

TECHNICAL REPORT

Updated Mineral Resource Estimate for the North Target of the Banio Potash Project, Mayumba Permit, Republic of Gabon

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1 EXECUTIVE SUMMARY

Millennial Potash Corp. (MLP or the “Company”), a Canadian registered company, has the option to acquire 100% of Equatorial Potash thereby acquiring up to 100% of Mayumba Potasse Sarl, (Mayumba Potasse) a Gabonese registered company, which holds the rights to the “permis de recherché minière pour la potasse et sels connexes n° G5-595 dénommé Mayumba” (Mayumba Permit or Property) in the Republic of Gabon (ROG).

MLP has requested ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH (ERCOSPLAN) to evaluate the available exploration data on the property and to estimate potash Mineral Resources. ERCOSPLAN should provide the results of their investigations and recommendations for further work in the form of a NI 43-101 Technical Report.

The Mayumba Permit is located in the South of Gabon close to the border with Republic of Congo (ROC) on the Atlantic Ocean. The original Mayumba Permit was granted in 2016 and extended for a period of 3 years the first time on February 4, 2022, and a second time on March 21, 2025.

For the evaluation of the potash prospects of the Mayumba Permit the information available is from historical hydrocarbon exploration work including a seismic survey and the drilling reports and geophysical logging data (at minimum a natural gamma ray log) from 6 drill holes (Banio-1 to Banio-5 and BATC-1). Furthermore in 2017 Mayumba Potasse drilled 3 further potash exploration drill holes (Ba-001 to Ba-003) through most of the evaporite sequence within the permit area in the vicinity of historical hydrocarbon drill hole BATC-1, which were cored and assayed as well as geophysically logged. After evaluation of the original assays by ALS that suggested that this laboratory had problems with the determination of the K-content, it was decided to have a re-analysis of the pulps of samples with over 5 % KCl. The re-analysis was done by SRC and K-UTEC laboratories with experience in analysis of Carnallite samples. Cross check samples were provided to allow comparison of these two laboratories. The results of these laboratories showed that ALS tended to overestimate K and Mg contents, especially at higher grade samples. Where available the re-analysis of the pulps has been used for the Mineral Resource estimate. In 2023 MLP extended the drill hole Ba-002 from 516 m to 552.5 m depth. In 2025 drill hole Ba-001 was extended to a depth of 678 m and Ba-004 was drilled to a depth of 667 m. The information from the cores and the assays from the potash bearing sections of these drill holes by the SRC laboratory were also supplied for evaluation.

The Mayumba Permit is located in the northern part of the Congo Coastal Basin of Aptian age (Late Cretaceous) which has been explored for potash for over 60 years in the ROC. Publicly available information and results of the potash exploration that has taken place in the ROC over the last 60 years have also been used for the evaluation.

Introduction

Property Location and Status

Available Data

Geology and Mineralisation

The evaporite stratigraphy in the Congo Coastal Basin is well-defined with 10 depositional cycles in the evaporite sequence, and within each cycle between 1 and 14 potash seams. The interlayering of rock salt with potash seams with typical thickness patterns allows determination from the gamma ray log, which cycle and seams are encountered in a drill hole. Within the salt sequence, these cycles (and seams) can be correlated over distances of over more than 60 km within the basin and even single seams could be correlated between the new Ba-wells and the historically Banio-wells, which are more than 15 km apart.

On the seismic sections fault intersections off-setting the base and eventually top of the salt have been interpreted. By connecting fault intersections with similar conditions over several seismic sections a pattern of faults has been constructed. These faults divide the deposit into blocks bounded by NW-SE striking normal faults (locally reversed) and by NE-SW striking strike slip or oblique-slip faults that facilitate movement along the normal faults. This interpretation is supported by the observations on the stratigraphy of the salt section from the available drill holes that at least show 7 typical evaporite Cycles that can be correlated over the whole Congo Coastal basin. For the geological model it is assumed that the layering within each block is near horizontal.

Drill hole Ba-001 is located on a small block between two faults within a NE-SW striking fault zone, which has been active several times since deposition of the evaporite rocks. This fault was active during deposition of Cycle VI and Cycle VII with strong structural overprinting of the upper part of Cycle VI and the entirety of Cycle VII. Individual carnallite horizons can, however, be correlated with the other Ba drill holes and their true thickness can be estimated. The drill holes Ba-002, Ba-003 and the hole BATC-1 are on the block NW of this fault zone, which has been relatively uplifted to the SE block on which Ba-004 is located. This is inferred from the larger depth of the potash seams and rock salt interlayers in Ba-004 compared to Ba-002 and Ba-003 with in all 3 holes displaying a similar thickness of these layers. The vertical offset in the range of 80 m to 100 m has been compensated by a larger thickness of Cycle VII (especially the Tachyhydrite bearing section). The small fault block with Ba-001 moved independently of the neighbouring blocks, prior to deposition of the Anhydrite Formation and once more prior to deposition of the siliciclastic sands in the Tertiary.

Presently a total of 23 seams or horizons (combined seams) have been identified in the available drill holes.

The drill holes Ba-001, Ba-002, Ba-003 and Ba-004 have adequate information about thickness and grade (assays) of the potash seams/horizons required for a Mineral Resource Estimate. Mineral Resources in the categories Measured, Indicated and Inferred have been estimated for the area surrounding these drill holes using the ROI methodology. Because Carnallite is considered the primary potash mineral in the deposit and Sylvite a secondary reaction product of Carnallite with circulating brines and therefore less regular in distribution, different ROI's for the Carnallite and Sylvite mineralisation have been used.

Mineral Resources

For the Carnallite Mineralisation,

- Measured resources occur in a radius of 700 m for a seam with known thickness and grade of the drill holes. This ROI is not extended beyond the faults interpreted from the seismic sections,

- Indicated resources occur in a radius of 1,400 m for a seam with known thickness and grade of the drill holes, minus any Measured resources in this area. This ROI is not extended beyond the faults interpreted from the seismic sections,
- Inferred resources occur in a radius of 2,800 m of an eligible drill hole, minus any Measured and Indicated resources in this area. This ROI is extended beyond the faults interpreted from the seismic sections, if the extension is on the downthrown block.

For the Sylvite Mineralisation,

- Indicated resources occur in a radius of 500 m for a seam with known thickness and grade of the drill holes. This ROI is not extended beyond the faults interpreted from the seismic sections,
- Inferred resources occur in a radius of 1,000 m of an eligible drill hole, minus any Indicated resources in this area. This ROI is not extended beyond the faults interpreted from the seismic sections.

The estimated Measured Mineral Resources over each Cycle for different mineralogy (Min., Mineralisation, Ct, Carnallite) are as follows:

Hole	Min.	Summed Thickness (m)	Summed Tonnage ¹ (million t)	Average Grade (% KCl)	Total KCl (million t)
Ba-001	Ct	16.3	37.00	15.4	5.70
Ba-002	Ct	72.8	179.77	15.3	27.55
Ba-003	Ct	70.1	191.85	16.1	30.82
Ba-004	Ct	86.8	239.56	15.8	37.82
Total	Ct		648.19	15.7	101.89

The estimated Indicated Mineral Resources over each Cycle for different mineralogy (Min., Mineralisation, Sy, Sylvite or Ct, Carnallite) are as follows:

Hole	Min.	Summed Thickness (m)	Summed Tonnage (million t)	Average Grade (% KCl)	Total KCl (million t)
Ba-001	Ct	68.4	487.27	14.4	70.37
Ba-002	Sy	4.8	7.99	24.9	1.93
Ba-002	Ct	72.8	336.54	15.4	42.86
Ba-003	Sy	7.5	12.47	19.5	2.41
Ba-003	Ct	70.1	358.39	16.1	57.36
Ba-004	Sy	9.0	14.69	28.0	4.11
Ba-004	Ct	87.9	587.18	15.8	92.70
Total	Sy		35.15	24.3	8.53
Total	Ct		1769.39	15.4	272.31

¹ Due to rounding of the numbers in the tables, minor discrepancies of results shown within and between tables are possible

The estimated Inferred Mineral Resources over each Cycle for different mineralogy (Min., Mineralisation, Sy, Sylvite or Ct, Carnallite) are as follows:

Hole	Min.	Summed Thickness (m)	Summed Tonnage (million t)	Average Grade (% KCl)	Total KCl (million t)
Ba-001	Ct	68.4	998.17	14.6	145.32
Ba-002	Sy	4.8	13.94	24.9	3.47
Ba-002	Ct	72.8	531.95	15.5	82.17
Ba-003	Sy	7.5	29.85	19.5	5.81
Ba-003	Ct	70.1	583.40	16.1	93.87
Ba-004	Sy	4.6	42.86	28.0	12.00
Ba-004	Ct	87.9	1461.47	15.7	230.03
Total	Sy		96.15	24.2	23.23
Total	Ct		3463.34	15.4	532.20

Millennial Potash Corp. (MLP or the “Company”), a Canadian registered company, has the option to acquire 100% of Equatorial Potash thereby acquiring 100% of Mayumba Potasse Sarl, (Mayumba Potasse) a Gabonese registered company, which holds the rights to the “permis de recherché minière pour la potasse et sels connexes n° G5-595 dénommé “Po-tasse et sels connexes Mayumba” (Mayumba Permit) in the Republic of Gabon (ROG).

Conclusions and Recommendations

Based on the available data for the southern part of the Property a geological model for the distribution of up to 23 potash seams or horizons has been developed. Based on this model mineral Resources have been defined for the area surrounding the drill holes Ba-001, Ba-002, Ba-003 and Ba-004.

The Measured Mineral Resources for the Carnallite mineralisation amounts to 648.2 million tonnes of mineralized material at an average grade of 15.7 % KCl (58.6 % Carnallite).

The Indicated Mineral Resources for the Carnallite mineralisation amounts to 1,769.4 million tonnes of mineralized material at an average grade of 15.4 % KCl (57.4 % Carnallite). The Total Indicated Mineral Resources for the Sylvite Mineralisation are estimated at 35.2 million tonnes of mineralized material at an average grade of 24.3 % KCl (Sylvite).

The Inferred Mineral Resources for the Carnallite mineralisation amounts to 3,463.3 million tonnes of mineralized material at an average grade of 15.4 % KCl (57.3 % Carnallite). The Total Inferred Mineral Resources for the Sylvite Mineralisation are estimated at 96.15 million tonnes of mineralized material at an average KCl grade of 24.2 % KCl (Sylvite).

It is the opinion of the author that the Mayumba Permit is a property of merit and warrants additional exploration.

MLP is executing the exploration program over the Mayumba Permit using a targeted and phased approach, which is, in the opinion of the author, the accepted method for exploring for basin type potash deposits. In the first

phase of the exploration work MLP planned to test the concept for the presence of the mineralisation within the north and south target areas. The exploration program was split into Phase 1 NW, focused on the location of the Ba drill holes, and eventually a later Phase 1 SW, focused around the location of the Banio drill holes. The access from the existing drilling camp to the area for Phase 1 SW exploration is very difficult, because of adverse topography (elevated plateau dissected by numerous valleys) and moving the camp closer to the southern target would mean that the adverse topography will need to be dealt with during further exploration. It is therefore recommended to focus on the north target (Phase 2 NW), which is more accessible, as accessibility is a major issue for a solution mining operation.

The Phase 2 NW exploration program aims to carry out further exploration drilling within the north target to expand the resource base or the area with resources in higher categories:

- Towards the SE of Ba-001 and SW of BA-004 by drilling of a new hole (Ba-005) at approximately E 730186, N 9583116 with a depth of about 700 m (top of salt at the base of cycle IX).
- Towards the S of Ba-002 by drilling of a new hole (Ba-006p) at approximately E 724445, N 9585495 with a depth of about 600 m (top of salt at the base of cycle IX), which would provide the data to evaluate the off-set along one of the inferred NW-SE striking faults.
- Towards the E of Ba-003 and NW of Ba-004 by drilling a new hole (Ba-007p) at approximately E 729710, N 9586281 with a depth of about 700 m (top of salt near top of cycle VIII), which would also allow to better constrain the strike of the indicated fault zone at Ba-001.

The core material from these drill holes can also be used for further test work for ongoing studies. In parallel to the phase 2 NW exploration, it is recommended to develop a Feasibility Study for a solution mining and brine processing operation on the outlined Mineral Resources to confirm that the mineralized material can be economically mined and to better define minimum thickness and grade criteria for definition of mineable potash seams. It is estimated that the phase 2 NW exploration with ~ 2,000 m of core drilling will take about 4 months and will cost in the range of 2.5 million USD including camp support and logistics. The feasibility study is estimated to take about 12 months at a cost in the range of 5 million USD.

Conditional upon a favourable outcome of phase 2 NW exploration a further exploration phase can be initiated which consists of drilling 4 to 5 exploration drill holes in the NW-block between the town of Mayumba and the Ba drill holes (present main camp location) on the headland between Banio lagoon and Atlantic Ocean. Results of this exploration phase will assist in defining the best location for project development taking into account thickness and grade, as well as accessibility of the deposit, and the best conditions for the development of a potash mining and processing operation, taking into account the presence of the nature reserve areas. It is estimated that this next exploration phase will cost about 7 million USD and take another 8 months. With the results of these phases the best option for the location of brine field and plant for the solution mining operation can be selected.

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2 Introduction and Terms of Reference

Millennial Potash Corp. (MLP or the “Company”), a Canadian registered company, has the option to acquire a 100% interest in the Banio Potash Project through the acquisition of Equatorial Potash Pty Ltd, and its 100 % owned in-country subsidiary Mayumba Potasse Sarl, (Mayumba Potasse). Mayumba Potasse a Gabonese registered company, holds the rights to the exploration permit “permis de recherché minière pour la potasse et sels connexes n° G5-595 dénommé “Potasse et sels connexes Mayumba” in the Republic of Gabon (ROG), herewith referred to as Mayumba Permit or Property. The terms of the Definitive Agreement, entered into by MLP and Equatorial Potash (owners of Mayumba Potasse) are further detailed in Section 4.

MLP is interested to develop the Mayumba Permit as a project for the production of Muriate of Potash (MOP) and has requested ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH (ERCOSPLAN) to update the previous Mineral Resource estimate (ERCOSPLAN, 2024, /7/), taking into account the data obtained from extension of the Ba-001 and the new Ba-004 exploration drill hole.

2.1 Terms of Reference

This Technical Report was prepared by Qualified Persons (QP) following the format of the National Instrument (NI) 43-101 Standards of Disclosure for Mineral Projects, NI 43-101 CP Companion Policy, and NI 43-101 Technical Report of the Canadian Securities Administrators, effective June 30, 2011 and in accordance with Canadian Institute of Mining (“CIM”), Metallurgy and Petroleum Best Practices and Reporting Guidelines and CIM Definition Standard for Mineral Resources and Mineral Reserves”, effective date May 10, 2014 (CIM, 2014 /3/).

The effective date of this Technical Report is November 11, 2025.

Copyright of all text and other matter in this document, including the manner of presentation, is the exclusive property of ERCOSPLAN and MLP as per the agreement signed between ERCOSPLAN and MLP.

ERCOSPLAN or ERCOSPLAN personnel do not have, at the date of this Technical Report, and have not had within the previous years, any shareholding in or other relationship with the Company and consequently consider themselves to be independent of MLP. ERCOSPLAN will receive a fee for the preparation of this Technical Report in accordance with normal professional consulting practices. This fee is not contingent on the conclusions of this Technical Report and ERCOSPLAN will receive no other benefit for the preparation of this Technical Report. ERCOSPLAN does not have any pecuniary or other interests that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to the Company’s Project.

2.2 Qualified Persons

The present Technical Report has been prepared by Dr. Sebastiaan N.G.C. van der Klauw of ERCOSPLAN. The author is a Qualified Person as defined in NI 43-101 (the "Qualified Person"). Dr. van der Klauw is a Senior Mining Geologist at ERCOSPLAN. Dr. van der Klauw has more than 20 years of experience in the potash mining industry. His mining experience includes salt (halite), carnallite, and sylvinite. Dr. van der Klauw's expertise is in the evaluation of the structure of potash deposits and the possible interactions between salt rocks and fluids. Dr. van der Klauw holds a Degree as Geologist from the Rijksuniversiteit Utrecht in the Netherlands and a PhD in Natural Sciences from the University of Bochum in Germany. Dr. van der Klauw has practiced in the area of potash mining since 1996 and has been associated with ERCOSPLAN since 1999. Dr. van der Klauw is a registered European Geologist with the EFG. He is a member of the Solution Mining Research Institute.

Dr. van der Klauw visited the Mayumba Permit and reviewed the core of the exploration drill holes Ba-001 and Ba-003 on October 16, 2022 and on a further visit from September 3 to September 7, 2025 the core of the exploration drill holes Ba-001 and Ba-004 was reviewed.

Dr. van der Klauw is responsible for all relevant Sections of the Technical Report.

2.3 Available Data

For the evaluation of the Property in this Technical Report, the author has relied on the information from the 2017 potash exploration drill holes:

- Ba-001
- Ba-002
- Ba-003

as discussed in Section 10.2. Furthermore, the information about

- the extension of drill hole Ba-002 from 516.25 m to a depth of 552.50 m in August 2023
- the extension of drill hole Ba-001 from 364.00 m to a depth of 678.00 m in March 2025
- the new Ba-004 exploration drill hole was drilled to a depth of 667.00 m in April and May 2025

as discussed in section 10.3, have been used. Further information from or near the Mayumba Permit is available from hydrocarbon exploration drilling in the 1970's by Elf Gabon (Banio-1 to Banio-4) and in 1991 (Banio-Tchigana 1, BATC-1) as well as in 2010 by Maurel and Prom (Banio-5). The available information from these drill holes is discussed in Section 10.1.

From the geological drilling reports for the 1970 Banio wells, it is evident that seismic exploration in the 1970's was carried out, but these seismic data, probably paper prints, are not available. The available seismic data consists of 34 lines (datasets) of about 411 line-kilometres and covers an area of approximately 600 km² over the southern part of the Property (Figure 1). The data were gathered in 3 different campaigns (BAN90, TMP90, and

The author has also relied on various sources of information obtained from exploration carried out in the same basin towards the south in the Republic of Congo (ROC), which has a longer history of potash exploration. Information used for comparison includes reports about the Holle Potash Mine (Feuga et al., 2005, /9/), the MagIndustries Corp. Mengo Project (Rauche & van der Klauw, 2015, /23/), the Kola project (SRK et al., 2012, /25/), the Dougou Project (Kore, 2015, /12/) and the DX Project (Kore, 2020, /15/) all 3 of Kore Potash, as well as from the Kanga potash project (Strauss & Rigny, 2022, /26/). The position of the other areas where recent exploration has been carried out with respect to the Mayumba Permit, is shown in Figure 2. A non-public archive holds all the information of the potash exploration campaigns carried out by Mines de Potasse d'Alsace) MDPA from the 1960's till the 1990's in the Congo Coastal Basin. Some non-public reports from the MDPA archive have been cited in other reports, and if no independent verification was possible, these reports have been cited as "report" in "other report", and are listed as unpublished in the reference list. Some literature that cites sources from this database include e.g. de Ruiter, 1974, /6/, van der Klauw & Grünschow, 2007, /26/, Pedley et al., 2016, /20/, van der Klauw et al., 2019, /29/. Where possible, all available historical information has been used to develop the geological model of the Banio Potash Project area.

The stratigraphy of the Congo Coastal Basin and the processes of evaporite precipitation, diagenesis, dissolution, and preservation, are topics of both historical and on-going research by numerous industry, academic, and government bodies and are listed in the reference section. The detailed stratigraphic correlations that are presented herein are based upon these reports; however, they have been modified as to the authors' personal experiences with the potash deposits of the basin.

Property description was obtained from the license document issued by the Ministry of Mines and Geology of the ROG.

The reader is reminded that the term "ore" should not be used, disclosed, or implied unless reserves have been estimated on the property. To be called ore, economic factors must be taken into account, and it must be possible to extract metals or minerals profitably from the ore. Where the term "ore" is used in this Technical Report, it is in the context of a direct quote taken from third-party reports or papers and as such is not compliant with recommendations set forth in NI 43-101.

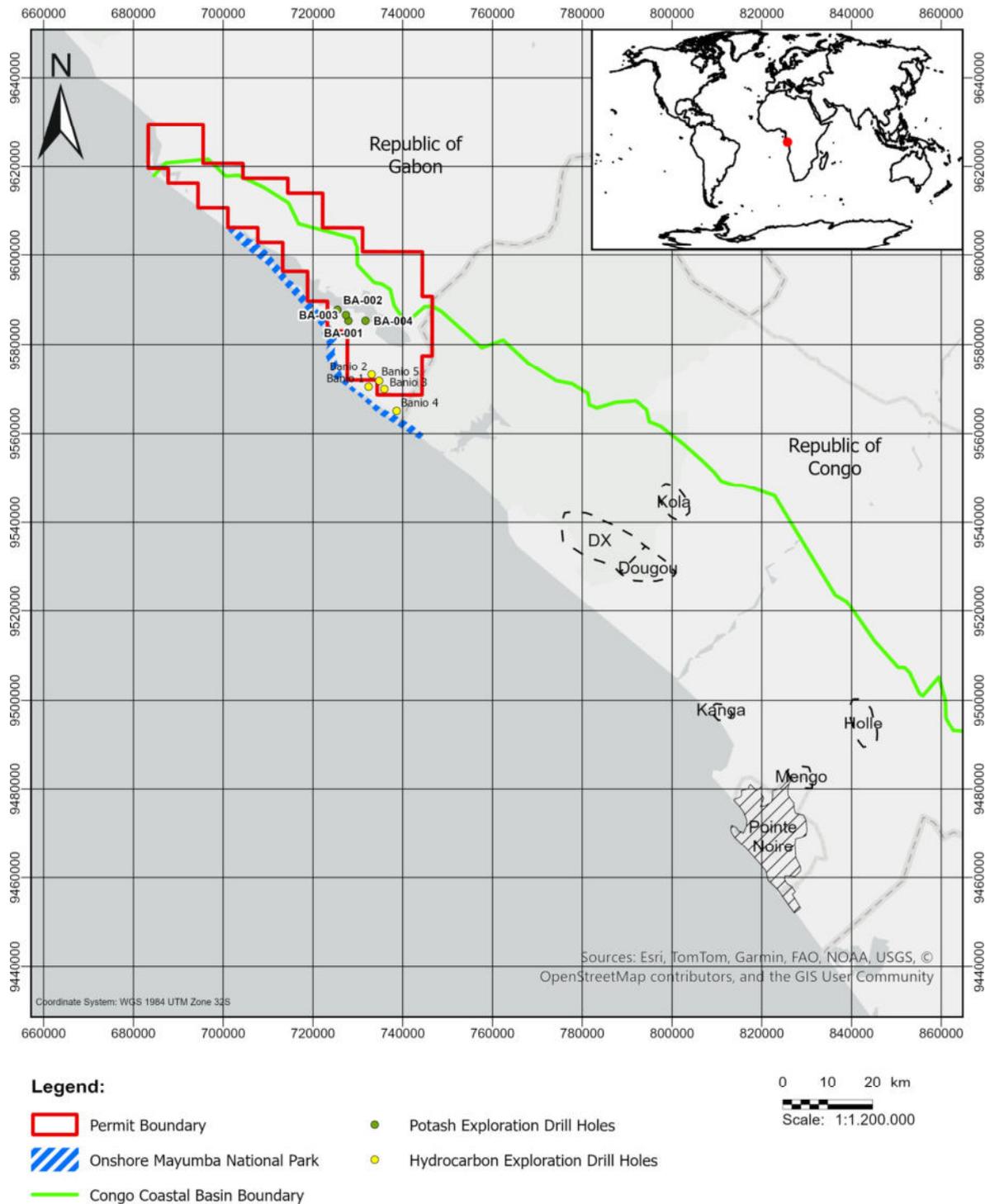


Figure 2 Property Boundaries of the Mayumba Permit and Other Areas Within the Congo Coastal Basin Explored Intensively for Potash

3 Reliance on Other Experts

The Qualified Person has not reviewed the property tenure, nor independently verified the legal status or ownership of the properties or underlying surface land option agreements. The results and opinions expressed in this Technical Report are based on the Consultants' field observations and the geological, legal and technical data listed in the References and Appendices. While the Consultants have carefully reviewed all of the information provided by the Company and believe the information to be reliable, the Consultants have not conducted an in-depth independent investigation to verify its accuracy and completeness.

The results and opinions expressed in this Report are based upon the aforementioned legal, environmental information or tax matters being current, accurate, and complete as of the date of this Report, and the understanding that no information has been withheld from the author that would affect the conclusions made herein. The Consultants reserve the right, but will not be obliged, to revise this Report and conclusions if additional information becomes known to the Consultants subsequent to the effective date of this Report. The Consultants will not be responsible for MLP's actions in distributing this Report.

Except for the purposes legislated under provincial securities laws any use of this Report by any third party is at that party's sole risk.

4 Property Description and Location

In the following sections the official location of the Mayumba Permit will be given together with further background about the Property as well as the Gabonese mining legislation.

4.1 Location and Tenure

The 1,238 km² area covered by the Mayumba Permit is located about 460 km south of Libreville the capital of the Republic of Gabon (ROG) and is located directly to the south of the small port town of Mayumba. The Mayumba Permit (APPENDIX 1), lies in the Nyanga province and its boundaries are given by the following coordinates (official datum in ROG, WGS-84) in the decree No. 006/MPGM/SG/DGMG/DLMEM. In this decree the boundaries are defined by the corner points as given in Table 1.

Table 1 Corner Points Defining the Mayumba Permit Boundary in Decimal Degrees (negative degrees are on the southern hemisphere, Lon. Longitude, Lat. Latitude)

Point	Lon.	Lat.	Point	Lon.	Lat.	Point	Lon.	Lat.
A	10.65	-3.35	M	11.20	-3.70	Y	10.97	-3.65
B	10.76	-3.35	N	11.22	-3.70	Z	10.92	-3.65
C	10.76	-3.43	O	11.22	-3.82	AA	10.92	-3.59
D	10.84	-3.43	P	11.20	-3.82	AB	10.87	-3.59
E	10.84	-3.46	Q	11.20	-3.90	AC	10.87	-3.56
F	10.93	-3.46	R	11.11	-3.90	AD	10.81	-3.56
G	10.93	-3.49	S	11.11	-3.87	AE	10.81	-3.52
H	11.00	-3.49	T	11.05	-3.87	AF	10.75	-3.52
I	11.00	-3.56	U	11.05	-3.77	AG	10.75	-3.47
J	11.08	-3.56	V	11.01	-3.77	AH	10.69	-3.47
K	11.08	-3.61	W	11.01	-3.71	AI	10.69	-3.44
L	11.20	-3.61	X	10.97	-3.71	AJ	10.65	-3.44

The original Mayumba Permit G5-595 was granted to Mayumba Potasse SARL by decree No. 0161/MMI/SG/DGPEM/DCMAE dated 23 February 2016. Mayumba Potasse SARL is a 100 % subsidiary owned by Equatorial Potash, which itself was a 100 % subsidiary of Plymouth Minerals Limited at that time. The first extension of the Mayumba Permit to Mayumba Potasse SARL was granted by the Decree No. 006/MPGM/SG/DGMG/DLMEM on February 04, 2022. Appendix 1 shows the second extension of the Mayumba Permit to Mayumba Potasse SARL which was granted by the Decree No. 000045/MM/SG/DGGSM/

DCDLM/SATM on March 21, 2025. Mayumba Potasse SARL is a 100 % owned Gabonese subsidiary of Equatorial Potash Pty Ltd.

No attempt to independently verify the land tenure information was made by the author.

4.2 Property Title in the Republic of Gabon

Mining activities in Gabon are governed by the law No 037/2018 from 11 June 2019 regulating the mining sector in the Gabonese Republic (JORG, 2019, /12/). This law was established to stimulate the development of mining and to guarantee the property rights of both, local and foreign investors. According to the law, the state owns all Mineral Resources, but exploration and exploitation of these resources by private parties is permitted through different types of mining permits, which are granted by decrees. The permit holders have both rights and obligations, as defined by the law No 037/2018 from 11 June 2019. For different commodities and scales of mining (artisanal, small-scale, large scale) the law defines different ways to obtain mining rights. For a commodity like potash in the ROG the mining rights are obtained in two stages:

- (1) The Exploration Permit (“Permis de recherches minières”) gives the holder exclusive prospecting and exploration rights in a defined area to unlimited depth for the mineral substances it is issued for. The maximum size for an exploration permit is 1,500 km². The permit is valid for 3 years and can be extended twice for a period of 3 years each time upon application by the holder. The operational modalities of the exploration (and also exploitation) activities are specified and formalised by a mining convention that is negotiated between operator and the ministry responsible for mining. Depending on the results of the exploration activities carried out under the exploration permit, the permit holder shall have priority as regards to the granting of an exploitation permit for the mineral substances covered by the exploration permit. This requires that a feasibility study and an environmental impact assessment have been prepared and have been accepted by the ministries responsible for mining, economics and the environment.
- (2) The “large scale Exploitation Permit” (“le Permis d'Exploitation Minière à grande échelle”) gives the holder exclusive right to carry out exploitation activities in an area defined by the license, to an unlimited depth and in respect of those mineral substances for which the exploitation permit is granted. The validity of the permit depends on the lifetime of the project reported in the official feasibility study and is either 10 years which can be extended upon request by the permit holder for a period of 5 years per extension, or 20 years which can be extended upon request by the permit holder for a period of 10 years per extension. When the license expires and no request for extension is filed, a mine closure plan must be submitted. The operational modalities of the exploitation are specified and formalised by a mining convention that is negotiated between operator and the ministry responsible for mining.

At each stage of the mining rights acquisition process several steps are required (e.g. application, “publication”, registration/filing payments, notarization, tax payments) before the application is converted to a permit. A full description of the process is documented in the law No 037/2018 from 11 June 2019 (JORG, 2019, /12/).

The registration payments to obtain an exploration permit amount to 1.5 million FCFA, with payments for the first extension amounting to 2.5 million FCFA and for the second extension 3.0 million FCFA. When the exploration permit is leased or sold to another company a payment of 10 % of the transaction value is due. An annual payment of 1,000 FCFA/km² of the permit area is due every year during the first validity period of the permit, 3,000 FCFA/km² is due every year of the second validity period of the permit and 5,000 FCFA/km² is due every year of the third validity period of the permit.

The registration payments for a “large scale exploitation permit” depend on whether the permit has a validity of 10 or 20 years and amount to 15 respectively 30 million FCFA with for every extension of the permit registration payments of 30 resp. 60 million FCFA. When the exploitation permit is leased or sold to another company a payment of 15 % of the transaction value is due. Annual payments based on the surface area of the exploitation permit are due as listed in Table 2.

Table 2 Annual Payments Due for a “Large Scale Exploitation Permit” for the Original Validity Period and for Extension Periods

Area (km ²)	10 year validity		20 year validity	
	Initial 10 year million FCFA	Annually during 5 year extension million FCFA	Initial 20 year million FCFA	Annually during 10 year extension million FCFA
≤ 10	5.0	6.0	6.0	7.0
> 10 ≤ 20	6.0	7.0	7.0	8.0
> 20 ≤ 30	7.0	8.0	8.0	9.0
> 30 ≤ 40	8.0	9.0	9.0	10.0
> 40 ≤ 50	9.0	10.0	10.0	11.0
> 50 ≤ 70	10.0	11.0	11.0	12.0
> 70 ≤ 90	11.0	12.0	12.0	13.0
> 90 ≤ 100	12.0	13.0	13.0	15.0
> 100	0.1 x area /in km ²)		0.12 x area in km ²	

Within a year after obtaining an exploration or exploitation permit the owner has to sign a mining convention with the ministry responsible for mining. The mining convention is valid for the time period of the permit and can be re-negotiated for an extension.

In case of the exploration permit the mining convention describes the minimum obligations the owner of the permit has made regarding exploration work in the permit area as well as special legal, fiscal, economic, customs and financial conditions negotiated between owner and ministry. If the owner of the permit does not comply with the minimum obligations regarding the exploration work or within 12 months of signature of the convention, sanctions can be issued by the ministry ranging from fines over reduction of the permit area to withdrawal of the permit. The mining convention between Mayumba Potasse and the Gabonese

government of 2017, remains in effect allowing exploration activities to continue on the project.

In case of a “large scale exploitation permit” the mining convention describes the investment schedule of the owner of the permit to construct the mine as well as special legal, fiscal, economic, customs and financial conditions negotiated between owner and ministry. This can also affect the free carried interest of 10 % in the project that is stipulated in the law No 037/2018 from 11 June 2019 (JORG, 2019, /12/). Sanctions can be issued by the ministry when the exploitation development work has not started 48 months after signature of the mining convention and range from fines to withdrawal of the permit.

4.3 Royalties and Taxes

For an exploration license no special royalties or taxes are due beyond what has been described in the previous sections. Royalties and taxes are due to the Gabonese Government during commercial production, requiring an exploitation license. These consist of:

- a levy of between 5 and 10 % on the gross value of the product, less processing, transportation and insurance costs (mining royalties), to be settled in the mining convention;
- a 35 % tax on the income of the company. The amount of corporate tax to be paid is affected by a number of items that have to be negotiated in the mining convention.

In order to obtain an exploitation license a mining convention has to be negotiated with the Gabonese government. This convention can regulate for example the percentage of free carried interest that the Gabonese government attains in the project (10 % according to the law No 037/2018 from 11 June 2019 (JORG, 2019, /10/), but negotiable), and what further % in the company the Gabonese government might obtain as any other investor. It is also used to negotiate a relation between income tax and royalties (income tax not below 35 % and royalty not below 5 %) as well as eventual tax exemptions for the Company during construction and initial operation.

Further royalties and taxes due are not known to the author of this Report.

4.4 Property Status

MLP has entered into an option agreement with Equatorial Potash to acquire up to a 100 % interest in Equatorial Potash. Equatorial Potash holds the Mayumba Exploration Permit via its Gabonese subsidiary, Mayumba Potasse SARL. MLP can acquire 100 % interest through staged cash payments, MLP share payments and by making minimum work expenditures on the project as outlined in Table 3.

The payments up to the milestone “release of the preliminary economic assessment study” have been made and MLP presently owns 70 % of the project.

Table 3 MLP share payments and project ownership for the different project development milestones. In italics are milestones that have been met.

Milestone	Cash [USD]	Shares	Ownership earned [%]
<i>Upon signing of the MOU</i>	<i>18,750</i>	<i>0</i>	
<i>Within 10 days of TSXV approval of the definitive agreement</i>	<i>257,000</i>	<i>650,000</i>	<i>25</i>
<i>Within 10 days of completion of the resource estimate report</i>	<i>150,000</i>	<i>550,000</i>	<i>51</i>
<i>On or before February 28, 2025</i>	<i>150,000</i>		
<i>Within 10 days of PEA/Scoping Study</i>	<i>300,000</i>	<i>1,000,000</i>	<i>70</i>
Completion of Phase 3 drilling, revised resource estimate	500,000	1,500,000	
Within 10 days of Completion of definitive feasibility study	3,000,000	2,500,000	100
Totals	4,375,750	6,200,000	100

4.5 Environmental Liabilities, Permits, and Risks for the Property

Part of the Mayumba Permit lies within the Mayumba National Park or the protection zone around the park. To the knowledge of the author no work for MLP has been planned or performed within the area of the park, but exploration work will take place in the protection zone around the park, which is allowed.

MLP complies with the requirements permitting access to the surface without restriction assuming adherence to the ROG Mining law (JORG, 2019, /12/) as well as with decree No 007/14 of August 01 2014 regarding the protection of the environment of the Republic of Gabon. As Plymouth Minerals did in 2017, MLP will engage environmental consultants (e.g. BICE) to manage the preparation of Environmental Impact Assessments (EIA) for the exploration program according to No 007/14 of August 01 2014 regarding the protection of the environment of the Republic of Gabon. The EIA, completed by Plymouth/Mayumba Potasse and accepted by the Gabonese government in 2017, remains in effect allowing MLP to continue on the project in the general area of the 2017 exploration activities.

Within or close to the Mayumba Permit the French company Maurel & Prom has, between 2007 and 2010, conducted oil and gas production tests on the drill hole Banio 2, but to the knowledge of the author of this report no permanent production infrastructure has been installed.

5 Accessibility, Physiography, Climate, Infrastructure, and Local Resources

5.1 Accessibility

Access to the Mayumba Permit can be gained by unpaved track or by boat using the lagoon from the town of Mayumba. Access by road is controlled and limited by the park rangers of the Mayumba National Park, who restrict the use of the unpaved tracks that run parallel to the ocean along the NW boundary of the Mayumba Permit. Boat is the preferred option to access the exploration site in the southern area of the Mayumba Permit.

The town of Mayumba has a sealed air strip, however no regular flights. The town also has small ports and there have been recent plans to significantly extend the Mayumba port to facilitate export of resources from southern Gabon. Access to Mayumba is via ~650 km of road from Libreville, mostly good quality paved roads, with two unpaved sections each a few km in length. Libreville the capital of Gabon has several direct international flights from Europe and several African capitals daily.

Within the Mayumba Permit itself there are no transecting roads. A small network of unpaved roads exists around the Banio Potash Project drilling camp, and a separate network of roads connects the historical hydrocarbon exploration drill holes in the SW as well as a further network present near the village of Ndindi in the southern part of the Mayumba Permit.

It is also possible to access the southern part of the Mayumba Permit by car (~300 km) from the city of Pointe Noire in the Republic of Congo, which is also serviced by several direct international flights from Europe and Africa. Only about 50 km of the route from the ROC are paved roads in reasonable condition. The remaining 250 km consist of unpaved roads that can be used in the dry season with a 4x4 vehicle but are sometimes inaccessible during the wet season. This southern route involves crossing the Kouilou River by bridge, and two additional large rivers that must be crossed by ferry.

5.2 Physiography, Vegetation and Fauna

The Mayumba Permit can be divided in 2 parts. The NW part of the Property consists mostly of a low lying (maximum ~ 30 m above sea level) sand ridges, up to 3 km wide, which separates the lagoon and Atlantic Ocean. This area is relatively flat and in lower parts swampy. The SE and E parts of the Mayumba Permit rise relatively steeply to a maximum ~ 85 m from the S and then slopes gradually towards the NW to elevation levels of around 40 m. This sloped area is intersected by steep sided and sometimes deep gullies at an elevation of around 20 to 30 m above sea level. The area is covered with primary jungle dotted with areas of open grassland clearings that may reach a few 100 m² in size (e.g. camp area, Figure 3).

The fauna of the area reportedly consists of large mammals including elephant, gorilla, chimpanzee, hippopotamus, and antelopes, as well as numerous small mammals, reptiles, and birds. In the swampy parts of the property small amphibians can also be found.



Figure 3 Open Area at the Mayumba Potash Camp Site

5.3 Climate

The Mayumba Permit is located in the Congo Coastal Basin which has a tropical climate characterised by high humidity and heat. The average temperature is about 25 °C and is up to 2 °C higher at the end of the wet season and 2 °C lower in the mid dry season. The dry season occurs from mid-May until mid-October with virtually no precipitation. The wet season is from mid-October until mid-May with an average over 150 mm of precipitation per month, mostly falling as short but strong showers.

During the wet season drilling operations might need to be stopped during the periods with strong showers.

5.4 Local Resources and Infrastructure

The Mayumba Permit is remote and to carry out the exploration work it will be necessary to have nearly all technical equipment and personnel available at the site. An independent exploration camp has previously been constructed and run by Mayumba Potasse between 2017 and 2018 in the southern part of the Mayumba Permit. This camp has been modernised and refurbished to support the ongoing exploration work.

The town of Mayumba with about 5,200 inhabitants and nearby villages have previously provided labourers for the exploration work. Technical personnel will have to come from either Port Gentil or Libreville and for specialized tasks expatriate personnel will need to be brought in. Food and fuel can be obtained locally in Mayumba or from the provincial capital Tchibanga however most other materials as well as spares for equipment will have to come from Libreville or out of country.

Mobile phone connection covers large parts of the northern part of the Mayumba Permit. However, a limited mobile phone connection exists in the southern part of the property. There are mobile phone towers in nearby villages in the south that can eventually be upgraded to allow mobile phone connection to cover most of the property, including access to the internet. For emergency back-up, satellite telephone connection is available.

For an eventual exploitation stage project, energy will be a major requirement. The hydro-carbon exploitation company PERENCO have recently agreed to bring a pipeline to the port area in Mayumba to provide gas to a proposed 20 mW power station that will be operated by the Gabon Power Corporation. The additional capacity for natural gas could be used by MLP, either for co-generation of steam and electrical power or just for steam generation and for product drying. Even though it is not yet clear whether and where a plant will be constructed, shipment of the final product (several 100,000 to million tonnes per year (tpy)), will require the construction of adequate port facilities near the town of Mayumba. MLP are in discussions with the operators of the future port facility in Mayumba, to ensure that there is adequate place for a potash facility and mooring of Panamax size ships at the future port.

6 History

Potash was discovered in the coastal Gabonese-Congolese Basin during oil prospecting in Gabon in 1935. In the early 1950's, SPAFE (Société Pétrolière de l'Afrique Française Equatoriale), a predecessor company to Elf Aquitaine, was granted the Mabora petroleum concession in an area around the town of Lambaréné. In 1954, SPAFE drilled hole Mabora Mamana-1 (MM-1) near Lake Azingo targeting oil below the salt layers. The MM-1 drill hole encountered the first ever indication of potash mineralization in central West Africa by intersecting a high grade sylvinite potash seam that reportedly graded 29 % K₂O. Several more holes were drilled also intersecting potash, however, potash exploration and hydrocarbon exploration concentrated on the Congo coastal basin further to the south. The Mayumba Permit in Gabon covers the northernmost on-shore extension of the Congo Coastal Basin.

The Congo Coastal basin has been intensively explored by numerous off-shore and on-shore drill holes and seismic surveys carried out since the 1950's. Most exploration was done for hydrocarbons and information is available from some of the drill holes from either the archive of Mines de Potasse d'Alsace (MDPA) or from published sources. There have also been several exploration campaigns specifically focused on potash, with relevant locations shown in Figure 2:

In the 1960's the MDPA drilled for the Syndicat de Recherches de Potasse au Congo (CPC) about 88 on-shore holes for potash exploration in the ROC part of the basin (historical drill holes with numbering K xx). Many of these drill holes were concentrated near the later Holle mine to define the Sylvite Resource there, but this campaign also provided a general outline of the potash deposit in the ROC part of the basin. This campaign ended with the opening of the Holle mine in 1969, which flooded in 1977 (Feuga et al., 2005 /9/). The information from this drilling campaign is not publicly available from the MDPA archive, but at least information from some drill holes is summarized in technical reports or literature for specific areas.

In the early 1990's MDPA drilled another series of 18 on-shore exploration holes (KOU xx) to delineate potential Sylvite resources at specific locations within the basin. This was combined with geophysical investigations near Lake Youbi, but this did not result in further works or definition of an area with Mineral Resources. The information from this drilling campaign is not publicly available from the MDPA archive.

Between 2005 and 2010, MagIndustries Corp. ran an exploration program and drilled 12 exploration holes and about 20 production holes for a carnallite solution mining project near Mengo. The results of all drilling are summarized in technical reports (e.g. Rauche & van der Klauw, 2015 /23/).

Kore Potash Limited (former Elemental Minerals Limited) has carried out exploration and development work in their Sintoukola Exploration License area and have within this license defined a Sylvite Reserve for their Kola project (SRK et al, 2012, /25/). The report contains locations, depth intervals and analysis of the 44 new drill holes used for resource definition. Further drilling has taken place near Dougou (2 holes) that in combination with historical holes resulted in the definition of a Carnallite Resource and for the Dougou extension (DX 18 holes) which resulted in the definition of a Sylvite Resource. The location of these holes can be obtained and also whether Carnallite or Sylvite is present from reports, but no exact thickness and grade information is available from these 20 drill holes (Kore, 2015, /12/, 2020 /13/).

Further potash exploration work has been carried out between 2010 and present within the Congo Coastal Basin, but the results are not publicly available or accessible. The company African Potash Limited has drilled 2 exploration drill holes in 2014 at their Lake Dinga prospect, but no information about location, depth, thickness and grade of the potash seams is provided (African Potash, 2017, /1/). The Chinese company, Zhengwei Technique Congo, drilled an exploration hole south of the Lake Dinga area, but except for coordinates no information is available about this hole.

Kanga Potash drilled 3 exploration drill holes within their Kanga License area south of the Kouilou River (Strauss & Rigny, 2022, /26/). This summary does not provide detailed information about location and mineralisation of these holes.

There is no public information available about the ownership of the Mayumba Permit for potash and related salts prior to Mayumba Potasse Sarl. On-shore exploration for oil drilling as described in section 2.3 has taken place near and within the property and provides some information about the potash potential of the permit. This information was used by CSA (2016, /4/), to define exploration targets for the Mayumba Permit area consisting of Carnallite and Sylvite mineralisation. Mayumba Potasse drilled 3 potash exploration drill holes (Ba-001, Ba-002 and Ba-003) in 2017 to better define the Sylvite mineralisation.

A Mineral Resource Estimate on the Property according to JORC has been announced in a press release in 2018 by Infinity Lithium Corp. (Infinity) with Inferred Resources amounting to 1.7 billion tonnes of salt at an average 16.1 % KCl (Infinity, 2018, /10/). This mineral resource estimate used the ALS assays for the potash samples of Ba-002 and Ba-003 (see section 11.1) and applied a Radius of Influence of 1,600 m around these 2 drill holes.

7 Geological Setting and Mineralisation

This section presents the regional geology of the area (section 7.1), a geologic model of the potash distribution (section 7.2), and the interpreted results of the exploration work, including definition of the potential extent of the mineralisation (section 7.3).

7.1 Regional Geology

Geologically, the Mayumba Permit is at least partly located in the Congo Coastal Basin which extends from Equatorial Guinea in the North, to Angola in the South (Feuga et al., 2005, /9/). The basin is of Aptian age (lower Cretaceous), and represents the eastern flank of the pre-Atlantic continental rift basin which continues on the opposite coast of the South Atlantic Ocean in the Sergipe Basin, Brazil (e.g. Davidson, 2007, /5/), where a potash deposit is being exploited. To the east, the Congo Coastal Basin is bordered by Pre-Cambrian crystalline rocks, known as the Mayombe basement (e.g. De Ruiter, 1974, /6/).

7.1.1 Lithostratigraphy

Because of intensive exploration for oil and potash in the ROC, the stratigraphy of the basin is well known. In general, the thickness of the sedimentary strata changes from larger thicknesses along the coast to less thick strata towards the east, close to the Mayombe basement boundary. From the bottom (older strata) to the top (younger strata), the following formations have been differentiated (Figure 4):

On top of the **Crystalline Basement** a series of grey-green sandstones with interbedded pyrite bearing green claystones, known as **Cocobeach Formation** (Série du Cocobeach, or Chela Formation) occurs. The contact between the Cocobeach Formation and the overlying evaporites is an unconformity.

The overlying evaporite sequence contains three individual formations,

- the Salt Formation at the bottom,
 - the Anhydrite Formation
- and
- the Dolomitic Limestone Formation at the top of the evaporite sequence.

The **Salt Formation** (Série Salifère, Loeme Formation) is divided into ten large depositional cycles, numbered by roman numbers (from bottom to top). Each of these cycles consists originally of several alternations of the sequence of rock salt, carnallite and sometimes with layers rich in Bischofite and/or Tachyhydrite. Locally, the Carnallite has been transformed to a secondary Sylvite (see Section 8). A thicker layer rich in insoluble material "clay" or clay rich rock salt defines the base of each cycle.

The Salt Formation is overlain by the **Anhydrite Formation** (Série Anhydritique, also Loeme Formation), which consists of alternating anhydrite and

marls each of up to 5 m thickness. The anhydrite is variable in appearance varying from nodular, brecciated, or laminated to massive. The marls are blue-grey to black in colour and are locally very clay rich.

The Anhydrite Formation is overlain by the **Dolomitic Limestone Formation** (Sendji Formation), which consists of several kinds of more or less dolomitised limestones with some layers of marl. The contact to the overlying strata, the Grey-Blue Claystone Formation, is gradational.

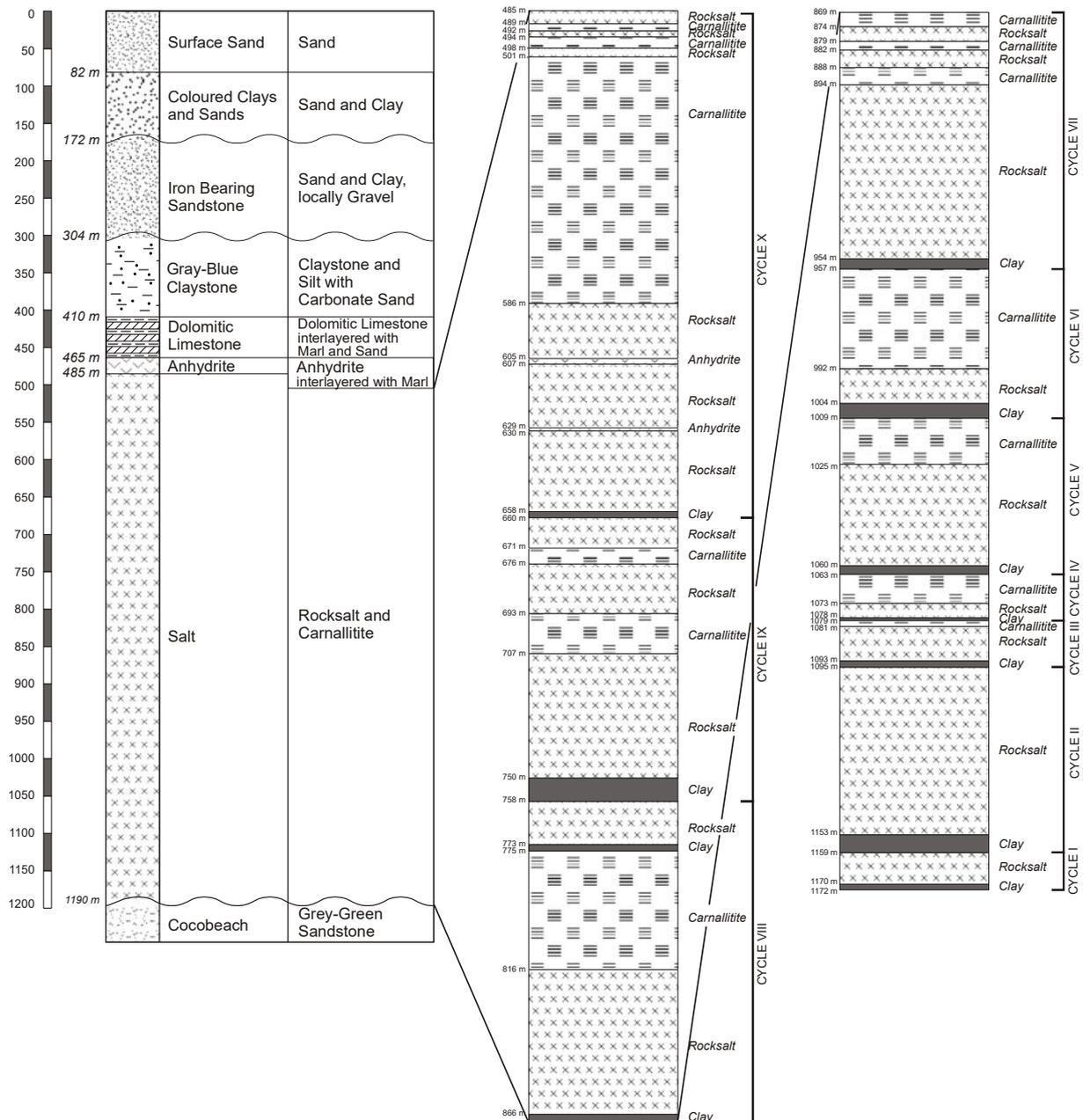


Figure 4 Stratigraphy of the Congo Coastal Basin simplified after Exploration Drill Hole K3 (Schlund & VandenBroucke, 1960, /24/ in van der Klauw & Grünschow, 2007, /26/)

The **Grey-Blue Claystone Formation** (Série Argilo-Grés-Dolomitique, Sendi Formation) consists of grey-blue to grey-green claystones to siltstones and fine-grained sandstones with a dolomitic cement and some layers/lenses of limestone. The contact to the overlying Iron Bearing Sandstone Formation is an unconformity.

The **Iron Bearing Sandstone Formation** (Sables Grossiers Ferrugineux, Paloukou Formation) consists of layers of relatively coarse-grained sandstones, locally with iron concretions and is separated by layers of plastic red clay strata. Occasionally, thin discontinuous lenses of gravel are observed. In the top of this series, phosphate horizons can be present. The unconformable contact of this series to the overlying Coloured Clays and Sands Formation suggests that the region has been tectonically active and that locally the phosphate horizons have been removed through erosion.

The **Coloured Clays and Sands Formation** (Série de Cirques) consists of alternating layers of sand and clay, which through lateritisation range in colour from yellow, over pink to dark red. If the phosphate horizons are missing, it is not always possible to distinguish between the Coloured Clay and Sands and Iron Bearing Sandstones and all are then referred to as Iron Bearing Sandstones.

Traditionally the **surface sands** are distinguished as a separate unit, but since they are just washed out or weathered Coloured Clays and Sands, they are often not separately mentioned.

It is not possible to precisely establish the boundaries for the 4 upper formations from drill hole cuttings and/or geophysical wireline logs only.

7.1.2 Tectonics

The evaporite rocks in the Congo basin are generally flat lying with a slight ($<< 5^\circ$) dip to the Southwest. Typically, towards the E the top of the salt is relatively shallow and only the lower cycles of the sequence are preserved, or upper cycles have not been deposited, whereas towards the W the top of the sequence occurs deeper and all 10 cycles are completely preserved.

The basin is divided into large blocks by approximately NW-SE striking fault zones that are usually interpreted as normal faults (MDPA, 1989, /18/ in van der Klauw & Grüşchow, 2007, /26/). Locally, as for example at the former Holle mine, uplifted blocks between relatively closely spaced NW-SE striking fault zones can occur (MDPA, 1987, /17/, 1989, /18/, in van der Klauw & Grüşchow, 2007, /26/). Similar structures are responsible for the sylvinitic mineralisation in the Kola permit held by Kore Potash (Pedley et al., 2016, /20/). The interpretation of the seismic data (Section 9), suggest a similar uplift structure for the block with the drill holes Ba-001, Ba-002 and Ba-003 (Figure 5).

The basin is further subdivided into smaller blocks by subordinate and less pronounced NE-SW striking faults (e.g. at Mengo, Rauche & van der Klauw, 2015, /23/). These faults seem to have been active during the opening of the South Atlantic in the Cretaceous and divide the basin in blocks with similar stratigraphy, but different thickness of formations (e.g. Brownfield & Charpentier, 2006, /2/). Such faults also have also been interpreted from the seismic data from the southern part of the Mayumba Permit (Figure 5).

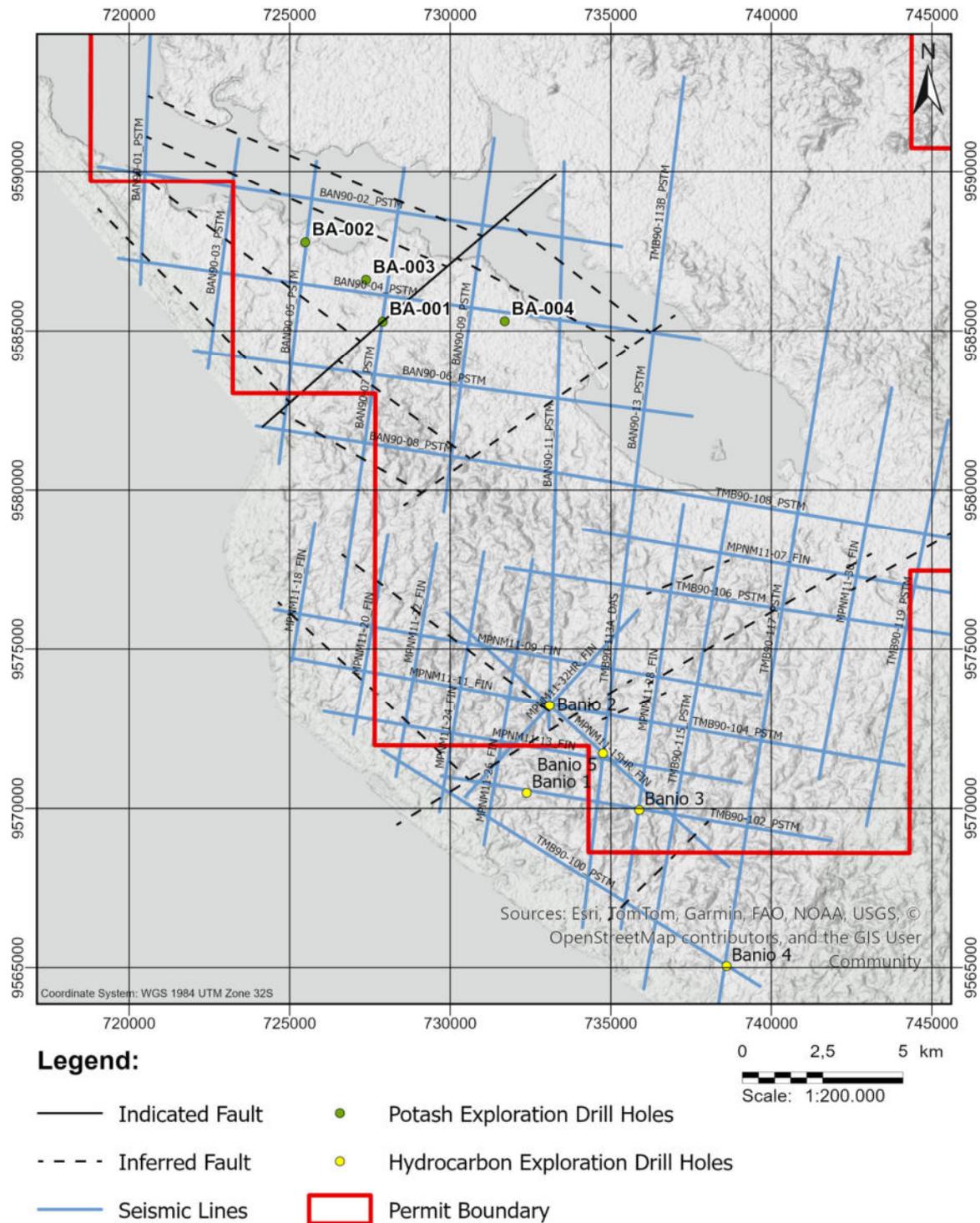


Figure 5 Interpreted fault structures constructed from the offsets of bottom or top of the evaporite section interpreted from the seismic sections and drill hole data

7.1.3 Hydrogeology

In the Congo Coastal Basin, the Coloured Clays and Sand Formation is the first potential aquifer, with direct contact to surface water and usually has hydrostatic pressure. Further down, groundwater is pressurized and can be encountered in coarse sand lenses of the Iron Bearing Sandstone Formation and also in the coarse-grained parts of the Gray Blue Clay Formation. In this formation, especially towards the Dolomitic Limestone Formation, the base of the strongly jointed Dolomitic Limestone Formation should also be considered as a potential aquifer in the succession (MDPA, 1987, /17/ in van der Klauw & Grünschow, 2007, /26/). In contrast to other evaporite basins, experience from the different drilling campaigns in the areas has shown that the contact of the Salt Formation to the Anhydrite Formation is generally dry.

7.2 Stratigraphic Potash Distribution in the Congo Coastal Basin

The potash in the Congo Coastal Basin is present as single seams of varying thickness ranging between a few cm up to 20 m (e.g. Rauche & van der Klauw, 2015, /23/). The potash seams are separated by rock salt with clay layers that also vary between a few cm thickness to over 100 m in thickness. The carnallite cycles (e.g. Figure 4), as well as single carnallite seams within these cycles can be correlated over large areas of the basin (e.g. Pedley et al., 2016, /20/). Depending on the position within the basin during deposition and development after deposition, the thickness of the seams or the cycle can vary between zero (not deposited or removed near the rim of the basin), to the maximum thickness in central parts of the basin. Even if potash seams do not have a constant thickness or even disappear, the thickness of the rock salt layers between the seams varies only gradually over the basin and allows correlation of the potash seams (or their positions within the sequence) over the entire basin.

The original subdivision of the evaporite cycles has been made by MDPA geologists (e.g. Schlund & Vandenbroucke, 1960, /24/) and within the cycles different potash seams have been assigned. An interlayering of potash and Halite dominated rocks with thickness of the Halite dominated layers below about 1 m have been grouped together as a single potash seam, but the boundaries of such seam are not unequivocal. The MDPA geologists have divided the evaporite sequence into 10 cycles containing numerous potash seams as summarized in Table 4.

A natural gamma ray log is the best tool to correlate cycles and seams between drill holes from the basin, however, the seams near the top of cycle VI and cycle VII can be extremely variable depending on the extent of Tachyhydrite mineralisation present at this level.

7.3 The Mineralisation in the Mayumba Permit

This section presents the interpretation of the available exploration data in and near the Mayumba Permit area to define the mineralisation in the Mayumba Permit and discusses first the interpretation of the exploration data (section 7.3.1). This will follow in part the seam concept of the MDPA geologists, but will combine some seams to horizons, especially

where the boundary of seams cannot be unequivocally defined. This is followed by a discussion about the grade and thickness of the potash seams and horizons of the different cycles (section 7.3.2) and what is known about the tectonics in the investigated area (section 7.3.3). The final section describes the concept of the geological model of the deposit (section 7.3.4).

Table 4 Cycles with Potential Number of Potash Seams and Some Typical Patterns

Cycle	Seams	Remarks
X	9	Seam 1 is a thin high grade Carnallite seam present 3 to 5 m below the remaining seams. The seams 2 to 6 consist of interlayers with variable thickness dominated by Carnallite or Rock Salt. Seam 7 is a 15 to 20 m thick high grade Carnallite seam, with a ~ 0.5 m thick clay rich barren zone near the middle. Typically, there is at least about 80 m rock salt between the first seam of cycle X and the last seams of cycle IX
IX	10	Seam 1 and 2 are high grade but thin and sometimes absent. Seam 3 typically has 6 to 10 m thickness at very high grade Carnallite, the upper seams are high grade, but thinner and may be mineable where the rock salt between the upper seams is relatively thin
VIII	8	Seam 3 typically has over 8 m thickness at high grade Carnallite. Seam 4 is variable in thickness between 1 and 15 m, with high grade Carnallite. Higher seams are usually relatively thin and separated by several meters of rock salt. Typically, there is 35 to 50 m rock salt between the first seam of cycle VIII and the last seam of cycle IX
VII	14	The lowermost 7 seams have a very typical thickness pattern (e.g. 0) of Carnallite and rock salt dominated layers. Seam 8 to seam 13 consist of interlayering of rock salt and Carnallite dominated layers, near the top Carnallite and Tachyhydrite dominated layers are interlayered. Carnallite seam 14 can occur on top of a variable thickness Tachyhydrite.
VI	12	Seam 12 can occur on top of a variable thickness Tachyhydrite bearing section, the remaining seams are not very typical
V	9	The base of cycle V is relatively thick (5-10 m) clay rich rock salt layer, the upper 5 seams can be grouped to a single thick seam, whereas the relatively thin lower 4 seams have a typical thickness pattern (e.g. 0)
IV	1	The single seam is typically high grade Carnallite in the lower part and consist of cm to dm scale interlayers of Halite and Carnallite in the upper part
III	2	Seam 1 is thin and low grade and often absent, seam 2 is a relatively thick homogeneous seam and readily recognisable
II	3	The two upper seams are low grade and often absent or thin, the lower seam is usually relatively thick with high grade Carnallite
I	0	Not basin wide developed

7.3.1 Discussion and Interpretation of the Available Data

To evaluate the extent of mineralisation within the Mayumba Permit, the 4 potash exploration drill holes (Ba-001, Ba-002, Ba-003 and Ba-004) and the 6 historical hydrocarbon exploration drill holes (Banio-1, Banio 2, Banio 3, Banio 4, Banio-5 and BATC-1) have been evaluated. The position of these holes is shown in Figure 1. The evaluation of the geophysical logs for the drill holes Banio-1 to Banio-5, BATC-1 and Ba-001 to Ba-004 allowed the author to distinguish between, overburden, clay and Anhydrite dominated rocks and within the evaporite section between rock salt, Carnallite dominated rock, interlayering of rock salt and Carnallite dominated rocks, Tachyhydrite dominated rocks, and interlayering of Carnallite and Tachyhydrite dominated rocks. Probably due to the use of an inadequate mud over the evaporite section (see section 10.1), the quality of the geophysical logging data of the Banio holes was insufficient to obtain a robust estimate about the Carnallite content of the seams, even for the drill holes for which at least a natural gamma ray, a density and a calliper log were available. The information of the Ba drill holes (and BATC-1) define a northern target area, whereas the Banio drill holes define a southern target area in the Mayumba permit. As discussed in the Initial Mineral Resource Estimate (ERCOSPLAN, 2024, /7/), there are differences in the number of cycles (and seams and their thickness) encountered in the drill holes from both areas, but the nature of the transition (e.g. abrupt fault controlled, or gradual controlled by basin dynamics) is not known. As there is no new information about the southern target area and the following discussion will concentrate on the northern target area.

For Ba-002 drilled and cored in 2017 and extended in 2023 there is a good correlation with the geophysical log of nearby hole BATC-1, except for the Cycles III and IV where, due to interlayering of relatively thin potash and rock salt seams with the basal cycle clay seams, a resolution of potash seams from the geophysical logs was uncertain. Therefore, the results of Ba-002 will be used for this location. The lithological and stratigraphic interpretation and correlation from the geophysical logs and core data of the drill holes Ba-001 to Ba-004 are shown in Figure 7. The figure indicates that Ba-001 differs from the other drill holes in several aspects. The top of the salt section as a potential near horizontal erosion surface is present:

- In Ba-001 at 323 m depth near the top of cycle VII,
 - In Ba-002 at 243 m depth near the top of cycle VIII,
 - In Ba-003 at 235 m depth in the middle of cycle VIII,
- and
- In Ba-004 at 252 m depth near the base of cycle IX.

The depth of this horizon is similar in the drill holes Ba-002, Ba-003 and Ba-004, but significantly lower in Ba-001, which also has not preserved Cycle VIII salt rocks. Furthermore, the thickness of Cycle VI and Cycle VII in Ba-001 is much larger than in the other drill holes and the layering in the salt rocks of Ba-001 in these cycles is not horizontal as in the other drill holes, but partly steeply dipping and shows internal folding (Figure 6) and thrusting (Figure 8). The interpretation is that the rocks present in Ba-001 has been deposited near or within a fault zone that was active during deposition of Cycle VI and Cycle VII, and showed activity again after deposition of at least Cycle IX and prior to deposition of the anhydrite formation. The fault zone is again interpreted to have been active after deposition of the dolomitic limestone and clay, carbonate sand formation and prior to deposition of the siliciclastic sand (stone) formation. This fault zone, separates a northwestern block with Ba-002 and Ba-003 that has been uplifted by 80 to 00 m compared to a southeastern block

with Ba-004. The relative uplift has been compensated by slightly thicker potash and rock salt seams in Cycle VII in Ba-004 compared to Ba-002 and Ba-003, a significantly thicker Tachyhydrite bearing section in Cycle VII of Ba-004 as well and preservation of complete Cycle VIII and the base of Cycle IX in Ba-004.



Figure 6 Core of Cycle VI at drill hole Ba-001 showing folded carnallite and banded rock salt

These drill holes suggest that

for Cycle VIII:

Seam 1 is too thin or low grade to be further considered. Seam 2 is present as an about 5 m thick Carnallite seam (Ba-003, Ba-004) or a 2.5 m thick Sylvite seam (Ba-002). Seam 3 is present as an about 4.5 m thick Carnallite seam (Ba-003, Ba-004) or a 2.5 m thick Sylvite seam (Ba-002). Seam 4 is present as a thin low grade Sylvite seam (Ba-002) or a combined Carnallite/Sylvite seam with either the Sylvite part (seam 4a, Ba-003) or the Carnallite part (seam 4 Ba-004) considered mineable. Further seams that might be mineable are Sylvite seams (seam 4b and 4c in Ba-003 and seam 8 in Ba-004), that in the other drill holes due to the transformation reaction of Carnallite to Sylvite have too low thickness or grade to be further considered.

for Cycle VII:

Seam 1 and 2 are taken together as a Carnallite horizon with 7 m (Ba-002 and Ba-003) to 11 m (Ba-004) thickness that in the deformed sequence of Ba-001 reaches a drilled thickness of 28 m. The seams 3 and 4 are separated by a 0.5 to 1 m thick low-grade layer and usually (Ba-002, Ba-003 and Ba-004) have been combined to a Carnallite Horizon with a thickness in the range of 5 m. In the deformed sequence of Ba-001 the low-grade part is thicker, and both seams have been reported as single Carnallite seam with 6 to 8 m drilled thickness. Seam 5 is present as an about 2.5 m thick Carnallite seam (Ba-002, Ba-003 and Ba-004) and deformed with a 6.8 m drilled thickness in Ba-001. Seam 6 is present as an about 2.5 -3 m thick Carnallite seam (Ba-002, Ba-003 and Ba-004) and deformed with a 7.7 m drilled thickness in Ba-001. Seam 7 is either too low grade or too thin for mining. The remaining seams are eventually mineable in one or two of the drill holes.

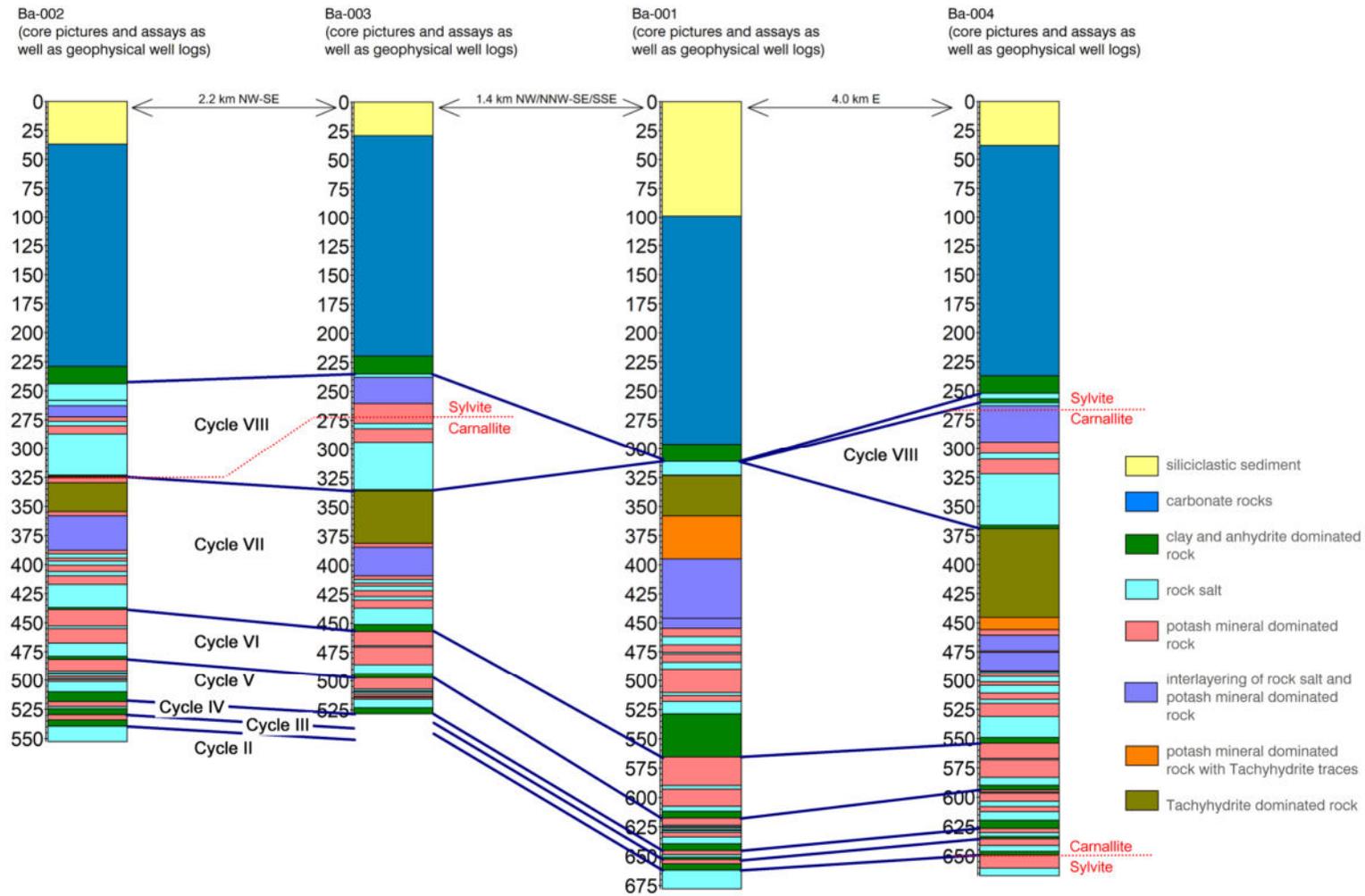


Figure 7 Correlation of the evaporite cycles and potash seams and horizons for the drill holes Ba-001 to Ba-004

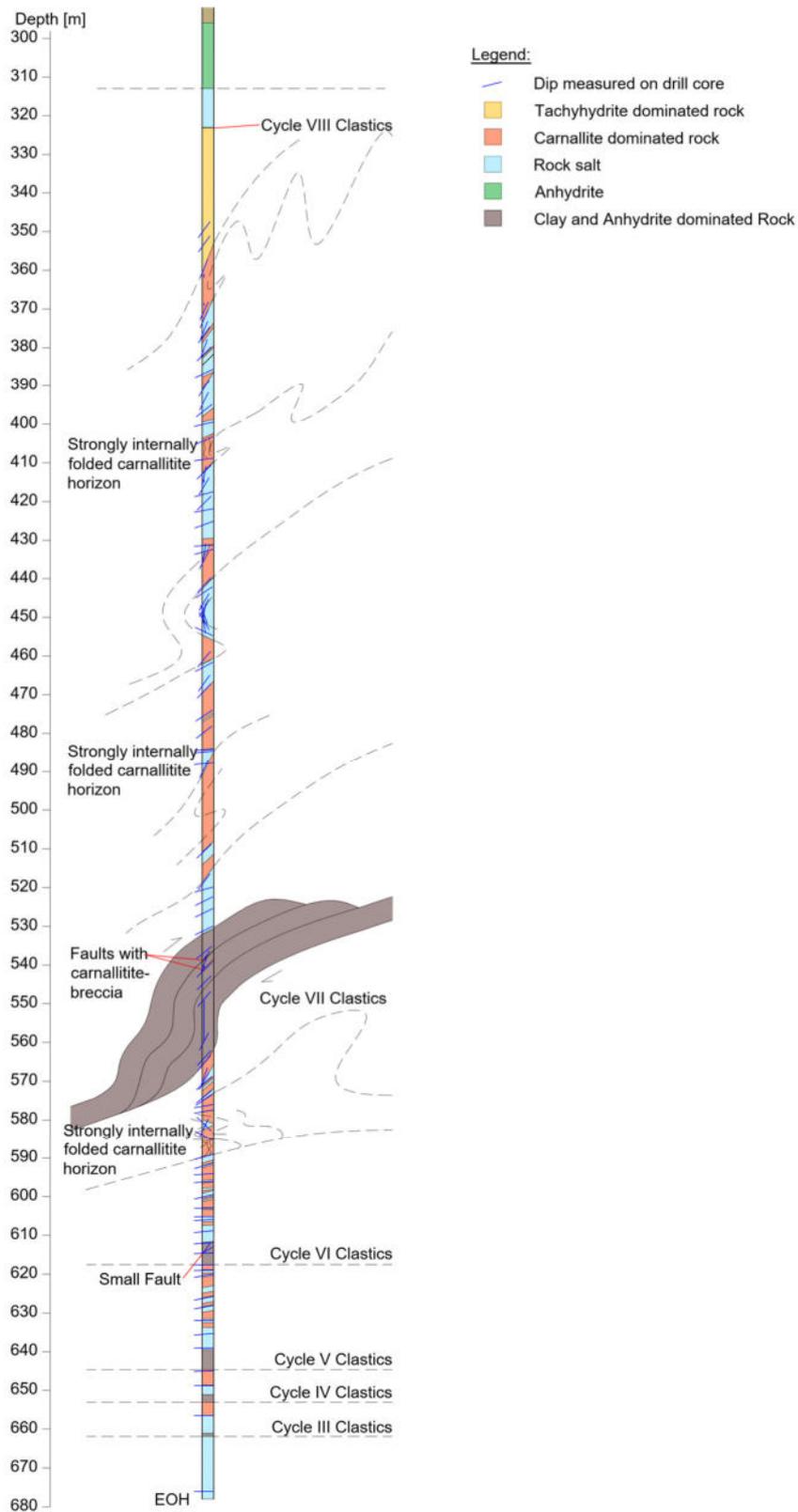


Figure 8 Structural interpretation of the bedding conditions encountered over drill hole Ba-001

For Cycle VI:

Seam 1 is too thin or low grade to be further considered. The seams 2 to seam 5 are grouped together in a Carnallite Horizon 2-5 that has a thickness in the range of 12 to 14 m (Ba-002, Ba-003 and Ba-004) or in the slightly deformed Ba-001 a drilled thickness of 15 m. The seams 6 to 11 are grouped together in a Carnallite Horizon 6 - 11 that has a thickness in the range of 14.5 to 16 m (Ba-002, Ba-003 and Ba-004) or in the deformed Ba-001 a drilled thickness of 24.5 m. Cycle VI has in this area no Tachyhydrite and seam 12 could not be distinguished from seam 11.

For Cycle V:

Seam 1 is too thin or low grade to be further considered. The seams 2 and 3 are separated by a 0.75 to 1.25 m thickness low grade seam and can be grouped together in a 4 to 4.5 m thick Carnallite Horizon. Seam 4 is too thin or low grade to be further considered. The seams 5 and 9 are separated by thin at maximum 1 m thick low-grade layers and grouped together in a 6 (Ba-001) to 11 m (Ba-002, Ba-003 and Ba-004) thick Carnallite Horizon.

For Cycle IV:

There is only a single seam with a thickness in the range of 2.5 m (Ba-001) to 4 m (Ba-002 and Ba-004). Ba-003 was not drilled deep enough to reach this seam.

For Cycle III:

Seam 1 alone is too thin or low grade to be further considered, but it is grouped together with seam 2 to make a Carnallite horizon with a thickness between 3.5 (Ba-001) and 5 m (Ba-002 and Ba-004). Ba-003 was not drilled deep enough to reach this seam

For Cycle II:

The drill holes Ba-001 and Ba-002 show some dispersed low-grade Carnallite mineralisation, whereas in Ba-004 a nearly 7 m thick sequence of Sylvite with minor amount of Carnallite is present and attributed to seam 1. Two single cm thick Carnallite seams found above the sylvinitic mineralisation can be attributed to potentially two further seams, that are too thin for further consideration.

The presence of Sylvite mineralisation instead of Carnallite suggests that a reaction between Carnallite and brine has taken place, which reduces the volume of solid salt. Whereas at the top of the sequence in Ba-002 the boundary between Sylvite instead of Carnallite is well defined at depths down to 325 m, and the maximum depth for Sylvite to Carnallite transition in Ba-003 is well defined at 276 m depth, in Ba-004 the boundary is not very well defined occurring between depths of 264 and 302 m, where seams area usually Carnallite dominated, but some Sylvite dominated or Sylvite rich carnallitite seams also occur. Similar observations have been made at the sylvinitic dominated areas on the Kore Potash properties, suggesting that the late brine infiltration postulated to cause this reaction did not develop everywhere along a single level. The Sylvite mineralisation in Cycle II at Ba-004, is based on the texture with broken up Halite layers present within the Sylvite (e.g. Figure 12), also interpreted to be due to the reaction between Carnallite and an infiltrating brine with reduction of solid volume. The presence of Sylvite instead of Carnallite in lower cycles has been occasionally reported from MDPA exploration drill holes from the ROC. This suggests that circulation of non-Carnallite saturated fluids through the potash seams after deposition was not uncommon.

The available exploration drill hole results and the seismic interpretation enables the definition of a potash deposit consisting mainly of Carnallite over most of the southern part of the

license area based on the very good correlation of potash seams and horizons between the Ba-holes in the NW and the Banio holes in the SE. Combined with the knowledge from the ROC where similar seams and horizons occur (ERCOSPLAN, 2024, /7/), this suggest that wherever the seismic interpretation shows a reasonable thickness of the salt bearing section (> 300 m), there is a reasonable prospect of finding similar potash seams or horizons when drilling within this area.

7.3.2 Thickness and Grade of Potash Seams and Horizons

Numerous potash seams and horizons have been identified in the previous section, and it is possible to provide accurate information about thickness and grade of the seams and horizons that are present in the drill holes Ba-001, Ba-002, Ba-003 and Ba-004. These drill-holes have, beside assay information from cores, high resolution natural gamma ray logs that have been used to verify depth and thickness of the seams and horizons identified from the assayed core samples.

Taking into account that the seams and horizons defined will be used for Mineral Resource Estimations, only seams that are potentially mineable and can be processed to a MOP product will be discussed. For a carnallite seam or horizon to be considered mineable by solution mining it has to be thicker than 2.5 m when single or > 1.25 m when other seams are present within 5 m vertical distance and have an average Carnallite content above 47 % (12.5 % KCl). For solution mining of sylvinite the thickness has to be above > 2 m and the Sylvite (KCl) content should exceed 16 %. Combined Sylvite/Carnallite seams (e.g. Cycle VIII seam 4 in Ba-003, cycle VII seam 14 in Ba-002) have been considered as separate seams. The seams encountered by the Banio drill holes in Cycle IX and X are not part of this Mineral Resource Update and were discussed in ERCOSPLAN (2024, /7/).

Based on the assay data and the geophysical logging data the potentially mineable potash seams 2, 3, 4 and 8 presented in Table 5 have been identified in Cycle VIII of drill holes Ba-002, Ba-003 and Ba-004. Seam 2 and seam 3 are separated by 2 to 2.5 m of rock salt have also been described in the Mengo area, however here the rock salt layer between the seams has a thickness in the range of 1 m only (Rauche & van der Klauw, 2016, /23/). Seam 4 consists of an interlayering of rock salt and potassium mineral dominated layers and either has been completely transformed to Sylvite (Ba-002) or partly transformed to Sylvite (Ba-002 and Ba-003). Seam 4 within the Mayumba Permit, might be relatively thick, but appears much more inhomogeneous regarding grade distribution than further south in the ROC. The average grade over the combined seams and the rock salt is reported as an average of 65 % Carnallite (~17 % KCl) at Mengo (Rauche & van der Klauw, 2016, /23/). This combined seam is called the Lower Sylvite Seam (LSS) in the Kola area, where it has 4 to 5 m thickness at a Sylvite (KCl) grade of 40 % to 50 % (SRK et al., 2012, /25/). Within the ROC seam 8 was never considered for mining.

Based on the assay data and the geophysical logging data the potentially mineable potash horizons/seams 1-2, 3-4, 5, 6-7 and 8 as well as 9, 10, 12 and 14 presented in Table 6 have been identified in Cycle VII of drill holes Ba-001 to Ba-004. Especially the seams 8 to 13 consist of a highly irregular interlayering of rock salt and Carnallite dominated layers (e.g. Figure 9), where the definition of top and bottom of the different seams is somewhat arbitrary. Even using the assay data it is often just a matter of a few cm, or a few 0.1 % of average KCl grade that make the difference whether or not a seam is considered potentially mineable and shown in Table 6 (e.g. seam 9 and 10 in Ba-002) or not (e.g. seam 9 and 10 in Ba-003). At the top of Cycle VII, drill hole Ba-002 shows a relatively high-grade potash

seam (seam 14), containing 2 m sylvinitic with 30.8 % Sylvite at the top and 2.9 m carnallitic with 62.8 % Carnallite at the bottom. This seam overlies a thick sequence of Tachyhydrite and was only observed in this single drill hole. Extrapolation of this potash seam over a larger area is not possible.

Table 5 Summary of seams considered mineable in Cycle VIII in drill holes Ba-002 to Ba-004. Th = Thickness, Min = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Ba-002			Ba-003			Ba-004		
	Th (m)	KCl (%)	Min	Th (m)	KCl (%)	Min	Th (m)	KCl (%)	Min
Seam 8							2.1	21.6	Sy
Seam 4a				2.7	18.4	Sy			
Seam 4b				2.3	19.0	Sy	1.8	15.2	Ct
Seam 4c				2.5	21.1	Sy			
Seam 3	2.1	24.6	Sy	4.6	17.0	Ct	4.7	14.4	Ct
Seam 2	2.7	25.2	Sy	5.1	14.5	Ct	5.5	14.1	Ct

Table 6 Summary of Carnallite seams/horizons considered mineable in Cycle VII in drill holes Ba-001 to Ba-004. Th = true thickness

	Ba-001		Ba-002		Ba-003		Ba-004	
	Th (m)	KCl (%)	Th (m)	KCl %	Th (m)	KCl (%)	Th (m)	KCl %
Seam 14							5.6	14.7
Seam 12	4.3							
Seam 10			1.3	13.4				
Seam 9			1.5	14.0				
Seam 8			1.6	12.6	1.4	14.5		
Seam 6-7	3.9	13.9	3.1	13.2	3.3	15.0		
Seam 5	2.9	15.2	2.6	15.5	2.6	16.8	2.4	14.4
Seam 4	2.7	15.4					5.4	15.1
Seam 3	3.3	15.2	5.4	14.6	5.0	15.0		
Seam 1-2	7.0	16.7	7.5	16.2	7.0	16.7	11.2	18.7



Figure 9 Core of Cycle VII at drill hole Ba-002 showing banded rock salt with Carnallite growth at the layers rich in insoluble material, resulting in an irregular carnallite rock salt interlayering (Core box length 1.0 m)

Since Cycle VII in drill hole Ba-001 is strongly tectonically overprinted, the true thicknesses were calculated from the average dip of the bedding and the structural interpretation (Figure 8). The following assumptions were made:

- Cycle VII seam 12 (near Tachyhydrite): The average dip of $\sim 65^\circ$ makes a factor of 0.42 for the true thickness. With a drilled thickness of 10.2 m, this results in a true thickness of 4.3 m.
- Cycle VII seam 6-7: The average dip of $\sim 60^\circ$ makes a factor of 0.5 for the true thickness. With a drilled thickness of 7.7 m, this results in a true thickness of 3.9 m.
- Cycle VII seam 5: The average dip is 30° but the seam has about double thickness due to internal folding. This makes a factor of 0.43 for the true thickness. With a drilled thickness of 6.8 m, this results in a true thickness of 2.9 m
- Cycle VII seam 4: The average dip is 30° but the seam has about double thickness due to internal folding. This makes a factor of 0.43 for the true thickness. With a drilled thickness of 6.3 m, this results in a true thickness of 2.7 m.
- Cycle VII seam 3: The average dip is 30° but the seam has about double thickness due to internal folding. This makes a factor of 0.43 for the true thickness. With a drilled thickness of 7.7 m, this results in a true thickness of 3.3 m.

- Cycle VII seam 1-2: The average dip is 60° but the seam has about double thickness due to internal folding. This makes a factor of 0.25 for the true thickness. With a drilled thickness of 28.1 m, this results in a true thickness of 7.0 m.

Based on the assay data and the geophysical logging data the potentially mineable potash horizons (combined seams) 2-5 and 6 to 11 presented in Table 7 have been identified in Cycle VI of drill holes Ba-001, Ba-002, Ba-003 and Ba-004. The 2 horizons are separated by about 1.5 m of rock salt with only traces of Carnallite. Although the horizons also consist of an interlayering of Carnallite dominated rocks with rock salt, the Carnallite dominated sections are generally thicker and the rock salt dominated section thinner than in the upper part of Cycle VII (compare Figure 10).

Table 7 Summary of Carnallite horizons considered mineable in Cycle VI in drill holes Ba-001 to Ba-004. Th = true thickness

	Ba-001		Ba-002		Ba-003		Ba-004	
	Th (m)	KCl (%)	Th (m)	KCl %	Th (m)	KCl (%)	Th (m)	KCl %
Seam 6-11	13.5	13.4	13.8	14.7	11.8	15.9	13.2	14.3
Seam 2-5	14.5	13.0	13.8	15.6	15.7	16.9	14.9	15.8



Figure 10 Core of Cycle VI at drill hole Ba-002 showing banded rock salt with Carnallite growth at the layers rich in insoluble material combined with more massive Carnallite, resulting in a carnallite dominated interlayering with rock salt (Core box length 1.0 m)

Since the upper part of Cycle VI in drill hole Ba-001 is also strongly tectonically overprinted, the true thicknesses were calculated from the average dip of the bedding (Figure 6 and Figure 8). The following assumptions were made:

- Cycle VI seam 6-11: The average dip is 45° but the seam has additional thickening resulting from internal folding. This makes a factor of 0.55 for the true thickness. With a drilled thickness of 24.4 m, this results in 13.5 m.
- Cycle VI seam 2-5: The average dip of ~ 15° makes a factor of 0.97 for the true thickness. With a drilled thickness of 15.0 m, this results in 14.5 m.

Based on the assay data and the geophysical logging data the potentially mineable potash seams/horizons 2, 3 and 5 to 9 presented in Table 8 have been identified in Cycle V of drill holes Ba-001, Ba-002, Ba-003 and Ba-004. The seams in the lower Cycles (III to V) all consist of layers dominated by nodular Carnallite with minor insoluble material and rock salt, which are separated by an interlayering of rock salt and insoluble material (compare Figure 11).

Table 8 Summary of Carnallite seams/horizons considered mineable in Cycle V in Drill Holes Ba-001 to Ba-004. Th = Thickness, Min = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Th (m)	KCl (%)	Th (m)	KCl %	Th (m)	KCl (%)	Th (m)	KCl %
Seam 9	6.2	13.1	10.1	13.6	9.8	14.6	2.0	17.8
Seam 5-8							6.9	14.8
Seam 3	4.0	15.6	1.9	21.6	2.2	20.1	4.6	14.6
Seam 2			1.6	16.2	1.6	19.1		



Figure 11 Core of Cycle IV at Drill Hole Ba-002 (extension), showing thick Layers dominated by nodular Carnallite, separated by an Interlayering of Rock Salt and Insoluble Material.

Based on the assay data and the geophysical logging data the potentially mineable potash seams/horizons presented in Table 9 have been identified in Cycles IV, III and II of drill holes Ba-001, Ba-002 and Ba-004. All seams consist of layers dominated by nodular Carnallite with minor insoluble material and rock salt, which are separated by an interlayering of rock salt and insoluble material. Drill hole Ba-004 is an exception because Cycle II contains a 6.9 m thick Sylvite dominated seam (Figure 12).

Table 9 Summary of Seams considered mineable in Cycles IV to II in Drill Holes Ba-001, Ba-002 and Ba-004. Th = Thickness, Min = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Ba-001			Ba-002			Ba-004		
	Th (m)	KCl (%)	Min	Th (m)	KCl (%)	Min	Th (m)	KCl (%)	Min
Cycle IV									
Seam 1	2.7	18.3	Ct	4.2	17.1	Ct	3.7	16.7	Ct
Cycle III									
Seam 2	3.5	18.1	Ct	4.8	18.7	Ct	4.9	20.9	Ct
Cycle II									
Seam 1							6.9	29.9	Sy



Figure 12 Core of Cycle II at drill hole Ba-004 showing layers dominated by Sylvite and Halite, separated by an interlayering of rock salt and insoluble material

Ba-002 as well as Ba-001 were extended to a depth where any potash mineralisation present in Cycle II as known from ROC should have been intersected. Therefore, at the locations of Ba-001 and Ba-002 it is certain that there is no Sylvite or Carnallite mineralisation in Cycle II.

The single potash seams and combined seams as horizons over all cycles are summarized in Table 33 in section 25.

7.3.3 Tectonics in the Northern Target Area of the Permit

This section discusses the tectonic situation and its implications for the extent of the mineralisation at the Mayumba Permit area. The discussion will combine the overall tectonic setting of the deposit area, the interpretation of the seismic data (section 9) and the observations from the available drill holes.

Based on the assumption that the opening of the South Atlantic controlled the structure of the basin, the general trend of the coast should be the strike direction of the main structures. Normal faults with potentially a significant vertical offset are expected parallel to the coastline, with a general minimal dip of the layering towards the coast in these fault blocks. This general trend with an overall dip of the sedimentary structures towards the SW is confirmed by the map (Figure 13) showing the depth of the base of the evaporite sequence constructed from the interpreted seismic sections.

The fault pattern constructed from the interpretation of the seismic sections combined with the depth contours (Figure 5 and Figure 13) indicates that the drill holes Ba-002 and Ba-003 are present on the same fault bounded block bound by NW-SE trending faults that are cut-off by a NE-SW striking fault zone, which was intersected by drill hole Ba-001. This fault zone either acts as a strike slip fault zone off-setting the normal faults from the northern block towards the south, or acts as a transform fault that facilitates movement along the short normal fault sections between these transform faults. Drill hole Ba-004 is located on a block southeast of the aforementioned fault zone.

The fault zone over Ba-001 consists of at least two NE-SW striking fault planes. Drill hole Ba-001 is located between these fault planes (Figure 8). Compared to Ba-002 and Ba-003 the depths of the cycles in Ba-001 suggest a significant vertical offset component, indicating oblique-slip faulting. The NE-SW striking fault showed first detectable vertical movements during deposition of Cycle VI and Cycle VII and a large SE-block with drill hole Ba-004 was moved downward compared to the large NW-block with drill holes Ba-002 and Ba-003. This displacement resulted in syn-sedimentary deformation and thickening at Ba-001 (e.g. Figure 8) and development of a thicker salt sequence in Cycle VII for Ba-004.

At the end of the deposition of the Cycle VII Tachyhydrite section, all Ba-drill holes had the same surface level. This was followed by the deposition of Cycle VIII and eventually Cycle IX (and further cycles). This was followed by the removal of Cycle IX (not completely in Ba-004) and part of Cycle VIII (in Ba-002 and Ba-003) prior to the deposition of the overlying Anhydrite formation, which occurs at approximately the same depth in these drill holes. The block with drill hole Ba-001 must have behaved differently, because the Anhydrite formation directly overlies the Cycle VII. This indicates that the complete Cycle VIII had been removed at that point, suggesting that Ba-001 was uplifted to a greater elevation. It is evident from Figure 7 that the boundary between the Salt and Anhydrite Formation in drill hole Ba-001 lies below the same boundary in the other three drill holes. Furthermore, the boundary between sand and dolomitic rocks occurs at a deeper level in drill hole Ba-001. This indicates that this small block has moved another time, independent of the surrounding blocks after deposition of the limestone formations and the siliciclastic formations.

7.3.4 Concept Geological Model for the Investigation Area

The basis for the concept of the geological model is that all potash seams originated as Carnallite seams and are present on large different fault blocks bound by normal faults, locally offset by near vertical “transform faults”. Drill hole Ba-001 is located on a small block within a NE-SW striking “transform fault zone”. Within each block the Carnallite seams were originally deposited as near horizontal layers with eventually a minimal dip towards the SW. The well correlation diagrams of Figure 7 confirms that this is a reasonable interpretation. The horizontal seams after deposition have been offset by NW-SE trending normal faults (locally eventually reversed) with a dip in the range of 65-70°, as interpreted from the seismic investigations. The Carnallite seams can be offset along these dipping faults, but all seams present in the relative upthrown block are present in the downthrown block too. If a drill hole on a downthrown block shows the presence of stratigraphic higher seams these are only extended over a relative upthrown block, when there is independent information about the magnitude of the vertical movement along the fault structure. The transformation of the Carnallite deposit to a Sylvite deposit, requires fluid infiltration and in the uppermost cycle only takes place in uplifted blocks (Pedley et al., 2016, /20/). Therefore, seams with Sylvite mineralisation are not extended over faults in downthrown blocks. These seams are probably present as Carnallite seams but are only modelled if they have actually been shown to be present in a drill hole in a downthrown block. Sylvite seams present in lower cycles are attributed to interaction shortly after deposition of the Carnallite seams by circulating brines. Presence of such single sylvinite seams within lower cycles have been reported from single potash exploration wells from the ROC and unlike the transformation Sylvite in the uppermost cycles (e.g. Holle structure, Kola structure) could in the ROC never be correlated over larger areas. This suggests that the extent of the sylvinite mineralisation in lower cycles does not extend over larger distances.

8 Deposit Type

The Congo Coastal Basin contains 2 potash bearing minerals;

- Sylvite, chemical formula KCl
- Carnallite, chemical formula $\text{KMgCl}_3 \cdot (\text{H}_2\text{O})_6$

A rock consisting mainly of Sylvite together with Halite is called sylvinite. Subordinately anhydrite, clay and or dolomite can occur. The latter two are taken together as insoluble material in the assays.

A rock consisting mainly of Carnallite, together with Halite is called carnallite. Subordinate highly soluble salt minerals Tachyhydrite and/or Bischofite as well as the minerals anhydrite, clay and/or dolomite with low solubility can occur.

In general, sylvinite deposits consist of relatively thin beds, with KCl content between 20 and 35 %, whereas carnallite deposits usually consist of relatively thick beds with KCl content between 8 and 24 %.

The sylvinite in the Congo coastal basin is secondary (e.g. Pedley et al., 2016, /20/) and requires that the original carnallite deposit type has reacted with water according to the reaction:



The presence of water in the carnallite salt rocks is a consequence of fault zones or other disturbances present. The sylvinite deposits in the Congo coastal basin, therefore, occur only locally and especially where they occur in the uppermost preserved cycles of a drill hole, the Sylvite mineralisation is usually structurally controlled (Pedley et al., 2016, /20/). Local Sylvite mineralisation in lower cycles is attributed to circulation of fluids through the seams deposited as Carnallite a short time after original deposition of the material.

The carnallite in the Congo Coastal Basin, which is the more common deposit, is considered a primary sedimentary rock. Single carnallite seams can be traced over more than 40 km (MDPA, 1992, /19/, in van der Klauw & Grünschow, 2007, /26/; Pedley et al., 2016, /20/) and a stratigraphic correlation of carnallite seams over the whole basin is possible. This conforms with the geological model for the deposit that considers that the carnallite occurs in sub-horizontal layers, extending over large areas, which are eventually only locally disturbed by NW-SE or NE-SW striking faults, resulting in thinning and thickening of single carnallite seams. The continuity of the potash seams is comparable with the potash seams in the Elk Point Basin in Saskatchewan, Canada.

The large number of potash seams in the sequence that can be considered for mining sum up to a potential economic thickness of the deposit of well over 100 m. This is larger than the 3 seams totalling 30 m to 50 m that are mined by solution mining in the Saskatchewan deposits and also significantly larger than the combined 3 seams that are conventionally mined in the Upper Kama basin in Russia.

Carnallite was the main potash mineral at the start of potash fertilizer production in Germany in 1865. It is still used for the production of KCl fertilizer in Germany at two locations. It is mined using solution mining techniques where the deposit has a thickness between 15 m and 35 m and also using conventional mining where structurally controlled thickness of the carnallite can reach up to 60 m.

9 Exploration

MLP initiated their exploration activities with the extension of drill hole Ba-002,. The results of this extension and the subsequent drill holes as well as the historical exploration drilling are described in section 10. Further historical exploration consists of several 2D seismic surveys shot over the southern part of the Mayumba Permit area for hydrocarbon exploration. From the geological drilling reports for the older Banio wells it is evident that there has been seismic exploration in the 1970's, but this information is not available. The available seismic data consists of 34 lines (datasets) of about 411 line-km that covers an area of approximately 600 km² over the southern part of the Property (Figure 1). The data were gathered in 3 different campaigns (BAN90, TMP90, and MNPM11) between 1990 (BAN and TMP) and 2012 (MNPM). The dataset was sent to SW Geophysics Limited for interpretation to define the top and base of the salt formation (No internal reflectors in the salt formation could be reliably correlated). The conclusions of SW Geophysics Limited (2023, /27/) about the data is summarized in the following paragraphs.

The file names for the BAN90 and TMB90 surveys have a PSTM suffix, indicating these lines have been Pre-Stack Time Migrated. Whilst there is no similar descriptor for the MPNM11 survey, the character of the stacks looks similar and appears to have been migrated too. The data quality is variable across the surveys. The Top of Salt/Anhydrite layer is the shallowest horizon consistently imaged on the MPNM survey, above this is dominated by noise and identifying shallower continuous events in these datasets is difficult. The Top of Salt dominates these stacks and the intra-salt layers are poorly defined when compared to the BAN90 and TMB90 surveys. Both the BAN90 and TMB90 surveys have improved shallow imaging with the Madiela level (Sendji Formation in the ROC) clearly defined. As the partly processed files are the only available data, reprocessing all data to get a consistent dataset is not possible. In the interpretation there will remain some uncertainty which corrections to what level (e.g. topography correction) have been applied.

To transform the time sections to depth a variable velocity model for the overburden has been applied. A velocity of 2,700 m/s was used in the NE area near drill hole BATC-1, with a gradual increase of the velocity to 3,400 m/s in the SW area near drill hole Banio-02. Beneath the Top of Salt horizon, a constant velocity of 4,500 m/s was used to the base of the dataset. The mis-ties when comparing seismic depths converted with this velocity model to drilled depths (BATC-1, Banio-1, Banio-2, Banio-3 and Banio-4) for the top of the salt range between 2 to 15 m. For the base of the salt the mis-ties are in the range 5 to 30 m.

Interpretation of both the Top and Base of Salt was carried out in the depth domain starting on line TMB90-102, due to its intersection with wells Banio-1 and Banio-3 and moving to intersecting lines ensuring a tie with the nearby wells. The Top of Salt was consistently picked on the positive amplitude giving the best match with the well markers and intersecting seismic lines. Tying between the northern and southern section of the surveys was complicated with only a single line linking the southern Banio-2 well to the northern lines, BAN90-11. This line intersects with the northern BAN90 lines on the edge of and across the marshland resulting in poorer data quality, reducing confidence in the tie.

Once the Top of Salt interpretation was completed this was fed into the depth conversion model and velocities of 4500 m/s flooded beneath. This gave a good correlation between the Base of Salt seismic event and the well markers. The Base of Salt was picked in a similar fashion propagating from areas of good data quality and reliable well ties. On the BAN90 and TMB90 this is a clear strong reflector allowing high confidence in the picks on these surveys. However, the image quality of the deeper structures on survey MPNM11 proved to be a limiting factor in the interpretation of the Base of Salt pick. The lack of tie

lines with either of the other acquisitions in the Southwest of the survey area reduces the confidence in the Base of Salt horizon here.

The 2D line interpretations were smoothed and interpolated to create 3D depth maps of the Top and Base of Salt and a Salt thickness map. Due to the relatively large uncertainties with respect to the interpretation of top and bottom of the salt sequence over the whole area the 3D depths maps were not included in the 3D model. The base of the salt sequence shows a relative consistent Northeast-Southwest deepening trend, whereas, the top of the salt shows a more irregular distribution reflecting eventually differential uplift with dissolution of salt rocks that were brought in contact with groundwater bearing overburden formations.

For the structural model, however, the position of faults that off-set the base and eventually also the top of the evaporite sequence on single seismic lines were interpreted by ERCOSPLAN geologists. Interpreted single faults on seismic sections either were near vertical or dipped usually in southern or western direction, depending on the orientation of the seismic line. Because no correction for topography was possible or documented for the seismic lines, only faults with significant offset (few 10 meters or more) could be identified. Using the locations of these interpreted faults on seismic lines, the position of single faults was estimated by combining interpreted faults with similar movement sense on different seismic lines to a network of intersecting fault structures as shown in Figure 5. The constructed NW-SE striking faults, have an interpreted dip of 65 to 70° towards the SW, whereas the NE-SW striking faults seem to be vertical. Because not all interpreted faults could be correlated between seismic lines, it cannot be excluded that further faults, probably with less vertical offset than the defined faults, are present within the defined blocks.

10 Drilling

The drilling carried out within or near the Permit Area consists of historical hydrocarbon drill holes Banio-1 to Banio-5 and BATC-1, the 3 potash exploration drill holes (Ba-001 to Ba-003) drilled by Mayumba Potasse (Infinity/Plymouth) in 2017. Between 2023 and 2025 MLP drilled the extensions of the drill holes Ba-001 and Ba-002 to greater depths and in addition the new drill hole Ba-004. Information about all 10 drill holes is given in Table 10 and the location of the drill holes is shown in Figure 1.

Table 10 Coordinates (UTM zone 32S, WGS 84 Reference) of the new Exploration Drill Holes (Infinity, 2018, /10/) and Historical Drill Holes (see text for references) and Reference Elevation in m above Sea Level. All wells were drilled vertical.

Name	Easting	Northing	Elevation	Depth (m)	Year	Owner	Goal
Banio-1	732381.5	9570418.8	50	2800	1972	Elf Gabon	Hydrocarbons
Banio-2	733095.5	9573210.8	47	2477	1975	Elf Gabon	Hydrocarbons
Banio-3	735890.5	9569951.8	70	1997	1977	Elf Gabon	Hydrocarbons
Banio-4	738603.5	9565043.8	38	1978	1978	Elf Gabon	Hydrocarbons
Banio-5	734753.5	9571719.8	41	1843	2010	Maurel & Prom	Hydrocarbons
BATC-1	725491.5	9587713.8	12	903	1991	Elf Gabon	Hydrocarbons
Ba-001	727893	9585295	5	368	2017	Mayumba Potasse	Potash
Ba-001 ext.	727893	9585295	5	678	2025	MLP	Potash
Ba-002	725483	9587774	6	516	2017	Mayumba Potasse	Potash
Ba-002 ext.	725483	9587774	6	552.5	2023	MLP	Potash
Ba-003	727379	9586599	5	528	2017	Mayumba Potasse	Potash
Ba-004	731697	9585318	26	667	2025	MLP	Potash

10.1 The Historical Hydrocarbon Drilling

Mayumba Potasse obtained information about the historical holes Banio-1 to Banio-4, BATC-1 and Banio-5 from the company Maurel & Prom. The information consisted of the historical geological drilling reports and the geological drilling logs for the drill holes Banio-1 to Banio-5 as well as for BATC-1. This documentation typically contains the information about the location and elevation of the drill hole, start and finish of the drilling operation,

depth and lithologic information of any cored sections along the drill hole, information about the type cuttings in the mud log and the stratigraphic interpretation of the geophysical well logs for the drill hole as well as an interpretation of eventual hydrocarbon reservoir rocks. The newer geological drilling reports often provide further information about the geothermal gradient (e.g. BATC-1, Banio-5). With exception of drill hole Banio-5, which has a natural gamma ray log of the evaporite section from measurement while drilling, all other drill holes have a suite of geophysical wireline logs, recorded after drilling the salt section. The available logs over the evaporite section from the holes other than Banio-5 are summarized in Table 11.

Table 11 Sections (from – to in m along the drill hole) with different available Geophysical Wireline Logs over the Evaporite Sections of the Drill Hole

Log	Banio-1	Banio-2	Banio-3	Banio-4	BATC-1
Calliper		383 – 1219	356 – 1259		26 – 600
Natural Gamma	0 – 1290	0 – 1219	0 – 1259	80 – 1289	0 – 600
Spectral Gamma					0 – 600
Resistivity	175 – 1290				236 – 600
Density		384 – 1219			231 – 600
Neutron Porosity					26 – 600
Photoelectric					0 – 600
Sonic	170 – 1290	380 – 1219	0 – 1259	400 – 1289	0.5 – 600

Technical Drilling Reports describing the different sections of the hole with equipment and consumables used for drilling are available from the drill holes Banio-3, Banio-4 and BATC-1. For drill hole Banio-5 this information is included in the more extensive geological drilling report. The Banio-5 report states that for this drill hole an oil-based drilling fluid has been used while drilling the evaporite section, which should minimise dissolution of all salt rocks present. From all other technical drilling reports the mud reports show that for the drilling of the evaporite section a NaCl saturated water-based drilling fluid was used. The use of such drilling fluid will result in dissolution of Carnallite and Tachyhydrite from the drill hole walls, which increases the uncertainty when interpreting wireline data from such drill holes. For Banio-1 and Banio-2 the information from the geological drilling logs suggests that these drill holes also have been drilled over the evaporite sequence using a NaCl saturated water-based mud.

Six spot cores of 18 m length have been taken from the evaporite section of drill hole Banio-2, with recovery of parts of the potash bearing sections in 3 cores. These sections have been assayed, but no detail assay information is provided in the “Salt Investigation Report”, except that the mineralogy of the potash bearing section is Carnallite, Halite and Sylvite. The description and the low-quality scanned core pictures show significant dissolution of the core over the Carnallite bearing sections. The dissolution and low quality of the core pictures make interpretation of the core data difficult.

The drill hole coordinates for all wells are given in UTM coordinates, but only for the hole Banio-5 from 2010, the reference system is provided (M'Poraloko). Since this is the youngest drill hole, it is assumed that the coordinates of all the older drill holes are also given with respect to this local reference system. The original M'Poraloko coordinates have been transformed to UTM (zone 32S) coordinates with the WGS 84 reference, and these are provided in Table 10 and will be further used in this Report. When the transformed WGS 84 coordinates of the drill holes are plotted on a WGS 84 referenced map or satellite image there are clearings or other indications of drilling platforms at these locations, suggesting that the assumption that M'Poraloko was the reference system for the original coordinates is correct.

10.2 The 2017 Exploration Drilling and the 2023 Extension

During the 2017 exploration drilling campaign 3 drill holes were completed. The locations of the drill holes were provided in UTM coordinates using the WGS 84 reference system (Table 10). The drill holes will be briefly described in the following section.

Drill hole Ba-001 was drilled between 17.03.2017 and 07.04.2017 using a S5000 rig with destructive drilling from surface to 329 m depth (within the salt section) using a bentonite based mud with a bit-diameter of 7 $\frac{5}{8}$ ". At this depth the hole was cased (5 $\frac{1}{2}$ ") and cemented to prevent any groundwater inflow during drilling of the underlying salt section. The salt section below the casing was continuously cored with wireline coring using a tri-salt mud. The cored section ranged from 328 to 364 m, with only fragments of cores recovered (cement ?) from 330 to 341.8 m depth. A comparison with the geophysical log suggested this core loss section was located in the salt section, eventually containing Tachyhydrite. The available core sections are stored at the Banio camp site and have been reviewed during the 2022 site visit.

The drilling was discontinued at 364 meters, because the last core sections showed steeply dipping carnallite. This was interpreted to be due to drilling into a fault. Experience from other locations in the basin, however, indicates that steep dipping carnallite section do often occur as loose blocks floating in a Tachyhydrite matrix. The normal horizontal potash bearing sequence continues below the Tachyhydrite bearing section and the extension of the Ba-001 drill hole in 2025 will be described in the next section.

Drill hole Ba-002 was drilled between 11.04.2017 and 20.04.2017 using a S5000 rig with destructive drilling from surface to 230 m depth (within top of the Anhydrite) using a bentonite based mud with a bit-diameter of 7 $\frac{5}{8}$ ". At this depth the hole was cased (5 $\frac{1}{2}$ ") and cemented to prevent any groundwater inflow during drilling of the underlying salt section. The Anhydrite and salt section was continuously wireline cored (PQ diameter) with a GEMSA rig using a tri-salt mud. The cored section ranged from 230 to 516 m, with no significant core loss. The remaining core sections after sampling for assaying are stored at the Banio camp site.

The drilling was discontinued at 516.3 meters. The reason to discontinue drilling was not provided in the documentation, but since the geophysical log of the hydrocarbon drill hole BATC-1 showed only minor natural gamma peaks below this section it is inferred that no further potash bearing sections were expected deeper down and the organic decomposition smell suggested the eventual presence of high-pressure hydrocarbons further downhole.

In August 2023 drill hole Ba-002 was extended to a depth of 552.5 m using a BD2000M rig and a tri-salt mud to evaluate for the presence of Carnallite bearing rocks in the deeper part of the evaporite section. The extension recovered PQ cores between 516.3 to 522.5 m depth and as the PQ core barrel got stuck at that depth, HQ cores from 522.5 m depth to 552.5 m depth were recovered. Drilling was stopped as no potash bearing sections were expected beyond this depth. Over these sections there was no significant core loss. The remaining core sections after sampling for assaying are stored at the Banio camp site.

Drill hole Ba-003 was drilled between 16.05.2017 and 14.06.2017 using a S5000 rig with destructive drilling from surface to 220 m depth (assumed in top of the Anhydrite) using a bentonite-based mud with a bit-diameter of 7 ⁵/₈". At this depth the hole was cased (5 1/2") and cemented to prevent any groundwater inflow during drilling of the underlying salt section. The cement did not set properly and with the start of PQ core drilling using the GEMSA rig and a tri-salt mud, mud losses were observed. The hole was recemented with the PQ rods as casing at a depth of 225.6 m. Drilling was continued with HQ diameter with the GEMSA rig using a tri-salt mud. The cored section ranged from 222 m to 528 m, with no significant core loss. The remaining core sections after sampling for assaying are stored at the Banio camp site and have been reviewed during the 2022 site visit.

The drilling at Ba-003 was discontinued at 528 m. The reason to discontinue drilling was not provided in the documentation, but since the geophysical log of hydrocarbon drill hole BATC-1 showed only minor natural gamma peaks below this section it is inferred that no further potash bearing sections were expected deeper down and the organic decomposition smell suggested the eventual presence of high-pressure hydrocarbons further downhole.

After reaching the final depth in 2017, all three drill holes were geophysical wireline logged with following logs being obtained:

- Calliper log
- Azimuth and Tilt log
- Natural gamma ray log
- Fluid temperature log
- Sonic logs (not in BA-001)
- Density log.

10.3 The 2025 Exploration Drilling and Extension

In March 2025 drill hole Ba-001 was extended from 364.00 m to a depth of 678.00 m. In addition, the new Ba-004 exploration drill hole was drilled to a depth of 667.00 m during April and May 2025. The locations of the drill holes are given in Table 10.

Drill hole Ba-001 was extended from 364,00 m to a depth of 678.00 m using a BD2000M rig and a tri-salt mud to evaluate for the presence of Carnallite bearing rocks in the deeper part of the evaporite section. The extension recovered HQ cores between 363.68 m and 678.00 m. Over these sections there was no significant core loss. The remaining core sections after sampling for assaying and rock mechanical testing are stored at the Mayumba Potash camp site and have been reviewed during the 2025 site visit.

Drill hole Ba-004 was drilled between 07.04.2025 and 18.05.2025 using an S5000 rig for the overburden section. A 10" casing was installed to a depth of 4.5 m to stabilize the top

section after collapse. The destructive drilling from surface to 75 m was carried out with a bentonite-based mud and a bit-diameter of 12 1/2". At this depth the hole was cased (8 1/2") and cemented. Drilling continued with bentonite-based mud and a bit-diameter of 7 5/8" to 256.8 m depth. At this depth the hole was cased (5 1/2") and cemented to prevent any groundwater inflow during drilling of the underlying salt section. Wireline coring with a PQ diameter started at a depth of 256.8 m, using the BD2000M rig and tri-salt mud. PQ cores were recovered at depths between 256.8.0 and 607.0 m. As the PQ core barrel became stuck at this depth, HQ cores were recovered at depths between 607.0 and 667.0 m. The cored section ranged from 256.8 m to 607.0 m, with no significant core loss. The exception is the depth between 503.6 and 506.8 m, where no cores could be recovered due to drill hole being flushed with fresh water in order to free stuck drill rods. The remaining core sections after sampling for assaying, dissolution tests and rock mechanical testing are stored at the Mayumba Potash camp site. This core has been reviewed during the 2025 site visit.

As drill hole Ba-004 approached its final depth, the extensions of drill holes Ba-001 and Ba-002 were geophysical wireline logged. After reaching the final depth of Ba-004, the drill hole was also geophysical wireline logged. Following logs were obtained from these drill holes:

- Calliper log
- Natural gamma ray log
- Fluid temperature log
- Conductivity log

11 Sample Preparation, Security and Analysis

This section describes the sample preparation, handling and security procedure for the core material of drill holes Ba-001, Ba-002 (both with extension) Ba-003 and Ba-004. This is followed by a description of the analytical procedures used for assaying by the initial ALS laboratory and the analytical procedures of the K-UTEC and SRC laboratories who re-analysed the potash rich samples. The samples from 2023 and 2025 (Ba-002, Ba-001 and Ba-004) were all analysed by SRC laboratory. In the last part of this section an evaluation of the assay quality for the different laboratories is provided.

11.1 Core Handling and Sampling Procedure

Infinity Lithium Corp. (Infinity) the owner of the project in 2017, established a standard operating procedure to guide the sampling process from source of the core at the drill rig to delivery to the laboratory, which was monitored by their staff. With minor modifications that will be pointed out, this procedure has been adhered to by MLP during ongoing exploration drilling.

Standard practice to ensure high core quality was a continuous control of the mud chemistry and physical properties by a dedicated mud technician, who adjusted chemistry and properties when necessary to avoid dissolution of potassium and magnesium bearing mineral from the core material. Chemistry and properties of the mud were recorded in daily drilling reports for each hole. Inspection of the core by the author indicates that the tri-salt used was properly maintained and there are no signs of dissolution of Carnallite or Sylvite from the core surface. Since it is not possible to design a water-based mud in equilibrium with Tachyhydrite, in sections of the core bearing this mineral some dissolution has taken place.

The assessment process to ensure core recovery includes the recording of drilling advance at the rig on the drill string against the length of core recovered. Core recovery was recorded at between 95 % and 100 % for all potash seams and the intervening evaporitic sequence. After measurement of the core, the core was divided in sections of at maximum 1 m length and wrapped in plastic liner after drilling, to prevent contact with the atmosphere. This was done to minimise reaction of the Carnallite with humidity from the air. The core with depth markers and top and bottom indicators was boxed in properly marked boxes and thereafter stored in a de-humidified core storage room where it is stored permanently except when logged or prepared for sampling over short periods. For the relevant carnallite and sylvinitic sections of the core, good recovery with no indications for dissolution at the core surface was recorded.

Before sampling all cores were photographed (e.g. Figure 9 to Figure 11) and logged with delineation of different rock types and recording the depth of the boundaries of different lithologies. The sampling was done as per the Company's sampling protocol. The original Infinity protocol envisaged marking samples between 15 cm to 50 cm length on the core over the visually determined boundaries between potash bearing rock and rock salt. One or two further samples were then taken in the rock salt section beyond the boundary to confirm low potash content of these sections. For the Sylvinitic bearing sections with relatively thin seams this provides a good resolution for the mineralized sections. Applied to the interlayering of rock salt and carnallite seams that are present in most cycles this results in a very large number of samples and a resolution of mineralized sections, which is not

practical for definition of Mineral Resources. Therefore, MLP for the Carnallite bearing sections increased the length of the samples to between 80 cm for irregular interlayering and 180 cm for very regular interlayering or homogeneous Carnallite sections. Only one sample was taken from a rock salt section beyond each carnallitite boundary to confirm the low potash content of these sections.

Before sampling for assaying the HQ core of the Ba-001 extension selected core samples were taken for rock mechanical test work. The PQ-core of drill hole Ba-004 was sampled for rock mechanical and dissolution test work. Samples for this test work consist of complete core and vary in length between 25 and 36 cm. In total 15 samples of rock salt and carnallitite with a total length of 3.85 m have been taken from Ba-001 for rock mechanical test work. Of the 3.85 m total core sample length 2.30 m consisted of carnallitite, compared to the 144.95 m of carnallitite of the in total 206.9 m sampled for assaying. In total 25 samples of rock salt and carnallitite with a total length of 6.41 m for rock mechanical test work and 35 samples of rock salt and carnallitite for dissolution test work with a total length of 10.64 m have been taken from Ba-004 PQ core. Of the 17.05 m total core sample length of Ba-004, 13.19 m consisted of carnallitite, compared to the 103.35 m of carnallitite sample length of the total sample length of 140.69 m collected for assaying. The samples for rock mechanical and dissolution test work have to be representative and therefore are taken from homogeneous sections of the core. The samples collected for assaying located above and below the complete core samples collected for test work are similar in composition, as is checked with natural gamma ray curves. At the end of the test work the dissolution test samples are completely dissolved and the brine is analysed to obtain compositional data for the sample.

In 2017, 2023 and also in 2025 HQ core to be submitted for analysis was sawn into two halves, one of which was retained and stored on site for record purposes and the other submitted to the laboratory for preparation and analysis. In 2017, PQ core was also cut in half and sampled though in 2023 and in 2025 only quarter core was sampled from PQ sized core. The core was orientated to ensure both halves were as similar as possible. Sampling of core was conducted with core pieces with lengths being between 15 cm and 25 cm after which the core was cut along a marked centre line which is orientated to bisect the maximum dip of the bedding where possible. The core was cut dry with a core cutting machine by company staff under the supervision of a company geologist. The core samples were packed in sealed plastic bags to prevent contact with air humidity.

The samples were then delivered and accompanied by Company staff to DHL couriers in the City of Libreville in locked transportation crates, after which the crates are airfreighted to the laboratory. The remaining core at the exploration site is wrapped in plastic, placed in core trays, indexed and then stored in a secure and de-humidified storeroom at the Banio camp site.

Because the exact mineralogical composition of the Tachyhydrite bearing sections is not of interest for the evaluation of the potash prospects of the property the author of the report does not consider the surface dissolution at Tachyhydrite bearing cores problematic. Taking into account the potential crystal size of the Carnallite as observed in the cores halving the core for a sample is definitely necessary for HQ core to obtain a representative sample, whereas with PQ or larger size core, quarter core sections are acceptable.

In the opinion of the author the procedure described has been adhered too and the potential relating to bias due to selective recovery/loss of material from the core ore preferential sampling is not considered an issue. The core handling, packaging, sample preparation as well as documentation to ensure a consistent chain of custody in the opinion of the QP in accordance with international standards.

11.2 Sample Preparation and Analysis

The sealed half core samples of Ba-002 and Ba-003 of 2017 were sent to ALS Global laboratory in Seville, Spain. At the laboratory all samples were crushed to < 2 mm, a 1 kg sample was then riffle split off, pulverized to 75 microns and a 100 g sample was utilised for the analysis. The analytical method was MS-ICP for the elements Ca, Fe, K, Mg, Na and S. The sample preparation for the MS-ICP analysis (dissolution in water) has not been detailed. The mass of insoluble residue remaining after dissolving the soluble salt minerals has not been reported. The main element Cl, which can make up nearly 50 % of the mass of a sample cannot be analysed with MS-ICP, however, it is considered good practice to have it analysed by another method.

The EXCEL files as well as laboratory protocols reporting the Na, K, Ca, Mg and S content in % per mass) for all samples analysed by ALS were checked for transcription errors. No transcription errors were found and the EXCEL files were used for further evaluation. For evaporite rocks the suite of elements provided by ALS is considered an incomplete assay as the information about Cl-content (main anion-component) as well as the mass of non-soluble material in a specified mass of water per mass of sample water (typically clay minerals, dolomite and eventually Anhydrite) are not available. Evaluation of the ALS analysis produced for a significant number of samples with high potash content mineralogical compositions for the rocks that made no sense (see section 11.3.2.3) and indicated that the K-content might be overestimated. It was, therefore, decided to re-analyse the powder rejects of samples with a potash content over 5 % in other laboratories. The samples with high potash content from Ba-003 and 10 samples from Ba-002 were re-analysed by the SRC laboratory (see below for the laboratory procedure) and the samples with high potash content from Ba-002 and 10 samples from Ba-003 were re-analysed by K-UTEC AG Salt Technologies. Two laboratories were selected for re-analysis of the pulps to allow for fast turnover and to have check sample results to compare the results of the laboratories.

The 2023 core samples of the Ba-002 extension, the selected Ba-003 2017 pulps and the 2025 core samples of Ba-001 and Ba-004 were sent to the SRC Laboratory in Saskatoon, Canada. At SRC the SRC's Potash ICP Analysis package designed for multi-element analysis of potash samples was used. Upon arrival at SRC Geoanalytical Laboratories core samples are jaw crushed to 60 % @ -2 mm and 100 g sub sample is split out using a riffler and transferred to vials. The subsample is pulverized to 90 % @ -106 microns using a puck and ring grinding mill to create a pulp. The grinding mills are cleaned between groups using Quintus quartz. The pulp is then transferred to a labelled plastic snap top vial. An aliquot of pulp is placed in a test-tube with 15 ml of 30 °C DI water. The sample is shaken. The soluble solution is then analysed by inductively coupled plasma optical emission spectrometry (ICP-OES). The method is suitable for the soluble analysis of commercial potash (Sylvite). The soluble solution is then analysed by ICP-MS. In addition, samples are analyzed Br and Cl by MS, plus insoluble content by gravimetry. SRC Geoanalytical Laboratories has been certified by the Standards Council of Canada (SCC) to conform to the requirements of ISO/IEC 17025:2005 (CAN-P-4E).

SRC provided for every sample a large suite of analysed elements, which are mostly present in minimal amounts and not relevant for the evaluation of the deposit. From the suite of elements analysed with ICP-OES the relevant components CaO, K₂O, MgO and Na₂O in % per mass (m%) as well as S in ppm have been selected for further evaluation. Added for the evaluation are the amount of Cl (in m%) and the amount of insoluble material (in m%).

At the K-UTEC laboratory the caked powdered samples of the selected 2017 Ba-002 pulps were milled again to get a representative sample with a grain size of approximately 50 µm

(90 %). Five grams of sample was dissolved in 300 ml boiling de-ionised water (100 °C), filtered for insoluble content and filled up to 500 ml, producing the solution for analysis. The determination of Sodium, Potassium, Magnesium, Calcium and Sulphur, was done according to DIN EN ISO 11885 by inductively coupled plasma optical emission spectrometry (ICP-OES) in dilutions of the original dissolved sample. The Sulphur (S) content was recalculated to sulphate (SO₄) content. Chloride was determined according to DIN 38405-1, by potentiometric titration with a silver nitrate solution. The insoluble content was determined gravimetrically from the dried material remaining in the filter from after the dissolution of the solid sample in 300 ml of water. K-UTEK's analytical laboratory is accredited in accordance with the requirements of EN ISO/IEC 17025, by the German Accreditation Body (DAkkS).

KUTEK reported the relevant elements Ca, K, Mg, Na, Cl, and the component SO₄ as well as the mass of insoluble material in m%.

11.3 Quality Assurance and Quality Control

National Instrument 43-101 and Exploration Best Practices Guidelines state that a program of data verification should accompany an exploration program to confirm validity of exploration data (CIM, 2014, /3/). Furthermore, the guidelines require a quality assurance quality control (QA/QC) program to be in place. There is a difference in the QA/QC strategy between Infinity and MLP and the strategies of both companies will be presented first, in a last section the methodology to check the plausibility of the results will be discussed.

11.3.1 Infinity QA/QC Strategy

The QA/QC strategy of Infinity relies on inserting standard samples and blanks samples with the samples send to the laboratory, which is a usual procedure for mineral projects. For the assaying of drill hole Ba-002 and Ba-003 either standard BCR-113 (~ 50.1 % K, 47.8 % Cl) or standard BCR-114 (~ 41.8 %, 53.3 % SO₄), were inserted as every 20th sample (in total 24 standards, 13 of BCR-113 and 11 of BCR-114). As blank samples sand was used, and samples were inserted every 40th sample (in total 23 blanks).

Although the assay results show reasonable reproducibility for the assay results of the blanks and standards, this is not the optimal choice of standards and blanks for a potash project in salt. The sand as a blank has the advantage that in principle nothing will go in solution and in the laboratory, you should find for all elements 0 as only de-ionised water is measured. Since the standards used show that the element of interest is potassium it would have been more realistic to have pure sodium chloride as background for the 0 measurement for potassium. The standards consist of a high-grade KCl material (BCR-13) and a high grade K₂SO₄ material (BCR-14). The maximum K-content in the samples which consist of a mixture of potash minerals and other salt minerals is significantly lower and the eventual influence on the assay of the elements from other salt minerals in a sample are not accounted for in the standards.

To the knowledge of the author of this report Infinity did not send any samples to a secondary laboratory for check analysis.

11.3.2 MLP QA/QC Strategy

The QA/QC strategy of MLP relies on the laboratory internal QA/QC for measurement of blanks and standards and on check analysis by different laboratories with a track record in analysis of potash salt rock samples to verify the results.

11.3.2.1 Laboratory internal QA/QC

Both laboratories used by MLP have an internal QA/QC procedure. At the K-UTEC laboratory the procedure consists of:

- a daily blank control for every analytical parameter, (in the case of brine samples, this is deionized water).
- Every determination run is also controlled by the measurement of a commercially available standard solution of at least one of the specified ions.
- Daily, one selected sample is analysed twice for the control of the standard deviation of every single parameter.
- All quality control data is graphed for long-term quality analysis and it is reviewed by the laboratory quality manager.
- The laboratory periodically takes part in Round-Robin Tests to prove the reliability of its analytical methods.

The internal procedure by SRC consists of at minimum:

- Every 20th sample one of two available internal potash standard is analysed.
- At least every 40th sample a randomly selected sample is analysed twice for the control of the standard deviation of every single parameter.
- All quality control data is graphed for long-term quality analysis and it is reviewed by the laboratory quality manager.
- The laboratory periodically takes part in Round-Robin Tests to prove the reliability of its analytical methods.

These are standard laboratory procedures and the reported data for the standards show that both laboratories produce results that have a reproducible accuracy and precision.

11.3.2.2 Results of the Check Samples

With the assay results for Ba-002 samples the ALS laboratory and the K-UTEC laboratory can be compared. The assay results from Ba-003 allow a comparison between the ALS laboratory and the SRC laboratory. Because 10 Ba-002 samples were also analysed by the SRC laboratory and 10 Ba-003 samples by the K-UTEC laboratory a comparison between these two laboratories is also possible. In the following the results will be presented for the main elements (usually present at concentrations > 5 %) analysed and the implications are discussed in section 11.3.2.3.

The comparisons between ALS laboratory and K-UTEC laboratory for Potassium, Magnesium and Sodium for the samples of Ba-002 are shown in Figure 14. In these figures the green line represents a 1:1 correlation between the results of the laboratories and the red line marks a 10 % difference between the results of the laboratories. With regards to K and Mg, the ALS laboratory clearly tends to overestimate the K- and Mg-content of the sample when compared with the K-UTEC laboratory, quite often by more than 10 %. For Na the discrepancies are smaller with a slight tendency by the ALS laboratory compared to the K-UTEC laboratory to overestimate the Na- content at low Na-content (< 15 %) and to underestimate the Na- content at higher Na-content (> 20 %).

The comparison between ALS laboratory and SRC laboratory for K, Mg and Na for the samples of Ba-003 are shown in Figure 15. With regards to K and Mg, the ALS laboratory tends to slightly overestimate the K and Mg content of the sample when compared with the SRC laboratory. For Na the discrepancies are smaller with a slight tendency by the ALS laboratory compared to the SRC laboratory to underestimate the Na-content.

The comparison between K-UTEC laboratory and SRC laboratory for K, Mg, and, Na is shown in Figure 16, and for Chloride in Figure 17. There is a good correlation between the analytical results of both laboratories with the SRC laboratory having a tendency for minimal higher K-content compared to the K-UTEC laboratory. There are, however, for K-content 2 outlier samples with a difference over 10 %. These 2 samples also have a large deviation in the other direction for sodium, suggesting that the deviation is not due to differences between the laboratories, but rather due to inadequate homogenization of the clumped powder sample material, when separating the samples for the 2 laboratories.

11.3.2.3 Plausibility Check

With an assay for typical salt rocks the combination of analysis of the cations K, Na, Mg and Ca and the anions Cl and SO₄ in the dissolved sample typically provides about 99 % of the ions present in the solution. This has 2 consequences that can be used to check the quality of the assays:

1. There must be a balance between the positive charged cations and the negatively charged anions in the solution;
2. It should be possible to re-combine the cations and anions to the salt minerals that have been dissolved from the sample and estimate the mineralogical composition of the original sample (if the mineralogical composition is relatively simple, which can be checked by XRD analysis).

Because the ALS assays did not provide results for the Chloride test the charge balance test could not be applied to these assays. For the complete SRC and K-UTEC assays this test could be applied. Based on experience with assays from many different potash deposits an assay is considered suspect by the author if the absolute difference

$$2 * (\text{cation charge} - \text{anion charge}) / (\text{cation charge} + \text{anion charge}) * 100 \%$$

is larger than 2.5 % and such assay requires further scrutiny. All the assays of the SRC and K-UTEC laboratories passed this test, usually with absolute charge balance errors below 1 %, suggesting internally consistent results for the assays.

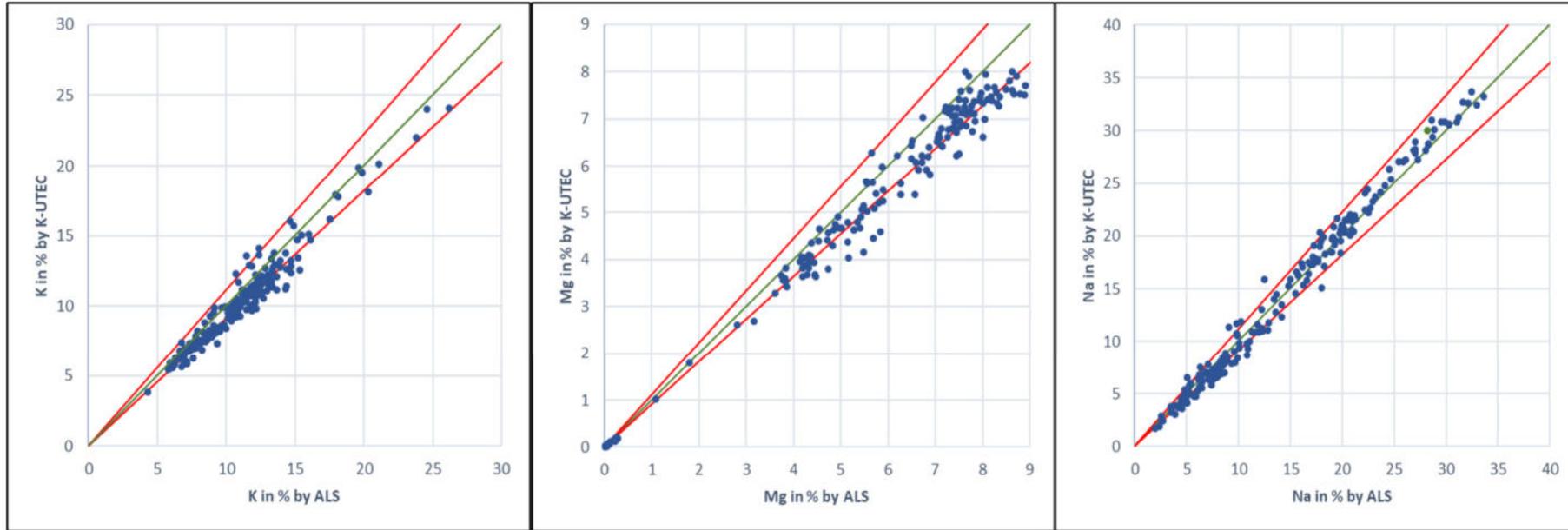


Figure 14 Comparison between the Assay Results for K, Mg and Na by ALS Laboratory and the K-UTEC Laboratory for re-analyzed Samples of Ba-002. The Green Line is a 1:1 Correlation, whereas the Red Line marks a 10 % Deviation from the 1:1 Correlation

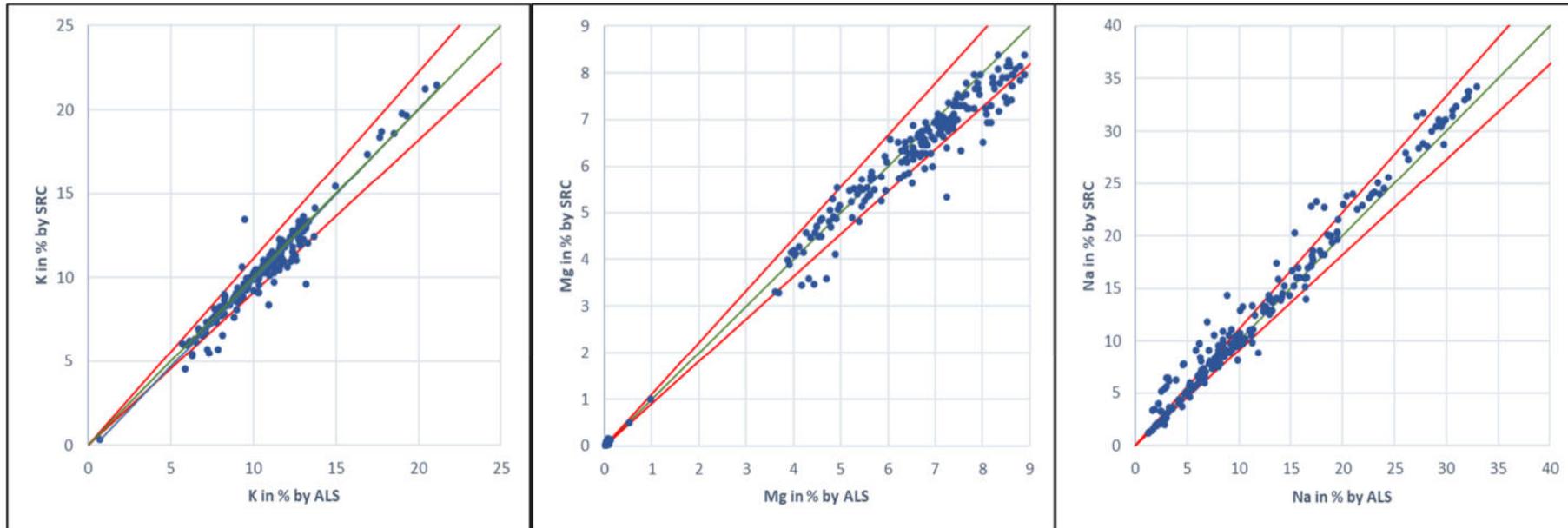


Figure 15 Comparison between the Assay Results for K, Mg and Na by ALS Laboratory and the SRC Laboratory for re-analyzed Samples of Ba-003. The Green Line is a 1:1 Correlation, whereas the Red Line marks a 10 % Deviation from the 1:1 Correlation

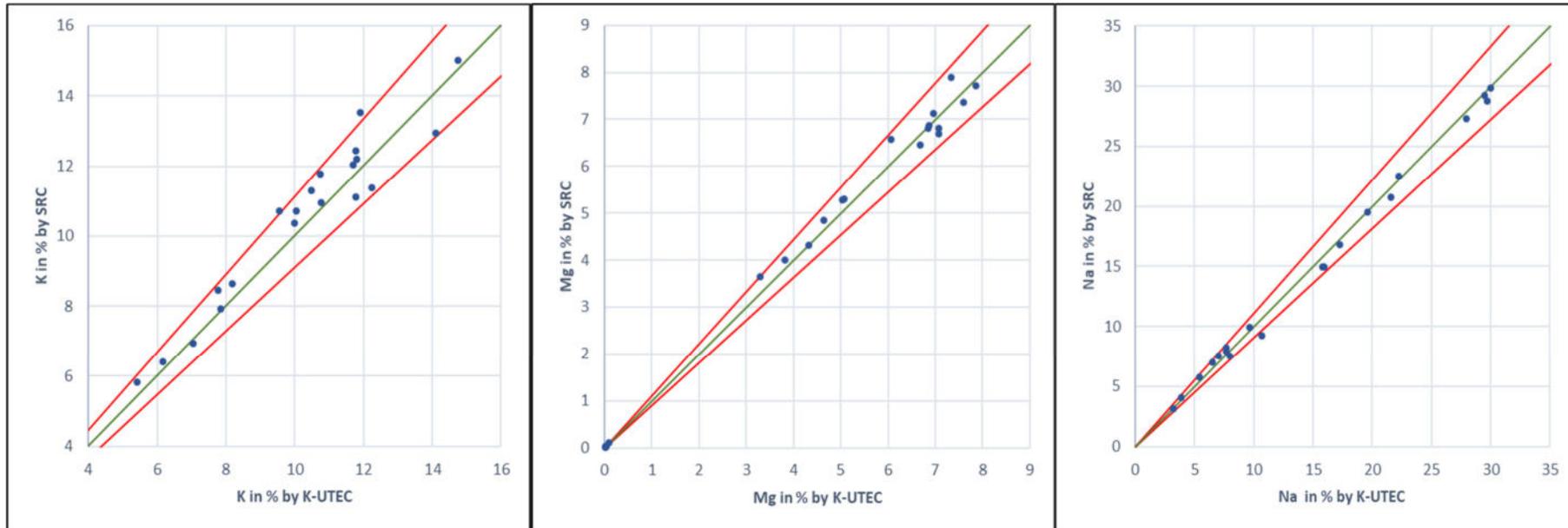


Figure 16 Comparison between the Assay Results for K, Mg and Na by K-UTEC Laboratory and the SRC Laboratory. The Green Line is a 1:1 Correlation, whereas the Red Line marks a 10 % Deviation from the 1:1 Correlation

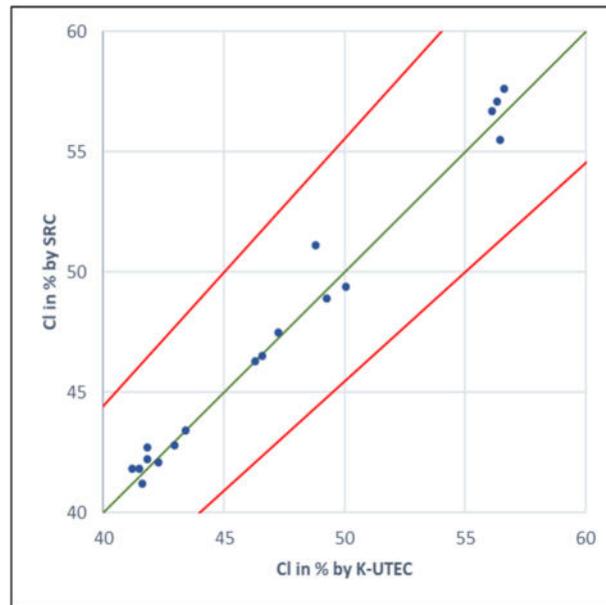


Figure 17 Comparison between the Assay Results for Cl by K-UTEC Laboratory and the SRC Laboratory. The Green Line is a 1:1 Correlation, whereas the Red Line marks a 10 % Deviation from the 1:1 Correlation

For the ALS analysis the Cl content has been estimated by assuming that the amount required to achieve a charge balance is present. Afterwards a mineralogical composition was established for each assayed sample based on the author's experience with the mineralogy of the deposit in other parts of the basin (e.g. Rauche & van der Klauw, 2015, /23/) with the following scheme:

1. Na combined with Cl to Halite
2. Ca combined with SO_4 to Anhydrite;
3. Remaining SO_4 combined with Mg (rarely) to Kieserite, any remaining Ca combined with Mg and Cl to Tachyhydrite;
4. Remaining Mg combined with K and Cl to Carnallite;
5. Any remaining Mg combined with Cl to Bischofite, any remaining K combined with Cl to Sylvite.

Using this estimated mineralogy, the weight of the minerals was calculated (including any mineral water for example in Carnallite) and summed up. With the insoluble content added this should be close to 100 % provided the mineralogy is correctly estimated.

For the ALS assays, where the insoluble content was not determined, a total sum between 95 and 101 % has been considered acceptable. The majority of the Ba-002 and Ba-003 samples analysed by ALS produce a mineralogical composition for the rocks which is acceptable with minimal amounts of Kieserite, Tachyhydrite/Bischofite (except in known Tachyhydrite sections) and Sylvite (except in the sylvinitic sections), suggesting that the relative amounts of the cations have been determined correctly. A significant number of carnallitite samples, however have a too high total sum, suggesting that although the relative amounts of cations are correct, there is an overestimation of either:

- All cations (dilution error in the laboratory), improbable because it only occurs in carnallite samples not in Halite samples;
- Na, improbable for the same reason;
- K and Mg together, which is probably the cause, since only carnallite samples are involved.

Because this effect was not observed in the standards inserted with the samples, this suggests that the supplied standards were not suitable to check the quality of the laboratory procedure. The check analysis confirms, that compared to the other two laboratories, the ALS laboratory tends to overestimate K and Mg. The high total mineral sums are most pronounced in the Ba-002 samples (compare Figure 14), but are less pronounced, but also present in the Ba-003 samples (compare Figure 15).

For the K-UTEC and SRC laboratory where the insoluble content was determined a total sum of the minerals between 97.0 % and 102 % has been considered acceptable. Over 99 % of the samples analysed by SRC and over 95 % of the samples analysed by K-UTEC passed this test. Samples not passing this test were generally conspicuous in other respect too. Conspicuous samples analysed by the K-UTEC laboratory, typically have a few % of Bischofite in their estimated mineralogy in parts of the sequence where this is not expected. This typically occurs when either the Mg-content is slightly overestimated, or the K-content is slightly underestimated and there is not enough K to use all Mg to combine to Carnallite. The comparison between the K-UTEC and the SRC laboratory (e.g. Figure 16), with a tendency for K-UTEC to have a slightly lower K-content for the same sample supports the K-content underestimation hypothesis. The difference is, however, not large enough to have a significant influence on a Mineral Resource estimate.

Less than 1 % of the analysis of both laboratories show indications for outliers in the concentration of the minor components Ca and SO₄, that might result in the calculated presence of either the mineral Kieserite (SO₄ so high that MgSO₄ is formed), Antarcticite (Ca so high and Mg so low, that there is an excess of CaCl₂) or of Tachyhydrite together with Sylvite (Ca so high and Mg so low that not all K can be combined to Carnallite).

11.3.3 Conclusion

The re-analysis of the samples with K-content over 5 % from the drill holes Ba-002 and Ba-003 by the SRC and K-UTEC laboratories, as well as the SRC analysis of the Ba-002 extension, Ba-001 extension and Ba-004 samples are in the opinion of the author of such quality that they can be used as basis for the Mineral Resource Estimate. The plausibility analysis for the assays by ALS suggests in the opinion of the author, that the assays for the samples with low potash content by ALS, even if they show a similar tendency to overestimate the K-content as the samples with the high potash content, do not result in a significant over-estimate of the K-content of these samples. It is the opinion of the author that the samples from ALS with K-content below 5 %, will have minimal influence on the overall K-content and can also be used as basis for the Mineral Resource Estimate.

12 Data Verification

The QP, Dr Sebastiaan van der Klauw visited the site on October 16, 2022 and between September 3 and September 7, 2025. During the site visits the actual location of drill holes Ba-001, Ba-002, Ba-003, Ba-004 and BATC-1 were verified in the field. Furthermore, spot checks were made on the core material of Ba-001 (2017 original core and 2025 extension), Ba-003 (2017 original core) and of the 2025 exploration drill hole Ba-004. The checks confirmed that:

- the lithological core descriptions provided were reasonable and give an adequate description of the material present in the cores;
- the core pictures provided were of the actual cores of the project;
- sampling had taken place with depth marks that conformed to the depths of the sample protocols.

Furthermore, MSc Stephan Pfeifer a senior geologist from ERCOSPLAN was on site from May 9 to May 19 to review the field work and core handling procedures, assist MLP geologists with lithological and structural core description and select representative samples for rock mechanical and dissolution test works as well as advising on the sample intervals for assaying for the cores of Ba-001 and Ba-004. He also supervised the geophysical wire line logging of the drill holes Ba-001, Ba-002 and Ba-004. During his site visit he could confirm that the core handling and core description procedures by MLP personnel were according to the protocols and also that sampling was done according to the protocols.

For the drill holes Ba-001, Ba-002, Ba-003 and Ba-004 a qualitative comparison has been made between estimated mineralogy from assays and the natural gamma ray log. These comparisons show that there is a good correspondence between thickness and mineral grade for potash seams from the assay and width and intensity of the natural gamma peaks. The presence of high grade Carnallite seams at these depth intervals is confirmed

Spot checks were made to verify that the EXCEL files with the analytical results from ALS, SRC and K-UTEC conformed to the results provided in the analysis protocols.

13 Mineral Processing and Metallurgical Testing

No Mineral Processing or Metallurgical test work has been performed yet.

14 Mineral Resource Estimates

In preparing any estimates presented in this Report, the authors were guided by the following definition used in the CIM Definition Standards (CIM, 2014, /3/):

‘A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction.

The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.”

The term “Mineral Resource” covers mineralisation and natural material of intrinsic economic interest that has been identified and estimated through exploration and sampling and within which mineral reserves may subsequently be defined by the consideration and application of modifying factors. The phrase ‘reasonable prospects for economic extraction’ implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction.

It is the opinion of the author that historical drilling and subsequent exploration drilling in 2023 and 2025 by MLP are sufficient to confirm that the Mayumba Permit in the vicinity of the Ba drill holes has substantial carnallite beds and subordinate Sylvite beds within the evaporite Cycles II to VIII of the Loume evaporites (see Table 5, Table 6, Table 7, Table 8 and Table 9). The production of MOP and other products by DEUSA International GmbH (DEUSA) in Germany since 1989 at its carnallite deposit demonstrates that commercial recovery of potash from carnallite using solution mining and brine processing is possible. DEUSA mines from a deposit with a similar depth as the carnallite from Cycles II to VIII, but with an overall lower thickness of the deposit at a comparable average Carnallite grade. The DEUSA deposit contains Magnesiumsulphate minerals, which are more problematic for the solution mining operation. Therefore, in the opinion of the author, there exists a reasonable prospect for eventual economic extraction of the carnallite from the evaporite Cycles II to VIII of the Loume evaporites. At a long-term potash price of \$387 (USD) per tonne CFR Brazil, the scoping study by MICON (2024, /20/) indicates a high positive cash flows for a solution mining and brine processing operation for production between 0.4 and 0.8 million tonnes per year of a KCl product. Even taking into account typical uncertainties in a scoping study, this suggests that there is a reasonable prospect of economic extraction of Carnallite and Sylvite, and Mineral Resources can be estimated for the Project.

14.1 Basic Assumptions

In determining the potential extent, quality, and volume of Carnallite Mineral Resource in the Mayumba Permit Area, the authors were guided by principles for exploration and sampling techniques commonly used in the world-wide potash industry for Carnallite exploration as well as by the guidelines established by CIM for the NI 43-101 for reporting Mineral Reserves and Mineral Resources.

- The primary tool employed to determine thickness of the Carnallite mineralisation is core drilling and description combined with geophysical logging.

- The Carnallite concentration along the length of the mineralised horizons is obtained from assays on core samples. Where core loss occurs within the Carnallite mineralisation the concentration can be estimated from the geophysical wire line logs, which have been calibrated with further core data (> 40 % of the Carnallite mineralized core should be available).
- As described in the guidelines for Mineral Resource estimation for potash (CIM, 2014, /3/), potash deposits typically display consistency of grade and thickness over large areas and it is important to define areas, where the potash mineralisation is absent.
- The extent of the Carnallite mineralisation and the continuity between drill holes can be determined by subsurface mapping correlating drill hole data, eventually in combination with seismic investigations.
- A Radius of Influence (ROI) is defined around each drill hole or underground mine working with information about interpolated thickness and grade of the deposit between them. The size of the ROI depends on the resource category and the confidence in the continuity of the deposit.

The determination of thickness of the carnallite seams and the KCl and/or Carnallite content of these seams has been discussed in the geology section, where also a preliminary geological model for the investigated part of the Mayumba Permit Area has been introduced. This geological model will be further refined and discussed in the following section for the northern target area, especially with regard to consistency of grade and thickness and eventual absence of potash mineralisation. Finally, the estimation method and ROI will be discussed.

14.1.1 Geological Model

The geological model of the deposit from sections 7.3.2 and 7.3.4 identifies 23 carnallite or sylvinite seams and horizons potentially considered suitable for solution mining in the drill holes Ba-001, Ba-002, Ba-003 and Ba-004. The seams and horizons are considered to be near horizontal and offset by normal and transform faults. The seams and horizons can be divided into:

- homogeneous seams or horizons with either a single carnallite seam where the rock salt is mainly present as Halite single crystals and irregular thin lenses within the carnallite (seam 5 of Cycle VII, seams 2 and 3 of Cycle VI, seam 1 of Cycle IV and seam 1 of Cycle III) or horizons with several carnallite seams, that in all wells have rock salt layers of relatively constant thickness between the seams, as in the horizons consisting of seams 1-2, 3-4, and 6-7 of Cycle VII, seams 2-5 and 6-11 of Cycle VI, and seams 5-9 of Cycle V.

and

- inhomogeneous seams consisting of an interlayering of carnallite dominated and rock salt dominated layers, with variable thickness between wells, where either one or both, the upper and lower boundaries of the seams are not unequivocally defined, but thickness can be increased by accepting lower grade, or the other way around. Typical inhomogeneous seams are the seams 2 to 4 of Cycle VIII and the seams 8 to 13 in Cycle VII.

The Table 6, Table 7, Table 8 and Table 9 indicate that even for the homogeneous seams and horizons there is some variation in thickness and grade between the 4 drill holes considered. This might reflect certain trends in grade or thickness, but with 4 drill holes this cannot be confirmed until further data becomes available. The variation in thickness and to some extent also grade at drill hole Ba-001 is due to strong local tectonic overprinting of Cycles VI and VII. The inhomogeneous seams of Cycle VIII (Table 5) cannot be correlated between the 3 drill holes with Cycle VIII rocks identified with regards to grade and thickness, because of different intensity and stratigraphic penetration depth of the transformation reaction Carnallite to Sylvite. In Ba-003 the transformation of seam 4 from Carnallite to Sylvite has resulted in 3 sub seams that are potentially mineable, whereas in Ba-002, no similar seams can be defined, because of general lower grades of the sylvinite seams interpreted to reflect more intense reaction with the circulating brines, with removal of KCl from the seams. In drill hole Ba-004 seam 4 is present as Carnallite. Seam 2 and seam 3 are present as Carnallite in Ba-003 and Ba-004 and are present as Sylvite seams in Ba-002, allowing no grade and thickness correlation. The inhomogeneous seams 8 to 13 in Cycle VII that are partly considered mineable in Ba-002 are present in the correct stratigraphic position but in Ba-001, Ba-003 and Ba-004 do usually not make the grade or thickness for potential mineability. Again, this might reflect trends in grade or thickness, but with 4 drill holes this cannot be confirmed, until further data becomes available. Because extrapolation and interpolation of thickness and grade with 4 data points is not considered productive, the geological model used for the mineral resource estimate is simplified by assuming that the thickness and grade of the potash seams and horizons around each drill hole are as determined along the drill hole extent as far as the areas defined over the Radius of Influence (ROI).

Even with this uncertainty the single seams and horizons can be correlated from the Ba-drill holes over a distance of more than 15 km with the Banio drill holes to the SE, or even over more than 50 km to the south in the ROC. Even for the inhomogeneous Carnallite seams for which an exact correlation regarding thickness and grade for the Ba-holes has not been made, the natural gamma logs for the Banio holes suggest that in the same stratigraphic positions it might be possible to define these seams taking into account thickness and grade criteria. A potash deposit with similar continuous sedimentary potash seams is the Elk Point Basin in Saskatchewan. Based on experience in this basin the guidelines for Mineral Resource estimation for potash (CIM, 2014, /3/), state that in this basin the presence of areas of absent potash mineralisation are a major factor in the definition of the mineral resources. These areas are typically identified by the presence of disturbed zones, within or above the salt section from seismics (often 3D), that are attributed to local dissolution of salt and collapse of the overlying sedimentary rocks. For the Congo Coastal Basin, the absence of potash mineralisation can occur due to a combination of fault activity and water/brine circulation, as has been documented for the loss of the Holle mine by Feuga et al. (2005, /9/). A review of further documentation of this incident and several field visits, suggest that a natural more or less round and even area occurs as a surface expression of the relatively young dissolution structure that was encountered in the Holle mine.

Evaluation of the available 2D seismic provides no indications for structures comparable to the Saskatchewan collapse structures. Although the evaluation of the available seismic and drill hole data suggests that drill hole Ba-001 is located within a NE-SW striking fault zone (see Section 7.3.3), where normal faults are present, there are no indications of circular dissolution collapse structures at surface that might be indicative for the absence of the deposit in the underground.

14.1.2 Estimation Method

In calculating the Mineral Resource tonnages, the following procedures were completed (Mineral Resources are given as mineralisation in place):

- (1) Around each drill hole, an ROI was defined and by intersection of these ROI's, polygons around drill holes were constructed.
- (2) For each polygon, the on-shore area within the Mayumba Permit was determined. Theoretically, it might be feasible to develop caverns in the Lagoon, but there is no indication that this could be economic. The volume for each identified mining seam was calculated by multiplying the remaining area with the thickness of the mining seam.
- (3) The volume calculated for each seam was multiplied with a carnallite tonnage factor (density), which was determined individually for each area and for each seam from the relative abundance of the different salt minerals in the carnallite seam in that area varying between 1.66 g/cm³ for high grade carnallite and 1.87 g/cm³ for low grade carnallite seams to obtain a carnallite tonnage. For Sylvinite seams a sylvinite tonnage factor that was determined similarly was used. Depending on the Sylvite grade this factor varied between 2.08 g/cm³ and 2.14 g/cm³.
- (4) The KCl grade of each seam was taken from the relevant tables of section 7.3.2 from this report.

The Report classifies the Carnallite mineralisation in terms of inferred, indicated and measured Mineral Resources and the Sylvite mineralisation in terms of inferred and indicated Mineral Resources as defined by NI 43-101 in CIM (2014, /3/). This reflects the level of confidence in the extent and grade of the identified carnallite or sylvinite bodies. The extension of the Ba-001 borehole and the new Ba-004 borehole confirm the continuity of the potash seams in the north target area. For this reason, the updated mineral resource estimate also shows Mineral Resources in the measured category.

Regarding the extent of the mineralisation around a drill hole for the different categories, the QP for the report is of the opinion that for the north target area of the Carnallite deposit in the Mayumba Permit Area:

- Measured Mineral Resources occur within a radius of 700 m of a drill hole for areas where the seismic investigations show no significant thickness change of the overall salt section. The ROI for Measured Mineral Resources is not extended beyond the position of faults interpreted from the seismic sections. If a drill hole is located at or within a fault zone no Measured Resources will be reported.
- Indicated Mineral Resources occur within a radius of 1,400 m of a drill hole, minus the measured resources within this area, as long as the seismic investigations show no significant thickness change of the overall salt section. The ROI for Indicated Mineral Resources is not extended beyond the position of faults interpreted from the seismic sections.
- Inferred Mineral Resources occur within a radius of 2,800 m of a drill hole, minus the measured and indicated resources within this area. Taking into account that for Inferred Mineral Resources the continuity of grade and thickness only have to be implied, the ROI for this category is extended to the downthrown block over a fault interpreted from the seismic sections.

ROI's are not extended into the Banio Lagoon, since it is highly uncertain that the deposit can be economically extracted using solution mining in these areas. The ROI's for Measured Mineral Resources for Carnallite seams/horizons has been taken as 700 m, for Indicated Resources as 1,400 m and for Inferred Mineral Resources as 2,800 m, because of the stratigraphic continuity of the seams and horizons. These ROI's are somewhat smaller than typical recent ROI's based on drilling exploration for a similar large basin with continuity of potash mineralisation in Saskatchewan, where 800 m, 1,600 m and over 3,200 m have been applied for Measured, Indicated and Inferred Mineral Resources respectively (e.g. March, 2021, /16/). Potash producers from this deposit using conventional mining with over 50 years of experience in their deposit even use a 1,600 m ROI from a drill hole or mine opening for Measured Mineral Resources and a 3,200 m ROI for Indicated Mineral Resources (e.g. Derkach & Funk, 2025, /7/).

The ROI for Inferred Mineral Resources is extended beyond interpreted faults, because these faults are interpreted to have been active past deposition of the Carnallite. A potential negative influence of these faults on the Carnallite mineralisation has been accounted for by the 100 m width barrier along the inferred faults and 200 m along the fault zone interpreted to be present near Ba-001. This barrier also accounts for uncertainty in position of the faults interpreted from the seismic data and the changing position of the faults with depth due to dip of the fault plane.

The author of the report is of the opinion that in the investigated part of the Sylvite deposit in the Mayumba Permit Area:

- Indicated Mineral Resources occur within a radius of 500 m of a drill hole as long as the seismic investigations show no significant thickness change of the overall salt section.
- Inferred Mineral Resources occur within a radius of 1,000 m of a drill hole, minus the indicated resources within this area.

The ROI for Indicated and Inferred Mineral Resources is significantly smaller than the Area of Influence (AOI) that KORE used for the estimation of Indicated and Inferred Sylvite Resources at their Kola Project (SRK et al., 2012, /25/), reflecting that compared to the Kola project, only limited drill hole and seismic information is available. Since the extent of the Sylvite mineralisation is controlled by fluid infiltration in the deposit the ROI's for the Sylvite mineralisation are not extended beyond faults interpreted from the seismic sections. Because there remains some uncertainty about the exact position of the faults interpreted from the seismic sections a 100 m width barrier with no Mineral Resources has been defined along each interpreted fault for the Sylvite Mineral Resources. This barrier also accounts for the potentially changing position of the faults with depth due to dip of the fault plane.

The extrapolated areas with Indicated and Inferred Resources for the Sylvite mineralisation identified in seams of Cycle VIII (Ba-002, Ba-003 and Ba-004) and in Cycle II (Ba-004) are shown in Figure 18 and Figure 23, respectively. The extrapolated areas with Measured, Indicated and Inferred Resources for the Carnallite mineralisation identified in seams of Cycle VIII (Ba-003 and Ba-004) are shown in Figure 19. The polygons for Measured, Indicated and Inferred Mineral Resources around Ba-003 end in the direction of Ba-001, which did not intersect potash bearing rocks of Cycle VIII at equal distance between the wells. This reflects the basic assumptions of the geologic model. As described in section 7.3.3 the dip of the Sylvite/Carnallite mineralisation boundary is much larger than the dip of the near horizontal seams. With the stratigraphic position of the Sylvite/Carnallite boundary in Ba-002 much lower than at Ba-003, the extrapolated Sylvite/Carnallite boundary will crosscut the seams, much closer to Ba-003. Lacking further data about the orientation of this boundary, it has been interpreted to be oriented perpendicular to the line connecting both wells.

On the Ba-002 side of this boundary it cannot be excluded that Sylvite instead of Carnallite is present, so the Ba-003 polygon for Carnallite mineralisation in the Ba-002 direction ends at this boundary. Without further evidence, however, it cannot be assumed that beyond this boundary the same seams are present as Sylvite seams.

The extrapolated areas with Measured, Indicated and Inferred Resources for the Carnallite mineralisation identified in seams of Cycle VII and Cycle VI (Ba-001, Ba-002, Ba-003 and Ba-004) are shown in Figure 20. For Ba-001 only Indicated and Inferred Mineral Resources are identified, because of uncertainty about the interpreted true thickness of the seams in Ba-001. The extrapolated areas with Measured, Indicated and Inferred Resources for the Carnallite mineralisation identified in seams of Cycle V (Ba-001, Ba-002, Ba-003 and Ba-004) are shown in Figure 22. In this cycle and the cycles below Measured Resources are outlined around drill hole Ba-001, since the drill core shows undeformed horizontal layering in Ba-001. The extrapolated areas with Measured, Indicated and Inferred Resources for the Carnallite mineralisation identified in seams of Cycle IV and Cycle III (Ba-001, Ba-002 and Ba-004) are shown in Figure 22..

14.2 Mineral Resource Statement

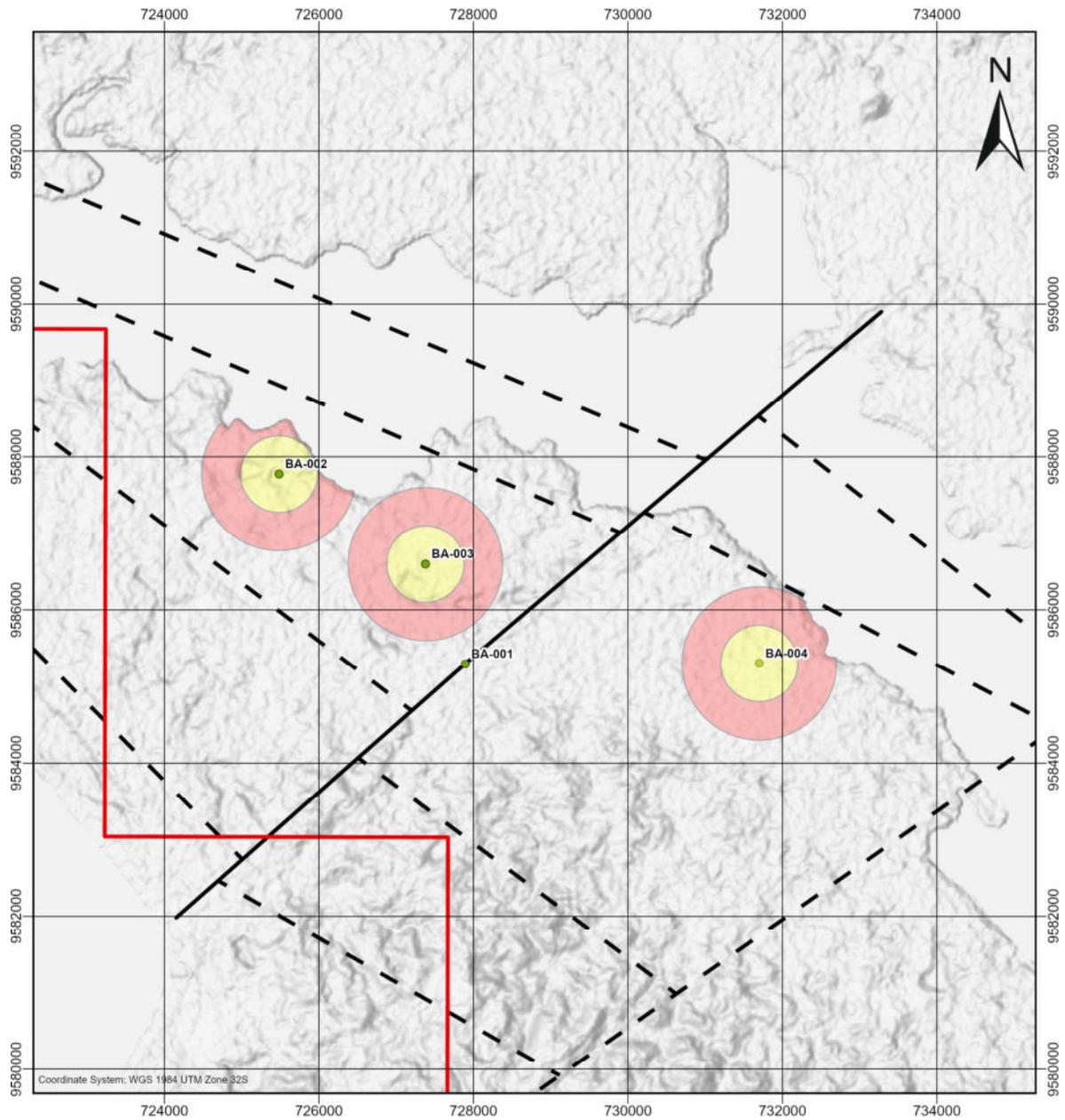
It is the opinion of the authors that by taking into account all of the factors presented herein, that 23 potash seams/horizons identified in the 4 Ba drill holes have the potential for economical extraction using the solution mining method and a saleable product can be produced by processing the brine from solution mining. Subject to further geological, geophysical, rock mechanical, and engineering studies, these 23 potash seams/horizons constitute a “Mineral Resource” as defined by National Instrument 43-101 and CIM (2014, /3/). The Mineral Resources will be classified below according to the methods mentioned before. Mineral Resources are reported as “in place” material, without any deductions for potential mining and processing recoveries.

14.2.1 Inferred Mineral Resource

For “Inferred Mineral Resources” NI 43-101 uses the definition of CIM (2014, /3/):

“An ‘Inferred Mineral Resource’ is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity.”

As discussed in the previous section, in the opinion of the authors the Inferred class of Mineral Resources extends beyond a recently investigated drill hole with an ROI of 2.8 km for seams with Carnallite mineralisation and 1 km for seams with Sylvite mineralisation, excluding the Indicated and Measured Mineral Resources from this drill hole. The extrapolated areas for Inferred Mineral Resources of all seams are shown in Figure 18 to Figure 22.

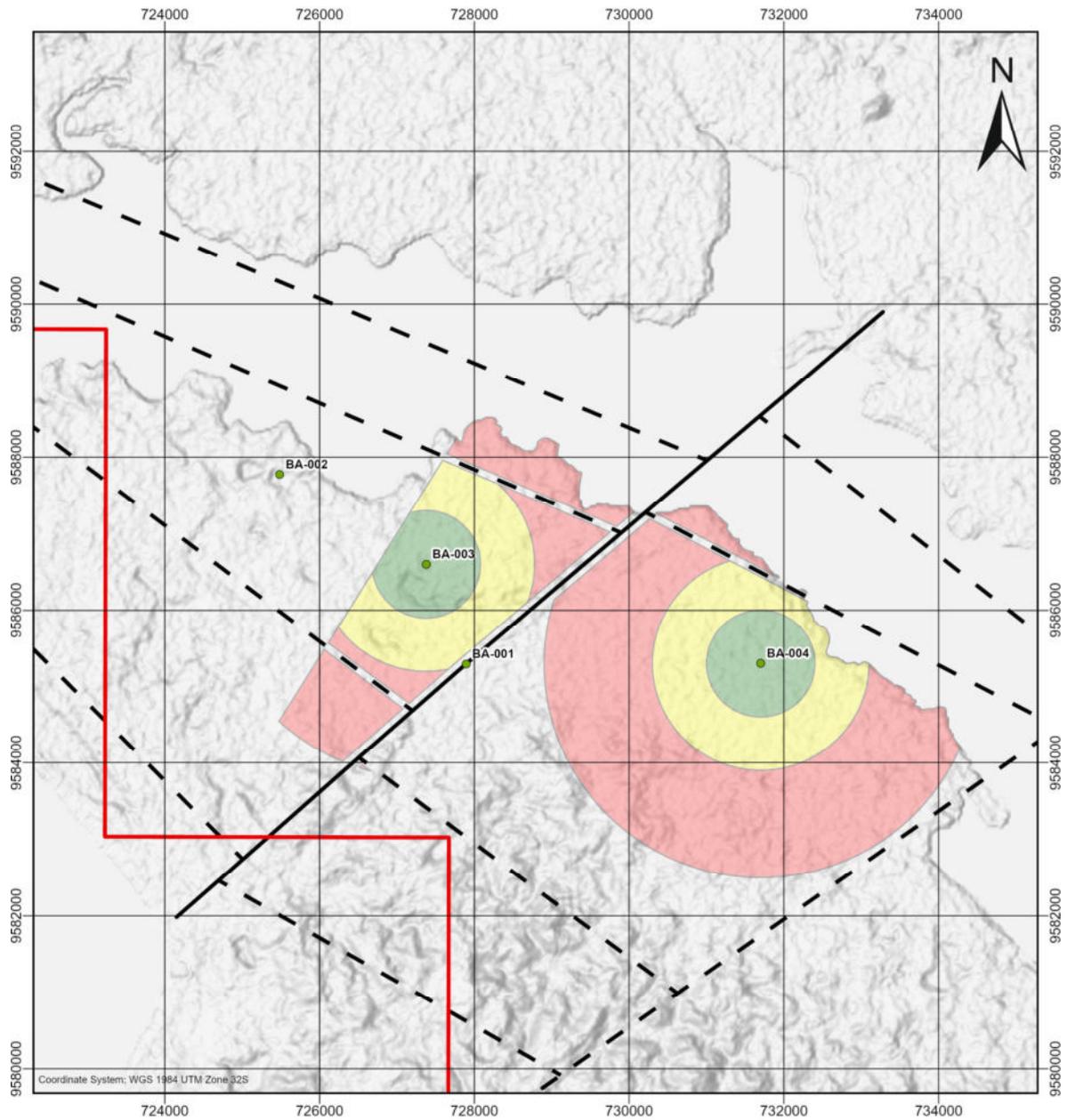


Legend:

- | | | |
|-------------|-----------------|----------------------------------|
| — | Indicated Fault | Resource Areas |
| - - | Inferred Fault | Yellow square: Indicated (500 m) |
| Red outline | Permit Boundary | Pink square: Inferred (1000 m) |

Scale: 1:75.000
0 1,5 3 Kilometers

Figure 18 Polygons around drill holes showing areas for Inferred and Indicated Mineral Resources for the Cycle VIII Sylvite mineralisation



Legend:

- Indicated Fault
- Inferred Fault
- Permit Boundary

- Resource Areas**
- Measured (700 m)
 - Indicated (1400 m)
 - Inferred (2800 m)

Scale: 1:75.000

0 1,5 3 Kilometers

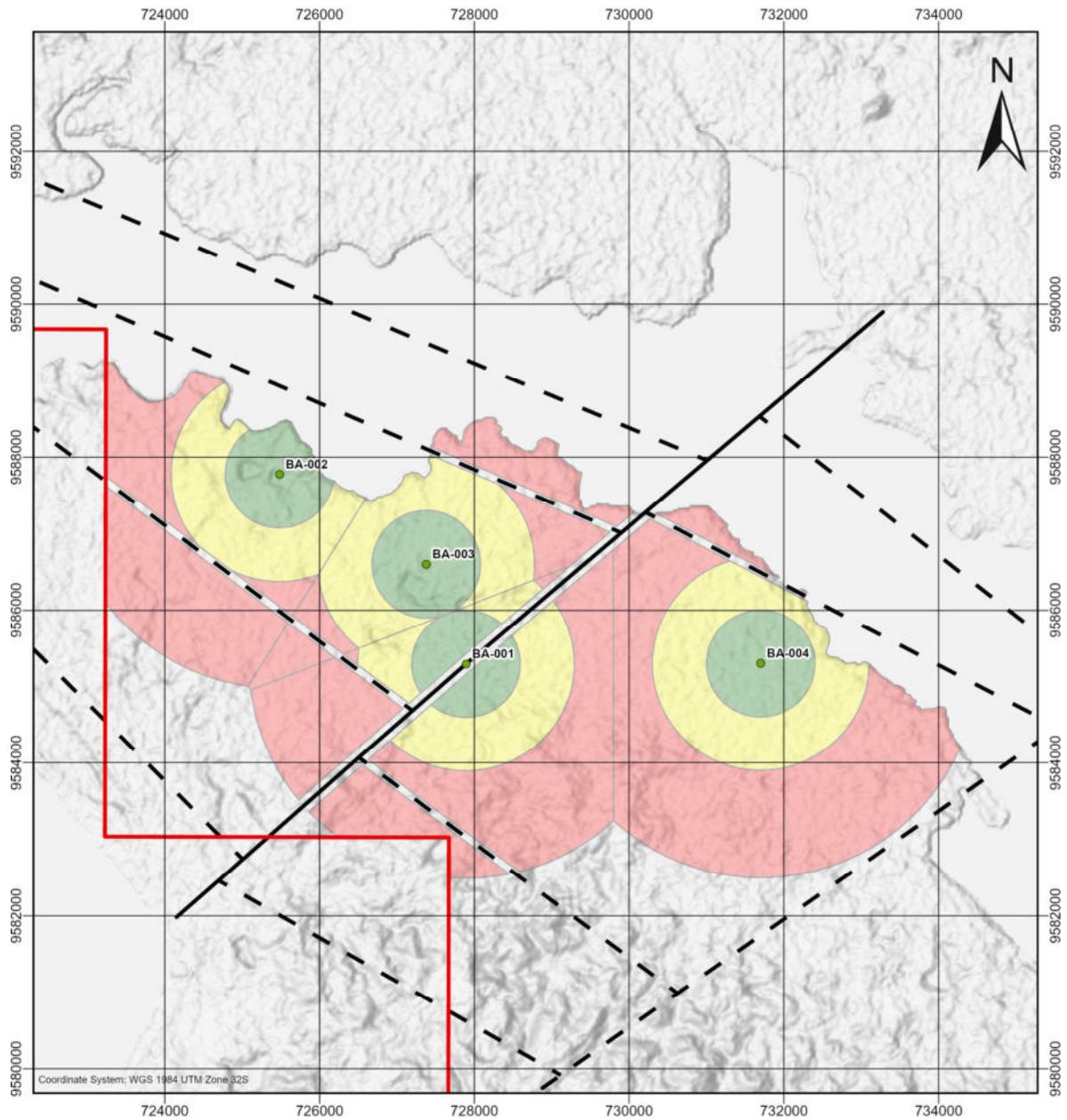
Figure 19 Polygons around drill holes showing areas for Inferred, Indicated and Measured Mineral Resources for the Cycle VIII Carnallite mineralisation



Legend:

- | | | |
|-----------------|-----------------------|---|
| Indicated Fault | Resource Areas | Scale: 1:75.000
0 1,5 3 Kilometers
 |
| Inferred Fault | Measured (700 m) | |
| Permit Boundary | Indicated (1400 m) | |
| | Inferred (2800 m) | |

Figure 20 Polygons around drill holes showing areas for Inferred, Indicated and Measured Mineral Resources for the Cycle VI to VII Carnallite mineralisation



Legend:

- Indicated Fault
- Inferred Fault
- Permit Boundary

Resource Areas

- Measured (700 m)
- Indicated (1400 m)
- Inferred (2800 m)

Scale: 1:75.000

0 1,5 3 Kilometers

Figure 21 Polygons around drill holes showing areas for Inferred, Indicated and Measured Mineral Resources for the Cycle V Carnallite mineralisation



Legend:

- Indicated Fault
- Inferred Fault
- Permit Boundary

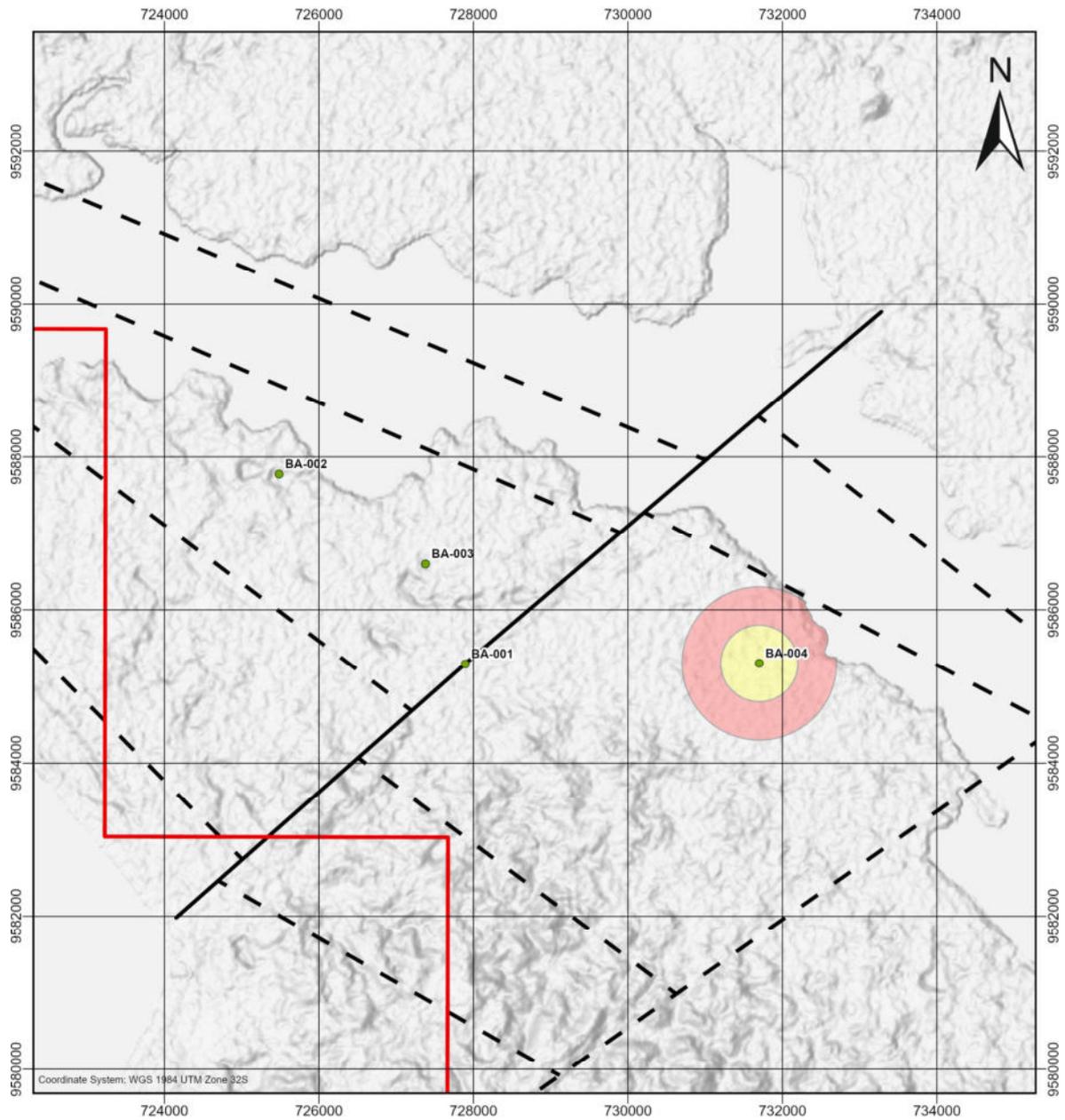
Resource Areas

- Measured (700 m)
- Indicated (1400 m)
- Inferred (2800 m)

Scale: 1:75.000

0 1,5 3 Kilometers

Figure 22 Polygons around drill holes showing areas for Inferred, Indicated and Measured Mineral Resources for the Cycle III to IV Carnallite mineralisation



Legend:

- | | |
|---|---|
|  Indicated Fault | Resource Areas |
|  Inferred Fault |  Indicated (500 m) |
|  Permit Boundary |  Inferred (1000 m) |

Scale: 1:75.000

0 1,5 3 Kilometers



Figure 23 Polygon around drill hole Ba-004 showing areas for Inferred and Indicated Mineral Resources for the Cycle II Sylvite mineralisation

The Inferred Mineral Resources Estimate for

- the Cycle VIII potash seams of Ba-002, Ba-003 and Ba-004 are presented in Table 12.
- the Cycle VII potash seams/horizons of Ba-001, Ba-002, Ba-003 and Ba-004 are presented in Table 13.
- the Cycle VI potash seams/horizons of Ba-001, Ba-002, Ba-003 and Ba-004 are presented in Table 14.
- the Cycle V potash seams/horizons of Ba-001, Ba-002, Ba-003 and Ba-004 are presented in Table 15.
- the Cycle IV and Cycle III potash seams/horizons of Ba-001 are presented in Table 16
- the Cycle IV and Cycle III potash seams/horizons of Ba-002 are presented in Table 17.
- the Cycle IV, Cycle III and Cycle II potash seams/horizons of Ba-004 are presented in Table 18

Table 12 Summary of the estimated Inferred Mineral Resources for the Cycle VIII seams. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km ²)	(m)	(t/m ³)	(million t)	(% KCl)
Ba-002						
Seam 3	Sy	1.56	2.10	2.119	6.94	24.6
Seam 2	Sy	1.56	2.70	2.121	8.94	25.2
Ba-003						
Seam 4a	Sy	2.36	2.70	2.133	13.57	18.4
Seam 4b	Sy	2.36	2.31	2.135	11.62	19.0
Seam 4c	Sy	2.36	2.45	2.117	12.22	21.1
Seam 3	Ct	3.40	4.63	1.777	27.97	17.0
Seam 2	Ct	3.40	5.11	1.823	31.68	14.5
Ba-004						
Seam 8	Sy	2.29	2.13	2.036	9.94	21.56
Seam 4	Ct	11.31	1.80	1.808	36.81	15.15
Seam 3	Ct	11.31	4.72	1.821	97.21	14.39
Seam 2	Ct	11.31	5.53	1.822	114.23	14.06

A summary of the estimated Inferred Mineral Resources is given in Table 36 in section 25. The total Inferred Mineral Resources for the Carnallite mineralisation is estimated at 3,463.3 million tonnes of mineralised material at an average grade of 15.4 % KCl (57.3 % Carnallite). The Total Inferred Mineral Resources for the Sylvite mineralisation is estimated at 96.15 million tonnes of mineralised material at an average grade of 24.2 % KCl (Sylvite).

This amounts in total to 555.4 million tonnes of KCl within the mineralized material of the Mineral Resources of the Inferred category.

Table 13 Summary of the estimated Inferred Mineral Resources for the Cycle VII seams/horizons. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Ba-001						
Seam 12	Ct	7.79	4.29	1.835	61.33	13.9
Horizon 6-7	Ct	7.79	3.85	1.833	54.98	14.0
Seam 5	Ct	7.79	2.94	1.785	40.90	15.2
Seam 4	Ct	7.79	2.71	1.801	37.97	15.4
Seam 3	Ct	7.79	3.33	1.802	46.82	15.2
Horizon 1-2	Ct	7.79	7.03	1.724	94.38	16.7
Ba-002						
Seam 10	Ct	4.95	1.25	1.854	11.46	13.4
Seam 9	Ct	4.95	1.5	1.829	13.57	14.0
Seam 8	Ct	4.95	1.55	1.866	14.30	12.6
Horizon 6-7	Ct	4.95	3.1	1.871	28.69	13.2
Seam 5	Ct	4.95	2.55	1.815	22.89	15.5
Horizon 3-4	Ct	4.95	5.35	1.844	48.78	14.6
Horizon 1-2	Ct	4.95	7.5	1.772	65.74	16.2
Ba-003						
Seam 8	Ct	2.50	1.41	1.827	6.43	14.5
Seam 6-7	Ct	2.50	3.26	1.820	14.81	15.0
Seam 5	Ct	2.50	2.64	1.784	11.75	16.8
Horizon 3-4	Ct	2.50	5.02	1.819	22.79	15.0
Horizon 1-2	Ct	2.50	6.99	1.786	31.15	16.7
Ba-004						
Seam 14	Ct	9.08	5.60	1.808	91.91	14.7
Seam 7	Ct	9.08	2.38	1.816	39.23	14.4
Horizon 3-4	Ct	9.08	5.42	1.805	88.79	15.1
Seam 2	Ct	9.08	11.19	1.733	176.03	18.7

Table 14 Summary of the estimated Inferred Mineral Resources for the Cycle VI horizons. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Ba-001						
Horizon 6-11	Ct	7.79	13.46	1.818	190.67	13.4
Horizon 2-5	Ct	7.79	14.49	1.818	205.30	13.0
Ba-002						
Horizon 6-11	Ct	4.95	13.81	1.809	123.56	14.7
Horizon 2-5	Ct	4.95	13.80	1.778	121.31	15.6
Ba-003						
Horizon 6-11	Ct	2.50	11.77	1.802	52.92	15.9
Horizon 2-5	Ct	2.50	15.72	1.769	69.39	16.9
Ba-004						
Horizon 6-11	Ct	9.08	13.15	1.824	217.64	14.3
Horizon 2-5	Ct	9.08	14.94	1.793	243.17	15.8

Table 15 Summary of the estimated Inferred Mineral Resources for the Cycle V seams/horizons. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Ba-001						
Horizon 6-9	Ct	7.79	6.22	1.845	89.44	13.1
Horizon 2-3	Ct	7.79	4.00	1.807	56.34	15.1
Ba-002						
Horizon 5-9	Ct	4.95	10.05	1.819	90.41	13.6
Seam 3	Ct	4.95	1.90	1.677	15.76	21.6
Seam 2	Ct	4.95	1.55	1.778	13.63	16.2
Ba-003						
Horizon 5-9	Ct	2.50	9.82	1.826	44.74	14.6
Seam 3	Ct	2.50	2.22	1.710	9.47	20.1
Seam 2	Ct	2.50	1.55	1.735	6.71	19.1
Ba-004						
Seam 9	Ct	9.08	2.04	1.748	32.36	17.8
Horizon 5-8	Ct	9.08	6.91	1.817	113.95	14.8
Horizon 2-3	Ct	9.08	4.56	1.813	75.01	14.6

Table 16 Summary of the estimated Inferred Mineral Resources for the Cycle IV and Cycle III seams/horizons of Ba-001. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
Cycle IV		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Seam 1	Ct	11.27	2.65	1.744	52.07	18.3
Cycle III						
Horizon 1-2	Ct	11.27	3.45	1.747	120.03	18.2

Table 17 Summary of the estimated Inferred Mineral Resources for the Cycle IV and Cycle III seams/horizons of Ba-002. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
Cycle IV		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Seam 1	Ct	6.60	4.16	1.778	48.86	17.1
Cycle III						
Horizon 1-2	Ct	6.60	4.76	1.748	54.95	18.7

Table 18 Summary of the estimated Inferred Mineral Resources for the Cycle IV, Cycle III and Cycle II seams/horizons of Ba-004. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
Cycle IV		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Seam 1	Ct	9.07	3.66	1.786	59.33	16.67
Cycle III						
Horizon 1-2	Ct	9.07	4.92	1.698	75.79	20.91
Cycle II						
Horizon 1-2	Sy	2.29	6.90	2.082	32.93	29.94

Due to the uncertainty attached to the Inferred Mineral Resources, it is not certain that continued exploration and further technical studies will upgrade these Mineral Resources to indicated or measured status. The confidence in this estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. The Inferred Mineral Resources therefore are excluded from estimates forming the basis of feasibility or pre-feasibility studies.

14.2.2 Indicated Mineral Resource

For “Indicated Mineral Resources” NI 43-101 uses the definition of CIM (2014, /3/):

An “Indicated Mineral Resource” is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.

As discussed in section 14.1.2 in the opinion of the authors the Indicated class of Mineral Resources extends beyond a recently investigated drill hole with an ROI of 1.4 km for seams with Carnallite mineralisation and 0.50 km for seams with Sylvite mineralisation, excluding the Measured Mineral Resources from this drill hole. The extrapolated areas for Indicated Mineral Resources of all seams are shown in Figure 18 to Figure 22. The Indicated Mineral Resources Estimate for

- the Cycle VIII potash seams/horizons of Ba-002, Ba-003 and Ba-004 are presented in Table 19.
- the Cycle VII potash seams/horizons of Ba-001, Ba-002, Ba-003 and Ba-004 are presented in Table 20.
- the Cycle VI potash seams/horizons of Ba-001, Ba-002, Ba-003 and Ba-004 are presented in Table 21.
- the Cycle V potash seams/horizons of Ba-001, Ba-002, Ba-003 and Ba-004 are presented in Table 22.
- the Cycle IV and Cycle III potash seams/horizons of Ba-001 are presented in Table 23.
- the Cycle IV and Cycle III potash seams/horizons of Ba-002 are presented in Table 24.
- the Cycle IV, Cycle III and Cycle II potash seams/horizons of Ba-004 are presented in Table 25.

A summary of the estimated Indicated Mineral Resources is provided in Table 35 in section 25. The total Indicated Mineral Resources for the Carnallite mineralisation is estimated at 1,769.4 million tonnes of mineralised material at an average grade of 15.4 % KCl (57.4 % Carnallite). The Total Indicated Mineral Resources for the Sylvite mineralisation is estimated at 35.2 million tonnes of mineralised material at an average grade of 24.3 % KCl (Sylvite). This amounts in total to 280.8 million tonnes of KCl within the mineralized material of the Mineral Resources of the Indicated category.

An Indicated Mineral Resource may only be converted to a Probable Mineral Reserve, through application of modifying factors, outlined in at least a pre-feasibility study (CIM, 2014, /3/).

Table 19 Summary of the estimated Indicated Mineral Resources for the Cycle VIII seams. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Ba-002						
Seam 3	Sy	0.79	2.10	2.119	3.49	24.6
Seam 2	Sy	0.79	2.70	2.121	4.50	25.2
Ba-003						
Seam 4a	Sy	0.79	2.70	2.133	4.52	18.4
Seam 4b	Sy	0.79	2.31	2.135	3.87	19.0
Seam 4c	Sy	0.79	2.45	2.117	4.07	21.1
Seam 3	Ct	2.90	4.63	1.779	23.90	17.0
Seam 2	Ct	2.90	5.11	1.823	27.07	14.5
Ba-004						
Seam 8	Sy	0.79	2.13	2.036	3.40	21.6
Seam 4	Ct	3.77	1.80	1.808	12.28	15.2
Seam 3	Ct	3.77	4.72	1.821	32.43	14.4
Seam 2	Ct	3.77	5.53	1.826	38.11	14.1

Table 20 Summary of the estimated Indicated Mineral Resources for the Cycle VII seams/horizons. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Ba-001						
Seam 12	Ct	4.15	4.29	1.835	32.64	13.9
Horizon 6-7	Ct	4.15	3.85	1.833	29.26	13.9
Seam 5	Ct	4.15	2.94	1.785	21.77	15.2
Seam 4	Ct	4.15	2.71	1.801	20.21	15.4
Seam 3	Ct	4.15	3.33	1.802	24.92	15.2
Horizon 1-2	Ct	4.15	7.03	1.724	50.22	16.7
Ba-002						
Seam 10	Ct	2.54	1.25	1.854	5.88	13.4
Seam 9	Ct	2.54	1.50	1.829	6.96	14.0
Seam 8	Ct	2.54	1.55	1.866	7.34	12.6
Horizon 6-7	Ct	2.54	3.10	1.871	14.72	13.2
Seam 5	Ct	2.54	2.55	1.815	11.74	15.5
Horizon 3-4	Ct	2.54	5.35	1.844	25.03	14.6

Horizon 1-2	Ct	2.54	7.50	1.772	33.72	16.2
Ba-003						
Seam 8	Ct	2.84	1.41	1.827	7.32	14.5
Horizon 6-7	Ct	2.84	3.26	1.820	16.85	15.0
Seam 5	Ct	2.84	2.64	1.784	13.37	16.8
Horizon 3-4	Ct	2.84	5.02	1.819	25.94	15.0
Horizon 1-2	Ct	2.84	6.99	1.786	35.44	16.7
Ba-004						
Seam 14	Ct	3.77	5.60	1.808	38.21	14.7
Seam 7	Ct	3.77	2.38	1.816	16.31	14.4
Horizon 3-4	Ct	3.77	5.42	1.805	36.91	15.1
Seam 2	Ct	3.77	11.19	1.733	73.18	18.7

Table 21 Summary of the estimated Indicated Mineral Resources for the Cycle VI seams/horizons. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km ²)	(m)	(t/m ³)	(million t)	(% KCl)
Ba-001						
Horizon 6-11	Ct	4.15	13.46	1.818	101.46	13.4
Horizon 2-5	Ct	4.15	14.49	1.818	109.24	13.0
Ba-002						
Horizon 6-11	Ct	2.54	13.81	1.809	63.39	14.7
Horizon 2-5	Ct	2.54	13.80	1.778	62.24	15.6
Ba-003						
Horizon 6-11	Ct	2.95	11.77	1.802	62.64	15.9
Horizon 2-5	Ct	2.95	15.72	1.769	82.14	16.9
Ba-004						
Horizon 6-11	Ct	3.77	13.15	1.824	90.47	14.3
Horizon 2-5	Ct	3.77	14.94	1.793	101.09	15.8

Table 22 Summary of the estimated Indicated Mineral Resources for the Cycle V seams/horizons. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Ba-001						
Horizon 6-9	Ct	2.89	6.22	1.845	33.13	13.1
Horizon 2-3	Ct	2.89	4.00	1.807	20.87	15.1
Ba-002						
Horizon 5-9	Ct	2.54	10.05	1.819	46.38	13.6
Seam 3	Ct	2.54	1.90	1.677	8.08	21.6
Seam 2	Ct	2.54	1.55	1.778	6.99	16.2
Ba-003						
Horizon 5-9	Ct	2.84	9.82	1.826	50.91	14.6
Seam 3	Ct	2.84	2.22	1.710	10.78	20.1
Seam 2	Ct	2.84	1.55	1.735	7.64	19.1
Ba-004						
Seam 9	Ct	3.77	2.04	1.748	13.45	17.8
Horizon 5-8	Ct	3.77	6.91	1.817	47.37	14.8
Horizon 2-3	Ct	3.77	4.56	1.813	31.18	14.6

Table 23 Summary of the estimated Indicated Mineral Resources for the Cycle IV and Cycle III seams/horizons of Ba-001. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Cycle IV						
Seam 1	Ct	4.09	2.65	1.744	18.89	18.3
Cycle III						
Horizon 1-2	Ct	4.09	3.45	1.748	24.66	18.1

Table 24 Summary of the estimated Indicated Mineral Resources for the Cycle IV and Cycle III seams/horizons of Ba-002. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km ²)	(m)	(t/m ³)	(million t)	(% KCl)
Cycle IV						
Seam 1	Ct	2.80	4.16	1.778	20.74	17.1
Cycle III						
Horizon 1-2	Ct	2.80	4.76	1.748	23.33	18.7

Table 25 Summary of the estimated Indicated Mineral Resources for the Cycle IV, Cycle III and Cycle II seams/horizons of Ba-004. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km ²)	(m)	(t/m ³)	(million t)	(% KCl)
Cycle IV						
Seam 1	Ct	3.77	3.66	1.786	24.67	16.7
Cycle III						
Horizon 1-2	Ct	3.77	4.92	1.698	31.51	20.9
Cycle II						
Horizon 1-2	Sy	0.79	6.90	2.082	11.28	29.9

14.2.3 Measured Mineral Resource

For “Measured Mineral Resources” NI 43-101 uses the definition of CIM (2014, /3/):

A “Measured Mineral Resource” is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with confidence sufficient to allow the application of modifying factors to support detail mine planning and final evaluation of the economic viability of the deposit.

Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.

As discussed in section 14.1.2 in the opinion of the authors the Measured class of Mineral Resources extends beyond a recently investigated drill hole with an ROI of 0.7 km for seams with Carnallite mineralisation. The extrapolated areas for Measured Mineral Resources of all seams are shown in Figure 19 to Figure 22.

The Measured Mineral Resources Estimate for

- the Cycle VIII potash seams of Ba-003 and Ba-004 are presented in Table 26.
- the Cycle VII potash seams/horizons of Ba-002, Ba-003 and Ba-004 are presented in Table 27.

- the Cycle VI potash seams/horizons of Ba-001, Ba-002, Ba-003 and Ba-004 are presented in Table 28.
- the Cycle V potash seams/horizons of Ba-001, Ba-002, Ba-003 and Ba-004 are presented in Table 29.
- the Cycle IV and Cycle III potash seams/horizons of Ba-001 are presented in Table 30.
- the Cycle IV and Cycle III potash seams/horizons of Ba-002 are presented in Table 31.
- the Cycle IV and Cycle III potash seams/horizons of Ba-004 are presented in Table 32.

A summary of the estimated Measured Mineral Resources is provided in Table 34 in section 25. The total Measured Mineral Resources for the Carnallite Mineralisation is estimated at 648.2 million tonnes of mineralised material at an average grade of 15.7 % KCl (58.6 % Carnallite). This amounts in total to 101.9 million tonnes of KCl within the mineralized material of the Mineral Resources of the Measured category.

Table 26 Summary of the estimated Measured Mineral Resources for the Cycle VIII seams. Min. = Mineralisation, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Ba-003						
Seam 3	Ct	1.44	4.63	1.777	11.82	17.0
Seam 2	Ct	1.44	5.11	1.823	13.39	14.5
Ba-004						
Seam 4	Ct	1.54	1.80	1.808	5.01	15.2
Seam 3	Ct	1.54	4.72	1.821	13.23	14.4
Seam 2	Ct	1.54	5.53	1.826	15.55	14.1

Table 27 Summary of the estimated Measured Mineral Resources for the Cycle VII seams/horizons. Min. = Mineralisation, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Ba-002						
Seam 10	Ct	1.37	1.25	1.854	3.18	13.4
Seam 9	Ct	1.37	1.50	1.829	3.77	14.0
Seam 8	Ct	1.37	1.55	1.866	3.97	12.6
Horizon 6-7	Ct	1.37	3.10	1.871	7.96	13.2
Seam 5	Ct	1.37	2.55	1.815	6.35	15.5
Horizon 3-4	Ct	1.37	5.35	1.844	13.54	14.6
Horizon 1-2	Ct	1.37	7.50	1.772	18.24	16.2
Ba-003						
Seam 8	Ct	1.54	1.41	1.827	3.97	14.5
Horizon 6-7	Ct	1.54	3.26	1.820	9.13	15.0
Seam 5	Ct	1.54	2.64	1.784	7.25	16.8
Horizon 3-4	Ct	1.54	5.02	1.819	14.06	15.0
Seam 1-2	Ct	1.54	6.99	1.786	19.21	16.7
Ba-004						
Seam 14	Ct	1.54	5.60	1.808	15.59	14.7
Seam 7	Ct	1.54	2.38	1.816	6.65	14.4
Horizon 3-4	Ct	1.54	5.42	1.805	15.06	15.1
Seam 2	Ct	1.54	11.19	1.733	29.86	18.7

Table 28 Summary of the estimated Measured Mineral Resources for the Cycle VI horizons. Min. = Mineralisation, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Ba-002						
Horizon 6-11	Ct	1.37	13.81	1.809	34.29	14.7
Horizon 2-5	Ct	1.37	13.80	1.778	33.66	15.6
Ba-003						
Horizon 6-11	Ct	1.54	11.77	1.802	32.64	15.9
Horizon 2-5	Ct	1.54	15.72	1.769	42.80	16.9
Ba-004						
Horizon 6-11	Ct	1.54	13.15	1.824	36.91	14.3
Horizon 2-5	Ct	1.54	14.94	1.793	41.24	15.8

Table 29 Summary of the estimated Measured Mineral Resources for the Cycle V seams/horizons. Min. = Mineralisation, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Ba-001						
Horizon 6-9	Ct	1.26	6.22	1.845	14.46	13.1
Horizon 2-3	Ct	1.26	4.00	1.807	9.11	15.1
Ba-002						
Horizon 5-9	Ct	1.37	10.05	1.819	25.09	13.6
Seam 3	Ct	1.37	1.90	1.677	4.37	21.6
Seam 2	Ct	1.37	1.55	1.778	3.78	16.2
Ba-003						
Horizon 5-9	Ct	1.54	9.82	1.826	27.60	14.6
Seam 3	Ct	1.54	2.22	1.710	5.84	20.1
Seam 2	Ct	1.54	1.55	1.735	4.14	19.1
Ba-004						
Seam 9	Ct	1.54	2.04	1.748	5.49	17.8
Horizon 5-8	Ct	1.54	6.91	1.817	19.33	14.8
Horizon 2-3	Ct	1.54	4.56	1.813	12.72	14.6

Table 30 Summary of the estimated Measured Mineral Resources for the Cycle IV and Cycle III seams/horizons of Ba-001. Min. = Mineralisation, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km²)	(m)	(t/m³)	(million t)	(% KCl)
Cycle IV						
Seam 1	Ct	1.26	2.65	1.744	5.82	18.3
Cycle III						
Horizon 1-2	Ct	1.26	3.45	1.748	7.60	18.1

Table 31 Summary of the estimated Measured Mineral Resources for the Cycle IV and Cycle III seams/horizons of Ba-002. Min. = Mineralisation, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km ²)	(m)	(t/m ³)	(million t)	(% KCl)
Cycle IV						
Seam 1	Ct	1.37	4.16	1.778	10.15	17.1
Cycle III						
Horizon 1-2	Ct	1.37	4.76	1.748	21.57	18.7

Table 32 Summary of the estimated Measured Mineral Resources for the Cycle IV and Cycle III seams/horizons of Ba-004. Min. = Mineralisation, Ct = Carnallite

	Min.	Area	Thickness	Density	Tonnage	Grade
		(km ²)	(m)	(t/m ³)	(million t)	(% KCl)
Cycle IV						
Seam 1	Ct	1.54	3.66	1.786	10.06	16.7
Cycle III						
Horizon 1-2	Ct	1.54	4.92	1.698	12.86	20.9

14.3 Factors that Could Influence the Mineral Resource Estimate

There are a number of factors that could influence the Mineral Resource Estimate and these will be discussed in the following paragraphs.

The estimate of Mineral Resources requires that the Qualified Person sees a reasonable prospect of economic extraction of the material. Since there is no potash operation known, where solution mining takes place “off shore”, it has been conservatively assumed that within the area of the shallow lagoon there is no reasonable prospect of economic extraction of the deposit. With a preliminary economic assessment for a solution mining operation, that provides reasonable estimates for CAPEX and OPEX for the operations of caverns in the lagoon, which shows that at reasonable potash process, extraction and processing from such caverns is feasible, it would be possible to add at least part of the lagoon area to the area for Measured, Indicated and Inferred Mineral Resources. This again would significantly increase the tonnages of estimated Measured, Indicated and Inferred Mineral Resources.

The estimate of the Carnallite Mineral Resources has been based on the assumption that the carnallite will be mined by solution mining in caverns that may extend over several thinner seams. If an alternative solution mining method is selected, it might no longer be possible to economically mine relatively thin and low grade carnallite seams and the boundary condition for thickness for solution mining might need to be shifted from > 1.25 m to for example > 2.5 m. This would reduce the tonnage of carnallite Mineral Resources in

the Measured, Indicated and the Inferred category by about 10 % at the same time increasing the overall grade of the remaining Mineral Resources.

The Mineral Resources have been estimated based on the reasonable assumption that the carnallite can be mined by solution mining. This requires that the Carnallite in the rock readily dissolves in water or NaCl brine and provides KCl and MgCl₂ to the brine for processing. This assumption needs to be confirmed by dissolution test work for the different carnallite types observed in the different cycles (e.g. Figure 9 to Figure 11). If the dissolution testwork indicates that certain types of carnallite cannot be readily dissolved, this could result in a reduction of Measured and Indicated Mineral Resources and an increase of the Inferred Mineral resources.

A number of mainly NW-SE striking faults has been interpreted from eventual offsets of the base and to a lesser extent also offsets of the top of the salt section from seismic sections. All faults that are interpreted from offsets of the base and have no equivalent offset at the top of the evaporite section, might have been active prior to or during deposition of the evaporite sequence. They, therefore, might influence the continuity and thickness of only a limited number of cycles. With the exception of the fault zone at Ba-001, for most of these faults the distribution of the drill holes does not allow yet to confirm that also a vertical offset of the cycle boundaries within the salt has taken place and that the fault influenced thickness and continuity of single or all identified potash seams and horizons. The buffer zone around the faults assuming that all seams and horizons are influenced by the faults are, therefore, quite conservative. If further drilling confirms that such interpreted fault has no influence on continuity of depth, thickness and grade of potash seams/horizons, this would result in a small increase in the amounts of Measured, Indicated and Inferred Mineral Resources.

15 Mineral Reserve Estimates

The Mayumba Exploration Permit is not an advanced property, and this section is not yet relevant.

16 Mining Methods

The Mayumba Exploration Permit is not an advanced property and only a short resume of the mining method proposed in the preliminary economic assessment study by MICON (2024, /20/) will be provided. This study proposes to use cavern development along a single vertical well on up to 6 multiple levels to extract the different sylvinitic and carnallitic seams/horizons. The project will start using solution mining at ambient underground temperature of about 30 °C and in a later stage change to using a high temperature solvent to produce a higher temperature brine with a higher KCl concentration.

Each cavern will produce production quality brine when operating in the potash seams/horizons and waste brine at cavern development and when dissolving away thin rock salt layers between different seams/horizons. Thick rock salt layers will be removed by a process of rubbelization, which results in fragmentation of the rock salt layer which will drop in the cavern volume below. At each cavern the sequence of cavern development, production

leaching rock salt leaching or rubbelization will be repeated till all seams/horizons in a defined level are mined. Then the procedure is repeated in the next mining level. When all levels are mined the caverns will be plugged before abandonment.

The caverns are proposed to be developed to a radius of 50 m and on a hexagonal grid with 210 m distance between the central cavern well. For the production of 400,000 tpy of a KCl product it has been estimated that 35 caverns need to be available for production to guarantee continuous production of adequate volumes of production quality brine to the plant. Starting in year 12 new caverns need to be developed to keep the volume of production quality brine constant.

The proposed mining method requires additional evaluation and needs to be further detailed in a pre-feasibility or feasibility study.

17 Recovery Methods

The Mayumba Exploration Permit is not an advanced property and only a short resume of the recovery methods proposed in the preliminary economic assessment study by MICON (2024, /20/) will be provided. The study proposes in a first stage to increase the temperature of the brine and evaporate water from the brine with precipitation of NaCl. The evaporation with NaCl precipitation is continued until KCl saturation of the remaining brine is reached and the hot brine is transferred to a cooling crystallization train. In the cooling crystallization train the brine is cooled down in several steps to 25 °C, resulting in the crystallization of KCl in each of these steps. The KCl is separated from the remaining brine, further de-brined, dried and compacted to a saleable MOP product.

The crystallised NaCl can be dried as a potential by-product or is dissolved in sea water for disposal into the ocean. The MgCl₂ rich brine after KCl crystallization can be diluted and disposed of into the ocean.

A potential alternative process route is discussed and it will be required as part of a pre-feasibility or feasibility study where both processing alternatives are investigated in more detail to come up with the optimal process route. This also has to take into account that there will be a change in production brine composition between initial cold leaching and later hot leaching in the brine field if implemented.

18 Project Infrastructure

The Mayumba Exploration Permit is not an advanced property and only a summary of required infrastructure from the preliminary economic assessment study by MICON (2024, /20/) will be provided.

The operation consists of a solution mining brine field connected by pipelines and a road to the brine processing plant. Water for solution mining and for plant process water is taken from the Banio lagoon. At the brine processing plant, a steam generation plant (when electrical power is taken from the grid), or a combined steam power generation plant using natural gas is required, that must have a connection to a natural gas source. For product

export and disposal of waste brine a location with marine facilities is required, and this cannot be located within the natural reserve area in the southern part of the permit.

As part of the pre-feasibility or feasibility study to the optimal combination of locations for marine facilities with product storage, brine processing plant and steam generation as well as the brine field has to be selected.

19 Market Study and Contracts

The Mayumba Exploration Permit is not an advanced property, and the section is not yet relevant.

20 Environmental Studies, Permitting and Social or Community Impact

The Mayumba Exploration Permit is not an advanced property however Millennial Potash has taken steps to ensure that the protection of the environment, and interaction with the local communities well managed in and around the project area. In March 2024 the company re-submitted an updated Notice of Impact (NOI) for the project, as an addendum to the NOI for the project that was approved back in 2017. The updated NOI covers all potential exploration sites in the current NW exploration area and also drilling and associated work in the SW area of the Mayumba Exploration Permit.

Millennial Potash have engaged the Environmental & Social Sustainability (ESS) Group, who have vast experience in managing the impact of exploration activities for similar companies throughout Africa. Through ESS, Millennial Potash have deployed a highly experienced HSEC manager to manage day to day activities of the company in Gabon. ESS are currently drafting the ESG and Sustainability Strategy for the Banio Project, which sets out how the Project proactively address all related issues during the exploration and into the construction phase. The company has developed a comprehensive HSEC Management System (HSECMS) to cover the extended exploration period together and is developing an operational HSECMS documents focussing on additional work that will be undertaken during key construction and operational phases.

Work has also commenced on developing the ESIA Terms of Reference (TOR) that will be sent to potential ESIA consultancies for their proposals in 2025. The future ESIA will require a detailed baseline and impact assessment studies on biodiversity, the physical environment, as well impacts of the social / communities within the study area.

21 Capital and Operating Costs

The Mayumba Exploration Permit is not an advanced property, and the section is not yet relevant.

22 Economic Analysis

The Mayumba Exploration Permit is not an advanced property, and the section is not yet relevant.

23 Adjacent Properties

There are no direct adjacent potash properties to the Mayumba Permit. Nearest potash properties within the same basin and because of similarities in mineralisation relevant for the Mayumba Permit occur about 60 km SE of the Mayumba Permit where Kore Potash plc, has two mining licenses and an exploration license for three different projects:

- The Kola Sylvinite project has a mining license since 2013, and in 2017 a mining convention with the ROC was ratified. For location see Figure 2. A PFS study was finished in 2012 (SRK et al., 2012 /25/) and a feasibility study (FS) has been finished in 2019 for conventional mining of the sylvinite, which will be processed to a MOP at a flotation plant at surface (KORE, 2019, /14/).
- The Dougou carnallite project has a mining license since 2017. The project is located SW of the Kola License (Figure 2) and aims at solution mining the carnallite seams identified as Cycle VIII 2-3 and 4, as well as Cycle IX 3 in this study. The project has a scoping study status (Kore, 2015, /13/).
- The Dougou extension (DX) or Yangala project is covered by the Dougou mining license. A sylvinite deposit has been defined in this area, located NW of the Dougou project and a pre-feasibility study based on solution mining of Sylvite and processing of the brine to an MOP project has been completed (Kore, 2020, /15/).

24 Other Relevant Data and Information

At this stage of the project there is no further relevant data or information available.

25 Interpretation and Conclusions

Millennial Potash Corp. (MLP or the “Company”), a Canadian registered company, has the option to acquire 100 % of Equatorial Potash thereby acquiring 100 % of Mayumba Potasse Sarl, (Mayumba Potasse) a Gabonese registered company, which holds the rights to the “permis de recherché minière pour la potasse et sels connexes n° G5-595 dènommé “Potasse et sels connexes Mayumba” (Mayumba Permit) in the Republic of Gabon (ROG).

The Mayumba Permit is located in the Congo Coastal Basin which has been explored for potash for over 60 years and which has a well-defined stratigraphy with 10 depositional cycles in the evaporite sequence. Single potash seams or typical interlayering of rock salt with potash seams allow the author to define which cycle is encountered. Within the salt sequence these cycles (and seams) can be correlated over distances over more than 60 km in this basin.

For the evaluation of the Property in this Technical Report, the author has relied on the information from the 2017 potash exploration drill holes, Ba-001, Ba-002, Ba-003 and the information from drill hole Ba-002 to a depth of 552.5 m obtained in 2023 as well as from the extension of drill hole Ba-001 to a depth of 678,0 m and the new drill hole Ba-004 obtained in 2025. Further information from or near the Mayumba Permit consisting of well reports and geophysical logging data were available from hydrocarbon exploration drilling in the 1970’s by Elf Gabon (Banio-1 to Banio-4), in 1991 (Banio-Tchigana 1, BATC-1) and in 2010 by Maurel and Prom (Banio-5). Deposit data from drilling are only available for the southern part of the Property. Furthermore, seismic data consisting of 34 lines (datasets) of about 411 line-km length over the southern part of the Property, gathered in 3 different campaigns (BAN90, TMP90, and MNPM11) between 1990 (BAN and TMP) and 2012 (MNPM), has been used to develop the geological model over the southern part of the Property.

On the seismic sections fault intersections off-setting the base and eventually top of the salt have been interpreted. By connecting fault intersections with similar conditions over several seismic sections a pattern of faults has been constructed. These faults divide the deposit into blocks bounded by NW-SE striking normal faults (locally reversed) and by NE-SW striking strike slip or oblique-slip faults that facilitate movement along the normal faults. This interpretation is supported by the observations on the stratigraphy of the salt section from the available drill holes that at least show 7 typical evaporite cycles that can be correlated over the whole Congo Coastal Basin. For the geological model it is assumed that the layering within each block is near horizontal.

Drill hole Ba-001 is located on a small block between two faults within a NE-SW striking fault zone, which has been active several times since deposition of the evaporite rocks. This fault was active during deposition of Cycle VI and Cycle VII with strong structural overprinting of the upper part of Cycle VI and the entirety of Cycle VII. Individual carnallite horizons can, however, be correlated with the other Ba drill holes and their true thickness can be estimated. The drill holes Ba-002, Ba-003 and the hole BATC-1 are on the block NW of this fault zone, which has been relatively uplifted to the SE block on which Ba-004 is located. This is inferred from the larger depth of the potash seams and rock salt interlayers in Ba-004 compared to Ba-002 and Ba-003 with in all 3 holes a similar thickness of these layers. The vertical offset in the range of 80 m to 100 m has been compensated by a larger thickness of Cycle VII (especially the Tachyhydrite bearing section). The fault block with Ba-001 moved independently of the neighbouring blocks, prior to deposition of the Anhydrite Formation and once more prior to deposition of the siliciclastic sands in the Tertiary.

The drill holes Ba-001, Ba-002, Ba-003 and Ba-004 have adequate information about thickness and grade (assays) of the potash seams/horizons required for a Mineral Resource Estimate (e.g. Table 33). Mineral Resources in the categories Measured, Indicated and Inferred have been estimated for the area surrounding these drill holes using a polygon method based on ROI's. Because Carnallite is considered the primary potash mineral in the deposit and Sylvite a secondary reaction product of Carnallite with circulating brines and therefore less regular in distribution, different ROI's for the Carnallite and Sylvite mineralisation have been used.

For the Carnallite Mineralisation,

- Measured resources occur in a radius of 700 m for a seam with known thickness and grade of the drill holes. This ROI is not extended beyond the faults interpreted from the seismic sections,
- Indicated resources occur in a radius of 1,400 m for a seam with known thickness and grade of the drill holes, minus any measured resources in this area. This ROI is not extended beyond the faults interpreted from the seismic sections,
- Inferred resources occur in a radius of 2,800 m of an eligible drill hole, minus any measured and indicated resources in this area. This ROI is extended beyond the faults interpreted from the seismic sections, if the extension is on the downthrown block.

For the Sylvite Mineralisation,

- Indicated resources occur in a radius of 500 m for a seam with known thickness and grade of the drill holes. This ROI is not extended beyond the faults interpreted from the seismic sections,
- Inferred resources occur in a radius of 1,000 m of an eligible drill hole, minus any indicated resources in this area. This ROI is not extended beyond the faults interpreted from the seismic sections.

The ROI's have not been extended to extend over areas below the Banio lagoon.

The estimated Measured Mineral Resources over each Cycle have been summarized in Table 34. The Measured Mineral Resources for the Carnallite mineralisation amount to 648.2 million tonnes of mineralized material at an average grade of 15.7 % KCl (58.6 % Carnallite).

The estimated Indicated Mineral Resources over each Cycle have been summarized in Table 35. The Indicated Mineral Resources for the Carnallite mineralisation amount to 1,769.4 million tonnes of mineralized material at an average grade of 15.4 % KCl (57.4 % Carnallite). The Total Indicated Mineral Resources for the Sylvite Mineralisation are estimated at 35.2 million tonnes of mineralized material at an average grade of 24.3 % KCl (Sylvite).

The estimated Inferred Mineral Resources for each Cycle have been summarized in Table 36. The Inferred Mineral Resources for the Carnallite mineralisation amount to 3,463.3 million tonnes of mineralized material at an average grade of 15.4 % KCl (57.3 % Carnallite). The Total Inferred Mineral Resources for the Sylvite Mineralisation are estimated at 96.15 million tonnes of mineralized material at an average KCl grade of 24.2 % KCl (Sylvite).

It is the opinion of the QP that the Mayumba Permit is a property of merit and warrants additional exploration and further studies.

Table 33 Identified mineable potash seams and horizons with true thickness range and approximate grade in the drill holes Ba-001 to Ba-004

Cycle/seam	Thickness and estimated Grade	Present in Drill Holes
Cycle VIII		
Seam 8	2.1 m, 21.5 % KCl	Ba-004 Sylvite
Seam 4	1.8 m - 2.7 m, 15 - 21 % KCl	Ba-004 Carnallite (minor Sylvite), Ba-002, Ba -003 Sylvite
Seam 3	2 - 5 m, 14 - 25 % KCl	Ba-003, Ba-004 Carnallite; Ba-002 Sylvite
Seam 2	3 - 6 m, 14 - 25 % KCl	Ba-003, Ba-004 Carnallite; Ba-002 Sylvite
Cycle VII		
Seam 12	4 - 6 m, 14 - 15 % KCl	Ba-001, Ba-004 Carnallite
Seam 8 to 11	1 - 2 m, 12.5 - 14.5 % KCl	Ba-002 to -003, Carnallite
Seam 6-7	2 - 4 m, 13 - 15 % KCl	Ba-001 to -004, Carnallite
Seam 5	2.5 - 3 m, 15 - 17 % KCl	Ba-001 to -003, Carnallite
Seam 3-4	5 - 7 m, 14 - 15 % KCl	Ba-001 to -004, Carnallite
Seam 1-2	7 - 11 m, 16.0 - 19 % KCl	Ba-001 to -004, Carnallite
Cycle VI		
Seam 6-11	12 - 15 m, 13 - 16 % KCl	Ba-001 to -004, Carnallite
Seam 2-5	14 - 16 m, 13 - 17 % KCl	Ba-001 to -004, Carnallite
Cycle V		
Seam 5-9	6 - 10 m, 13 - 16 % KCl	Ba-001 to -004, Carnallite
Seam 3	2 m, 17 - 21 % KCl	Ba-001 to -004, Carnallite
Seam 2	1.5 m, 16 - 20 % KCl	Ba-001 to -004, Carnallite
Cycle IV		
Seam 1	2.5 m -4 m, 17 - 18 % KCl	Ba-001, -002, -004, Carnallite
Cycle III		
Seam 1-2	1 – 6 m, > 18 % KCl	Ba-001, -002, -004, Carnallite
Cycle II		
Seam 1	7 m, ~ 30 % KCl	Ba-004 Sylvite

Table 34 Summary of the estimated Measured Mineral Resources. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

Hole	Min.	Summed Thickness (m)	Average Density (t/m ³)	Summed Tonnage (million t)	Average Grade (% KCl)	Total KCl (million t)
Ba-001	Ct	16.3	1.799	37.00	15.4	5.70
Ba-002	Ct	72.8	1.799	179.77	15.3	27.55
Ba-003	Ct	70.1	1.794	191.85	16.1	30.82
Ba-004	Ct	86.8	1.793	239.56	15.8	37.82
Total	Ct			648.19	15.7	101.89

Table 35 Summary of the estimated Indicated Mineral Resources. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

Hole	Min.	Summed Thickness (m)	Average Density (t/m ³)	Summed Tonnage (million t)	Average Grade (% KCl)	Total KCl (million t)
Ba-001	Ct	68.4	1.802	487.27	14.4	70.37
Ba-002	Sy	4.8	2.120	7.99	24.9	1.93
Ba-002	Ct	72.8	1.798	336.54	15.4	42.86
Ba-003	Sy	7.5	2.128	12.47	19.5	2.41
Ba-003	Ct	70.1	1.794	358.39	16.1	57.36
Ba-004	Sy	9.0	2.071	14.69	28.0	4.11
Ba-004	Ct	87.9	1.771	587.18	15.8	92.70
Total	Sy			35.15	24.3	8.53
Total	Ct			1769.39	15.4	272.31

Table 36 Summary of the estimated Inferred Mineral Resources. Min. = Mineralisation, Sy = Sylvite, Ct = Carnallite

Hole	Min.	Summed Thickness (m)	Average Density (t/m ³)	Summed Tonnage (million t)	Average Grade (% KCl)	Total KCl (million t)
Ba-001	Ct	68.4	1.801	998.17	14.6	145.32
Ba-002	Sy	4.8	2.120	13.94	24.9	3.47
Ba-002	Ct	72.8	1.797	531.95	15.5	82.17
Ba-003	Sy	7.5	2.128	29.85	19.5	5.81
Ba-003	Ct	70.1	1.794	583.40	16.1	93.87
Ba-004	Sy	4.6	2.071	42.86	28.0	12.00
Ba-004	Ct	87.9	1.772	1461.47	15.7	230.03
Total	Sy			96.15	24.2	23.23
Total	Ct			3463.34	15.4	532.20

26 Recommendations

MLP is executing the exploration program over the Mayumba Permit using a targeted and phased approach, which is, in the opinion of the author, the accepted method for exploring for basin type potash deposits. In the first phase of the exploration work MLP planned to test the concept for the presence of the mineralisation within the north and south target areas. The exploration program was split into Phase 1 NW, focused on the location of the Ba drill holes, and eventually a later Phase 1 SW, focused around the location of the Banio drill holes. The access from the existing drilling camp to the area for Phase 1 SW exploration is very difficult, because of adverse topography (elevated plateau dissected by numerous valleys) and moving the camp closer to the southern target would mean that the adverse topography will need to be dealt with during further exploration. It is therefore recommended to focus on the north target (Phase 2 NW), which is more accessible, as accessibility is a major issue for a solution mining operation.

The Phase 2 NW exploration program aims to carry out further exploration drilling within the north target to expand the resource base or the area with resources in higher categories:

- Towards the SE of Ba-001 and SW of BA-004 by drilling of a new hole (Ba-005p) at approximately E 730186, N 9583116 with a depth of about 700 m (top of salt at the base of cycle IX).
- Towards the S of Ba-002 by drilling of a new hole (Ba-006p) at approximately E 724445, N 9585495 with a depth of about 600 m (top of salt at the base of cycle IX), which would provide the data to evaluate the off-set along one of the inferred NW-SE striking faults.
- Towards the E of Ba-003 and NW of Ba-004 by drilling a new hole (Ba-007p) at approximately E 729710, N 9586281 with a depth of about 700 m (top of

salt near top of cycle VIII), which would also allow to better constrain the strike of the indicated fault zone at Ba-001.

The locations of the drill holes for phase 2 NW are shown in Figure 24. The core material from these drill holes can also be used for further test work for ongoing studies. In parallel to the phase 2 NW exploration, it is recommended to develop a Feasibility Study for a solution mining and brine processing operation on the outlined Mineral Resources to confirm that the mineralized material can be economically mined and to better define minimum thickness and grade criteria for definition of mineable potash seams. It is estimated that the phase 2 NW exploration with ~ 2,000 m of core drilling will take about 4 months and will cost in the range of 2.5 million USD including camp support and logistics. The feasibility study is estimated to take about 12 months at a cost in the range of 5 million USD.

Conditional upon a favourable outcome of phase 2 NW exploration a further exploration phase can be initiated which consists of drilling 4 to 5 exploration drill holes in the NW-block between the town of Mayumba and the Ba drill holes (present main camp location) on the headland between Banio lagoon and Atlantic Ocean. Results of this exploration phase will assist in defining the best location for project development taking into account thickness and grade, as well as accessibility of the deposit. These results will have significant influence on the decision where to develop the potash mining and processing operation, taking into account the presence of the nature reserve areas. It is estimated that this next exploration phase will cost about 5 million USD\$ and take another 8 months. With the results of these phases the optimum location of brine field and plant for the solution mining operation can be selected.

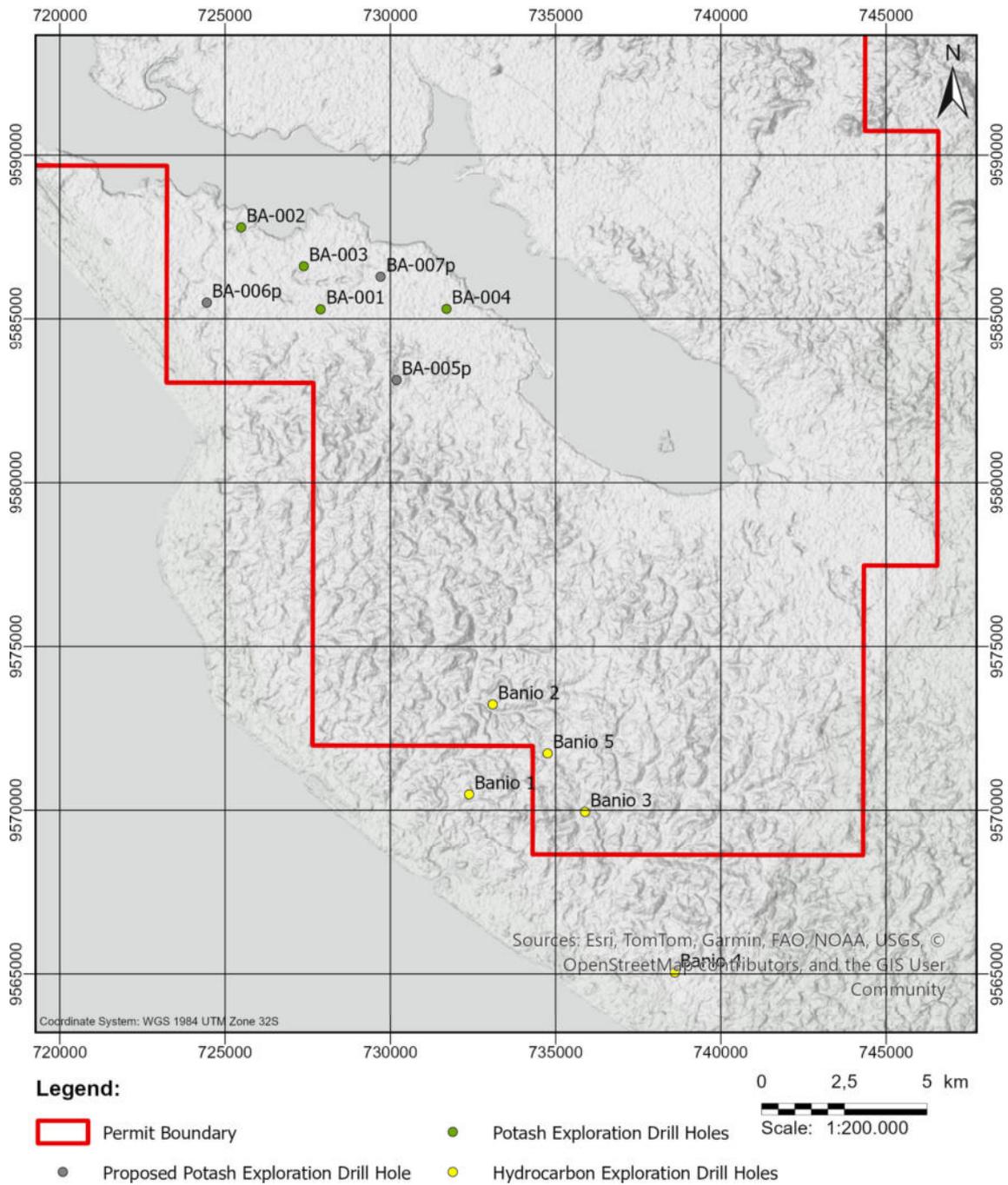


Figure 24 Location of proposed drill holes for phase-2 NW drilling exploration as well as existing hydrocarbon and potash exploration drill holes

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Certificate

I, Dr. Sebastiaan van der Klauw, EurGeol, as author of this Technical Report titled “Technical Report Updated Mineral Resource Estimate for the North Target of the Banio Potash Project, Mayumba Permit, Republic of Gabon”, with the effective date November 11, 2025 do hereby certify that:

- (1) I am a consulting geologist of ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH, with an office located in Arnstaedter Strasse 28, 99096 Erfurt, Germany.
- (2) I am a professional geologist and have been practicing in this capacity since July 1992.

I have been with the mining industry since 1996. As a professional geologist, I have been involved with in potash and salt exploration and potash mining geology since 1996, firstly in Germany and later in Russia, Brazil, Canada, Republic of Congo, Saudi Arabia, Ethiopia, Thailand, Argentina and Laos.

I am a graduate of the Rijksuniversiteit Utrecht and earned a Master’s Degree in Geology in 1990 and a PhD at the Ruhr-Universität Bochum (Ruhr University Bochum) in 1999.

I am a member of the KNGMG Royal Dutch Geologic and Mining Society.

I am a member in good standing of the European Federation of Geologists and am a registered “European Geologist” (Registration Number 756).

As a result of my experience and qualifications, I am a Qualified Person as defined in National Instrument 43-101.

- (3) I undertook site visits of the permit lands/properties on October 16, 2022 and between September 3 and 7 in 2025.
- (4) I am responsible for all sections of the Report.
- (5) I am independent of the Issuer in accordance with Section 1.5 of National Instrument 43-101.
- (6) I have in 2022 prepared an initial review of the potash potential of the property and in 2024 an initial mineral resource estimate for the north target of the property.
- (7) I have read National Instrument 43-101 and Form 43-101 F1, and the Technical Report has been prepared in compliance with National Instrument 43-101 and Form 43-101 F1.

As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signature Page of Qualified Person

Author of the Technical Report titled “Technical Report Updated Mineral Resource Estimate for the North Target of the Banio Potash Project, Mayumba Permit, Republic of Gabon” with the effective date November 11, 2025

Erfurt, 29 December 2025



Dr. Sebastiaan van der Klauw, EurGeol.

GLOSSARY

Term	Explanation
Anhydrite	an anhydrous calcium sulphate mineral with the chemical formula CaSO_4 as an exception to the geological naming convention that a rock is named after one of its main minerals with –ite behind the mineral name, also a rock consisting mainly of the mineral Anhydrite
assay	a chemical analysis to quantify the amounts of specific elements
Bischofite	A hydrous magnesium chloride mineral with the chemical formula $\text{MgCl}_2 (\text{H}_2\text{O})_6$
Carnallite	a hydrous potassium and magnesium chloride bearing salt mineral with the chemical formula $\text{KMgCl}_3 (\text{H}_2\text{O})_6$
carnallite	a salt rock consisting of Carnallite and Halite as main minerals with subordinate amounts of other minerals
CIM Definition Standards and Guidelines	a series of definition and regulatory standards for mineral resources, mineral reserves and mineral projects as well as best practice guidelines for exploration, mineral processing, and the estimation of mineral resources and mineral reserves
FOB	“free on board” an incoterm abbreviation, which means that the price of the product includes loading the product on a sea-going vessel
Halite	an anhydrous sodium chloride mineral with the chemical formula NaCl
Kainite	a hydrous potassium chloride and magnesium sulphate mineral with the chemical formula $\text{K}_2\text{Mg}_2\text{Cl}_4(\text{SO}_4)_4 (\text{H}_2\text{O})_{11}$
Kieserite	a hydrous magnesium sulphate mineral with the chemical formula $\text{MgSO}_4 (\text{H}_2\text{O})$
Mineral Resource	a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction (as judged by a Qualified Person). The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.
NI 43-101	national instrument for the Standards of Disclosure for Mineral Projects within Canada, which is a codified set of rules and guidelines for reporting and displaying information related to mineral properties owned by, or explored by, companies which report these results on stock exchanges within Canada.
Qualified Person	A qualified person: <ul style="list-style-type: none"> is an engineer or geoscientist with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these;

	<ul style="list-style-type: none">• has experience relevant to the subject matter of the mineral project and the technical report;and• is in good standing with a professional association
rock salt	as an exception to the geological naming convention that a rock is named after one of its main minerals with -ite behind the mineral name, a rock consisting mainly of Halite with subordinate amounts of other minerals
Sylvite	An anhydrous potassium chloride mineral with the chemical formula KCl
sylvinite	a salt rock consisting of Sylvite and Halite as main minerals with subordinate amounts of other minerals, in case these minerals consist of sulphate minerals like Anhydrite, Kieserite or Polyhalite the rock is called "hard salt"
Tachyhydrite	a hydrous calcium and magnesium chloride mineral with the chemical formula $\text{CaMg}_2\text{Cl}_6 \cdot (\text{H}_2\text{O})_{12}$
tachyhydritite	a salt rock consisting of Tachyhydrite as main mineral with subordinate amounts of other salt minerals

LIST OF ABBREVIATIONS

Abbreviations of physical units/constants used throughout this study are as follows:

2D	2 dimensional
3D	3 dimensional
Ca	calcium
CaCl ₂	calcium chloride
Cl	chloride
cm	centimetre
CIM	Canadian Institute of Mining, Metallurgy and Petroleum
dm	decimetre
E	east
e.g.	example given
EFG	European Federation of Geologists
EIA	Environmental Impact Assessments
EOH	end of hole
FS	feasibility study
g	gram
g/cm ³	gram per cubic centimetre
g/l	gram per litre
GR	natural gamma ray
H ₂ O	water
ICP-MS	inductively coupled plasma - mass spectrometry
Inc	incorporated
K	potassium
KCl	potassium chloride
kg	kilogram
km	kilometre
km ²	square kilometre
K ₂ O	di-potassium oxide
l/h	litre per hour
m	metre
m.b.s.l.	metre below sea level
m ²	square metre
max	maximum

MDPA	Mines de Potasse d'Alsace
Mg	magnesium
MgCl ₂	magnesium chloride
min	minimum
mm	millimetre
MOP	muriate of potash (KCl)
MW	mega watt
Na	sodium
NaCl	sodium chloride
NE	northeast
NI 43-101	National Instrument 43-101
NW	northwest
PFS	pre-feasibility study
QC	quality control
QP	qualified person
RN-5	National Road 5
ROC	Republic of Congo (Congo, Brazzaville)
ROG	Republic of Gabon
S	south or sulphur
SE	southeast
SO ₄	sulphate
SW	southwest
USD	United States Dollar
UTM	Universal Transverse Mercator
W	west
WGS	World Geodetic System
WNW	west northwest
WSW	west southwest
XRD	X-ray powder diffraction
%	percent
°C	degree Celcius
°	degree
'	minutes
“	seconds or inches

APPENDIX 01

Legal Support Information

Arrêté n° 000045 / MM/SG/DGGSM/DCDM/SATM

Portant deuxième renouvellement du permis de recherche minière pour la potasse et sels connexes n° G5-595 dénommé « **Mayumba** » au bénéfice de la société **MAYUMBA POTASSE SARL**

LE MINISTRE DES MINES

Vu la Charte de la Transition, révisée par la loi n°001/2023 du 6 octobre 2023 ;

Vu la loi n°037/2018 du 11 juin 2019 portant réglementation du secteur minier en République Gabonaise ;

Vu le décret n°023/PR/MPGM du 22 janvier 2021 fixant les règles relatives à la contribution de l'activité minière au développement local en République Gabonaise ;

Vu le décret n°185/PR du 05 août 2022 portant attributions et organisation du Ministère des Mines ;

Vu le décret n°00007/PT du 07 septembre 2023 portant nomination du Premier Ministre, Chef du Gouvernement de la Transition ;

Vu le décret n°00009/PT/PM du 08 septembre 2023 portant composition du Gouvernement de la Transition, modifié par le décret n° 00011/PT/PM du 11 septembre 2023, ensemble les textes modificatifs subséquents ;

Vu le décret n°0272/PR/MM du 03 juin 2024 portant création, attribution et organisation de la Direction Générale de la Géologie et du Support Minier ;

Vu le décret n°0273/PR/MM du 03 juin 2024 portant création, attribution et organisation de la Direction Générale des Analyses Economiques et Juridiques Minières ;

Vu le décret n°0274/PR/MM du 03 juin 2024 portant création, attribution et organisation de la Direction Générale de l'Exploitation des Mines ;

Vu le décret n°0275/PR/MM du 03 juin 2024 portant création, attribution et organisation de la Direction Générale de l'Exploitation des Carrières et de l'Artisanat ;

Vu le décret n°000275/PR/MM du 03 juin 2024 fixant le régime des Substances Souveraine du secteur minier ;

Vu l'arrêté n° 006/MPGM/SG/DGMG/DLMEM du 04 février 2022 portant premier renouvellement d'un permis de recherche minière pour la potasse et sels connexes n° G5-595 dénommé « Banio » au bénéfice de la société MAYUMBA POTASSE SARL

Vu la demande de second renouvellement du permis de recherche minière n° G5-595 dénommé « Banio », formulée en date du 25 novembre 2024 par la société MAYUMBA POTASSE SARL ;

Sur rapport du Directeur Général de la Géologie et du Support Minier ;

ARRETE

Article 1^{er} : Le présent arrêté, pris en application des dispositions de la loi numéro 037/2018 du 11 juin 2019 portant réglementation du secteur minier en République Gabonaise, porte deuxième renouvellement du permis de recherche minière, au bénéfice de la société **MAYUMBA POTASSE SARL**, valable pour **la potasse et sels connexes**.

M

Ledit permis de recherche minière dénommé « **Banio** », porte le numéro **G5-595** et se situe dans le Département de la Basse-Banio, Province du Nyanga.

Article 2 : Le permis de recherche minière n° **G5-595** dénommé « **Banio** » est renouvelé pour une période de trois ans à compter de la date de signature du présent arrêté. A l'expiration de la deuxième période de validité dudit permis non suivie d'une demande d'attribution de titre d'exploitation, le périmètre concerné devient libre de tout droit.

Article 3 : Le périmètre couvert par Le permis de recherche minière n° **G5-595** dénommé « **Banio** » est délimité par les points **A** à **Z** et **AA** à **AJ** dont les coordonnées du périmètre de recherche en degrés décimaux WGS84 sont les suivantes :

Points	X	Y	Points	X	Y	Points	X	Y
A	10,65	-3,35	M	11,20	-3,70	Y	10,97	-3,65
B	10,76	-3,35	N	11,22	-3,70	Z	10,92	-3,65
C	10,76	-3,43	O	11,22	-3,82	AA	10,92	-3,59
D	10,84	-3,43	P	11,20	-3,82	AB	10,87	-3,59
E	10,84	-3,46	Q	11,20	-3,90	AC	10,87	-3,56
F	10,93	-3,46	R	11,11	-3,90	AD	10,81	-3,56
G	10,93	-3,49	S	11,11	-3,87	AE	10,81	-3,52
H	11,00	-3,49	T	11,05	-3,87	AF	10,75	-3,52
I	11,00	-3,56	U	11,05	-3,77	AG	10,75	-3,47
J	11,08	-3,56	V	11,01	-3,77	AH	10,69	-3,47
K	11,08	-3,61	W	11,01	-3,71	AI	10,69	-3,44
L	11,20	-3,61	X	10,97	-3,71	AJ	10,65	-3,44

La superficie de la zone ainsi délimitée est égale à **1 238 km²**. Le plan de situation y relatif est joint en annexe du présent arrêté.

Article 4 : La société **MAYUMBA POTASSE SARL** est tenue de fournir à la Direction Générale des Mines et de la Géologie les rapports trimestriels et annuels relatifs à l'activité déployée sur le périmètre objet dudit permis de recherche minière.

Article 5 : Conformément à la réglementation minière en vigueur, le permis de recherche minière n° **G5-595** dénommé « **Banio** » confère à la société **MAYUMBA POTASSE SARL** dans les limites de son périmètre et indéfiniment en profondeur, le droit exclusif de recherche du fer, de la potasse et sels connexes.

Article 6 : La société **MAYUMBA POTASSE SARL** est tenue de dépenser, sur la période globale de trois ans de validité du titre, la somme de **deux milliards six cent quarante-huit millions quatre cent soixante-et-un mille cinq cent quarante-deux (2 648 461 542) francs CFA** prévue pour la réalisation de son programme de travail.

En cas de non-respect des engagements de dépense prévus ci-dessus, la société s'expose à une sanction ou pénalité de 10% du montant des investissements non réalisés.

La société **MAYUMBA POTASSE SARL** est tenue d'exécuter les travaux suivants :

- Forages supplémentaires
- Modélisation géologique
- Estimation des ressources minérales
- Etude de faisabilité
- Evaluation complète des impacts environnementaux, plans de gestion environnementale et sociale.

La société **MAYUMBA POTASSE SARL** est tenue de démarrer les travaux de recherche prévus dans un délai de six (6) mois à compter de la date de signature du présent arrêté.

En cas de non-respect de ce délai de six (6) mois, le présent arrêté sera frappé de nullité.

M

Article 7 : A l'expiration de la période de validité du présent permis, la société **MAYUMBA POTASSE SARL** s'engage à fournir à la Direction Générale des Mines et de la Géologie outre le rapport détaillé de fin des travaux, les résultats du traitement des échantillons, une esquisse géologique de la zone couverte par le permis de recherche ainsi que la notice explicative de celle-ci.

Article 8 : Conformément à l'article 195 de la loi n°037/2018 du 11 juin 2019 portant réglementation du secteur minier en République Gabonaise, la société **MAYUMBA POTASSE SARL** est assujettie au paiement d'un droit fixe de deuxième renouvellement.

Le montant de ce droit fixe s'élève à **trois millions (3 000 000)** de francs CFA.

Article 9 : La suspension, le retrait, le non renouvellement ou la réduction d'office de superficie du présent permis de recherche minière dénommé « **Banio** » peut être décidé, sans préjudice des condamnations qui pourraient être prononcées par les tribunaux compétents, pour l'un des motifs suivants :

- non-respect des obligations liées au programme des travaux et de dépenses ;
- non-versement des droits et taxes prévus par le régime fiscal en vigueur ;
- non-respect de la législation minière en vigueur notamment les obligations relatives à la protection de l'environnement, à l'hygiène et la sécurité, à l'urbanisme ou à la préservation du patrimoine archéologique, forestier et des ressources hydrauliques ;
- refus et omission de se conformer aux injonctions adressées par l'Administration des Mines en vue de la poursuite des travaux de recherche avec diligence et selon les règles en usage dans l'industrie minière internationale ;
- arrêt des travaux pendant un an.

Article 10 : Le présent arrêté est frappé de nullité si, après contrôle des services compétents, il est établi un vice de nature à affecter l'intégrité du consentement de l'Etat au moment de l'instruction de la demande relative au présent permis.

Article 11 : Une copie du présent arrêté doit être tenue au siège de la société **MAYUMBA POTASSE SARL** à la disposition des autorités chargées d'en contrôler l'exécution. Un extrait de cet arrêté sera affiché en permanence et de façon visible dans les dépendances de l'exploration.

Article 12 : Le Directeur Général des Analyses Economiques et Juridiques Minières et le Directeur Général de la Géologie et du Support Minier sont chargés de l'exécution du présent arrêté qui sera enregistré, publié au Journal Officiel de la République Gabonaise et communiqué partout où besoin sera.

Fait à Libreville, le **21 MARS 2025**

Le Ministre des Mines



Ampliations :

Présidence	1
J.O.	1
MM	1
DGGSM	1
DGAEJM	1
Impôts	1
Gouverneur de la Nyanga	1
Intéressé	1/8



Zone de la Banio / Département de la Basse Banio / Province de la Nyanga



Coordonnées des sommets du périmètre d'intérêt (exprimées en degrés décimaux WGS 1984)

Points	Longitude	Latitude									
A	10,65	-3,35	J	11,08	-3,56	S	11,11	-3,87	AB	10,87	-3,59
B	10,76	-3,35	K	11,08	-3,61	T	11,05	-3,87	AC	10,87	-3,56
C	10,76	-3,43	L	11,20	-3,61	U	11,05	-3,77	AD	10,81	-3,56
D	10,84	-3,43	M	11,20	-3,70	V	11,01	-3,77	EAE	10,81	-3,52
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F	10,93	-3,46	O	11,22	-3,82	X	10,97	-3,71	AG	10,75	-3,47
G	10,93	-3,49	P	11,20	-3,82	Y	10,97	-3,65	AH	10,69	-3,47
H	11,00	-3,49	Q	11,20	-3,90	Z	10,92	-3,65	AJ	10,69	-3,44
I	11,00	-3,56	R	11,11	-3,90	AA	10,92	-3,59	AI	10,65	-3,44

Superficie : 1238 km²

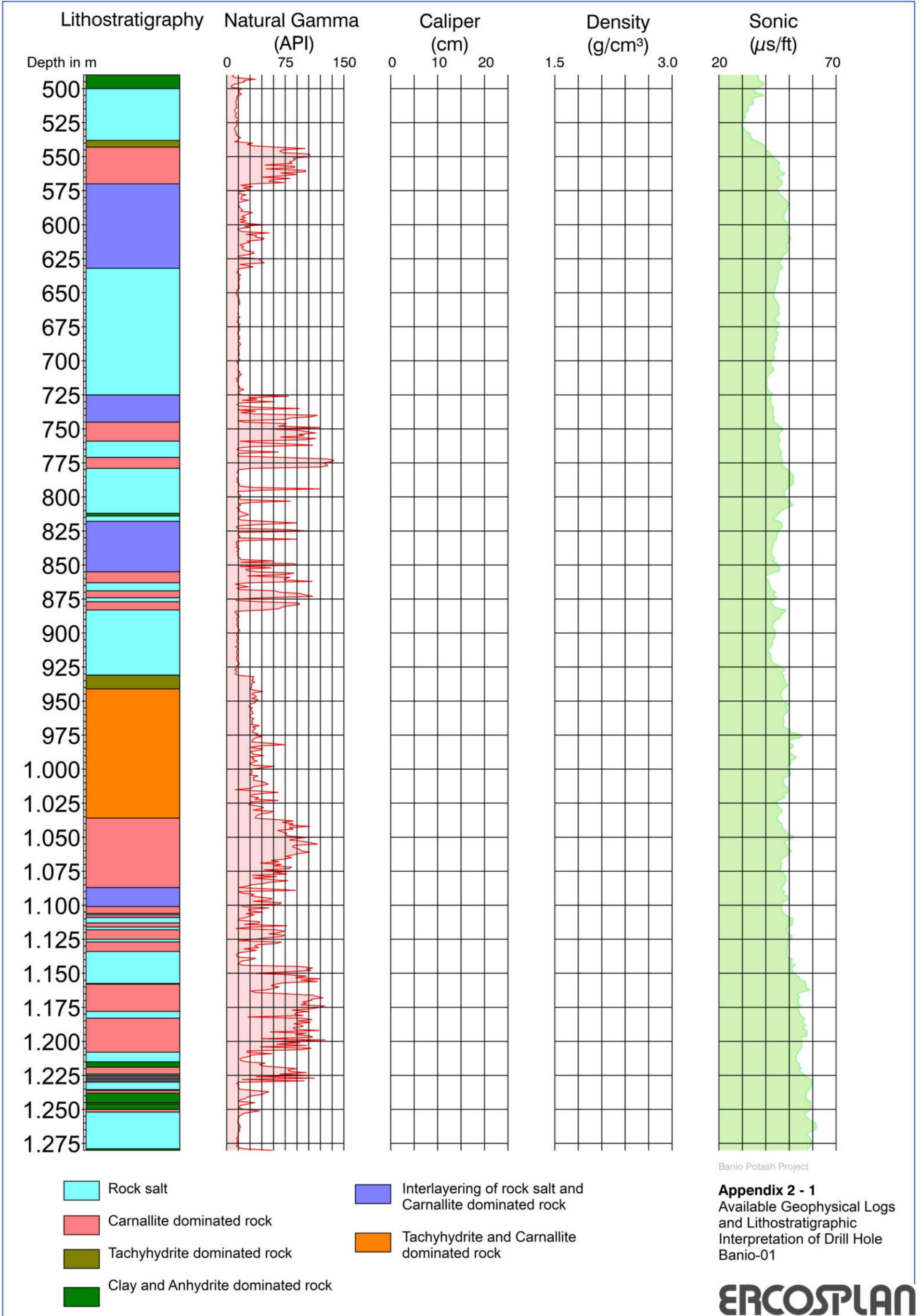
Le Directeur Général de la Géologie
et du Support Minier

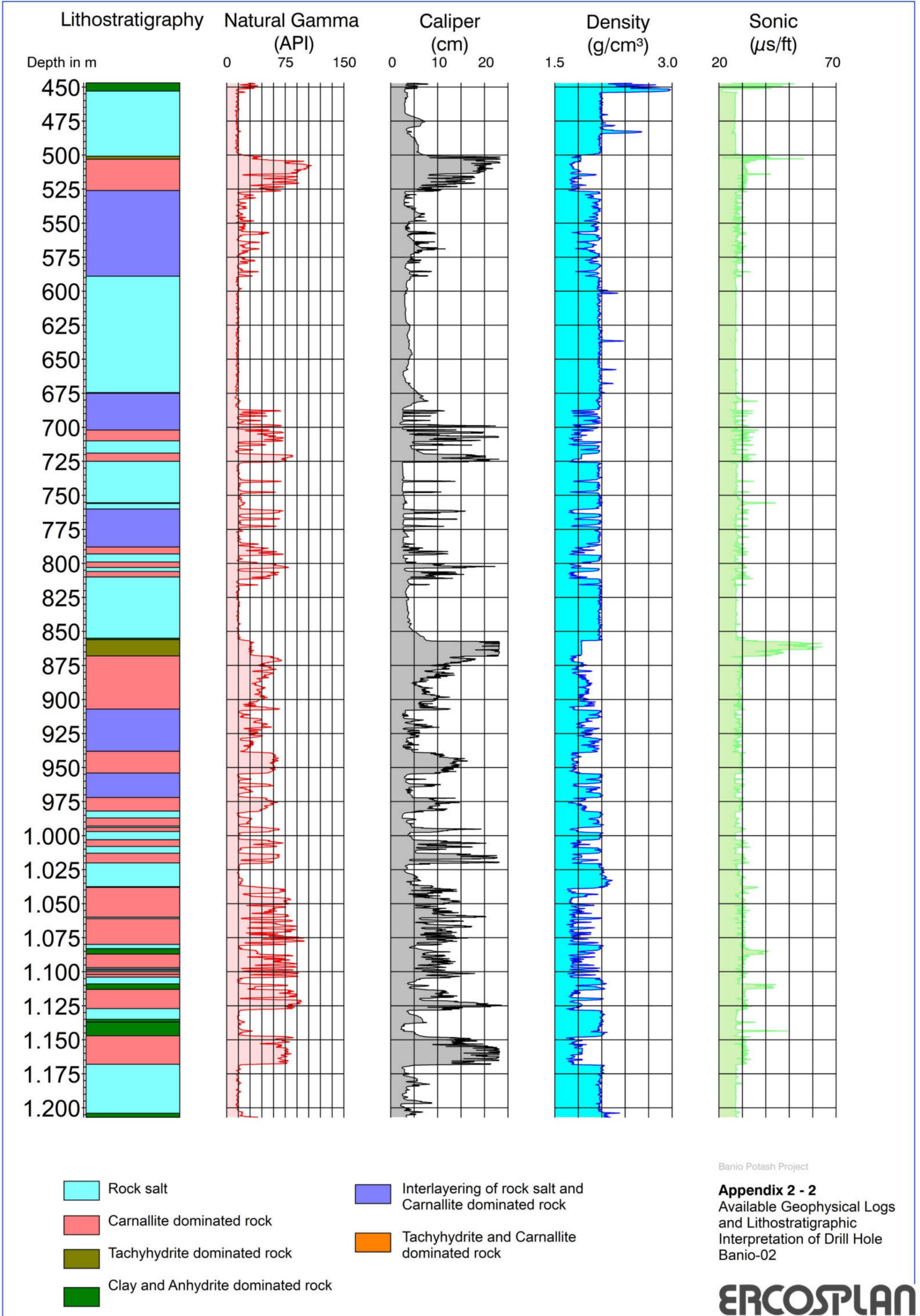


Alain Serge NZAMBA MANZANZA

APPENDIX 02

Geophysical Logs and Lithostratigraphic Interpretation of the Drill Holes Banio-01, Banio-02, Banio-03, Banio-04 and Banio-05

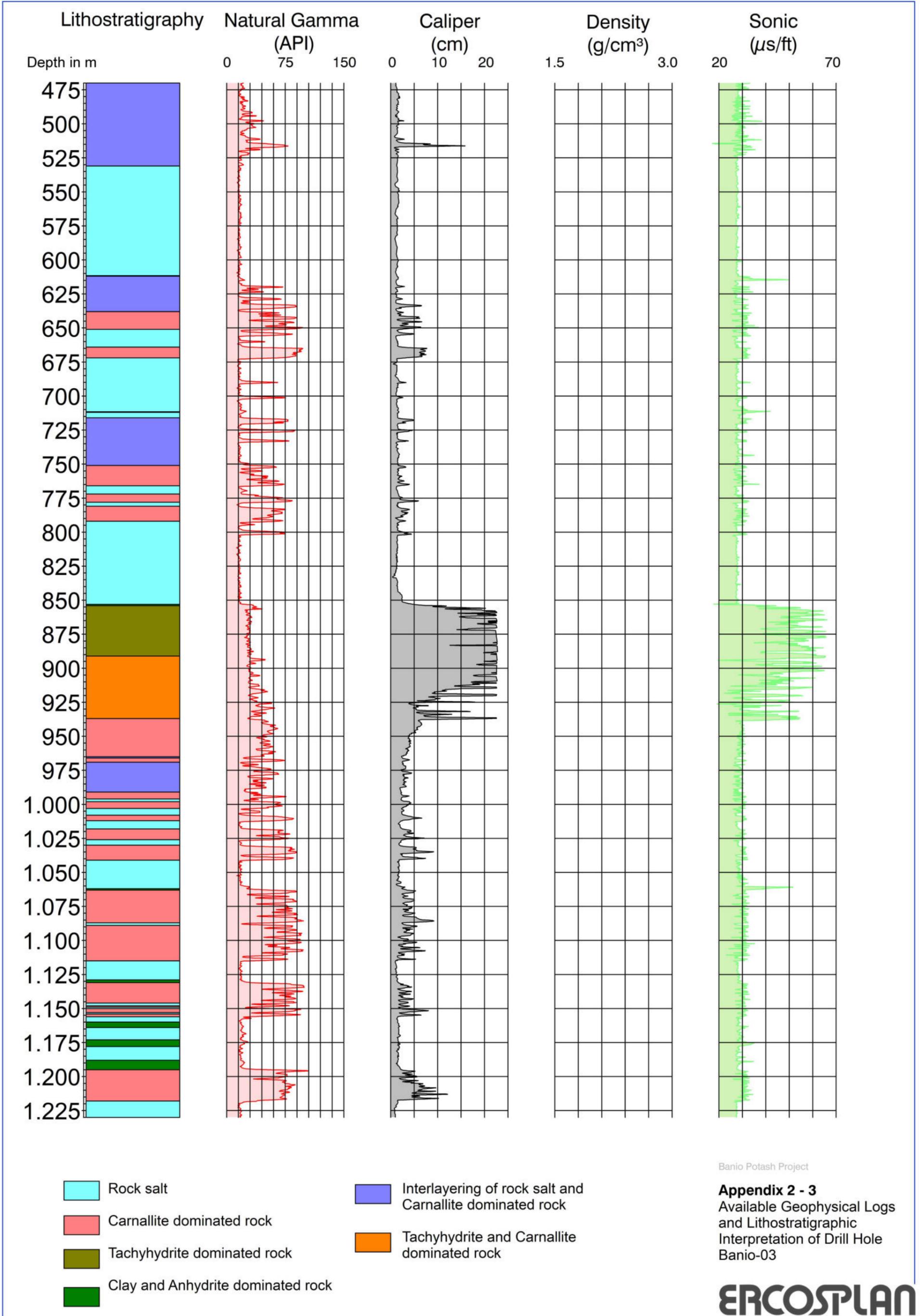




- Rock salt
- Carnallite dominated rock
- Tachyhydrite dominated rock
- Clay and Anhydrite dominated rock
- Interlayering of rock salt and Carnallite dominated rock
- Tachyhydrite and Carnallite dominated rock

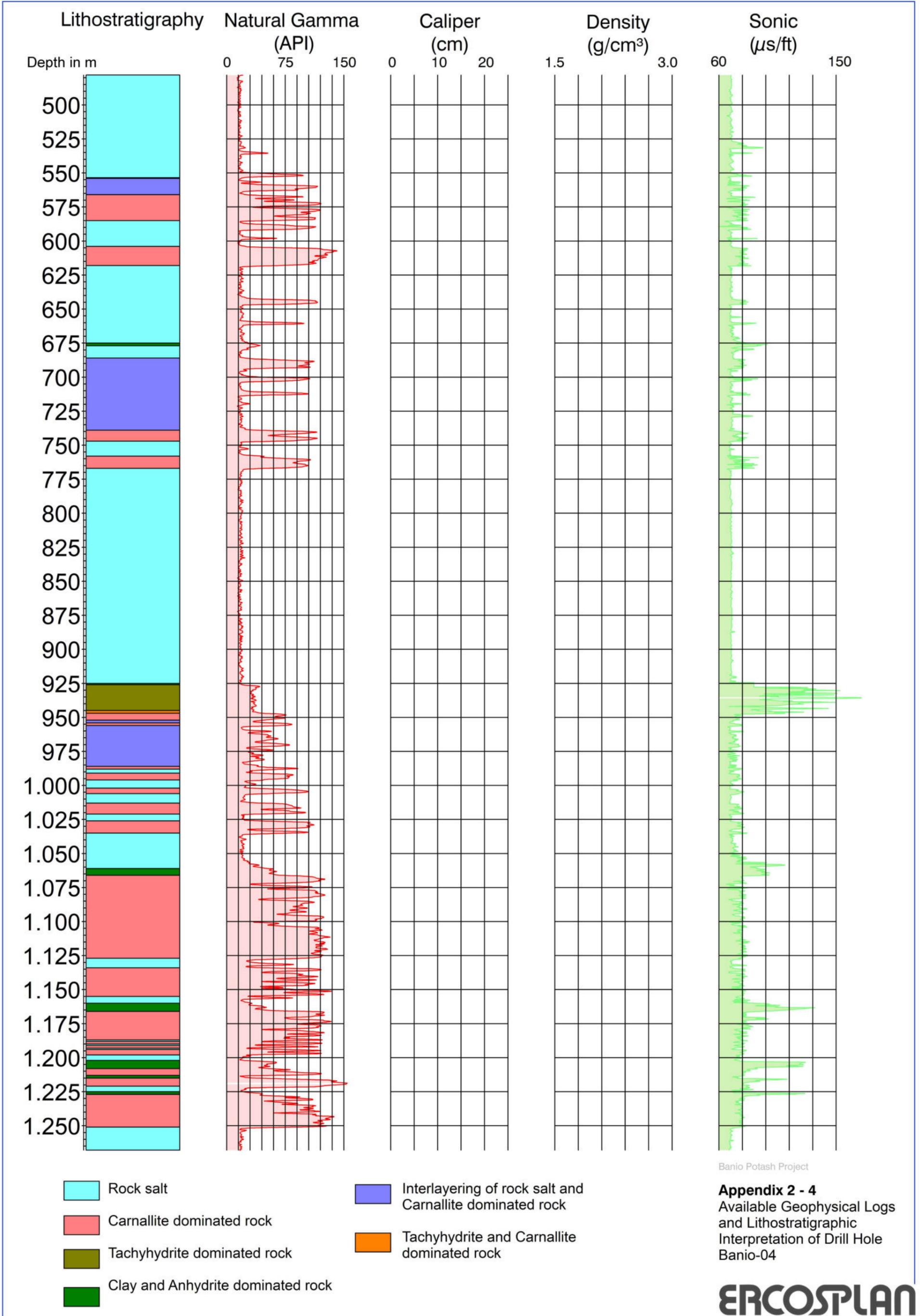
Banio Potash Project

Appendix 2 - 2
Available Geophysical Logs
and Lithostratigraphic
Interpretation of Drill Hole
Banio-02



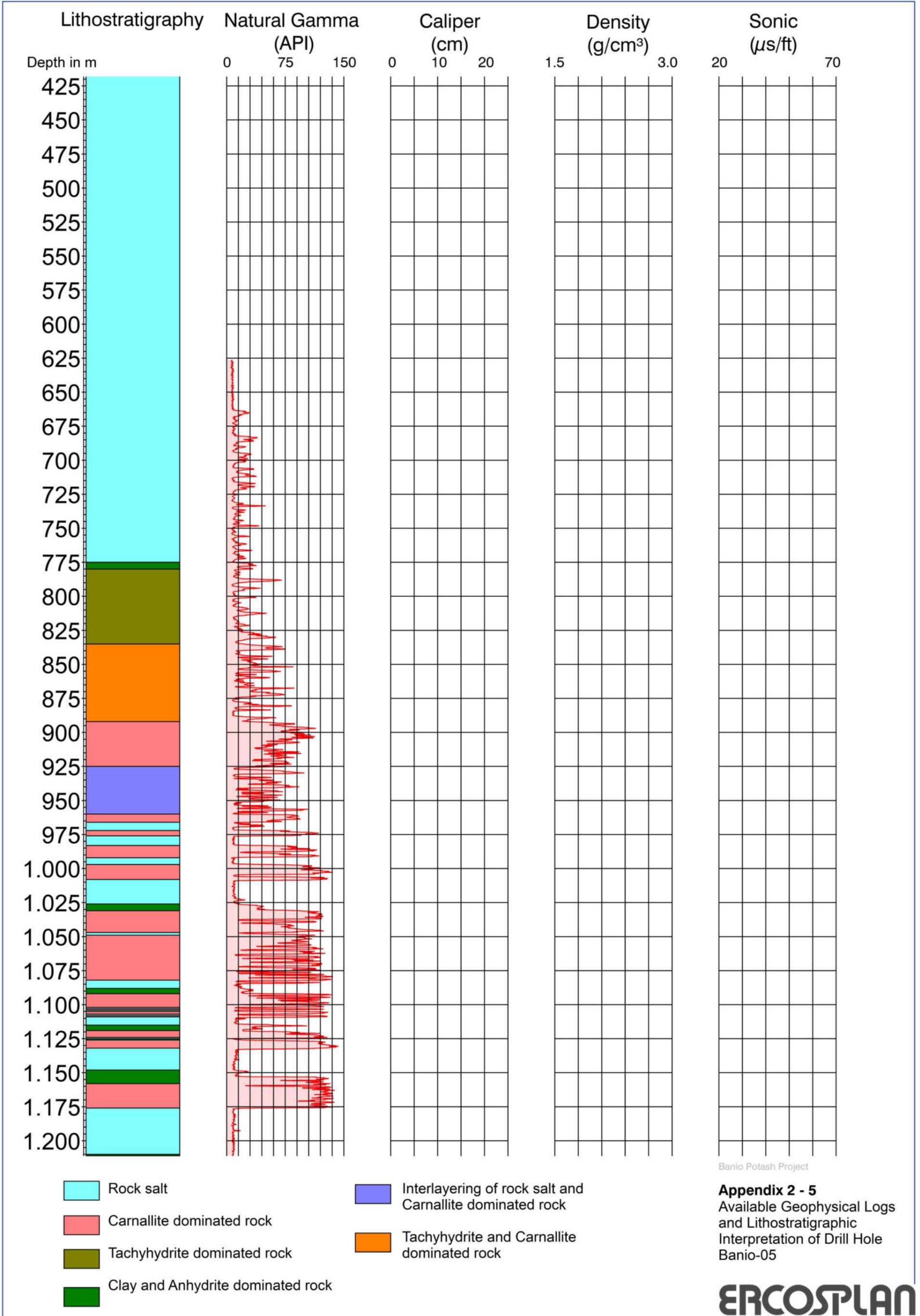
Banio Potash Project

Appendix 2 - 3
Available Geophysical Logs
and Lithostratigraphic
Interpretation of Drill Hole
Banio-03



Banio Potash Project

Appendix 2 - 4
Available Geophysical Logs
and Lithostratigraphic
Interpretation of Drill Hole
Banio-04



Banio Potash Project

Appendix 2 - 5
Available Geophysical Logs
and Lithostratigraphic
Interpretation of Drill Hole
Banio-05