

ASX Release
19 September 2017

MACKAY SOP PROJECT FIELDWORK UPDATE

Highlights

- Long-term trench pump testing underway for over 40 days at two pilot trenches
- Nine pilot trenches have been excavated to date
- Off-lake drilling and bore installations to test for process and potable water supply are complete, with pump testing of aquifers underway

Agrimin Limited (ASX: AMN) (“Agrimin” or “the Company”) is pleased to provide an update of field activities underway at the Mackay Sulphate of Potash (“SOP”) Project in Western Australia.

To date, nine trenches have been excavated across the Project area and the Company has commenced long-term pump testing of two trenches. In addition, short-term pump testing has been completed at other trenches in advance of long-term tests commencing.

Figure 1. Brine Pumped from Trench T3



Trench Excavation

A 25 tonne amphibious excavator has completed the excavation of nine trenches with standard dimensions of 100m long and 5m deep (**Table 1**). A total of 20 pilot trenches are planned to be excavated on Lake Mackay. The trench sites are widely distributed across the lake and are designed to be representative of the geological and hydrogeological conditions expected to be encountered across the Project area (**Figure 4**).

In addition to facilitating long-term pumping tests, the trenches are designed to provide geotechnical information in relation to the long-term stability and operation of the trenches. To this effect a number of different trench designs are being trialled as part of the program.

Table 1. Location and Dimensions of Pilot Trenches^{1,2}

Trench ID	Easting	Northing	Excavated Depth	Trench Length
T1	452880	7504972	4.0m	100m
T2	445231	7508720	5.0m	100m
T3	452574	7514916	4.0m	100m
T4	460008	7512003	4.5m	100m
T5	474098	7504090	5.0m	100m
T6	479984	7507964	5.5m	100m
T7	484981	7511898	6.0m	30m
T8	490922	7507101	4.5m	100m
T9	495997	7513449	6.0m	100m

Notes:

1. Locations are in GDA94 Zone 52.
2. Dimensions are approximate and based on trench completion reports.

Long-Term Trench Pump Testing

A program of pump testing of the trenches will allow the Company to acquire data that will improve confidence in key assumptions underpinning the hydrogeological model and brine recovery rates that will form the basis of a Definitive Feasibility Study. In the shorter term, initial results from this program are being incorporated into the current Pre-Feasibility Study (“PFS”).

Long-term pumping tests are designed to determine the steady-state brine extraction rates from shallow lakebed sediments, i.e. 0-6m below the ground surface (“bgs”).

A network of monitoring bores are being installed at 20m, 50m and 100m from each trench. Groundwater data loggers are installed in the trench and monitoring bores during testing to measure changes in water (brine) levels in response to pumping. Information collected from the pumping tests will be used to better define key hydraulic parameters of the lakebed sediments, such as hydraulic conductivity and specific yield.

The Company currently has two long-term pumping tests in progress at trenches T1 and T3 (**Table 2**). These tests are being conducted as continuous pumping tests where the pumping rate is adjusted to establish a constant water level in the trench and then stabilised to maintain a constant water inflow over the long-term

test. The continuous pumping tests will be undertaken over varying durations, estimated to be at least two to three months, with the aim of determining steady-state drawdown conditions in each trench.

The water level in T1 is stabilising at approximately 1.3m bgs, equating to a drawdown of 0.6m from the starting water level of 0.7m bgs (**Figure 2**). The current pumping rate of 1.4m³ per day per metre of trench (“m³/day/m”) is believed to be representative of steady-state conditions for T1.

Agrimin completed a Scoping Study for the Mackay SOP Project in August 2016. This indicated SOP production of 370,000 tonnes per year over a 20 year life at an average total cash cost of US\$256/t FOB¹. The preliminary hydrogeological model underpinning the Scoping Study assumed an average brine extraction rate of 0.75m³/day/m for trenches over the life of the Project. The results achieved to date in T1 are higher than the modelled rate, however this is the first of 20 planned pumping tests which are expected to occur over the next several months across the lake to evaluate brine inflows.

The water level in T3 is approximately 1.4m bgs, equating to a drawdown of 0.7m from the starting water level of 0.7m bgs (**Figure 3**). The current pumping rate is not yet representative of steady-state conditions.

Short-term pumping tests have also been conducted at T4, T6 and T9, with the recovery rate measured in advance of these trenches undergoing long-term testing. These short-term tests are providing additional data for use in the hydrogeological model that forms the basis of the PFS.

The Company is in the process of procuring further pumping equipment to site in order to expedite the commencement of long-term pump testing at other trenches.

Assay results for brine samples taken from the trenches during pump testing are yet to be received.

Table 2. Status of Long-Term Pumping Tests as at 16 September 2017

Trench ID ¹	Status of Pumping Test	Start of Pumping Test	Drawdown in Trench ³	Duration of Pumping	Total Volume Pumped	Steady-State Pumping Rate
T1	Long-term test in progress	4/8/2017	0.6m	46 days	6,687m ³	1.4m ³ /day/m
T2	Awaiting testing	-	-	-	-	-
T3	Long-term test in progress ²	10/8/2017	0.7m	40 days	1,739m ³	In progress
T4	Short-term test conducted	-	-	-	-	-
T5	Awaiting testing	-	-	-	-	-
T6	Short-term test conducted	-	-	-	-	-
T7	Awaiting testing	-	-	-	-	-
T8	Awaiting testing	-	-	-	-	-
T9	Short-term test conducted	-	-	-	-	-

Notes:

1. Trench locations and dimensions are reported in Table 1.
2. Mechanical issues with the pump at T3 have caused pumping to stop for extended periods during this test which has resulted in the volume pumped being lower than what is possible.
3. All trenches intersected brine from the water table to the base of the trench.

¹ Refer to the ASX Release dated 23 August 2016 for full Scoping Study details. All material assumptions underpinning the production target and forecast financial information derived from the production target continue to apply and have not materially changed.

Figure 2. Pump Testing at Trench T1



Figure 3. Pump Testing at Trench T3



Process Water Drilling

The Company has now completed a water exploration drilling program to the south of Lake Mackay in order to assess off-lake aquifers for supply of process and potable water for the Company’s proposed SOP operation. Drilling was completed at five locations (**Figure 4**), with monitoring bores installed at all drilling locations and test production bores installed at sites B2 and B4.

The Company noted the presence of two distinct aquifer units in most drill holes, the first a silcrete zone starting at approximately 35m depth, which yielded airlift flows of 1 to 3 litres per second (“**l/sec**”). A second aquifer sequence consists of unconsolidated sands between 60m to 100m depth, which yielded airlift flows of 5 to 7 l/sec. These airlift yields are only an initial indicator of potential aquifer yields. Pump testing of the aquifers is underway.

Initial field measurements suggested water quality ranges from 2,700 to 80,000 mg/l of total dissolved salts (fresh to saline), with quality appearing to improve as drilling stepped away from Lake Mackay. Water samples have been submitted to a laboratory in Perth for analysis.

The Company is encouraged by the initial results and further hydrogeological investigations (aquifer testing) will provide additional information required to determine long-term sustainable aquifer yields.

Drill holes will also be sampled for the identification of stygofauna and/or troglifauna as part of the Company’s ongoing environmental studies.

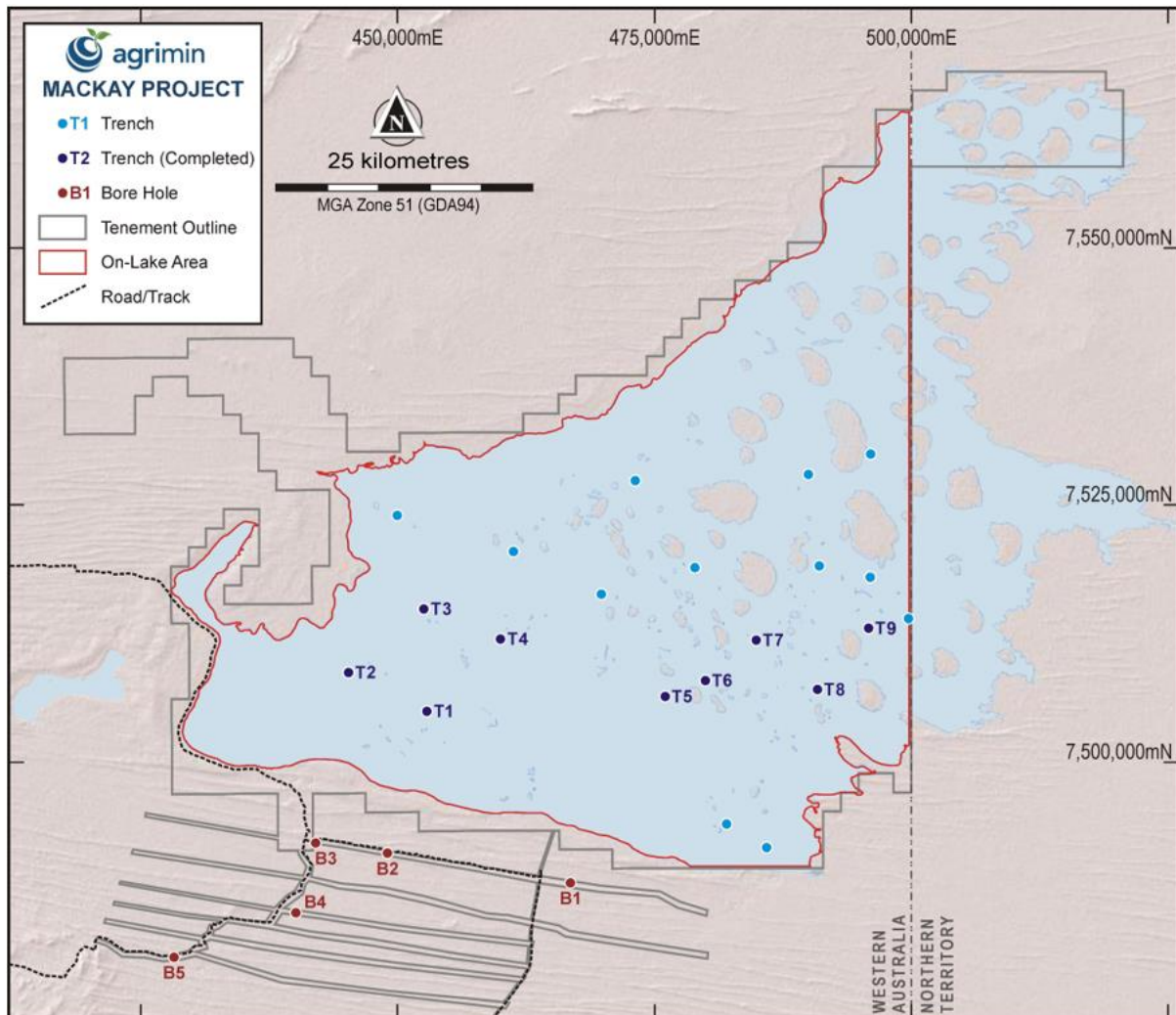
Table 3. Location and Depth of Bore Drilling^{1,2}

Hole ID	Easting	Northing	Bore Hole Depth	Casing Diameter
B1	432353	7508719	38m	50mm
B1	432353	7508719	108m	50mm
B2	435206	7500041	42m	50mm
B2	435206	7500041	132m	165mm
B3	499822	7515003	96m	50mm
B4	489999	7530002	96m	50mm
B4	489999	7530002	100m	165mm
B5	485860	7491930	72m	50mm

Notes:

1. Locations are in GDA94 Zone 52.
2. Intersection thicknesses are not provided as these bores are exploring for process water and not mineralised brine. Thicknesses of aquifers and water quality varied between holes. All holes were drilled vertically.

Figure 4. Map of Planned On-Lake Trench Locations and Off-Lake Bore Locations



ENDS

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About Agrimin

Based in Perth, Agrimin Limited is a leading fertilizer development company focused on the development of its 100% owned Mackay SOP Project. The Project is situated on Lake Mackay in Western Australia, the largest undeveloped SOP-bearing salt lake in the world. Agrimin is aiming to be a global supplier of high quality SOP fertilizer to both traditional and emerging value-added markets. Agrimin Limited's shares are traded on the Australian Stock Exchange (ASX: AMN).

Forward-Looking Statements

This ASX Release may contain certain "forward-looking statements" which may be based on forward-looking information that are subject to a number of known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those presented here. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. Forward-looking information includes exchange rates; the proposed production plan; projected brine concentrations and recovery rates; uncertainties and risks regarding the estimated capital and operating costs; uncertainties and risks regarding the development timeline, including the need to obtain the necessary approvals. For a more detailed discussion of such risks and other factors, see the Company's Annual Reports, as well as the Company's other ASX Releases. Readers should not place undue reliance on forward-looking information. The Company does not undertake any obligation to release publicly any revisions to any forward-looking statement to reflect events or circumstances after the date of this ASX Release, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

Competent Person's Statements

The information in this statement that relates to Exploration Results for the Mackay SOP Project is based on information compiled or reviewed by Mr Murray Brooker who is a full-time employee of Hydrominex Geoscience Pty Ltd. Mr Brooker is a geologist and hydrogeologist and is an independent consultant to Agrimin. Mr Brooker is a Member of the Australian Institute of Geoscientists and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code 2012 Edition). Mr Brooker consents to the inclusion of such information in this statement in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. 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. 	<p>On-lake Trenching & Pump Testing</p> <ul style="list-style-type: none"> Samples are collected from the excavator bucket at regular intervals. Brine samples are collected from discharge hosing on the pump units at regular weekly intervals, representing a composite brine sample from the trench. <p>Off-lake Bore Drilling</p> <ul style="list-style-type: none"> Conventional mud rotary drilling techniques were used to collect representative geological samples every 2m. Representative samples were collected in chip trays and sample packets. Periodic water samples were collected by airlifting with the drilling rig and by pumping during aquifer testing.
Drilling techniques	<ul style="list-style-type: none"> 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). 	<p>On-lake Trenching & Pump Testing</p> <ul style="list-style-type: none"> Excavation of the trenches is completed by a 25t amphibious excavator with an arm to excavate up to 12m deep. <p>Off-lake Bore Drilling</p> <ul style="list-style-type: none"> Mud rotary drilling techniques were used to drill and install both monitoring and production bore casing. Drill hole depths, coordinates and well casing installation information is provided in tables in the text.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	<p>On-lake Trenching & Pump Testing</p> <ul style="list-style-type: none"> Not applicable to trenching. <p>Off-lake Bore Drilling</p> <ul style="list-style-type: none"> Representative unconsolidated sediment samples were collected at 2m intervals and logged in the field. Samples were recovered in a mud slurry in this drilling method. The drill cuttings themselves are not analysed, but the fluid from the hole is later sampled to assess water quality.
Logging	<ul style="list-style-type: none"> 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<p>On-lake Trenching & Pump Testing</p> <ul style="list-style-type: none"> All trenches were logged for hydrogeological characteristics, including descriptions of lithology, sediment grain size, colour, general observations and flow rates. A qualified hydrogeologist/geologist logged all samples. <p>Off-lake Bore Drilling</p> <ul style="list-style-type: none"> All drill holes were logged for hydrogeological characteristics, including descriptions of lithology,

		<p>sediment grain size, colour, general observations and flow rates.</p> <ul style="list-style-type: none"> A qualified hydrogeologist/geologist logged all samples. Drilling snap top sample bags and chip trays were taken as a permanent record of sample intervals.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<p>On-lake Trenching & Pump Testing</p> <ul style="list-style-type: none"> Not applicable for trenching. <p>Off-lake Bore Drilling</p> <ul style="list-style-type: none"> Periodic water samples were collected by airlifting with the drilling rig and by pumping during aquifer testing. These composite samples represent inputs from the different aquifer units intersected.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 	<p>On-lake Trenching & Pump Testing</p> <ul style="list-style-type: none"> Brine samples were collected from pumped trenches and submitted to an accredited laboratory for chemical analysis. Samples are submitted with laboratory prepared standards and field duplicates to assess laboratory QA/QC. Sample results are awaited. <p>Off-lake Bore Drilling</p> <ul style="list-style-type: none"> Groundwater samples were collected from each bore and submitted to an accredited laboratory for chemical analysis. Samples are submitted with laboratory prepared standards and field duplicates to assess laboratory QA/QC. Awaiting receipt of results.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<p>On-lake Trenching & Pump Testing</p> <ul style="list-style-type: none"> Qualified hydrogeologists carried out the sampling of brine from pumped trenches. <p>Off-lake Bore Drilling</p> <ul style="list-style-type: none"> Qualified hydrogeologists carried out the sampling of groundwater from the bores. Field data was recorded using calibrated instrumentation.
Location of data points	<ul style="list-style-type: none"> 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. Specification of the grid system used. Quality and adequacy of topographic control. 	<p>On-lake Trenching & Pump Testing</p> <ul style="list-style-type: none"> Trenches were located using a handheld GPS system, with accuracy of +/- 5m. The grid system used was GDA94 in MGA Zone 52. The salt lake surface is generally flat lying so topographic control is not considered a critical point. <p>Off-lake Bore Drilling</p> <ul style="list-style-type: none"> Collars were located using a handheld GPS system, with accuracy of +/- 5m. The grid system used was GDA94 in MGA Zone 52. RLs were recorded for each collar.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. 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. 	<p>On-lake Trenching & Pump Testing</p> <ul style="list-style-type: none"> Trenches are broadly spaced at differing distances apart, generally 10-15km. All brine samples are considered a composite from the top of water table to the depth of the trench.

	<ul style="list-style-type: none"> Whether sample compositing has been applied. 	<p>Off-lake Bore Drilling</p> <ul style="list-style-type: none"> Exploration water supply bores were drilled at positions identified from previous drilling investigations. Further drilling and testing will be required before a final wellfield can be established.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	<p>On-lake Trenching & Pump Testing</p> <ul style="list-style-type: none"> Trench locations are considered representative of the broad lakebed sediment deposit. The lake sediments are a horizontally lying sequence and the sampling is perpendicular to this. Any structures of importance in the sediments are considered to be sub-horizontal. <p>Off-lake Bore Drilling</p> <ul style="list-style-type: none"> All drill holes are drilled vertical as the geological structure being targeted (host sediments) are generally flat lying.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<p>On-lake Trenching & Pump Testing</p> <ul style="list-style-type: none"> All samples were clearly labelled and kept onsite prior to being transported to Perth, via secured freight, for analysis. Samples for assaying were submitted to independent laboratories, with a chain of custody system maintained. <p>Off-lake Bore Drilling</p> <ul style="list-style-type: none"> All samples were clearly labelled and kept onsite prior to being transported to Perth, via secured freight, for analysis. Samples for assaying were submitted to independent laboratories, with a chain of custody system maintained.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits or reviews were conducted.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Project is 100% owned by Agrimin Limited. The project tenure is held under granted Exploration Licences and Miscellaneous Licences - E80/4887, E80/4888, E80/4889, E80/4890, E80/4893, E80/4995, E80/5055, L80/87 and L80/88. The Project area is subject to native title determination held by the Kiwirrkurra People.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Other companies including Holocene Pty Ltd, Verdant Resources Ltd and Toro Energy Ltd have completed exploration in the area previously. The previous exploration has provided important information on the geology and water quality in the broader Lake Mackay area.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The deposit type is brine-hosted potash in a salt lake/playa, with brine hosted in the pores of the sequence of flat lying sediments.
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar 	<ul style="list-style-type: none"> Refer to trench and drill collar table in the ASX Release. Holes were up to 132m deep and were drilled vertical. Approximate RL of the lake is 355m.

	<ul style="list-style-type: none"> ○ dip and azimuth of the hole ○ down hole length and interception depth ○ hole length. ● If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	
Data aggregation methods	<ul style="list-style-type: none"> ● In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. ● 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. ● The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> ● Assay results will be provided in subsequent follow up ASX releases as they become available. Brine samples from the trenches are the composite samples from inflow in the 100m long trenches.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> ● These relationships are particularly important in the reporting of Exploration Results. ● If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. ● 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'). 	<ul style="list-style-type: none"> ● The brine aquifer is considered to be continuous throughout the sediment profile of the lake, which has been confirmed by analyses of depth profiles. The lake sediment units are flat lying and all holes have been drilled vertically so it is assumed that the true width of mineralisation has been intersected in each hole/trench.
Diagrams	<ul style="list-style-type: none"> ● 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. 	<ul style="list-style-type: none"> ● Refer to figures within the ASX Release.
Balanced reporting	<ul style="list-style-type: none"> ● 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. 	<ul style="list-style-type: none"> ● Results considered relevant have been reported. Assay results will be provided in subsequent follow up ASX releases as they become available.
Other substantive exploration data	<ul style="list-style-type: none"> ● 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. 	<ul style="list-style-type: none"> ● No other exploration has been carried out within the Project area. ● Toro Energy Ltd (ASX: TOE) and Verdant Resources Ltd (ASX: VRM) have conducted potash and uranium exploration on neighboring tenure at Lake Mackay. ● Agrimin has previously reported the results of aircore and auger core drilling at Lake Mackay and the results of brine sampling from these programs.
Further work	<ul style="list-style-type: none"> ● The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). ● Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> ● Work associated with the Pre-Feasibility Study for the Project is underway. Refer to ASX Release.