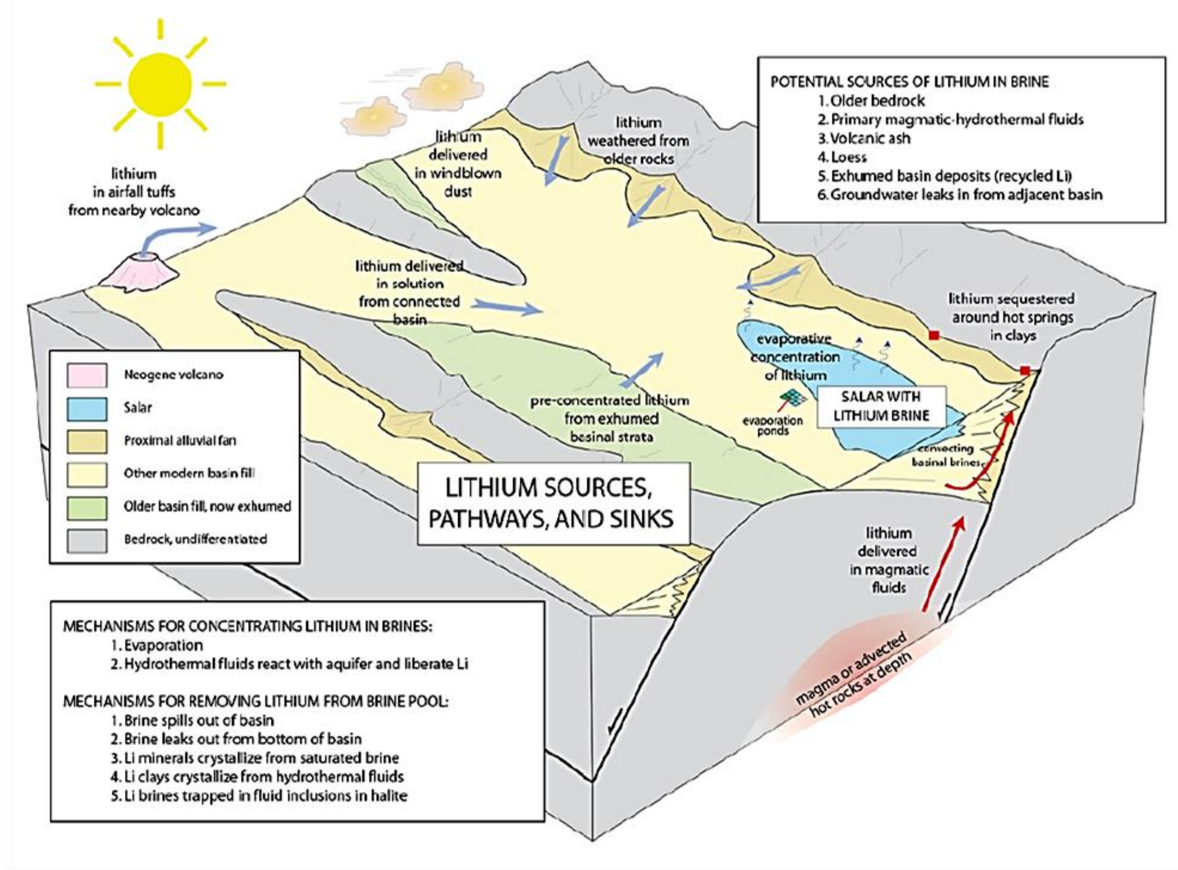


*Figure 2: Schematic deposit model for lithium brines. The figure indicates part of a closed-basin system consisting of interconnected sub-basins. Taken from Bradley et. al (2013). The sub-basin containing the salar is the lowest.*

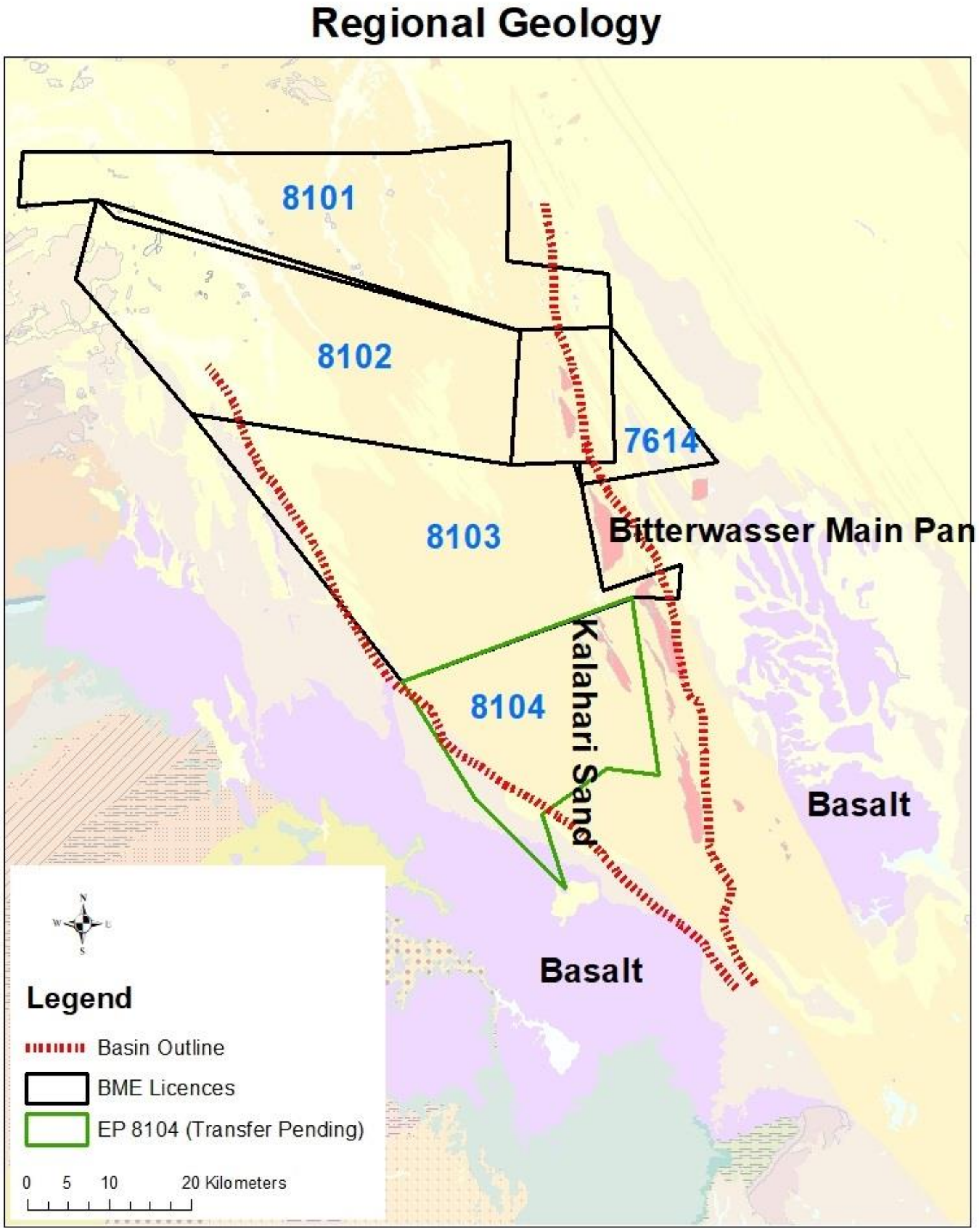


*Figure 3: Regional geological overview of the Bitterwasser Pan Complex along with the basin outline.*

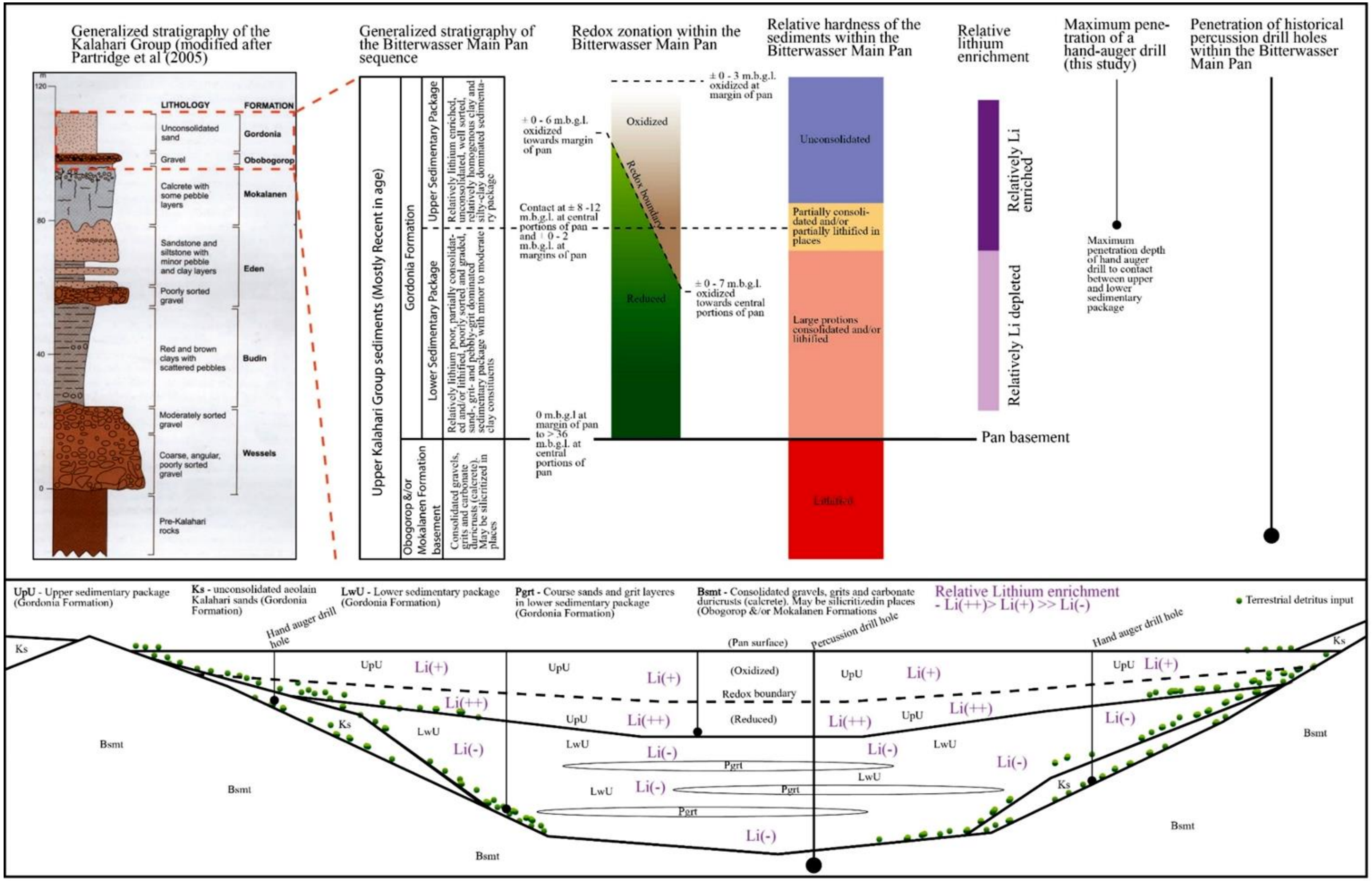


*Figure 4: Generalized stratigraphy of the Bitterwasser Main Pan.*

## 5.3. Basin development

From the regional 1:250 000 geological dataset and regional magnetic survey data from the Government, a large geological basin could be identified, that is associated with the Bitterwasser Pan district. Figure 3 indicates the extent of the basin, with Basalts outcropping on side of the basin, with the centre being filled in by Kalahari sand.

Regional magnetic data indicated that the basin is associated with, and likely formed by the occurrence of large scale graben faults, towards the eastern and western edges of the basin. Figure 5 shows the magnetic data that indicates the large fault structure. The Namibian Government conducted a radiometric survey of potassium (which is a lithium path finder element) over the area of the basin (Figure 6). The data indicate a strong presence of potassium within the basin area, indicating the high possibility of subsequent lithium occurrences.

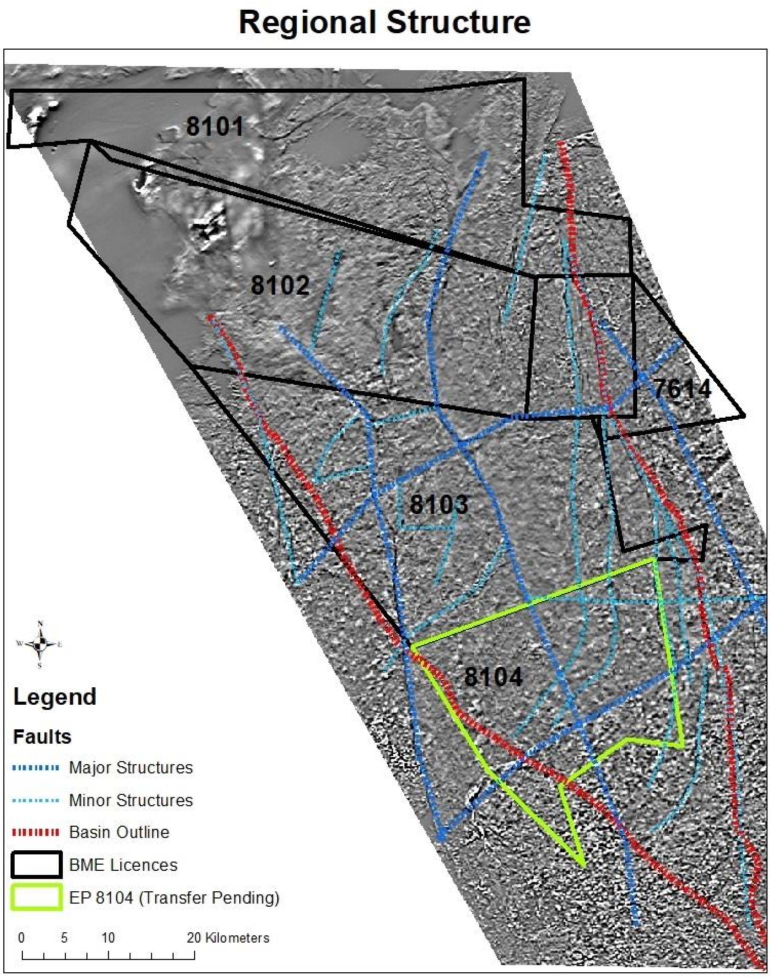


*Figure 5: The interpretation of the regional magnetic data, showing the development of a basin associated with the large fault structures.*

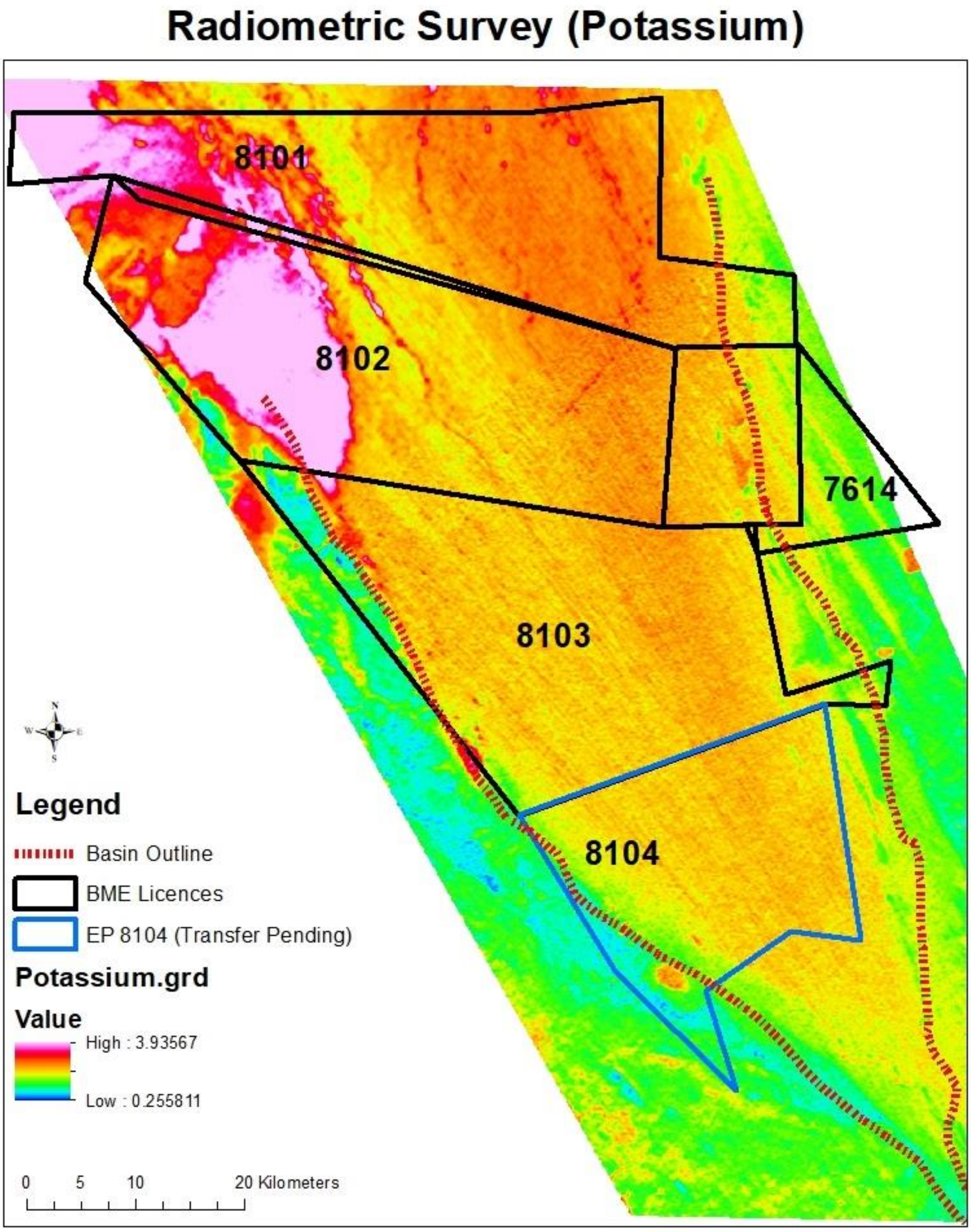


*Figure 6: The Government radiometric information showing the correlation between potassium and the basin.*

Water borehole information was purchase form the Ministry of Agriculture, Water and Forestry (MAWF 2020). The MAWF sampled 1 751 boreholes regionally for Total Dissolved Solids (TDS) and Electric Conductivity (EC). Fifteen values of more than 10,000 and up to 21,000 mg/L TDS were measured within the basin (Figure 7). The USGS classifies a reading of more than 10 000 mg/L as highly saline. All boreholes located outside of the basin are associated with fresh water. The water was not analysed for lithium.

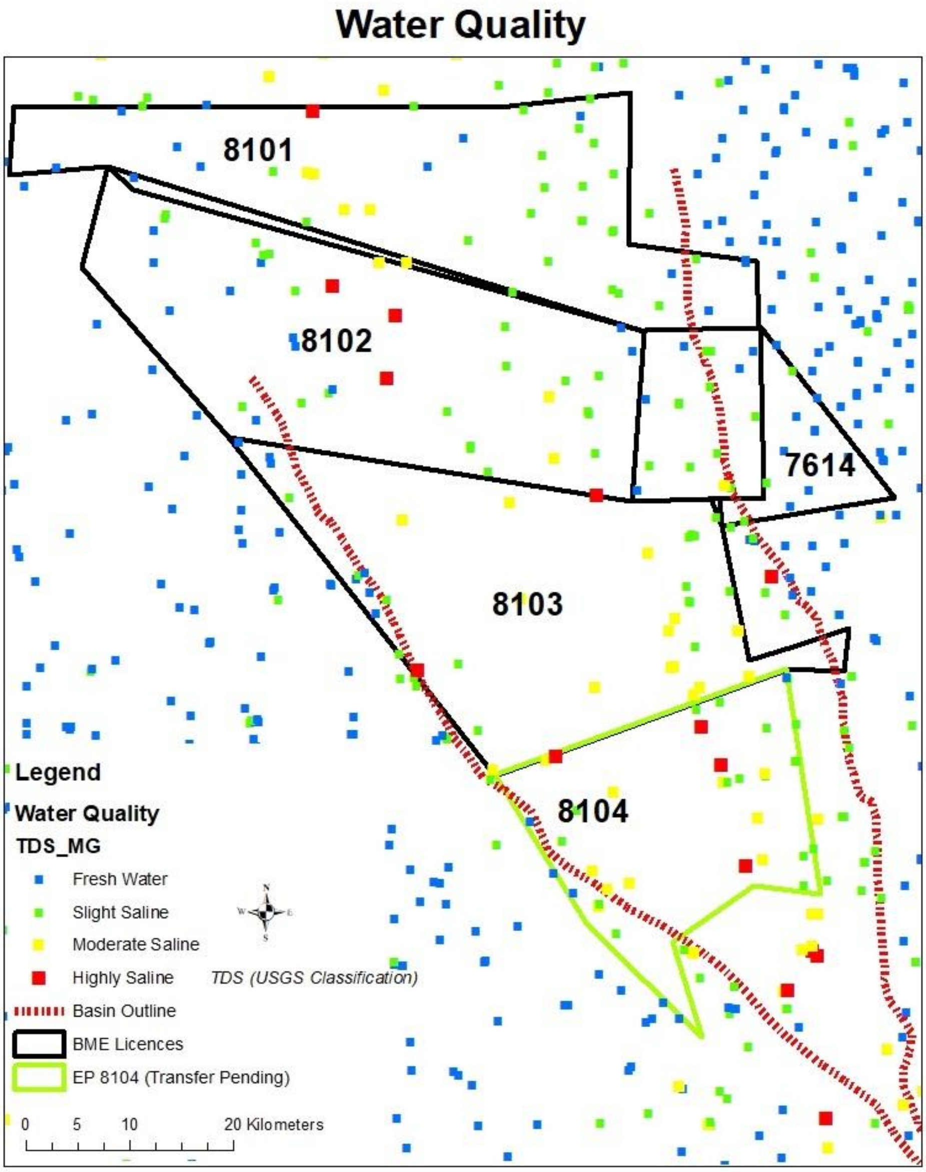


*Figure 7: Map indicating the water borehole distribution along with the water salinity. Note that the high salinity (red blocks) samples fall within the basin.*

## 6. Historical Background

On a regional scale the most feasible lithium deposits are found in continental, geothermal and saltpan brines. The brines are formed by the chemical weathering of lithium-bearing rocks by hydrothermal fluids, particularly in restricted basins, in areas of high evaporation. The brines are generally sourced from the porous strata beneath the surface of the basins. Some of the lithium may be sourced through the leaching of volcanic ash, clays and rocks, however lithium is not easily leached from rock unless exposed to hot fluids in the region of 275- 600°C.

Lithium exploration in Southern Africa received virtually no attention in the past despite favourable conditions for lithium resource development that prevails. Against this background a regional reconnaissance investigation in the form of a systematic field survey covering the entire southern Namibia and some parts of the Northern Cape Province of South Africa was done during 2009 and 2010. The reconnaissance investigation was aimed at establishing the prospectiveness of the area that could potentially sustain economic exploitation of soda ash and lithium (Botha & Hattingh, 2017). Target selection was based on the Chilean model of Li-brines within saltpans. The first round of sampling focused on saltpans in two areas, namely central to southern Namibia and the Mier area of the Northern Cape, South Africa.

Regional geological reconnaissance that was conducted by Brines Mining Exploration Namibia (Pty) Ltd was mostly to test contextual geological models. The two initially selected areas represent pan complexes (groups or clusters of pans), which is typical of salt pan occurrences worldwide. Water samples were also collected in the area referred to as the 'Sout Blok' located south of Aranos, Namibia.

The sampling of salt-pan clay sediments from several saltpan complexes throughout southern Namibia and north-western South Africa was subsequently done. Due to the encouraging lithium grades found in the brines and clays of Southern Africa right from the onset of the reconnaissance survey programme it was decided to focus on the brines as potential lithium source. The lower development and production cost of lithium from brines give support to the focus on brines as source of lithium.

Subsequent to the initial positive findings from the southern central part of Namibia during the February to July 2010 sampling programme, it was decided to increase the exploration area to cover the entire south-eastern part of Namibia. The Bitterwasser salt-pan complex near Kalkrand was considered as highly prospective for hosting significant lithium clay- and brine deposits, and was also comparable to prospects found within the much larger "Lithium Triangle" in South America and other similar lithium brine provinces such as in Nevada, USA.

Between 21 May and 20 June 2010 the remaining Aminuis and Koës / Keetmanshoop pan districts were surface grab sampled. Brines were also collected from two localities in these pan districts. Samples were submitted to independent laboratories for analysis and the results were assessed in a final report that was only compiled in May 2017 (Botha & Hattingh, 2017).

During this study a total area of some 450 km x 200 km was surveyed. In the area surveyed, some 130 samples were taken as water samples, shallow auger hole or pit samples. Over the Bitterwasser Pan District a total of 26 samples was taken of which 16 samples returned values in the range of 300 to 550 ppm Li and Boron values as high as 400 ppm. These results are compelling enough to justify continuation of the survey and a follow-up sampling programme is essential.

While lithium brine grades from 200 ppm upward are viable to mine in the current commodities climate, and lithium demand is on the increase, lithium pan soil grades of over 550 ppm could indicate decisively competitive underlying lithium brine grades (Lithium-demand-growth-to-remain-strong-to-2030-report, 2020). Therefore, a more detailed exploration plan including a drilling programme was found to be justifiable based on the very promising results obtained at several of the targets investigated during 2017. Particular the pans at Bitterwasser stood out as good targets. Here it was found that the pans, occurring as large depressions in the arid western part of the sub-continent, contained high amounts of montmorillonite group clays, in particular zinnwaldite that gave encouraging lithium values.

In addition to pan sampling, water quality sample data supplied by the government of Namibia was analysed. Unfortunately, the data does not contain information relating to lithium content. However, this data confirmed that several boreholes yielded high total dissolved solids, which indicates the presence of highly saline and/or brine-enriched groundwater that might be associated with significant lithium mineralisation. Also, the spatial distribution of these saline and/or brine enriched boreholes was found to be present within areas with confining structures, which indicates the potential for large enclosed brine aquifers that could be of significance for the upgrading of brines through evaporation.

# 7. Exploration and Data collection

Prospecting work at the Bitterwasser project was initiated to survey the Bitterwasser saltpan complex surface and to establish the presence of a lithium resource with potassium and boron accessory mineralisation. Prospecting work was mainly done by Botha & Hattingh (2017) and focussed on surface sampling during 2010. Work done on the neighbouring EPLs at the Main Bitterwasser Pan, situated on farms Kentani and Eden, near the settlement of Hoachanas, was followed with great interest by BME.

## 7.1. Surface sampling

Between February and March 2010, 24 soil samples were taken from the various different lithological layers of the soils from 8 sampling pits on 5 different pans in the Bitterwasser salt pan district. The sample locations fall just outside of the EPLs. The pits were generally located near the centre of the pans and the number of pits dug per pan was dependent on the size of the pan. In the case of the larger pans that necessitated the digging of more than one pit, the pits were arranged in a grid pattern. The P02 pits were spaced at 900 m and the P03 pits were spaced at 2500 m.

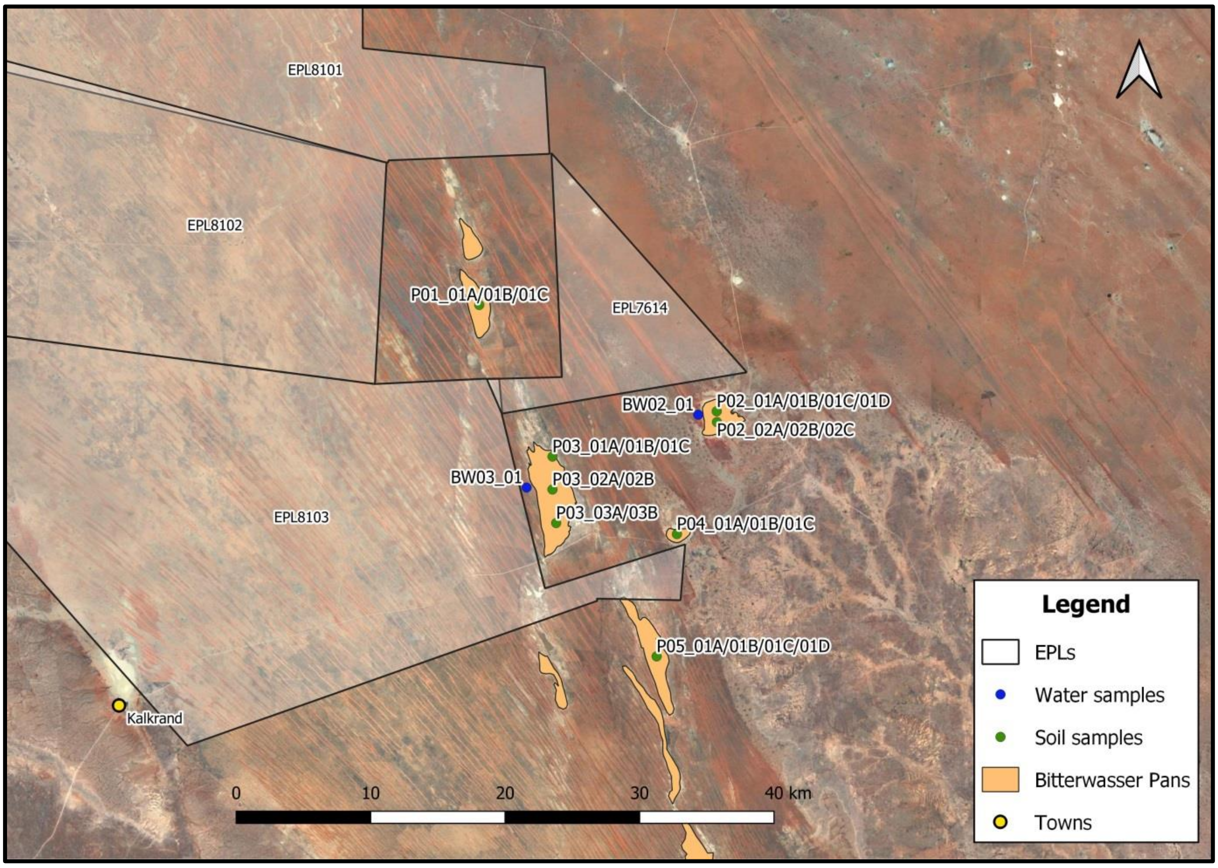


*Figure 8: Map indicating the locations of the pit samples and the two water samples.*

The pits were manually dug to a maximum depth of 1.5 m. The intersected horizons were logged based on lithological composition and a representative sample was taken from each horizon. The silty, salty clay soils are typical of pan environments. The number of horizons intersected in each pit varies between two and four.

Additionally, two groundwater samples were taken from wind pumps adjacent to pans at Bitterwasser. The water samples were taken directly in 500 ml plastic bottles from taps attached to the wind pumps.

*Table 3: Lithological logs of pits dug and sampled on pans in the Bitterwasser pan district.*

| Lithological Logs of Pits dug on Pans in the Bitterwasser Pan District | | | | | | |
|---|---|---|---|---|---|---|
| Sample_ID | Easting | Northing | From | To | Colour | Lithology |
| P01_01A | 788390 | 7364710 | 0.00 | 0.10 | whitish brown | slightly silty, clayey mud |
| P01_01B | 788390 | 7364710 | 0.10 | 0.70 | light brown | clayey fine sand |
| P01_01C | 788390 | 7364710 | 0.70 | 1.50 | light brown | slighty sandy, compact clay |
| | | | | | | |
| P02_01A | 804400 | 7356500 | 0.00 | 0.05 | white - light brown | porous sandy mud crust |
| P02_01B | 804400 | 7356500 | 0.05 | 0.50 | light brown | soft clay |
| P02_01C | 804400 | 7356500 | 0.50 | 0.80 | pinkish white | slightly sandy, soft kaolin clay |
| P02_01D | 804400 | 7356500 | 0.80 | 1.50 | greenish grey | soft friable clay (light brown ferruginous inclusions in places) |
| | | | | | | |
| P02_02A | 804400 | 7355700 | 0.00 | 0.05 | white - light brown | porous sandy mud crust |
| P02_02B | 804400 | 7355700 | 0.05 | 0.60 | pinkish brown | friable clay |
| P02_02C | 804400 | 7355700 | 0.60 | 1.50 | greenish brown | friable clay |
| | | | | | | |
| P03_01A | 793150 | 7353380 | 0.00 | 0.05 | whitish grey | silty clay |
| P03_01B | 793150 | 7353380 | 0.05 | 0.65 | pinkish grey | clayey sand speckled with finely disseminated koalinitic bands (pinkish colour due to minor iron oxide content) |
| P03_01C | 793150 | 7353380 | 0.65 | 1.40 | greenish grey | sandy clay with with finely disseminated kaolin and calcrete specks |
| | | | | | | |
| P03_02A | 793100 | 7350940 | 0.00 | 0.10 | whitish grey | silty clay |
| P03_02B | 793100 | 7350940 | 0.10 | 1.40 | light brown | soft clay |
| | | | | | | |
| P03_03A | 793300 | 7348450 | 0.00 | 0.15 | whitish grey | friable silty mud |
| P03_03B | 793300 | 7348450 | 0.15 | 1.50 | light brown | slightly sandy, compact-hard clay |
| | | | | | | |
| P04_01A | 801500 | 7347460 | 0.00 | 0.10 | light brown | clayey mud |
| P04_01B | 801500 | 7347460 | 0.10 | 0.45 | light brown | friable clayey fine-medium sand with kaolin specks |
| P04_01C | 801500 | 7347460 | 0.45 | 1.40 | light brown | soft, slightly silty clay |
| | | | | | | |
| P05_01A | 799930 | 7338430 | 0.00 | 0.15 | light brown | slightly silty, clayey mud |
| P05_01B | 799930 | 7338430 | 0.15 | 0.55 | light brown | compact clay |
| P05_01C | 799930 | 7338430 | 0.55 | 0.75 | whitish brown | slightly silty compact clay |
| P05_01D | 799930 | 7338430 | 0.75 | 1.50 | whitish grey/greyish white | slightly sandy, soft clay |

## 7.2. Sample analysis

The 21 soil samples and 2 water samples were sent for analysis at the University of Stellenbosch Central Analytical Facility between 20 April and 13 July 2010. All 23 samples were analysed for lithium and boron. This analysis was done by Inductive Coupled Plasma Mass Spectrometry (ICP).

The six samples which yielded Li values above 300 ppm were selected and additionally analysed for the cations Ca, Mg, K and Na. The cation analysis was done by Atomic Absorption Spectroscopy (AAS). Sample preparation for Li, B and cation analysis was by acid digestion.

*Table 4: Results for Li, B and cation analysis of reconnaissance samples taken.*

| Results for Li, B, Ca, Mg, K & Na Analysis of Soil and Brine Samples from Pans etc. | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sample Identity | | | | | Results | | | | | |
| Sample ID# | District | Easting | Northing | Type | Li | B | Ca | Mg | K | Na |
| | | | | | ppm | ppm | ppm | ppm | ppm | ppm |
| BW02_01 | Bitterwasser | 803130 | 7356270 | Water | nd | 2.06 | N/A | N/A | N/A | N/A |
| BW03_01 | Bitterwasser | 791340 | 7351120 | Water | 0.04 | 0.63 | N/A | N/A | N/A | N/A |
| P01_01A | Bitterwasser | 788390 | 7364710 | Soil | 100.33 | 69.79 | N/A | N/A | N/A | N/A |
| P01_01B | Bitterwasser | 788390 | 7364710 | Soil | 236.42 | 269.13 | N/A | N/A | N/A | N/A |
| P01_01C | Bitterwasser | 788390 | 7364710 | Soil | 348.65 | 390.46 | 53100 | 69700 | 9900 | 40600 |
| P02_01B | Bitterwasser | 804400 | 7356500 | Soil | 154.44 | 61.42 | N/A | N/A | N/A | N/A |
| P02_01C | Bitterwasser | 804400 | 7356500 | Soil | 122.75 | 126.25 | N/A | N/A | N/A | N/A |
| P02_01D | Bitterwasser | 804400 | 7356500 | Soil | 93.68 | 57.17 | 79600 | 49100 | 5700 | 3600 |
| P02_02B | Bitterwasser | 804400 | 7355700 | Soil | 118.78 | 242.10 | N/A | N/A | N/A | N/A |
| P02_02C | Bitterwasser | 804400 | 7355700 | Soil | 148.17 | 184.48 | N/A | N/A | N/A | N/A |
| P03_01B | Bitterwasser | 793150 | 7353380 | Soil | 226.70 | 127.31 | N/A | N/A | N/A | N/A |
| P03_01C | Bitterwasser | 793150 | 7353380 | Soil | 159.56 | 104.20 | 60000 | 37700 | 3200 | 13700 |
| P03_02A | Bitterwasser | 793100 | 7350940 | Soil | 168.48 | 46.76 | N/A | N/A | N/A | N/A |
| P03_02B | Bitterwasser | 793100 | 7350940 | Soil | 557.42 | 268.03 | 72600 | 75300 | 6900 | 20600 |
| P03_03A | Bitterwasser | 793300 | 7348450 | Soil | 227.57 | 80.66 | N/A | N/A | N/A | N/A |
| P03_03B | Bitterwasser | 793300 | 7348450 | Soil | 555.24 | 188.36 | 88300 | 70800 | 6200 | 15700 |
| P04_01A | Bitterwasser | 801500 | 7347460 | Soil | 50.45 | 45.36 | N/A | N/A | N/A | N/A |
| P04_01B | Bitterwasser | 801500 | 7347460 | Soil | 70.03 | 135.26 | N/A | N/A | N/A | N/A |
| P04_01C | Bitterwasser | 801500 | 7347460 | Soil | 82.36 | 57.39 | 94900 | 63700 | 6700 | 10500 |
| P05_01A | Bitterwasser | 799930 | 7338430 | Soil | 346.14 | 46.77 | 80800 | 38900 | 2600 | 7100 |
| P05_01B | Bitterwasser | 799930 | 7338430 | Soil | 544.28 | 56.16 | 120400 | 51900 | 3000 | 7100 |
| P05_01C | Bitterwasser | 799930 | 7338430 | Soil | 482.99 | 44.19 | 145900 | 49800 | 3200 | 6300 |
| P05_01D | Bitterwasser | 799930 | 7338430 | Soil | 294.93 | 29.49 | N/A | N/A | N/A | N/A |

It is assumed that industry best practices was used during sampling and by the laboratory to ensure sample representivity and acceptable assay data accuracy, however the QAQC procedures used are not recorded in available documents.

# 8. Mineral Resource Estimates

## 8.1. Introduction

While lithium brine grades from 200 ppm upward are viable to mine in the current commodities climate, and lithium demand is on the increase, lithium pan soil grades of over 550 ppm could indicate decisively competitive underlying lithium brine grades. Therefore, a more detailed exploration plan including a drilling programme was found to be justifiable based on the very promising results obtained at several of the targets investigated.

Detailed investigations concerning mining-, processing-, metallurgical-, infrastructure-, economic-, marketing-, legal-, environmental-, government- and social factors ("modifying factors'; JORC, 2012) have not been undertaken to date.

There is insufficient information (regarding crucial modifying factors) to estimate a Mineral Resource (JORC, 2012) at this date and currently no information is available regarding the potential recovery of Li from the Bitterwasser brines.

# 9. Mineral Resource Classification

## 9.1. Introduction

This section describes the status of the Bitterwasser Project in terms of its classification into an appropriate resource category.

## 9.2. Resource Statement

### 9.2.1. Mineral Resource

For the area of EPLs or any portion thereof to be considered a Mineral Resource it must be an occurrence of lithium of economic interest in such form, quality and quantity that there are reasonable and realistic prospects of lithium extraction for the lithium market. Here, location, quantity, grade, continuity and other geological characteristics of this mineral resource should be known, estimated from specific geological evidence and knowledge.

Lithium mineralisation does not demonstrate an inherent high variability in the distribution of economic extractable lithium. However, sampling this type of deposit requires a large number of samples. Standard drilling techniques are able to provide sufficient sample volumes and, therefore, the required data to enable estimation of tonnages and grades. Conventional drilling provides sufficient information to determine the volume of the mineralisation zones, and its relationship to geological features. Therefore, for a deposit to be considered a Mineral Resource it is highly dependent on the availability of the results of appropriate spatial distribution and number of samples.

### 9.2.2. Classification

The Project does not contain any Ore Reserves or Mineral Resources, as defined by the JORC Code. Under the definition provided by the ASX and in the VALMIN Code, the Bitterwasser Project is classified as an 'exploration project', which is inherently speculative in nature. BME’s Projects are considered to be sufficiently prospective, subject to varying degrees of risk, to warrant further exploration and development of their economic potential, consistent with the programs proposed by Creo.

# 10.Creo Comments

Creo considers that the quality of the reconnaissance work to be of industry best practices and of a high standard. However, it is insufficient to delineate a Mineral Resource to the level of confidence required by JORC to classify any of the BME exploration targets as Mineral Resources.

This cautionary approach in the declaration of Exploration Results is a consequence of the inability to predict even over short distances the extent and grade of the deposit due to the complex lithium distribution controls of the mineralisation and the correct interpretations thereof. The approach used by Creo to derive at these conclusions is generally considered to be appropriate to these types of deposit and is in line with generally accepted norms and standards.

Creo considers there to be a fair potential for the delineation of lithium mineralization following on-going exploration and development. The BME proposed exploration programme includes an annual drilling and sampling budget to investigate the extensions to known lithium, potassium and boron prospects inside and outside of the currently defined exploration area.

# 11.Next Exploration Phase

## 11.1. Work Programme

BME has developed an exploration budget for an allocation of AUD 468,050 over two years which is summarised in Table 5.

The Bitterwasser Project will include conducting analysis and test work from existing water borehole sources to test existing saline groundwater for lithium mineralisation. Surveys to confirm and delineate the extent of a possible saline and/or brine aquifer system are then to be followed up by scout drilling to determine the depth and scope of lithium-in-brines mineralisation.

The planned initial exploration programme at Bitterwasser is expected to be conducted in three consecutive phases. The first phase would seek to confirm that lithium is associated with some or all of the aquifers known to occur at depth within the Bitterwasser saltpan complex. Several domestic water-supply boreholes in the Bitterwasser saltpan complex are to be analysed for this purpose. The second phase will focus over the area with the highest potential by conducting airborne electromagnetic- and magnetic-surveying to identify favourable structurally hosted sub-basins and or Li enriched saline and/or brine aquifers. The last phase of exploration would consist of drilling 4 to 6 drill holes, which would be drilled with the aim of intersecting Li bearing saline and/or brine. If intersections from this drilling are found to be economically significant further exploration would be conducted to define a maiden resource.

Creo has reviewed the proposed budget and it is considered appropriate and reasonable for the mineralisation styles within the project and the stage of exploration. The proposed exploration budget exceeds the minimum required expenditure commitment for the Project.

*Table 5: Proposed work programme budget.*

| Exploration Budget - Bitterwasser | Year 1 ($) | Year 2 ($) | Total ($) |
|---|---|---|---|
| Licence Fees and Environmental | $ 20,000 | $ 9,000 | $ 29,000 |
| Field Expense | $ 10,000 | $ 7,000 | $ 17,000 |
| Soil / Grab Sampling | $ 3,500 | $ - | $ 3,500 |
| Geophysical Interpretation | $ 30,000 | $ - | $ 30,000 |
| Clay Drilling | $ 62,000 | $ - | $ 62,000 |
| Brines Drilling | $ - | $ 165,000 | $ 165,000 |
| Project Administration | $ 17,000 | $ 17,000 | $ 34,000 |
| Lexrox - Consultancy Agreement | $ 55,000 | $ 30,000 | $ 85,000 |
| ***Sub - Total*** | ***$ 197,500*** | ***$ 228,000*** | ***$ 425,500*** |
| Contigency (10%) | $ 19,750 | $ 22,800 | $ 42,550 |
| **Total** | **$ 217,250** | **$ 250,800** | **$ 468,050** |

# 12.Recommendations

BME is to execute further exploration work in order to potentially delineate the saline and/or brine aquifer system in the Bitterwasser saltpan complex. BME is also to prove the existence of significant Li grades within this saline and/or brine aquifer.

# 13.References


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# Competent Person's Consent

Pursuant to the requirements of Listing Rules and
Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

**Report name**

Independent Geological Report on the Lithium Prospect at the Bitterwasser Pans, Hardap Region, Namibia.

Released by Arcadia Minerals Ltd

*On* the Lithium Prospect at the Bitterwasser Pans, Hardap Region, Namibia on which the Report is based, for the period ended 23 March, 2021.

March 2021

# Statement

I, Johan Hattingh

confirm that I am the Competent Person for the Report and that:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code 2012 Edition, having twenty two years experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am registered with the South African Council for Natural Scientific Professions.
- I have reviewed the Report to which this Consent Statement applies.

I am a full time employee of Creo Design (Pty) Ltd and have been engaged by Arcadia Minerals Ltd to prepare the documentation for on the Lithium Prospect at the Bitterwasser Pans, Hardap Region, Namibia on which the Report is based, for the period ended 23 March, 2021.

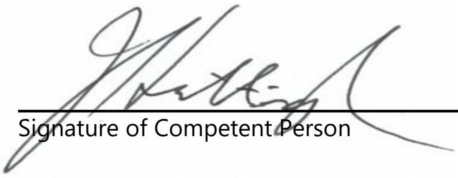
I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Targets, Exploration Results, Mineral Resources.

# Consent

I consent to the release of the Report and this Consent Statement by the directors of:

Arcadia Minerals Ltd



Signature of Competent Person

Date: 23 March 2021

Professional Membership: South African Council for Natural Scientific Professions

Membership Number: #400112/93

Signature of Witness:

Print Witness Name and Residence: Riaan Zeeman

Robertson

# Appendix I JORC Table 1

## Section 1 Sampling Techniques and Data

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Sampling techniques* | • *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*<br>• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*<br>• *Aspects of the determination of mineralisation that are Material to the Public Report.*<br>• *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.* | • Sampling was undertaken using industry standard practices and consisted of surface sampling by Botha & Hattingh,(2017) during 2010.<br>• 24 soil samples were taken from pits of 1.5 m depth.<br>• Two (2), 500 ml groundwater samples were taken from taps attached to the wind pumps<br>• Regional geological reconnaissance that was conducted by Brines Mining Exploration Namibia (Pty) Ltd.<br>• Measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used are not known, because this information is not recorded in available documents. |
| *Drilling techniques* | • *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).* | • No drilling was conducted. |
| *Drill sample recovery* | • *Method of recording and assessing core and chip sample recoveries and results assessed.*<br>• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*<br>• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.* | • No drilling was conducted. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Logging* | • *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*<br>• *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*<br>• *The total length and percentage of the relevant intersections logged.* | • No drilling was conducted.<br>• The soil samples have been logged according to industry standards.<br>• Logging was qualitative.<br>• A mineral resource was not estimated from the logged samples. |
| *Sub-sampling techniques and sample preparation* | • *If core, whether cut or sawn and whether quarter, half or all core taken.*<br>• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*<br>• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*<br>• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*<br>• *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.*<br>• *Whether sample sizes are appropriate to the grain size of the material being sampled.* | • It is assumed that sampling was undertaken using industry standard practices.<br>• No information is available on sub-sampling techniques and sample preparation, because such procedures are not documented in available documents. |
| *Quality of assay data and laboratory tests* | • *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*<br>• *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*<br>• *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.* | • Samples were submitted to the University of Stellenbosch Central Analytical Facility in Stellenbosch South Africa for analysis, between 20 April and 13 July 2010<br>• The samples were analysed of lithium, boron and the cations Ca, Mg, K and Na.<br>• Lithium and boron analysis was conducted using ICP analysis, while the cations were analysed using AAS.<br>• Only samples which yielded Li values above 300 ppm were included in the cation analysis.<br>• Sample preparation for Li, B and cation analysis was by acid digestion.<br>• It is assumed that industry best practices was used by the laboratory to ensure sample representivity and acceptable assay data accuracy, however the specific QAQC procedures used are not recorded in available documents |
| *Verification of* | • *The verification of significant intersections by either independent or* | • Recording of field observations and that of samples collected was |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *sampling and assaying* | *alternative company personnel.*<br>• *The use of twinned holes.*<br>• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*<br>• *Discuss any adjustment to assay data.* | done in field notes and transferred to and electronic data base following the Standard Operational Procedures. |
| *Location of data points* | • *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*<br>• *Specification of the grid system used.*<br>• *Quality and adequacy of topographic control.* | • The locations of all the samples were recorded.<br>• The sample locations is GPS captured using WGS84 UTM zone 33S.<br>• The quality and accuracy of the GPS and its measurements is not known, because it is not stated in available documents. |
| *Data spacing and distribution* | • *Data spacing for reporting of Exploration Results.*<br>• *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*<br>• *Whether sample compositing has been applied.* | • The P02 pits were spaced at 900 m and the P03 pits were spaced at 2500 m.<br>• The spacing and distribution is insufficient to establish the degree of geological and grade continuity that is appropriate to delineate a mineral resource.<br>• No information about sample compositing is recorded in available documents. |
| *Orientation of data in relation to geological structure* | • *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*<br>• *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.* | • The orientation of the sample pits is vertical and sampling occurred perpendicular to the soil horizons and all the soil horizons were sampled equally and representative.<br>• The orientation of the sampling is unbiased.<br>• The relationship between the sampling orientation and the orientation of key mineralised structures is not considered to have introduced a sampling bias. |
| *Sample security* | • *The measures taken to ensure sample security.* | • Measures taken to ensure sample security have not been recorded in available document. |
| *Audits or reviews* | • *The results of any audits or reviews of sampling techniques and data.* | • Audits and reviews were limited to the Standard Operational Procedures in as far as data capturing was concerned during the sampling.<br>• Creo considers that given the general sampling programme, geological investigations and check assaying, the procedures reflect an appropriate level of confidence. |

## Section 2 Reporting of Exploration Results

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *Mineral tenement and land tenure status* | • *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*<br>• *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.* | • The Bitterwasser Project area is east of Kalkrand in south central Namibia, some 190 km south of Windhoek in the Hardap Region.<br>• The Bitterwasser Lithium Brines Project comprise of four exclusive exploration licences, EPLs 7614, 8101, 8102 and 8103, all held by Brines Mining Exploration Namibia (Pty) Ltd and EPL 8104 which is shortly to be transferred to BME by Mr Lisias Pius, a director of BME, at no cost after the approval of an application to transfer the licence has been approved by the Ministry of Mines and Energy ("MME").<br>• Together with EPL8104 the project covers a total area of 343,894 hectares.<br>• A land-use agreement, including access to the property for exploration has been obtained through the Ministry of Agriculture, Water and Forestry of Namibia |
| *Exploration done by other parties* | • *Acknowledgment and appraisal of exploration by other parties.* | • A regional reconnaissance investigation in the form of a systematic field survey covering the entire southern Namibia and some parts of the Northern Cape Province of South Africa was done during 2009 and 2010. The reconnaissance investigation was aimed at establishing the prospectiveness of the area that could potentially sustain economic exploitation of soda ash and lithium (Botha & Hattingh, 2017). |
| *Geology* | • *Deposit type, geological setting and style of mineralisation.* | • The Main Bitterwasser Pan forms part of the Cenozoic aged Kalahari Group and comprises a lithium, potassium and boron enriched sulphate-, chlorite- and carbonate- saltpan.<br>• Post-Cretaceous Brukkaros alkaline volcanics and sub-volcanics in the area and are potential source rocks for the lithium.<br>• The presence of an active deep-seated connate/hydrothermal water circulation network is suggested, which acts as a transport mechanism for lithium bearing brines into the overlying Gordonia Formation pan sediments.<br>• High evaporation rates (>3200 mm/year) occurring in the area are favourable for brine formation and salt-concentration. |
| *Drill hole Information* | • *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* | • No drilling was conducted. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| | ○ *easting and northing of the drill hole collar*<br>○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>○ *dip and azimuth of the hole*<br>○ *down hole length and interception depth*<br>○ *hole length.*<br>• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.* | |
| *Data aggregation methods* | • *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*<br>• *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.*<br>• *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | • No data aggregation took place. |
| *Relationship between mineralisation widths and intercept lengths* | • *These relationships are particularly important in the reporting of Exploration Results.*<br>• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*<br>• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').* | • No drilling was conducted. |
| *Diagrams* | • *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.* | • The appropriate diagrams and tabulations are supplied in the main report. |
| *Balanced reporting* | • *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.* | • This report has been prepared to present the prospectivity of the project and results of historical and recent exploration activities.<br>• All the available reconnaissance work results have been reported. |
| *Other substantive* | • *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical* | • The Namibian Government conducted a regional magnetic survey in the area. |

| Criteria | JORC Code explanation | Commentary |
|---|---|---|
| *exploration data* | *survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.* | • The Namibian Government conducted a radiometric survey of potassium in the area.<br>• The Ministry of Agriculture, Water and Forestry collected water samples from water boreholes in the region for the analysis of TDS. |
| *Further work* | • *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*<br>• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.* | • Brines Mining Exploration Namibia (Pty) Ltd is to execute further exploration work in order to potentially delineate and prove the existence of significant Li grades within this saline and/or brine aquifer.<br>• See sections 11 and 12 for detailed recommended further exploration activities. |