

## Elemental Minerals Announces Large Mineral Resource Expansion and Upgrade for the Dougou Potash Deposit

*Measured and Indicated Potash Mineral Resource of 1.1 billion tonnes grading 20.6% KCl*

*Inferred Potash Mineral Resource of 2.0 billion tonnes grading 20.8% KCl*

Perth, Australia, 9 February 2015 – Elemental Minerals Ltd. (ASX: ELM) ('Elemental' or 'the Company') is pleased to announce Measured, Indicated and Inferred Mineral Resources for the Dougou Potash Deposit, completed by ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH ("ERCOSPLAN"), as an update to the previous Inferred Mineral Resource<sup>1</sup> for this high-grade-carnallite<sup>2</sup> deposit, part of the Company's Sintoukola Potash Permit in the Republic of Congo ("RoC")

### Highlights

- Measured and Indicated Mineral Resources of 1.1 billion tonnes (Bt) grading 20.6% KCl
- Resources hosted by 4 continuous seams with a combined average thickness of 35 metres of carnallite
- The Hangingwall Seam (HWS) grades 24.6% KCl, averages 10 metres thick, and accounts for 311 Mt of the Measured and Indicated Resource, and 564 Mt (grading 24.7% KCl) of the Inferred category.
- Simplicity of the deposit is a major advantage: <600 m depth, low (<3°) dip, thick continuous seams, minimal variation in grade and thickness, <1% combined insoluble<sup>3</sup> and sulphate content.
- Ease of Infrastructure: Abundant electricity and gas (a key input to the solution mining process) is available within 70 Km. Dougou is 10 km from the tarred national road, 12 km from the coast and <80 kms to existing (and planned) port infrastructure
- Above attributes will factor in the Scoping Study to be reported during February (2015). Elemental is confident that the Dougou Deposit will support a low-cost solution mine.

Table 1. Measured, Indicated and Inferred Potash Mineral Resources for the Dougou Deposit

CATEGORY	Potash Seam	Million Tonnes carnallite	average grade KCl %	average grade K <sub>2</sub> O %	Million tonnes contained KCl
<b>Total Measured</b>	All seams	<b>148</b>	<b>20.1</b>	12.7	30
<b>Total Indicated</b>	All seams	<b>920</b>	<b>20.7</b>	13.0	190
<b>Subtotal Measured + Indicated</b>	All seams	<b>1068</b>	<b>20.6</b>	13.0	220
<b>Total Inferred</b>	All Seams	<b>1988</b>	<b>20.8</b>	13.1	413

This Mineral Resource Estimate is effective as of 9 February 2015. A 5% allowance for structure has been removed from the Estimate. No thickness and grade cut-off was applied as all intersections are > 7 m and seams have abrupt grade (lithological) upper and lower contacts. Bulk density for each seam is between 1.64 and 1.81 (t/m<sup>3</sup>) and is provided in Table 1 of Appendix 1. Insoluble material plus anhydrite content is <1% throughout. Classification of resources is described in main text. Table entries are rounded to the appropriate significant figure. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, marketing, or other relevant issues.

<sup>1</sup> Maiden Inferred Mineral Resource for Dougou of 1.285 Bt grading 21.72 % KCl announced 9 July, 2014

<sup>2</sup> Carnallite is a rock comprising predominantly of the primary potash mineral carnallite (KMgCl<sub>3</sub>·6H<sub>2</sub>O) and halite (NaCl).

<sup>3</sup> Material that is insoluble such as clay, organic material, quartz etc.

Commenting on the expanded and upgraded Dougou Mineral Resource, Elemental's CEO, John Sanders, stated: "The company continues to deliver high grade additions to its potash inventory resulting from highly successful exploration strategies and thus far we have moved the three current projects, Kola, Dougou and Yangala significantly forward: At the Kola sylvinite Project which hosts 573 Mt grading 33.1% KCl (Measured and Indicated Resources)<sup>4</sup> we recently reduced the initial project capital requirement by 51%; at Yangala<sup>5</sup> the newly announced exploration target of 235 to 470 Mt grading 55-60% KCl has the potential to be the highest grade potash project worldwide; and now the delivery of the Dougou Mineral Resource expansion and upgrade has outstripped our expectations. In addition, it is important to note that we have tested less than 20% of the permit to date and the potash-containing evaporite rocks are interpreted underlie its full extent. Of particular relevance for Dougou is the obvious opportunity it presents for a solution mining operation with low startup capital; the depth, grade, simple geometry, proximity to the coast, abundant gas, energy and water all have the potential to underpin a low cost solution mine".

**Table 1 of Appendix 1 contains a 'per-seam' resource table, and tables 2 and 3 provide the drillhole potash intersections and drillhole positions. Appendix 2 contains a complete checklist of Assessment and Reporting Criteria in the format of Table 1 of the JORC code 2012 edition.**

### **A very large and simple deposit**

The Dougou deposit is hosted by 4 horizontal or gently dipping (<3°) carnallite seams (Fig. 3), which are the original sedimentary layers. From uppermost to lowermost the seams are; the Top Seam (TS), Hangingwall Seam (HWS), Upper Seam (US) and Lower Seam (LS). All four seams are modelled as being continuous across the deposit area, with the allowance of 5% loss due to structure. All seams are 'open' to the North, South and East.

Individual seam drillhole intersections range from 7.3 to 11.2 metres thickness and the deposit average seam thickness is 9.2 metres (Table 2 of Appendix 1). Thickness variation is minimal except for a slight thinning west and southwest (by a maximum of 20 %). Lateral grade variation within each seam is less than 10%. Of particular importance is the HWS which appears to be unique globally in its purity of potash mineral content over such a significant thickness. At Dougou it is uniformly comprised of between 90 and 91% of the mineral carnallite, averaging 10.0 metres thick and grading 24 to 25% KCl.

Unlike many potash deposits, the seams at Dougou have the advantage of having extremely low insoluble and sulphate mineral content (combined these total less than 1% of the seams by weight). No bischofite is present in the vicinity of any of the mining seams, an unstable mineral that represents a major challenge for solution mine cavern control. Upper and lower contacts of the seams are abrupt and the adjacent lithology is rock-salt<sup>6</sup>.

### **The Resource Estimate and Classification**

The geological model and estimate was completed by ERCOSPLAN, a Germany-based consulting and engineering firm specialising in the exploration and exploitation of salt deposits. The estimate utilises data from 6 holes (historic and Elemental's recently drilled) and ~70 kilometres of interpreted seismic data. Mineral Resource Classification was determined using the criteria described below (and illustrated in figure 6), after a detailed review of the data and geology. The resource is bound on its west side by the Yangala Prospect (Fig. 2). The deposit is open to the North, South and East.

- Measured Resources: radius of 750 m around a drill hole intersection if a correlation is possible on 2 sides to other drill holes with a comparable interval. Fresh core material for independent verification is available (ELM holes only).
- Indicated Resources: a radius of 1,500m around a drill hole intersection if a correlation is possible on 2 sides to other drill holes with a comparable potash section, minus any Measured Resources in this area.
- Inferred Resources: a radius of 3,000m around a drill hole intersection if a correlation is possible on 2 sides to other drill holes with a comparable potash section, minus any Measured and Indicated resources in this area. Where no correlation to neighboring holes is possible the radius is reduced to 1,500m for the drill hole.

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<sup>4</sup> Kola Deposit announcement dated 20 August 2012

<sup>5</sup> Yangala Sylvinitic Exploration Target announced 27 January 2015.

<sup>6</sup> Rock-salt: a rock comprised predominantly of halite (NaCl)

The deposit is within a broad area largely unaffected by structural disturbance as revealed by the seismic data. Seismic line spacing is 1-2 km; only one disturbance structure of significance was identified within the deposit area. A small number of additional undetected structures may be present but are unlikely to have a material impact on the resource. A 5% reduction in tonnage was applied by ERCOSPLAN to account for this.

### **Excellent infrastructure**

Of particular relevance to potash which is a bulk commodity, is the location and availability of quality infrastructure. In the case of Dougou, the deposit is only 12 kilometres from the Atlantic Ocean, less than 80 km to Pointe Noire (one of the largest West African deep-water ports) and within 10 km from a tarred national road. A multi-commodity export facility (3.5 Mt per annum) is under construction at Pointe Indienne, 60 km on the road from Dougou. It is fortunate that the ROC is a significant and cheap gas producing region, as large amounts of gas are required for potash production from solution mining. Gas is available approximately 70km to the south of the project. The newly built gas-fired CEC power station is 90 km away and has approximately 200 MW of surplus power. Abundant fresh water is also available in the proximity of the project site. The area is of gently rolling topography, mostly of open grassland and easy to access.

- ENDS -

### **Competent Person Statement:**

The Information in this report that relates to Resource Estimation and Exploration Results for the Dougou Deposit is based on information compiled by Dr. Sebastiaan van der Klauw and Ms. Jana Neubert. Sebastiaan van der Klauw and Jana Neubert are senior geologists and employees of ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH and member of good standing of the European Federation of Geologists registered as "European Geologist" (Registration Numbers 756 and 1033). Both have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity they are undertaking to qualify as Competent Persons, as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code). Dr. van der Klauw and Ms. Neubert consent to the inclusion in this report of the matters based on their information in the form and context in which it appears.

### **Forward-Looking Statements**

This news release contains statements that are "forward-looking". Generally, the words "expect," "potential", "intend," "estimate," "will" and similar expressions identify forward-looking statements. By their very nature, forward-looking statements are subject to known and unknown risks and uncertainties that may cause our actual results, performance or achievements, to differ materially from those expressed or implied in any of our forward-looking statements, which are not guarantees of future performance. Statements in this news release regarding the Company's business or proposed business, which are not historical facts, are "forward looking" statements that involve risks and uncertainties, such as resource estimates and statements that describe the Company's future plans, objectives or goals, including words to the effect that the Company or management expects a stated condition or result to occur. Since forward-looking statements address future events and conditions, by their very nature, they involve inherent risks and uncertainties. Actual results in each case could differ materially from those currently anticipated in such statements.

Investors are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date they are made.

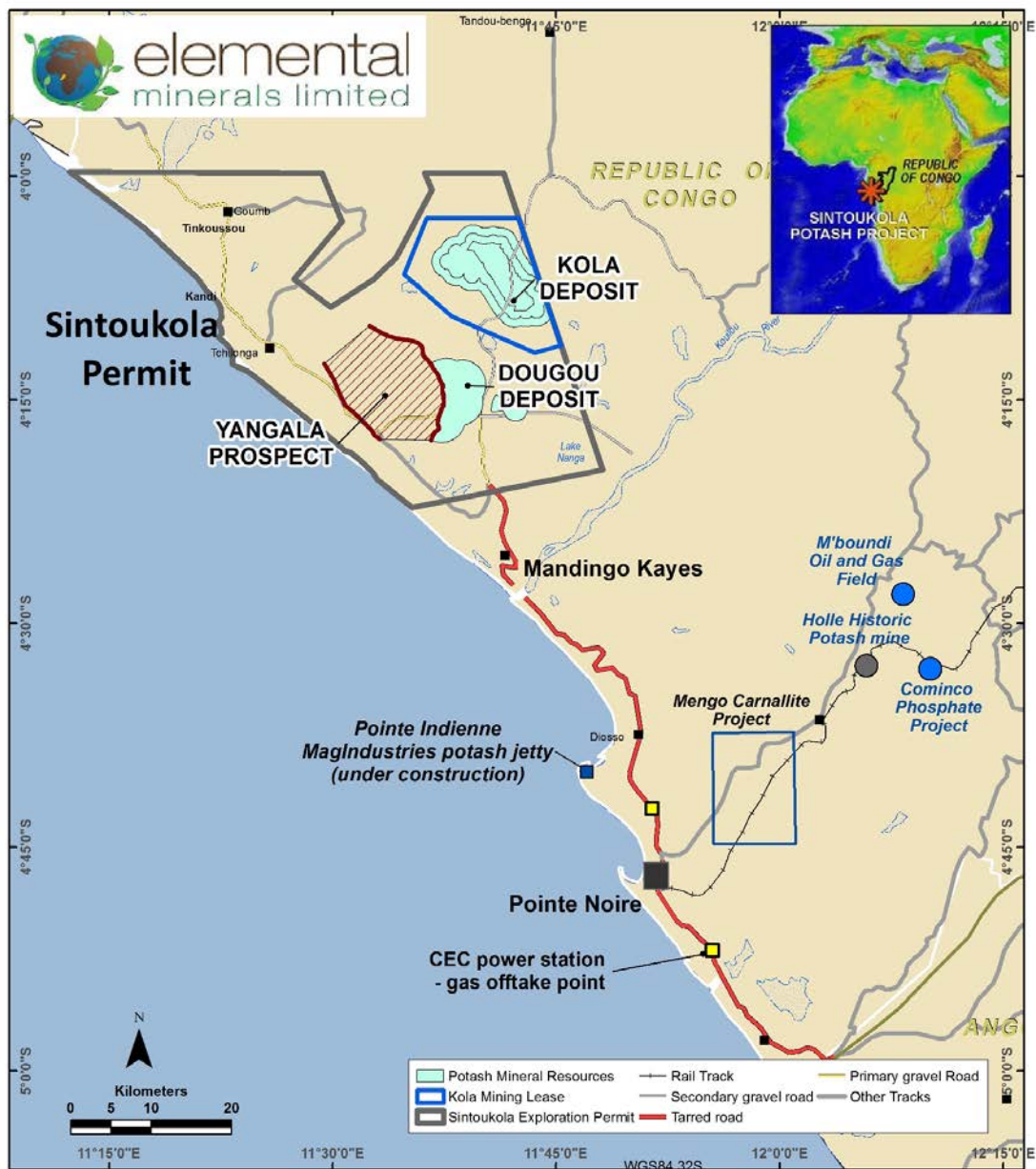


Figure 1. The Sintoukola Exploration Permit and the location of the Dougou Deposit

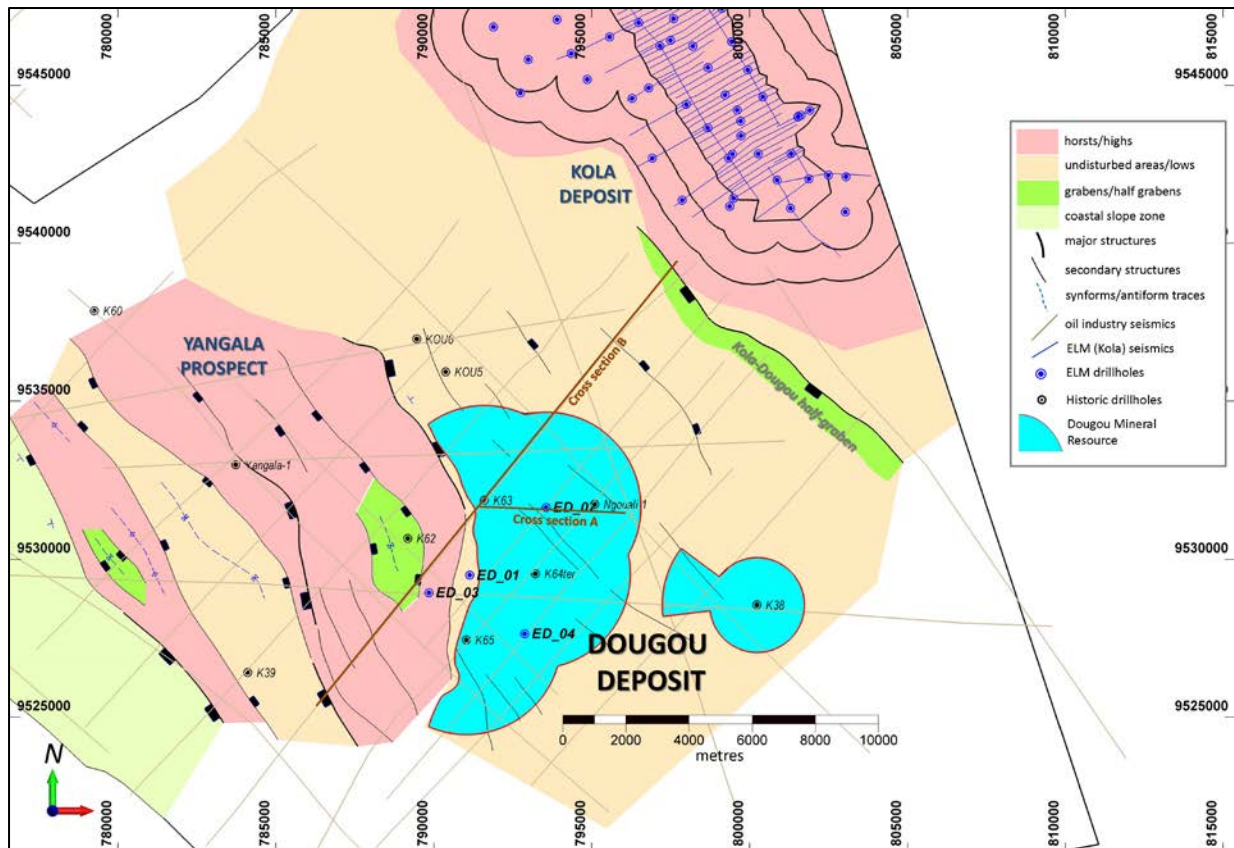


Figure 2. Simplified structural map locating the Dougou Carnallite Deposit along with the Kola Sylvinite Deposit and Yangala Sylvinite Prospect. Section lines for A (Fig. 3) and B (Fig. 4) are drawn.

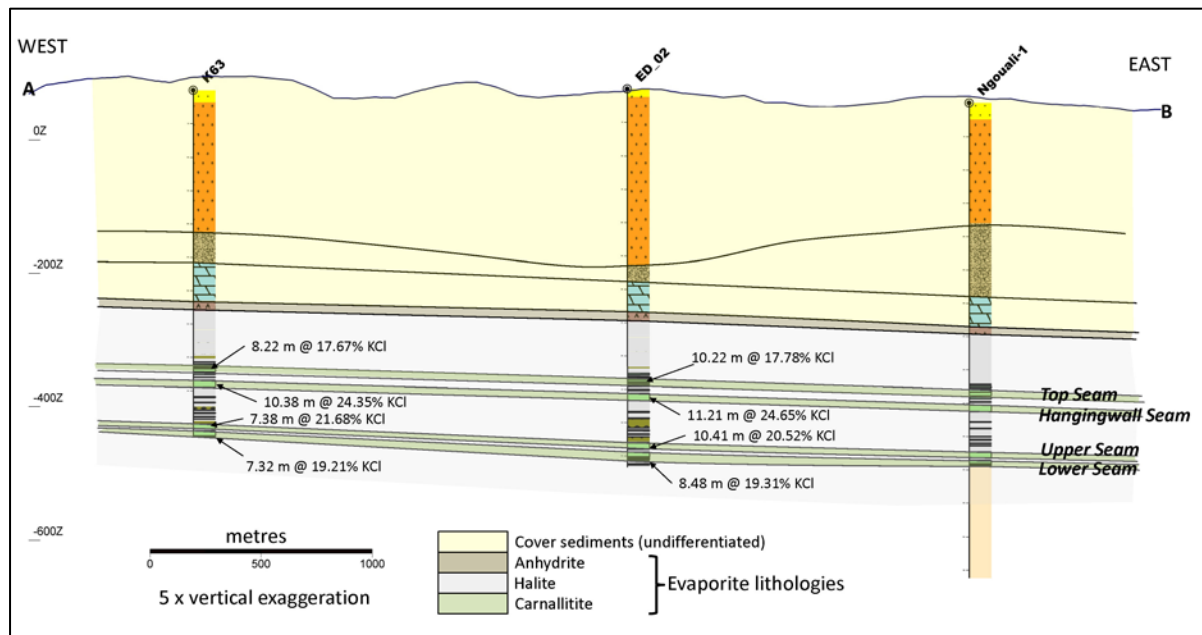


Figure 3. E-W cross section through the Dougou Deposit (line of section A on figure 2). Grades and thicknesses for the four seams are shown. Ngouali-1 is an oil exploration hole and does not have assay data and was not used in the resource estimate (although gamma data does show the seams to be present).



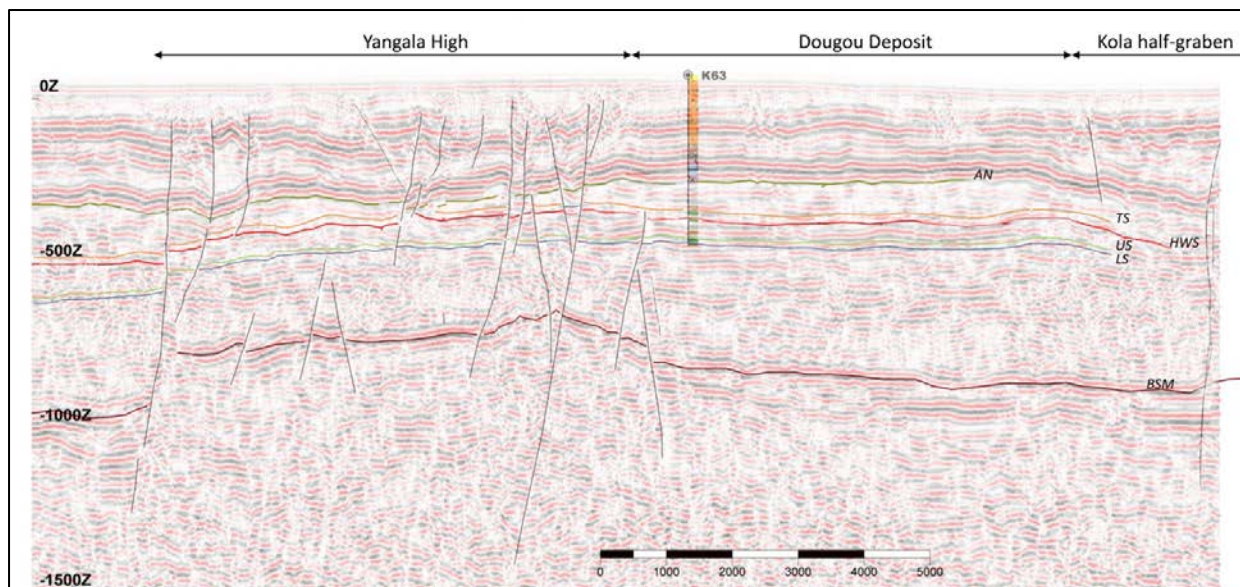


Figure 4. Interpreted SW-NE cross section (line B on figure 2) through the Dougou Deposit (right) and the adjacent Yangala Prospect (left) with a 5:1 vertical exaggeration. The broad undisturbed flat-lying stratigraphy at Dougou is evident. AN = base of anhydrite member, TS = Top Seams, HWS = Hangingwall Seam, US = Upper Seam, LS = Lower Seam, BSM = Base Salt member.

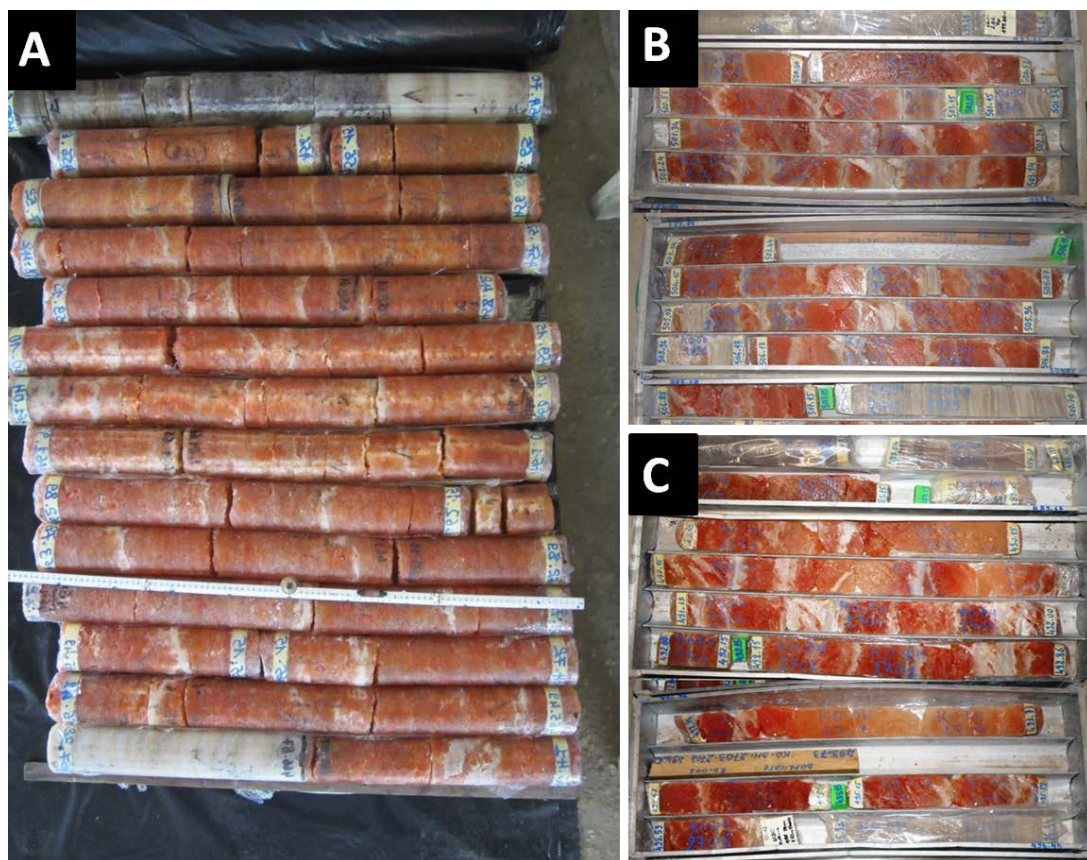


Figure 5. Photographs of Carnallite of (A) Hangingwall Seam, (B) Upper Seam (C) Lower Seam at Dougou.



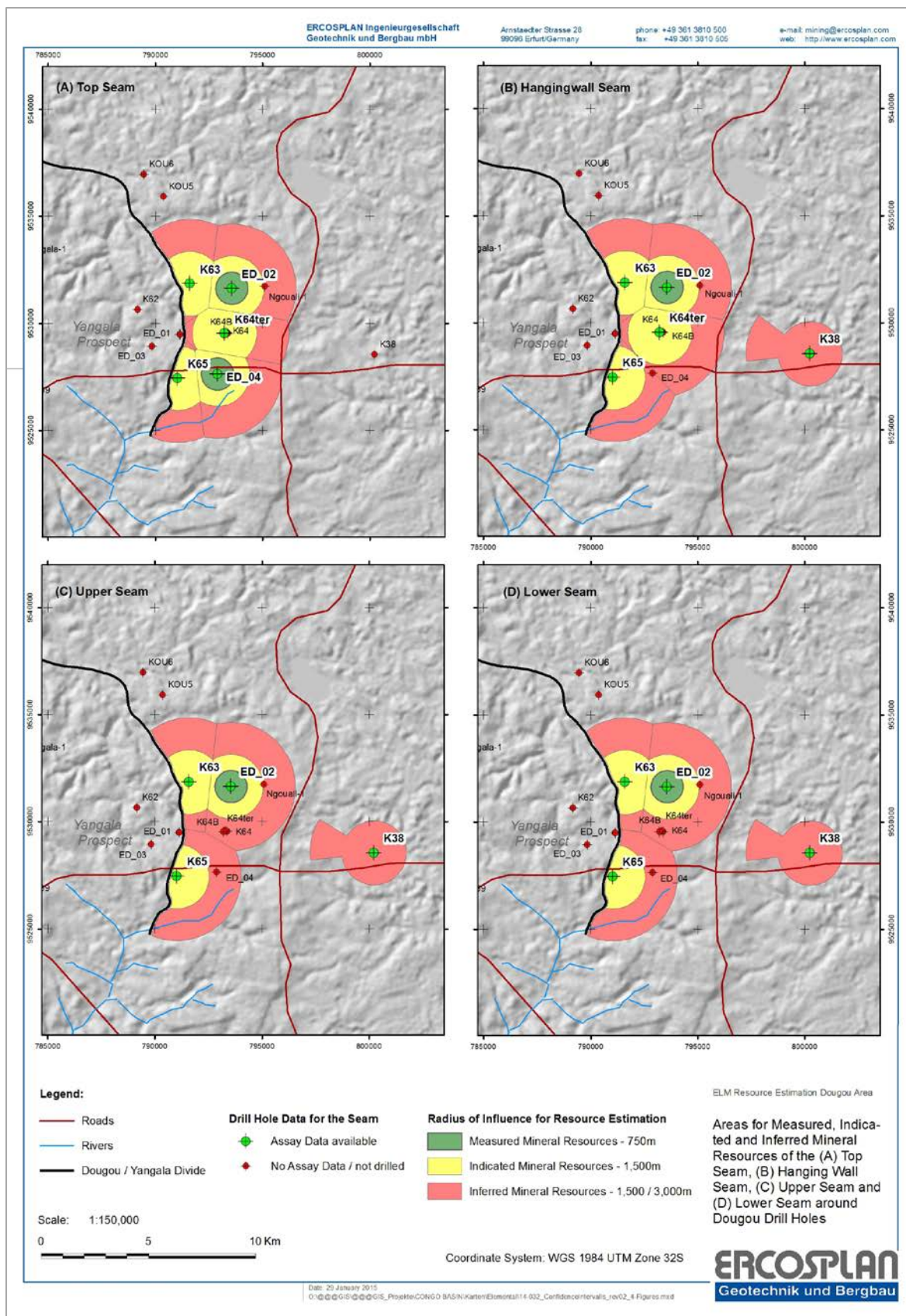


Figure 6. Detail of Measured, Indicated and Inferred Resource outlines for each seam at the Dougou Deposit.

## About Elemental Minerals

Elemental Minerals Limited (ASX: ELM) is an advanced stage mineral exploration and development company whose primary asset is the 97%-owned Sintoukola Potash Project in the Republic of Congo. ELM has three projects at varying development stages; all within the 1408 km<sup>2</sup> Sintoukola Permit.

Kola is a large sylvinitic deposit, for which a Pre-Feasibility Study (PFS) defined Proven and Probable Reserves of 152 Mt of sylvinitic ore with an average grade of 31.7% KCl<sup>1</sup> to be mined by conventional underground methods. A Mining License and ESIA approval for Kola were granted in August 2013<sup>2</sup>. The PFS has recently been updated by The Phased Implementation Study which has reduced the initial capital requirement for the project significantly while maintaining low operating costs<sup>3</sup>. The Company plans to commence its Definitive Feasibility Study (DFS) during 2015.

The Dougou Deposit is 15 km southwest of Kola and is a very large carnallite deposit with a Measured and Indicated Potash Mineral Resource of 1.07 billion tonnes grading 20.6% KCl<sup>4</sup>. A Scoping Study is currently underway to evaluate the potential for a solution mining and brine processing operation for MOP production.

The Yangala sylvinitic Prospect is immediately west of Dougou. At Yangala the Company has drilled two boreholes, both intersecting a seam of over 4 m grading between 57 and 60% KCl<sup>5</sup>. An Exploration Target of 235 to 470 Mt grading 55 to 60 % KCl was announced on 27<sup>th</sup> January 2015.

Elemental's RoC Projects have the potential to be among the world's lowest-cost potash producers and their location near the Congolese coast of Central West Africa offers a transport cost advantage to key Brazilian and Asian fertilizer markets. Elemental's management team has a record of bringing quality African mineral projects to production. For more information contact us or visit [www.elementalminerals.com](http://www.elementalminerals.com)

\*1 SRK Pre-Feasibility Study, 17 September 2012 \*2 ELM Announcement dated 15 August 2012 \*3 ELM Announcement dated 23 October 2014 \*4 ELM Announcement dated 9 February 2015 \*5 ELM Announcement dated 20 October 2014

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## Appendix 1.

Table 1. Detailed per-seam Potash Mineral Resource Table for the Dougou Deposit.

CATEGORY	Potash Seam	Average seam thickness (m)	average density (t/m <sup>3</sup> )	Million Tonnes carnallite	average grade KCl %	average grade K <sub>2</sub> O %	% carnallite	Million tonnes contained KCl
MEASURED	TS	10.2	1.81	62	17.9	11.3	66	11
	HWS	11.2	1.64	31	24.7	15.6	91	8
	US	10.4	1.73	30	20.5	13.0	79	6
	LS	8.5	1.76	25	19.3	12.2	71	5
Total Measured	All seams	10.1		148	20.1	12.7		30



<b>INDICATED</b>	TS	9.3	1.81	<b>322</b>	<b>17.8</b>	11.3	66	57
	HWS	9.8	1.64	<b>280</b>	<b>24.5</b>	15.5	91	69
	US	8.7	1.73	<b>176</b>	<b>20.7</b>	13.1	79	37
	LS	8.0	1.76	<b>142</b>	<b>19.3</b>	12.2	71	27
<b>Total Indicated</b>	<b>All seams</b>	<b>9.1</b>		<b>920</b>	<b>20.7</b>	<b>13.0</b>		<b>190</b>

<b>INFERRED</b>	TS	9.6	1.81	<b>445</b>	<b>17.8</b>	11.2	66	79
	HWS	10.2	1.64	<b>564</b>	<b>24.7</b>	15.6	91	139
	US	9.3	1.73	<b>558</b>	<b>20.3</b>	12.8	79	113
	LS	7.8	1.76	<b>421</b>	<b>19.2</b>	12.1	71	81
<b>Total Inferred</b>	<b>All Seams</b>	<b>9.3</b>		<b>1988</b>	<b>20.8</b>	<b>13.1</b>		<b>413</b>

<b>Subtotal Measured + Indicated</b>	<b>All seams</b>			<b>1068</b>	<b>20.6</b>	<b>13.0</b>		<b>220</b>
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*This Mineral Resource Estimate is effective as of 9 February 2015. A 5% allowance for structure has been removed from the Estimate. No thickness and grade cut-off was deemed appropriate as all intersections are > 7 m and seams have abrupt grade (lithological) upper and lower contacts. Insoluble material plus anhydrite content <1% throughout. Classification of resources described in main text. Table entries are rounded to the appropriate significant figure. Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, marketing, or other relevant issues.*

*Table 2. All potash intersections at the Dougou Deposit. TS = Top Seam, HWS = Hangingwall Seam, US = Upper Seam, LS = Lower Seam. All intersections are close to horizontal and are therefore taken as true thickness. To convert KCl to K<sub>2</sub>O to divide by 1.5837.*

Borehole ID	Company	Seam	from (m)	to (m)	thickness (m)	% carnallite	KCl %
ED_02	Elemental	TS	430.8	441.02	10.22	66.24	17.77
ED_02	Elemental	HWS	455.66	466.87	11.21	91.87	24.65
ED_02	Elemental	US	529.54	539.95	10.41	76.45	20.51
ED_02	Elemental	LS	544.12	552.6	8.48	71.98	19.31
ED_04	Elemental	TS	479.08	489.15	10.07	66.97	17.97
ED_04	Elemental	HWS	Hole stopped above HWS				
ED_04	Elemental	US					
ED_04	Elemental	LS					
K38	MDPA	HWS	422.72	433.38	10.66	93.42	25.07
K38	MDPA	US	490.62	500.66	10.04	73.51	19.73
K38	MDPA	LS	505.04	512.06	7.02	71.14	19.09
K63	MDPA	TS	413.53	421.75	8.22	64.61	17.67
K63	MDPA	HWS	434.5	444.88	10.38	90.77	24.35
K63	MDPA	US	499.69	507.07	7.38	80.79	21.68
K63	MDPA	LS	510.36	517.68	7.32	71.61	19.21
K64ter	MDPA	TS	489.2	498.62	9.42	68.18	18.29
K64ter	MDPA	HWS	513.3	522.75	9.45	92.09	24.71
K64ter	MDPA	US	Hole stopped above US				
K64ter	MDPA	LS					
K65	MDPA	TS	488.77	496.84	8.07	65.28	17.52
K65	MDPA	HWS	508.34	516.27	7.93	90.67	24.33
K65	MDPA	US	556.36	563.6	7.24	74.59	20.01
K65	MDPA	LS	Hole stopped midway through LS				

Table 3 Position of drillholes at Dougou. Those in italic were not used in the estimation as they do not have assay data but support the continuity of the seams which are evident in gamma data for these holes. All are UTM 32S WGS 84 datum

BHID	EASTING	NORTHING	ELEVATION (m ASL)	DEPTH (m)	DIP	AZIMUTH
ED_02	793562.5	9531646.0	72.8	567.15	-90	0
ED_04	792892.9	9527645.0	77.9	504.15	-90	0
K38	800239.8	9528549.7	44.0	853.00	-90	0
K63	791610.5	9531859.0	72.6	519.50	-90	0
K64ter	793226.9	9529538.0	78.9	524.00	-90	0
K65	791037.6	9527446.0	73.2	570.50	-90	0
<i>KOU5</i>	<i>790385.4</i>	<i>9535922.9</i>	<i>66.1</i>	<i>428.00</i>	<i>-90</i>	<i>0</i>
<i>Ngouali-1</i>	<i>795101.0</i>	<i>9531738.2</i>	<i>54.9</i>	<i>2083.00</i>	<i>-90</i>	<i>0</i>

# APPENDIX 2. Checklist of Assessment and Reporting Criteria in the format of Table 1 of the JORC code 2012 edition

## Section 1 - Sampling Techniques and Data

JORC Criteria	JORC Explanation	Commentary
<b>SAMPLING TECHNIQUES</b>	<ul style="list-style-type: none"> <li><i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>Elementals sampling for drillholes ED_02 and ED_04 was carried out according to a strict quality control protocol beginning at the drill rig. Holes were drilled to PQ size (85 mm diameter) core. Sample intervals were between 0.2 and 1.5 metres and sampled to lithological boundaries and of half-core. Figure 5 in the announcement shows typical core from the carnallite seams.</li> <li>Core was cut using an Almonte© core cutter without water and blade and core holder cleaned down between samples.</li> <li>Sampling and preparation was carried out by Elemental’s trained geological and technical employees. Samples were individually bagged and sealed.</li> <li>Boreholes K38 , K64ter, K63 , K65 were drilled by Mines de Potasse d’ Alsace S.A (MDPA) during the late 1960’s and early 1970’s. There is no description of the sampling methodology for these holes. Oil well Ngouali-1 was not sampled and there is no analytical data for KOU5 and KOU6 (these last 3 holes were not used in the estimation).</li> </ul>
<b>DRILLING TECHNIQUES</b>	<ul style="list-style-type: none"> <li><i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<ul style="list-style-type: none"> <li>Elemental and historic holes were drilled by rotary Percussion through the 'cover sequence' then PQ (85 mm diameter and 89 mm for historic holes) diamond coring within the evaporite host rocks. Coring was by conventional diamond drilling methods with the use of tri-salt (K, Na, Mg) mud.</li> </ul>
<b>DRILL SAMPLE RECOVERY</b>	<ul style="list-style-type: none"> <li><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. .</i></li> </ul>	<ul style="list-style-type: none"> <li>Core recovery in Elemental drillholes is over 99% for all potash intersections. Core is full width and when checked against drillers data there are no sections missing.</li> <li>Recovery data is not available for all historic boreholes. Those that are available report &gt;99% recovery for the potash intervals. The use of tri-salt (Mg, Na, and K) chloride brine to maximize recovery was standard. Elemental employed a fulltime mud engineer to maintain drilling mud chemistry and physical properties.</li> </ul>
<b>LOGGING</b>	<ul style="list-style-type: none"> <li><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i></li> <li><i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>The entire length of the boreholes were logged in detail, from rotary chips in the ‘cover sequence’ and core in the evaporite. Logging is qualitative and supported by quantitative data (assay and gamma) where required.</li> <li>The top and base of the potash seams is a distinct lithological boundary easily visible in core (Fig. 5 of the announcement) and on the historic logs; the change from potash to halite (or vice versa) is abrupt (&lt; than 50 millimeters) and is also reflected in the assay data (Fig 1 of this Appendix).</li> <li>Downhole geophysical logging was completed for Elemental drillholes, to provide detailed information used to cross-reference lithology, mineralogy, geochemical assay data, and to check depths of the core. Geophysical wireline logging conducted included; gamma-ray, density, resistivity, porosity, 3-arm caliper and full-wave sonic.</li> <li>Core was photographed to provide an additional reference for checking contacts at a later date.</li> </ul>



JORC Criteria	JORC Explanation	Commentary																											
<b>SUB-SAMPLING TECHNIQUES AND SAMPLE PREPARATION</b>	<ul style="list-style-type: none"> <li><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li><i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>(85 mm diameter) half-core samples were submitted to the laboratory. At the laboratory samples were crushed using a Boyd crusher to -2mm then divided using a rotary splitter prior to obtain a sample of 500 grams for further grinding and analysis. The remaining crushed material is stored.</li> <li>The sample size is probably larger than required due to the massive and relatively homogenous nature of the material and this is supported by duplicate (QA-QC) data. Samples are representative of the material being sampled.</li> <li>There is no record of sampling techniques for historical drillholes.</li> </ul>																											
<b>QUALITY OF ASSAY DATA AND LABORATORY TESTS</b>	<ul style="list-style-type: none"> <li><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li><i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li><i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>Samples from Elementals drilling were processed and analysed by accredited laboratory Intertek-Genalysis, Perth, Australia. Analytes and methods used are given in Table 1 of this Appendix. For all samples Loss on drying by Gravimetric Determination (LOD/GR) was competed.</li> <li>All analyses are considered to be ‘Total’.</li> </ul> <table border="1"> <thead> <tr> <th></th><th>Method</th><th>Lower Detection</th></tr> </thead> <tbody> <tr> <td>K</td><td>SWs/OE</td><td>0.10%</td></tr> <tr> <td>Mg</td><td>SWs/OE</td><td>20 ppm</td></tr> <tr> <td>Ca</td><td>SWs/OE</td><td>10 ppm</td></tr> <tr> <td>S</td><td>SWs/OE</td><td>10 ppm</td></tr> <tr> <td>Na</td><td>SWs/OE</td><td>0.10%</td></tr> <tr> <td>Insols</td><td>SWs/GR</td><td>0.10%</td></tr> <tr> <td>Cl</td><td>SWs/VOL</td><td>0.20%</td></tr> <tr> <td>density</td><td>SGP/PYC</td><td>0.01</td></tr> </tbody> </table> <p><i>Table 1. Methods of analyses and lower detection limits. SWs/OE: Water Extraction to determine soluble species then analyzed by Inductively Coupled Plasma Optical (Atomic) Emission Spectrometry. SWs/GR: Water Extraction to determine soluble species and analyzed by Gravimetric Technique. SWs/VOL: Water Extraction to determine soluble species and analyzed by Volumetric Technique. SGP/PYC: Analyzed by Instrumental Technique using a gas displacement Pycnometer.</i></p> <ul style="list-style-type: none"> <li>Blanks, field duplicates, standards were submitted within each batch at an interval of between 12 to 20 ‘original’ (normal) samples for each QA-QC sample type. All QA QC data was assessed.</li> <li>Careful inspection of all QA-QC data for Elementals holes at Dougou suggests acceptable levels of accuracy and precision for sampling and analyses; for K, Mg, Na, S (re-calculated to SO<sub>4</sub>) and Cl.</li> <li>In addition to the aforementioned conventional QA-QC on laboratory analyses, an analysis of the charge balance between positive ions (Mg<sup>2+</sup>, Ca<sup>2+</sup>, Na<sup>+</sup>, K<sup>+</sup>) and negative (Cl<sup>-</sup>, SO<sub>4</sub><sup>2-</sup>) ions was determined for each analysis. If the absolute difference (cations – anions)/(cations+anions) * 100% is larger than 5% the analysis is classified as an outlier and the K-content compared with nearby samples, and discarded if significantly higher K-content is observed. No samples were discarded.</li> <li>With the chemical analysis the mineralogical composition of the sample was calculated after recalculating the elements from weight % to mol % and rearranging them to the basic salts according to following scheme: <ul style="list-style-type: none"> <li>all CaSO<sub>4</sub> to Anhydrite</li> <li>all NaCl to Halite</li> <li>all CaCl<sub>2</sub> to Tachyhydrite, and accordingly a reduction in MgCl<sub>2</sub></li> <li>compare KCl to MgCl<sub>2</sub>, smallest is amount of Carnallite</li> <li>remaining KCl to Sylvite</li> <li>or remaining MgCl<sub>2</sub> to Bischofite</li> </ul> </li> <li>This was recalculated to weight % using the known water content of the minerals. The resulting sum should be close to 100% (between 95% and 102% was considered acceptable).</li> </ul>		Method	Lower Detection	K	SWs/OE	0.10%	Mg	SWs/OE	20 ppm	Ca	SWs/OE	10 ppm	S	SWs/OE	10 ppm	Na	SWs/OE	0.10%	Insols	SWs/GR	0.10%	Cl	SWs/VOL	0.20%	density	SGP/PYC	0.01
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JORC Criteria	JORC Explanation	Commentary
<b>VERIFICATION OF SAMPLING AND ASSAYING</b>	<ul style="list-style-type: none"> <li><i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li><i>The use of twinned holes.</i></li> <li><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li><i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>No QA-QC data is available for the MDPA holes and no core is available for re-sampling. ED_01 was drilled by Elemental in 2012 as a ‘twin’ of historic borehole K52, for verification purposes. Though just outside of the Dougou resource area, K52 is of the same vintage as the other MDPA holes and therefore provides validation of the historic analyses for the MDPA holes at Dougou.</li> <li>Geological logs for the historic boreholes are of a high standard and are accompanied by detailed descriptions of lithology, mineralogy and structure. Elementals borehole ED_01 geology compares very well with that of K52 as is illustrated in figure 1 of this Appendix. Contacts of the lithologies are abrupt and clear contributing to the consistency of the logging. Based on the excellent comparison, the MDPA geological data was therefore used without reservation and was converted to conform to Elemental’s geological logging codes.</li> <li>Only potassium data is available for the MDPA analyses, provided in the form of laboratory data sheets. Analyses were carried out by the MDPA ‘Service Geologique et Gisement’. No description of the analytical method is available. From the company’s work at Kola the comparison between MDPA data for potassium and Elementals analyses were excellent and a study of the data for K52 and twin hole ED_01 further supports the quality of the historic data.</li> <li>Figures 1 and 2 of this Appendix show a comparison of assay data for the important potash horizons in K52 and ED_01. Grade and thickness are within 10% except for the Hangingwall Seam (HWS) as the basal 1.64 metres in K52 is carnallite whereas in ED_01 the seam is completely replaced by sylvinite; a geological difference not a reflection of data quality. The sylvinite grades for this seam are very similar (57.66 % versus 57.54 %) as are the grades for all carnallite seams.</li> <li>A further method of comparison of the assay data is provided by the grade x thickness (GT) data. Figure 2 below shows the GT comparison for all seams analyzed in K52 and ED_01. The correlation is excellent (R<sup>2</sup> of 0.991). In summary, the twin-hole data for Dougou coupled with the Company’s work at Kola supports the use of the MDPA assay data for resource estimation without reservation.</li> <li>Historic data was captured from hardcopy sheets into Excel then Access database. 100% of K data and sample depths was checked a second time.</li> <li>In drillholes Ngouali-1 and KOU5 the interpretation of the potash seams is from gamma data for these holes, which provides a reliable indication of the presence of potash, thickness and mineralogy (carnallite or sylvinite). Though not used in the resource estimation they support the continuity of the seams in those directions.</li> <li>All data is stored in an Access database by Elemental.</li> </ul>
<b>LOCATION OF DATA POINTS</b>	<ul style="list-style-type: none"> <li><i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li><i>Specification of the grid system used.</i></li> <li><i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>All boreholes used in the estimation except K38 were surveyed by Kirchhoff Professional Surveyors, and reported in UTM 32 S, WGS 84 datum and geoidal elevation. Relative accuracy between boreholes of 30 to 50 mm in X and Y and 50 to 70 mm in elevation. Positions are provided in Table 3 of Appendix 1.</li> <li>Holes K38, Ngouali-1, KOU5 have not been resurveyed, the original documented surveyed coordinates were converted to WGS datum then located in the field with a handheld GPS within 5 metres of expected position (Ngouali-1 collar was destroyed, only remains of the setup can be found). In additional support of the historic coordinates, those that have been resurveyed show very close position (within 5 metres) to the new survey position.</li> <li>ASTER DEM data was used for topography and is adequate for the purpose, given that the target is relatively deep and would be mined by solution mining methods.</li> </ul>

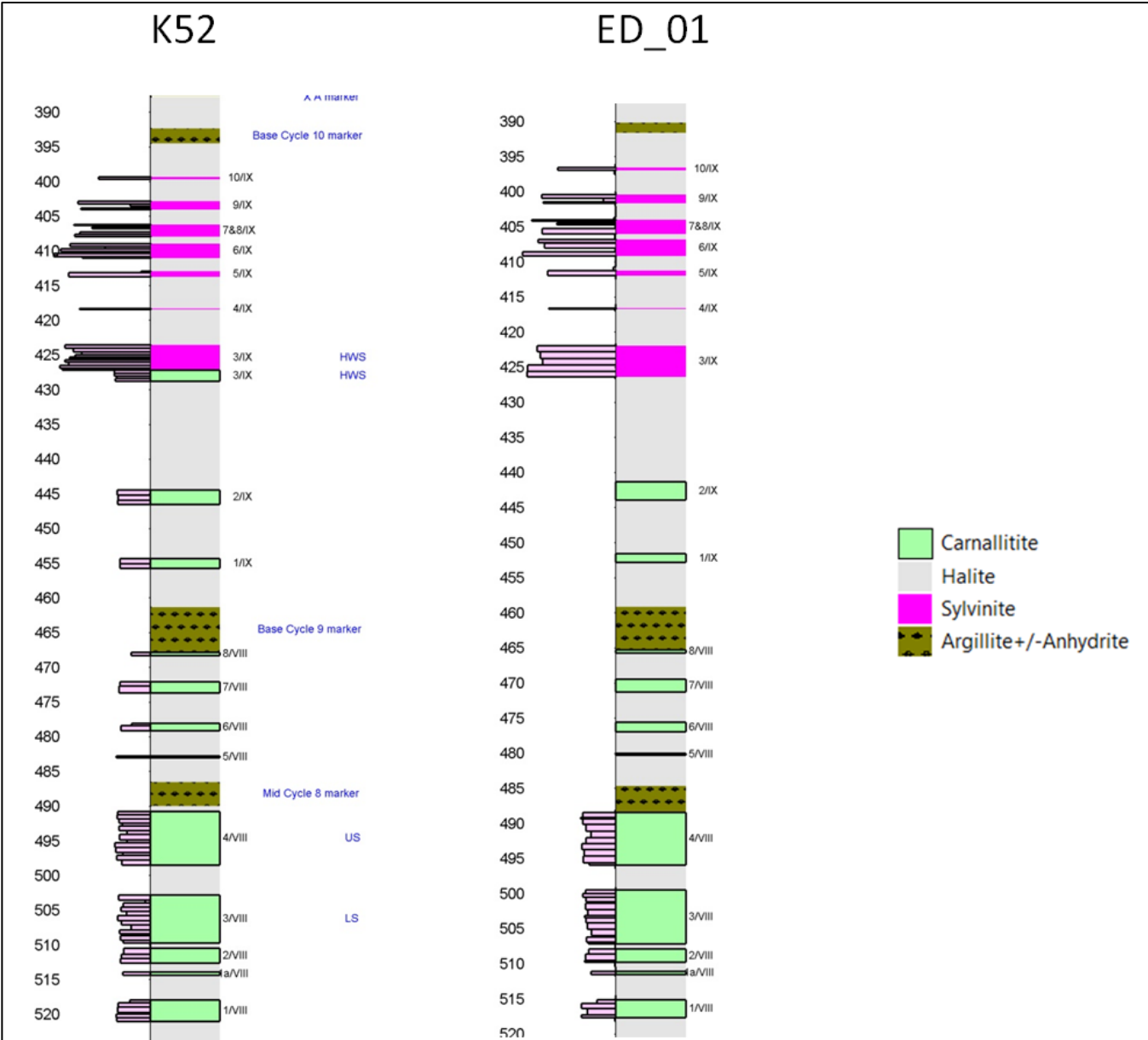


Figure 1. Comparison of geological intervals within cycle 8 and 9 of the Salt Sequence in historic borehole K52 and Elemental (twin) verification borehole ED\_01. Holes are 30 metres apart.

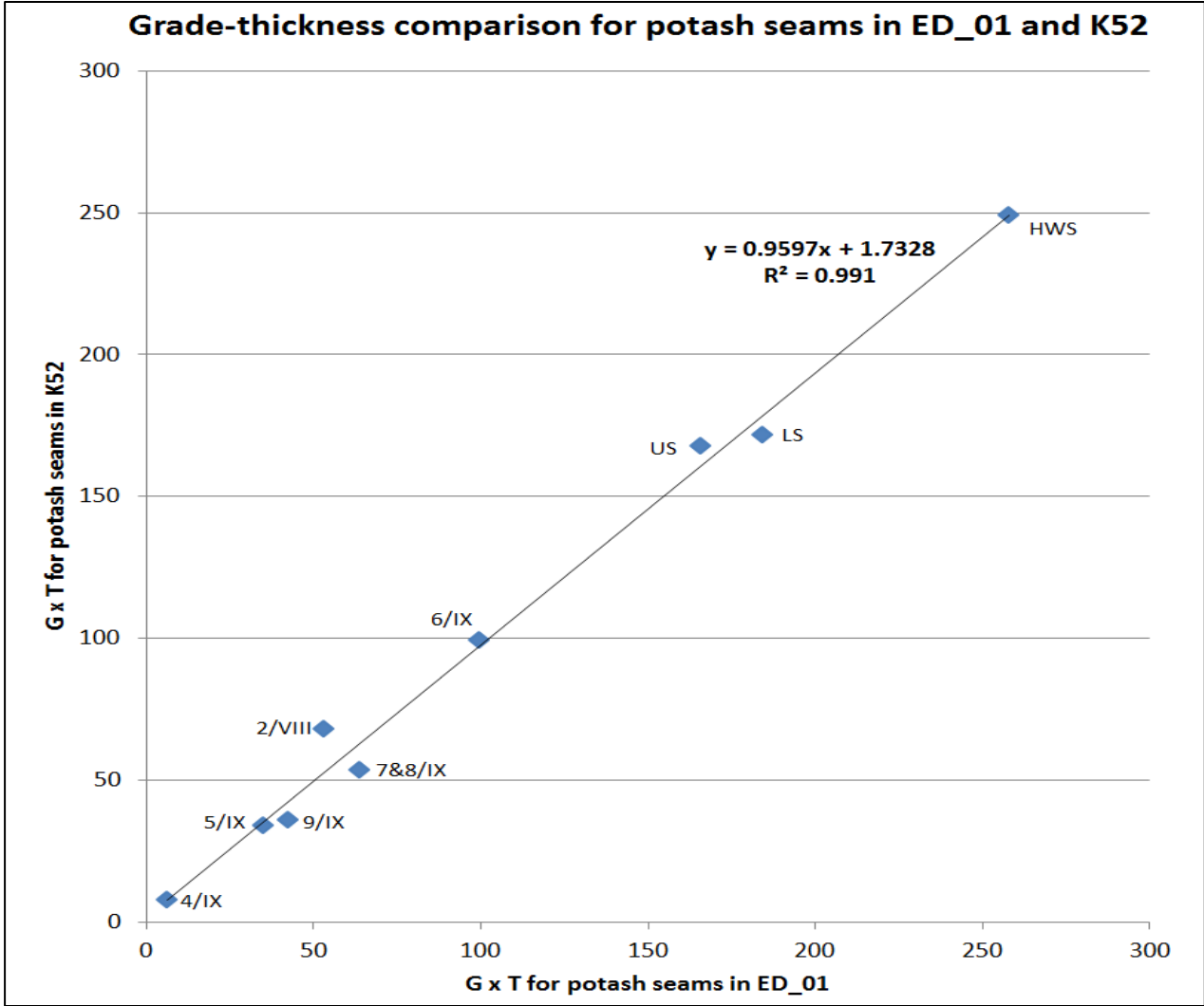


Figure 2. Comparison of grade x thickness (GT) for all potash seams analyzed, in historic hole K52 and twin hole ED\_01. An excellent correlation and lack of bias is apparent, supporting the use of the MDPa assay data.



JORC Criteria	JORC Explanation	Commentary
<b>DATA SPACING AND DISTRIBUTION</b>	<ul style="list-style-type: none"> <li><i>Data spacing for reporting of Exploration Results.</i></li> <li><i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i></li> <li><i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>6 holes were used in the estimation (Table 2 of Appendix 1). Holes are between 1.8 and 2.2 kilometres apart with the exception of K38 (which is 7 kilometres from K64ter)</li> <li>Holes KOU5 and Ngouali 1 (Fig 2 of the announcement) were used to support continuity but not used in the estimation.</li> <li>For those intersections reported in Table 2 of Appendix 1, no sample compositing was applied.</li> <li>Historical (oil industry) seismic lines are shown in Figure 2 of the announcement and are on a nominal 1 to 2 km spaced grid, though the spacing and orientation is not consistent across the area.</li> <li>The drilling and seismic data is sufficient to support Measured, Indicated and Inferred Resources as described under ‘Classification’.</li> </ul>
<b>ORIENTATION OF DATA IN RELATION TO GEOLOGICAL STRUCTURE</b>	<ul style="list-style-type: none"> <li><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li><i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i></li> </ul>	<ul style="list-style-type: none"> <li>Downhole survey data shows that hole inclination was consistently greater than 89 degrees (vertical being 90). All potash seams reported in this announcement are either horizontal or sub-horizontal (less than 3 degrees). The intersections in Table 2 of Appendix 1 are therefore considered true thickness. No bias in sampling is likely.</li> <li>Mineralisation within the Dougou area is not structurally controlled, it is hosted by horizontal or sub-horizontal (&lt;3 degree dipping) sedimentary layers.</li> </ul>
<b>SAMPLE SECURITY</b>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>No information on sample security in storage or transport of the historic core is available.</li> <li>Elemental drill core is stored in a locked core-shed at the Company’s Sintoukola camp. During sampling and logging, the core is under full-time supervision by the Company’s geologists and technicians.</li> <li>Samples were transported in locked containers, under close control by Elementals staff to Pointe Noire from where they promptly delivered to DHL couriers and shipped by air freight to the laboratory in Perth, Australia.</li> <li>Half-core remains at the Kola core-shed is wrapped in plastic film and sealed tube bags, and within an air-conditioned room (17-18 degrees C) to minimize deterioration. Reject material remains in storage at Genalysis in Perth in case further analyses are required.</li> </ul>
<b>AUDITS OR REVIEWS</b>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>ERCOSPLAN Ingenieurgesellschaft Geotechnik und Bergbau mbH (ERCOSPLAN) has reviewed sampling, logging, QA/QC procedures in place as well as exploration data storage and management and found all procedures and data appropriate for estimation of Mineral Resources.</li> </ul>

## Section 2 - Reporting of Exploration Results

JORC Criteria	JORC Explanation	Commentary
<b>MINERAL TENEMENT AND LAND TENURE STATUS</b>	<ul style="list-style-type: none"><li><i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li><li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.</i></li></ul>	<ul style="list-style-type: none"><li>The exploration permit (permits de recherche) is owned 100% by Sintoukola Potash S.A. Elemental holds a 97% shareholding in Sintoukola Potash S.A.</li><li>The permit was renewed in 2012 in accordance with decret n°2012-1193 on the 27th November 2012 for a further two years. The second (current) renewal for another 2 years was signed by the Minister of Finance and Minister of Mines during the Cabinet meeting on November 27<sup>th</sup>, 2014 and the publication to the Congolese Gazette is due.</li><li>There are currently no impediments to exploration on the permit.</li><li>The Dougou Deposit is entirely within the current exploration permit</li></ul>
<b>EXPLORATION DONE BY OTHER PARTIES</b>	<ul style="list-style-type: none"><li><i>Acknowledgment and appraisal of exploration by other parties.</i></li></ul>	<ul style="list-style-type: none"><li>Potash exploration was carried out in the area in the 1960's by Mines de Potasse d' Alsace S.A (MDPA), including drillholes K38, K52, K63, K64ter, K65. KOU5 and KOU6 were drilled by MDPA in 1988-89. Oil well Ngouali-1 was drilled by BP in 1992. MDPA were looking for sylvinites and so did not advance the Dougou area further.</li><li>Elemental is in the possession of a large database containing the historical data and this information has been reviewed in detail. The data is of a high standard.</li><li>There are approximately 70 line kilometres of oil industry seismic data covering the Dougou Deposit (Fig. 2 of the announcement) for which Elemental has all SEG-Y data. Seismic data was acquired by oil exploration company's British Petroleum Congo and Chevron during the 1980's. Also data were used from a third vintage referred to as 'Coastal' carried out in 1980-81.</li></ul>
<b>GEOLOGY</b>	<ul style="list-style-type: none"><li><i>Deposit type, geological setting and style of mineralisation.</i></li></ul>	<ul style="list-style-type: none"><li>The Dougou Deposit and the potash deposits of the region are within the Congo Basin, which is the central portion of a larger basin referred to as the Aptian salt basin of equatorial West Africa.</li><li>A typical Stratigraphic column for the area is shown in Figure 3 of this Appendix. The Loeme Evaporite Formation at Dougou is comprised of a 400 to 500 metre thick Salt Member overlain by a 10 to 20 metre thick Anhydrite Member. Where complete or near complete, the Salt Member is comprised approximately (by volume); 30 percent carnallite, 55 percent rock salt, 8-10 percent bischofite/tachyhydrite and 6-7 percent insoluble material, anhydrite and lesser carbonates.</li><li>10 primary evaporite cycles (I to X) are recognized (by historic and current workers) within the Salt Member and each between 20 and 150 meters in thickness, referred to as I to X (from lowermost to uppermost). Carnallite is very abundant in the lower cycles also (1 to 8) but are of lower grade and deep (&gt;600 m) and not considered at Dougou. Potash seams of the mid to upper parts of cycle X are not preserved in the Dougou area .</li><li>The Dougou Deposit is within a broad area (10-15 km) of minimal structural disturbance, bound on its west side by the Yangala 'High' (Fig. 2 of the announcement). Yangala is an area of relative structural complexity, described in more detail in the Company's announcement dated 27/1/2015. To the east the deposit is open (could be extended), until the Dougou-Kola half-graben is reached, well beyond the current resource limits. To the south the deposit is open an unknown but probably significant distance. To the north the deposit is open, until at least KOU5.</li><li>Figure 3 of this Appendix shows the vertical distribution of the potash layers and other main lithologies of Cycles 8 and 9, which host the Dougou Deposit. From base upwards these are the Lower Seam (LS), Upper Seam (US), Hangingwall Seam (HWS) and Top Seams (TS). Within the Dougou deposit, seams are between 400 and 600 metres depth. The upper and lower contacts of the seams are very abrupt. Average seam thicknesses are given in Table 1 of Appendix 1.</li><li>Grade variation within each of the potash seams of the Dougou Resource is not more than 10% across the deposit.</li></ul>

JORC Criteria	JORC Explanation	Commentary
GEOLOGY CONT'D		<ul style="list-style-type: none"> <li>Carnallitite is a primary potash mineral, the seams are unaffected and do not rely upon secondary processes for their formation. The seams 'are' the original sedimentary layers. This is reflected in their continuity. The carnallitite rock consists of an interlayering of Carnallite (<math>\text{KMgCl}_3 \cdot 6 \text{H}_2\text{O}</math>) rich layers (&gt; 70% Carnallite) with some Halite (<math>\text{NaCl}</math>) and minor amounts (&lt;1%) of Anhydrite (<math>\text{CaSO}_4</math>) and insoluble material.</li> <li>All four seams are modelled as being continuous across the deposit area, with the allowance of 5% loss due to structure. Lateral thickness variation is minimal except for a slight thinning west and southwest (by approximately 20 %), possibly influenced by the Yangala High in that direction. K65 which is closest to the Yangala High has slightly thinner seam thickness (Table 2 of Appendix 1).</li> <li>Above the TS is a thick interval (&gt; 40 metres) of massive halite of cycle 10, before the base of the Anhydrite Member is reached. The rock salt interval between the TS and the HWS is approximately 12 to 15 metres and the interval between the HWS and US is between 60 and 65 metres except in close proximity to the Yangala High where it narrows to 40 metres. The halite interval between the US and LS averages 3.6 metres thick. Below the LS is an interval of 45 to 55 metres of halite below which Bischofitite of cycle 7 is present, well below the intended solution mining.</li> </ul>

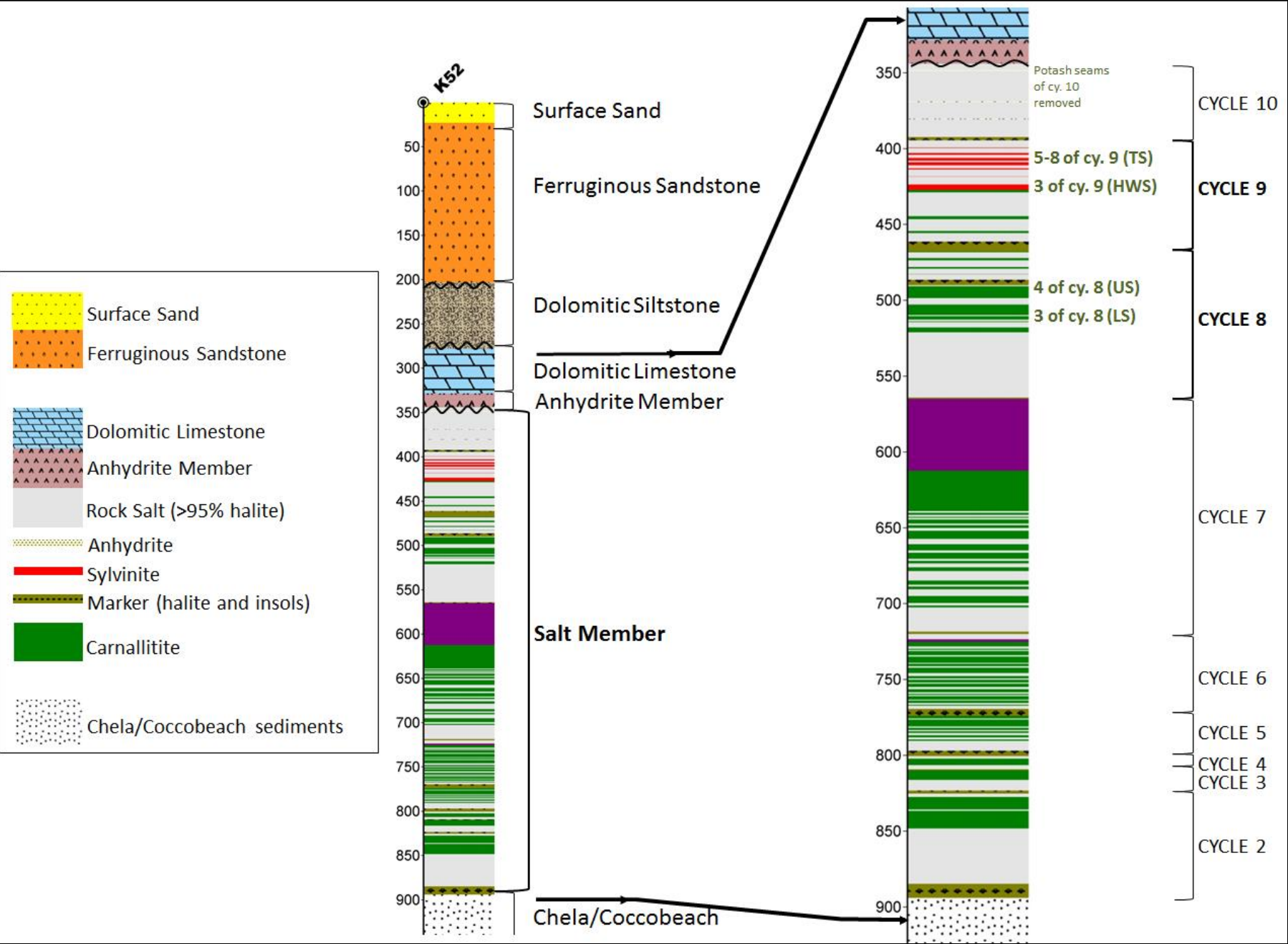


Figure 3. Typical stratigraphic column, in this case from the adjacent Yangala Area as K52 is a deep hole (drilled to Coccobeach). At Dougou depths are very similar and the sequence is identical except that all of the seams are carnallitite (except for the TS in K38). The sequence does not vary hole to hole allowing for minor thickness variation. TS=Top Seam, HWS=Hangingwall Seam, US=Upper Seam, LS=Lower Seam.



JORC Criteria	JORC Explanation	Commentary
<b>DRILL HOLE INFORMATION</b>	<ul style="list-style-type: none"><li><i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</i><ul style="list-style-type: none"><li><i>easting and northing of the drill hole collar</i></li><li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li><li><i>dip and azimuth of the hole</i></li><li><i>down hole length and interception depth</i></li><li><i>hole length.</i></li></ul></li><li><i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i></li></ul>	<ul style="list-style-type: none"><li>Borehole collar positions are provided in Table 3 of Appendix 1, along with final depth. All boreholes were drilled vertically and no significant deviation was reported in drillhole surveys. Positions of the drillholes are shown in Figures 2 and 6 of the announcement.</li><li>Table 2 of Appendix 1 provides the downhole length of the potash seam intersections (which is taken as an approximation of the true width of mineralization).</li></ul>
<b>DATA AGGREGATION METHODS</b>	<ul style="list-style-type: none"><li><i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i></li><li><i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></li><li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li></ul>	<ul style="list-style-type: none"><li>The intersections in Table 2 of Appendix 1 were calculated by thickness-weighted averaging. No maximum or minimum grade truncation was applied as grades are within a narrow range.</li><li>There are no instances where there is a short length of high grade material reported within a long length of low grade material.</li><li>No metal equivalents were calculated.</li></ul>
<b>RELATIONSHIP BETWEEN MINERALISATION WIDTHS AND INTERCEPT LENGTHS</b>	<ul style="list-style-type: none"><li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li><li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li><li><i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg ‘down hole length, true width not known’).</i></li></ul>	<ul style="list-style-type: none"><li>The potash seams in all holes are very close to being perpendicular to the core axis and therefore the intersection are taken as true width.</li></ul>
<b>DIAGRAMS</b>	<ul style="list-style-type: none"><li><i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li></ul>	<ul style="list-style-type: none"><li>Figure 2 of the announcement provides a plan showing the location of the drillholes and seismic data in relation to the Dougou Deposit outlines. Figure 3 of the announcement is a typical cross section through Dougou. Figure 4 of the announcement is a typical seismic line through Dougou and adjacent Yangala. Figure 6 of the announcement shows the resource classification for each seam.</li></ul>
<b>BALANCED REPORTING</b>	<ul style="list-style-type: none"><li><i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li></ul>	<ul style="list-style-type: none"><li>All relevant exploration data is reported and has been considered in the generation of the Mineral Resources. The reporting is balanced and not misleading in any way.</li></ul>

JORC Criteria	JORC Explanation	Commentary
<b>OTHER SUBSTANTIVE EXPLORATION DATA</b>	<ul style="list-style-type: none"> <li><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>All data that is meaningful to the announcement is presented. Density value used in the Resource Estimate is derived from the theoretical value based on the composition of the carnallite and supported by a large number of density measurements by the pycnometer method. For the historical drill holes densities for the single seams were assumed to be the same as for the recent drill holes due to the good thickness / grade correlation between the holes. The low insoluble and sulfate content of the seams is from Elementals analytical data.</li> </ul>
<b>FURTHER WORK</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>It is recommended that the resource forms the basis for a Scoping Study which is underway (as announced 10/11/2014) and is being prepared by ERCOSPLAN. For the Scoping Study, no further Mineral Resource-related work is required,</li> <li>After Scoping, if Feasibility Studies are undertaken, it may be advantageous if the Measured and Indicated Resources are made completely contiguous by the drilling of 1-2 additional holes, which could also be used for the provision of core for test-work. Complete recommendations for the advancement of the project will be made as part of the Scoping Study.</li> </ul>

## Section 3 – Estimation and Reporting of Mineral Resources

JORC Criteria	JORC Explanation	Commentary
<b>DATABASE INTEGRITY</b>	<ul style="list-style-type: none"> <li><i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i></li> <li><i>Data validation procedures used.</i></li> </ul>	<ul style="list-style-type: none"> <li>Data from historic boreholes was captured into Excel. Given the relatively small number of assays (total of 730), every entry was checked a second time. Import error checks were also carried out in Micromine 2013 and seam assay data plots provided a final opportunity to observe errors though none were found.</li> <li>The original historic data is stored in pdf format on Elemental's Johannesburg technical directory.</li> <li>The Elemental and historic data base has been reviewed by ERCOSPLAN and found to be of high standard and reliability.</li> </ul>
<b>SITE VISITS</b>	<ul style="list-style-type: none"> <li><i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i></li> <li><i>If no site visits have been undertaken indicate why this is the case.</i></li> </ul>	<ul style="list-style-type: none"> <li>Ms. Jana Neubert of ERCOSPLAN visited the project between the 5th and 7<sup>th</sup> of January 2015, to review core from Dougou and visit the deposit area and review Company procedure. It was confirmed that the procedures and documentation in place are of high standard.</li> </ul>
<b>GEOLOGICAL INTERPRETATION</b>	<ul style="list-style-type: none"> <li><i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i></li> <li><i>Nature of the data used and of any assumptions made.</i></li> <li><i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i></li> <li><i>The use of geology in guiding and controlling Mineral Resource estimation.</i></li> <li><i>The factors affecting continuity both of grade and geology.</i></li> </ul>	<ul style="list-style-type: none"> <li>Correlation of the potash seams between boreholes is with high confidence as each is very unlikely to be confused with other potash seams. Smaller potash seams and lesser insoluble layers provide additional 'marker' layers which can be correlated between all boreholes. The interval between seams do not vary significantly. Displacive structures are very few.</li> <li>The seismic data was imported in SEG-Y format into Micromine™ 2013 software and viewed in section and in 3D. A detailed structural interpretation was carried out using the seismic data by Elemental's Chief Geologist, Mr. Andrew Pedley.</li> <li>The base of the cover sequence was interpreted along with other reflection events within the Loeme Evaporite Formation. Coupled with drill data, the seismic data allowed a robust interpretation of the geology. It is evident that the Dougou deposit occupies a broad flat to gently dipping area of little structural influence (Fig. 4 of the announcement).</li> </ul>

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<b>GEOLOGICAL INTERPRETATION CONT'D</b>		<ul style="list-style-type: none"> <li>The spacing between single fault structures interpreted from the 2D seismic survey varies between 2000 and 2500m and faults are not major structures. Effects on the potash mineralisation seem to be minor. Nevertheless, it can not be assumed that further structures are present and such discontinuities will have to be considered for future mine planning. 5% was removed from the resource to account for this uncertainty.</li> <li>The seismic data also allowed the placement of the change in structural domain, from the little-disturbed Dougou area, to the more structurally influenced Yangala Prospect. The dividing line between these domains is indicated on Figure 2 of the announcement and was used as a limit against which the Dougou resource was constrained. The Kola-Dougou Half-Graben east of Dougou is well beyond the extent of the current deposit outline (Fig. 4 of the announcement).</li> <li>Given the low dip and primary sedimentary origin of the Dougou deposit, the ease of correlation and the low influence of structural modification, there are presently no viable alternative interpretations of the geology.</li> </ul>
<b>DIMENSIONS</b>	<ul style="list-style-type: none"> <li><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Dougou deposit occupies an area of approximately 10 x 5 kilometres and covers slightly more than 50 square kilometres (Fig. 2 of the announcement). The area for each of the seams differs slightly due to the fact that some boreholes stopped prematurely, such as ED_04 (above the HWS) and K64ter (above the US). On average the four seams give a combined thickness of 35 meters of carnallite. The Mineral Resource is between 400 and 600 meters depth.</li> </ul>
<b>ESTIMATION AND MODELLING TECHNIQUES</b>	<ul style="list-style-type: none"> <li><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li> <li><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li><i>The assumptions made regarding recovery of by-products.</i></li> <li><i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<ul style="list-style-type: none"> <li>All recent and historical drill holes, which occur within or near the Dougou area which contain at least K<sub>2</sub>O assay data of the potash seams were used in the estimation; 6 holes in total.</li> <li>The sylvinite TS in K38 is the only sylvinite intersection at Dougou and was excluded from the model and resource estimate.</li> <li>Holes without assay data (Ngouali-1, KOU5, KOU6) were not used in the estimation but gamma data in these holes clearly supports the continuity of the seams.</li> <li>Around each drill hole with valid (analyses with the component sum not deviating more than 2.5% from 100%) data for the potash horizon an area of influence (resources) was defined, which could not extend beyond boundaries previously determined for the deposit (e.g. boundary to the Yangala Sylvinite Prospect) or beyond the boundaries of the ELEMENTAL Property</li> <li>The average density was calculated by the chemical assay composition as well as verified by pycnometer measurement on fresh core material. For the historical drill holes densities determined on the recent drill holes for the respective seam were taken.</li> <li>The volume for each identified potash horizon was calculated by multiplying the area with the thickness (defined by availability of assaying data) of the potential mining horizon.</li> <li>The volume calculated for each horizon was multiplied with a tonnage factor depending on mineralization (density), which was determined individually for each area from the different minerals present in the horizon. This average density may vary between 1.64 g/cm<sup>3</sup> (for horizons with high Carnallite content) and 1.84 g/cm<sup>3</sup> (for horizons with high content of Halite / insoluble material).</li> <li>Each chemical analysis with the component sum not deviating more than 5% below and 2% over 100% is considered as valid (see section on 'Quality of Assay data...').</li> <li>The tonnages of KCl resources were obtained by multiplying the tonnage of mineralized material with corresponding KCl grade of the horizon for each drill hole area.</li> <li>The maximum distance of extrapolation is discussed under 'Classification'. There are no extreme grades; variation is relatively small as the mineralised material is massive and relatively homogenous. Reflecting the narrow grade range, no grade cutting was required.</li> </ul>

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ESTIMATION AND MODELLING TECHNIQUES CONT'D		<ul style="list-style-type: none"> <li>By bounding the model by the Yangala Prospect to the west, the model is for carnallitite only and is all contained within primary sedimentary layers, each belonging to a single geological/mineralogical domain.</li> <li>A check estimate was made by Elemental’s Chief Geologist Mr. Andrew Pedley, based on the area of the resource for each seam and the average thicknesses and is the same as that calculated by ERCOSPLAN.</li> <li>All seams are over 7 metres thick which is well over the minimum thickness required for the intended mining method so there was no requirement to apply a minimum thickness cut-off.</li> <li>In order to be conservative with the amount of undissolved material the average grade was set to 1% for insoluble material and sulfates (Anhydrite), although the assays show that the analysed value is usually in the range of 0.2 to 0.4%. This is due to the fact that the mineralogical composition from the assays provides some indications that a minor problem/bias may exist which is however not critical for the analytics. 1% insoluble material and sulfates is well below the amount that would begin to be detrimental on potash recovery.</li> <li>The confidence in the correlation of the seams and their continuity and relatively small variation in thickness across the deposit supports the simple plan-view polygonal estimation method used.</li> <li>The tonnage was validated by checking the calculations. Mr. Andrew Pedley, the Company’s Chief Geologist checked all tonnage calculations for each seam. The estimate grades are close to those of the borehole intersections, which show minor variation between holes. In summary, the model and estimation are robust, reflecting the simplicity and homogeneity of the deposit.</li> </ul>
MOISTURE		<ul style="list-style-type: none"> <li>The potash seams are dry. No adjustment for tonnages are required.</li> </ul>
CUT-OFF PARAMETERS	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>A lower cut-off grade was not used as the top and base of seams is selected upon an abrupt mineralogical change, which is also associated with a marked change in grade (from effectively barren to over 20% KCl) within an interval of less than 50 mm. In the case of the Top Seam, which is comprised of a grouping of smaller (0.5 to 1.0 metre thick) seams separated by rock salt, there was the option to include seams 5/IX and 9/IX (Fig 3B). However it was decided to exclude these seams and include only 6 to 8B/IX to maintain a grade of over 17% KCl for this seam and a combined-seam resource grade of over 20% KCl. No minimum thickness cut-off was required as all seam intersections within the deposit area are sufficiently thick (thinnest was 7.24 metres from the US in K65) for the intended mining method.</li> </ul>
MINING FACTORS OR ASSUMPTIONS	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>The grade, thickness, mineralogy and interpreted continuity of the potash seams supports the likelihood of eventual economic extraction and compare favourably with similar deposits including some for which economic studies with a positive outcome have been developed. A Scoping Study is underway for to assess the economic viability of the project.</li> <li>The simplicity of the geometry, the continuity, the mineralogy and absence of difficult lithologies such as bischofitite of insoluble-rich layers support the viability for extraction.</li> <li>The MRE at Dougou is hosted by flat or gently dipping carnallitite seams, with seam thickness of 7-11 metres and at a depth of between 400-600 meters. These characteristics suggest that the deposit could be extracted by solution mining , but conventional mining is technically also possible, but because of high shaft sinking costs would be less economic for this deposit. No dilution was applied as the high solubility of Carnallite compared to the other evaporite minerals present and the high grade will preclude reduction of KCl grade of the brine due to other material being dissolved preferentially.</li> <li>Within the MRE there may be areas that are not suited to the development of on surface solution mining infrastructure such as wetland areas or steep slopes, though such areas (typically referred to as technical exclusions) are not common. The consideration of technical exclusions would form part of the conversion of Mineral Resources to Mineral Reserves, if achieved.</li> </ul>



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<b>MINING FACTORS OR ASSUMPTIONS CONT'D</b>		<ul style="list-style-type: none"> <li>It is assumed that the Lower and Upper Seam can be mined in a single cavern but as different mining cuts, as they are separated by between 3 and 5 metres (average of 3.6 metres) of rock-salt. This will also need to be investigated in detail if Mineral Reserves are defined.</li> </ul>
<b>METALLURGICAL FACTORS OR ASSUMPTIONS</b>	<ul style="list-style-type: none"> <li><i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>Carnallite brine from the solution mine can be treated by an established process route that is similar to process being used at carnallite solution mines elsewhere or to processing of solid carnallite. In summary, the brine would be processed at a potash facility located on surface nearby. The processing concept continually adds Carnallite (produced during a later stage) to the incoming brine, which results in the precipitation of Halite and Sylvite (Carnallite decomposition stage). The solid slurry is separated from the brine and processed using hot leaching and KCl crystallisation to produce a K60 product. The K60 product is dried and during phase 2 and phase 3 most of the material is compacted before being transported to a storage facility. The brine from the Carnallite decomposition is evaporated to produce Carnallite, which is recycled to the Carnallite decomposition stage. Remaining <math>MgCl_2</math> brine and solid NaCl will be disposed off in deep injection wells or mined out caverns.</li> </ul>
<b>ENVIRONMENTAL FACTORS OR ASSUMPTIONS</b>	<ul style="list-style-type: none"> <li><i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i></li> </ul>	<ul style="list-style-type: none"> <li>As for the Company's Kola deposit which is has a fully approved ESIA, the Dougou deposit is within the 'Economic Development Zone' and the 'Buffer Zone' of the Conkuati Douali National Park. A comprehensive Environmental Social Impact Assessment (ESIA) was prepared for Kola Mining Permit which includes considerations for impacts of the construction of infrastructure in the area, including a large portion of the Dougou permit.</li> <li>The carnallite would be extracted by means of solution mining. This process generates relatively small amounts of processing waste: NaCl waste is mostly left in-situ, with carnallite selectively dissolved in the cavern and pumped as brine to the process plant. Any NaCl generated during brine processing can be brought back down the caverns. The <math>MgCl_2</math> bearing waste brine generated in the process plant can also be brought back into mined out caverns underground, but the volume will be too large to dispose everything down the caverns. This excess brine has to be disposed of, for example by deep well injection in the underground. This has to be further investigated.</li> </ul>
<b>BULK DENSITY</b>	<ul style="list-style-type: none"> <li><i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</i></li> <li><i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</i></li> <li><i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i></li> </ul>	<ul style="list-style-type: none"> <li>As carnallite and halite comprise &gt;99% of the carnallite, reliable density determination can be made based upon the relative carnallite (SG of 1.60) and halite (SG of 2.17) content. The density for each seam is provided in Table 1 of Appendix 1.</li> <li>The densities determined in the above manner are supported by a large number of density measurements by the pycnometer method.</li> <li>Porosity is very low and moisture content nil so the density calculations can be taken as bulk density</li> <li>Given the homogeneity of each seam in terms of carnallite content, the bulk density values used in the estimation are likely to be accurate.</li> </ul>
<b>CLASSIFICATION</b>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>The potash horizons of the Loeme Evaporite Sequence can be very well correlated between drill holes. Thickness is relatively homogeneous over the deposit. Interpretation of the seismic data has shown that local structures may influence the thickness / depth continuation. Therefore, a general reduction of 5% for all calculated resource areas has been applied to account for any structural discontinuities. The local influence of such structures has to be more detailed for future reserve calculation and detailed mine planning. The resulting estimated Mineral Resources for the different categories for each seam within the Dougou Deposit are shown in Table 1 of the announcement and in greater detail in Table 1 of Appendix 1 and shown in Figure 6 of the announcement.</li> </ul>

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CLASSIFICATION CONT'D		<p>It is the opinion of ERCOSPLAN that:</p> <ul style="list-style-type: none"> <li>➤ Measured resources occur in a radius of 750m around an investigated drill hole potash intersection if a correlation is possible on 2 sides to other drill hole with a comparable potash section and fresh core material for independent verification is available.</li> <li>➤ Indicated resources occur in a radius of 1,500m around an investigated drill hole potash intersection if a correlation is possible on 2 sides to other drill hole with a comparable potash section, minus any Measured resources in this area.</li> <li>➤ Inferred resources occur in a radius of 3,000m around an investigated drill hole potash intersection if a correlation is possible on 2 sides to other drill hole with a comparable potash section, minus any Measured and Indicated resources in this area. In case no correlation to neighboring drill holes is possible the radius is reduced to 1,500m for the drill hole in the concerning direction.</li> </ul>
AUDITS OR REVIEWS	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The data, model and ERCOSPLAN estimate was reviewed by Elemental Mineral’s Chief Geologist Mr. Pedley, visually on-screen using Micromine 2013 software. A check estimate of the tonnage was made using the area and average thickness of each seam and found to be the same.</li> </ul>
DISCUSSION OF RELATIVE ACCURACY/ CONFIDENCE	<ul style="list-style-type: none"> <li>• <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></li> <li>• <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li>• <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The accuracy of the estimate reflects the confidence assigned as per the resource classification breakdown. On the whole the estimate is likely to be accurate given the simplicity of the deposit geometry, continuity and minimal variation in grade.</li> </ul>