

Thursday 21st March 2024

ASX Announcement

DRILL READY TARGETS DEFINED AT NOLANS EAST

Highlights

- 22 REE targets at Nolans East delineated based on Bubalus' extensive sampling programme, including 6 high priority targets for immediate drill testing
- Nolans East Project located 15km from Nolans Bore (ASX.ARU), where Arafura Resources is constructing Australia's next REE mine and refinery underpinned by \$840m in Federal Government funding support
- Targets lie within extensive surface REE anomalies defined over 5km in length (aggregate), along a WNW-ESE trend, with peak assay > 2,000ppm TREO

Bubalus Resources Limited (ASX: BUS) (**Bubalus** or **the Company**) is pleased to provide an update on its 100% owned Nolans East REE Project, located 15km south east of the Nolans Bore deposit owned by Arafura Resources Limited (**Arafura**).

Arafura has defined a Mineral Resource at Nolans Bore of 56 million tonnes at an average grade of 2.6% total rare earth oxides (**TREO**), including a high proportion of neodymium-praesidium oxides (26% Nd₂O₃+Pr₆O₁₁ (**NdPr**)), and 11% phosphate (P₂O₅) has been defined by Arafura at Nolans Bore¹. Arafura's market capitalisation has grown to over A\$540 million (ASX.ARU) and up to A\$840 million in Commonwealth government funding for the Nolans Bore mine and refinery development has recently been announced.

During 2023 Bubalus completed an extensive surface sampling campaign which defined large scale rare earth element (**REE**) anomalies at surface across the target area². Recent work by Sugden Geoscience has refined these anomalies into 22 discrete targets for further investigation including drill testing for the 6 high priority targets.

The Company has been informed by the Aboriginal Areas Protection Agency (**AAPA**) that the Aboriginal Traditional Owners for the area have completed a heritage survey over the targets at Nolans East. The Company awaits the results of this survey from the AAPA and the Central Land Council (**CLC**) as representatives of the traditional owners, after which it will be able to complete drill hole design and engage drilling contractors.

¹ <https://www.arultd.com/projects/nolans.html> ; also refer ARU.ASX Announcement 7 June 2017.

² ASX Announcements 24 January 2023 and 25 July 2023

Surface Sampling Anomalies and Target Definition

The REE targets are derived from sampling at spacings of 400m x 100m and 200m x 100m across the area of interest, with 50m x 50m spacing completed over the original Nolans East target. Analysis for REE was carried out by Intertek with 267 samples returning > 500ppm TREO and a peak value of 2,053ppm TREO. Importantly the NdPr content of the samples averages 22% of the TREO content (refer ASX Announcement 25 July 2023), a similar content to that reported at Nolans Bore (26%¹).

Assay results, and specifically REE assays, were reviewed and levelled by specialist geochemical consultant Sugden Geoscience, with results being levelled to remove variation caused by changes in surface geology and regolith using the Northern Territory Geological Survey (NTGS) surface geology mapping. LREO and HREO enrichment factors compared to average granite REE abundances were also calculated.

Based on raw and levelled results a total of 22 discrete targets were identified within the surface sampling area, with 6 of these designated as high priority targets for follow up work. All targets are shown on Figure 1.

Update on Drilling Preparations

In late 2023, following feedback from the CLC and the AAPA, the Company lodged an application for a clearance for drilling activities at Nolans East with the relevant stakeholder representatives and government agencies. The areas in the application overlie the majority of the targets delineated by Sugden Geoscience as shown in Figure 1.

The Company has recently been informed by the AAPA that the Aboriginal Traditional Owners for the area have completed a heritage survey over the nominated areas for drilling at Nolans East. The Company awaits the results of this survey from the AAPA and the CLC as representatives of the traditional owners. Once received, the Company will be able to finalise the drill hole design and engage drilling contractors for the initial drill testing of the targets outlined above.

The Company looks forward to updating shareholders with progress towards its maiden drilling programme at Nolans East.

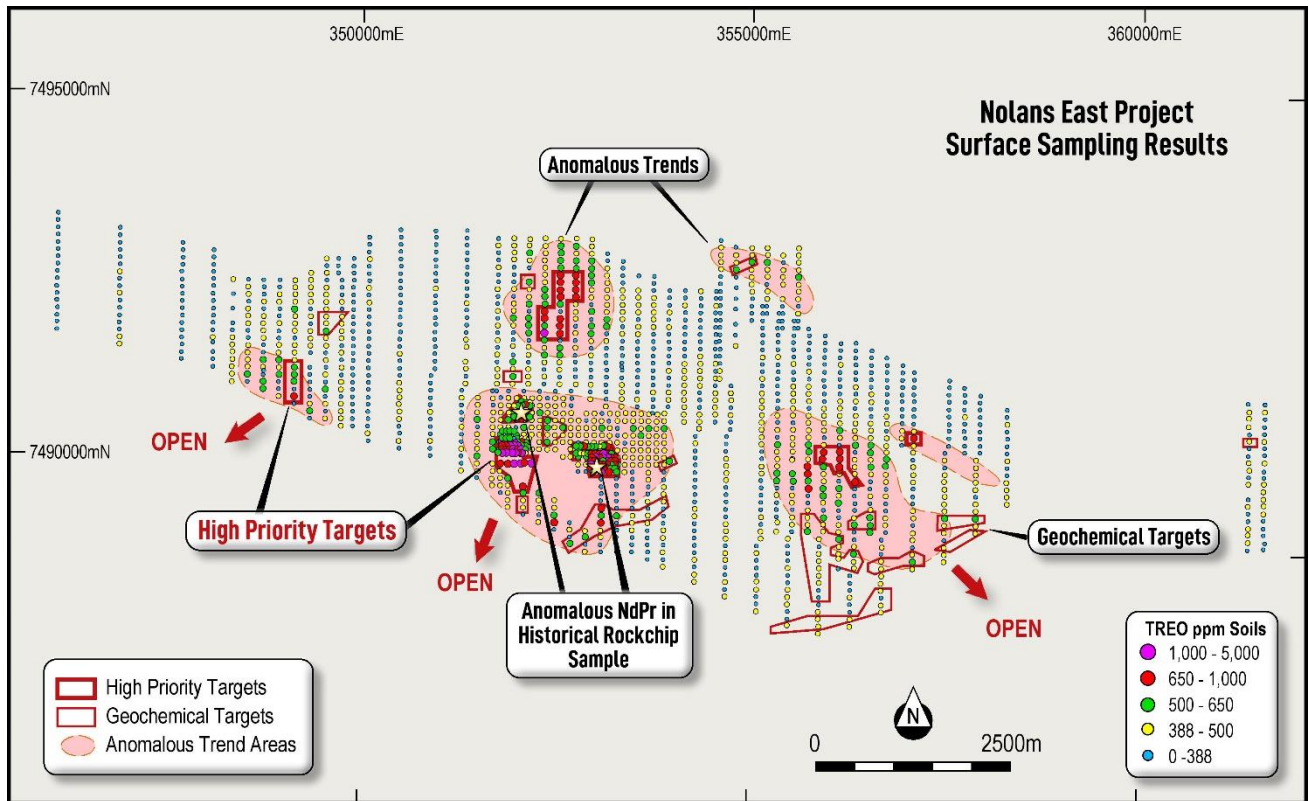


Figure 1. Results from surface sampling at Nolans East Project.

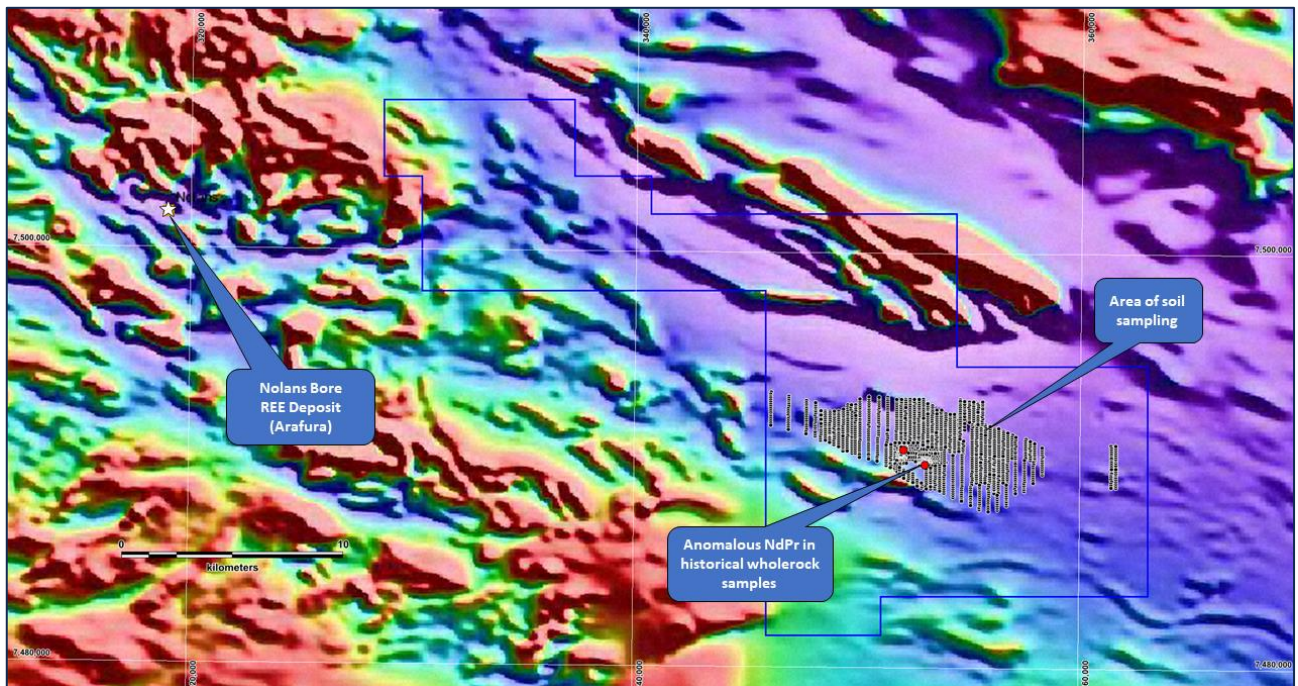


Figure 2. Soil Sampling at the Nolans East Project over magnetics (TMI – NTGS data).

This announcement has been authorised by the Board of Directors of Bubalus Resources Limited.

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COMPETENT PERSONS STATEMENT

Information in this report relating to Exploration Results is based on information compiled, reviewed and assessed by Mr. Bill Oliver, who is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr. Oliver is a Director of Bubalus Resources and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves (**JORC Code**). Mr. Oliver consents to the inclusion of the information in the form and context in which it appears.

Some of the information is extracted from the Independent Geologist's Report contained within the Prospectus released to the ASX on 11 October 2022 and available to view on the Bubalus Resources Limited website, www.bubalusresources.com.au or on the ASX website, www.asx.com.au under the ticker code BUS.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

ABOUT BUBALUS RESOURCES

Bubalus has five projects, the Yinnietharra Lithium Project (prospective for lithium), Amadeus Project (prospective for Manganese), the Coomarie Project (prospective for Heavy Rare Earths), the Nolans East Project (prospective for Light Rare Earths) and the Pargee Project (prospective for Heavy Rare Earths), which are located in premier geological provinces in the Northern Territory and Western Australia:

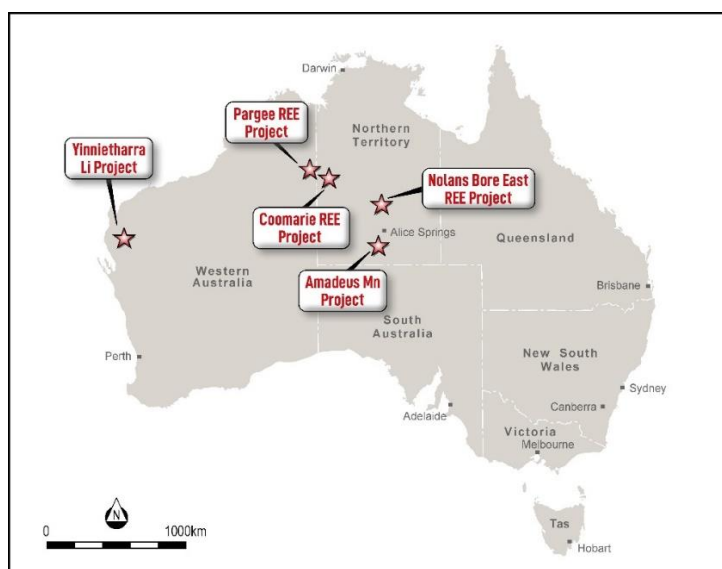
Yinnietharra Project (Li) - Yinnietharra Project with the boundary of E09/2724 lying only 2km east of the Malinda Prospect (Figure 1) owned by Delta Lithium Limited (ASX: DLI) (**Delta**). Drilling at Malinda by Delta has identified spodumene-hosted lithium mineralisation over a distance of 1.6 km and to a depth of 350m³.

Amadeus Project (Mn) - Significant land package with 150kms of strike containing outcropping high grade manganese covering 5,436km², located 125km south of Alice Spring where historical exploration has identified 11 manganese occurrences, along with cobalt and Ni-Zn-Cu also identified.

Nolans East Project (Light REEs) - The project covers 380km² of the Arunta Province, analogous to Nolan's Bore light rare earth deposit and is prospective for light rare earths, located only 15kms east of Arafura's (ASX:ARU) 56Mt NPV \$1.011Bn light rare earth deposit.

Coomarie Project (Heavy REEs) - The project covers 1,315 km² and presents as a geological analogue to Browns Dome, host to Northern Minerals' (ASX:NTU) Browns Range heavy rare earths deposit where mineralisation is hosted on margins of granite dome intrusive where the unconformity between Gardiner Sandstone and Browns Range Metamorphics exist and located in the Tanami Region.

Pargee Project (Heavy REEs) - The project is prospective for heavy rare earths and located 30kms from PWV Resources' (ASX:PVW) Watts Rise heavy rare earths discovery.



³ Refer to Delta Lithium Limited's ASX Announcement on 21st August 2023 "Excellent Yinnetharra Initial Metallurgical Results and Drilling Update".

Appendix 1.

The following tables are presented in accordance with requirements under the JORC Code, 2012 Edition

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	- Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. - 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.	Surface sampling using a shovel to remove top 2cm of material. Samples were sieved using – 80 mesh.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	No drilling results are reported.
Drill sample recovery	- 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.	No drilling results are reported.

Criteria	JORC Code explanation	Commentary
Logging	- Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. - Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. - The total length and percentage of the relevant intersections logged.	Geological observations were recorded for all samples. No core or chip samples are being reported.
Sub-sampling techniques and sample preparation	- 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.	Entire sieved sample submitted for analysis.
Quality of assay data and laboratory tests	- The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. - 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. - Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	Samples collected were prepared at Intertek Genalysis Alice Springs (dried and pulverised). Samples were analysed at Intertek Genalysis Perth using a 4 acid digest and ICP-MS. This method is predicted to give a complete or near complete recovery for rare earth elements and other elements of interest.
Verification of sampling and assaying	- 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.	Data recorded in field and entered into spreadsheet. REE assays were converted from elemental into oxide using molar weights. Targets presented in this announcement are derived from interpretation of both raw assay data and data produced by levelling of assays as described in the text.
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations	Sample points surveyed using handheld GPS. Data is in AMG Zone 53.

Criteria	JORC Code explanation	Commentary
	<i>used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i>	Open file topographic data is being used.
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i> <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> <i>Whether sample compositing has been applied.</i>	Sample spacing was 200m x 100m or 400m x 100m as shown on Figures 1 and 2. Certain areas were infilled to 50m x 50m. Not applicable for Mineral Resources.
<i>Orientation of data in relation to geological structure</i>	<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> <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>	Further data required to confirm orientation of anomalies and links to structures observed in magnetic data.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	Delivered to laboratory by company representatives.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits have been completed.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<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> <i>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.</i>	The Nolans East Project consists of 1 granted Exploration License (EL32957). The tenement is 100% owned by Bubalus via its subsidiary Jarrah Nia Exploration Pty Ltd. The project is covered by a pastoral lease as well as the Ngwarray native title determination.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Historical exploration at Nolans East has comprised mapping and sampling by the Northern Territory Geological Survey. The area of EL32957 was previously held by Arafura Resources Ltd. No significant exploration is understood to have been carried out.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	The Nolans East Project is situated in the Aileron Province of the Arunta Region in the southern part of the Northern Territory. The Aileron Province predominantly comprises Palaeoproterozoic

Criteria	JORC Code explanation	Commentary
		greenschist to granulite facies metamorphosed sedimentary and igneous rocks. The Arunta region was subjected to a long-lived event from 450-300 Ma. The Alice Springs Orogeny is expressed in the Aileron Province as west-north-west trending greenschist to upper amphibolite shear zones. Large scale fluid flow during the Alice Springs Orogeny is believed to be responsible for REE mineralisation. Exploration at Nolans East is targeting REE mineralisation in a similar setting to Arafura's Nolans Bore Project, which is located 15km west. Nolans Bore is a complex stockwork vein-style deposit with mineralisation occurring in in two stages (1) massive to granular fluorapatite with inclusions of REE silicates, phosphates and (fluoro) carbonates, and (2) calcite-allanite with accessory REE-bearing phosphate and (fluoro) carbonate minerals that vein and brecciate the earlier stage. Nolans Bore was discovered by mapping and sampling of these veins at surface. The Nolans East Project area is 90% covered in sand cover with poor outcrop defined. Outcrops are principally Granite – Gneiss.
Drill hole Information	- A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: - easting and northing of the drill hole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar - 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.	No drilling results are reported.
Data aggregation methods	- In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. - 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.	No aggregation of data.

Criteria	JORC Code explanation	Commentary
<i>Relationship between mineralisation widths and intercept lengths</i>	• <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> • <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>	No drilling results are reported.
<i>Diagrams</i>	• <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>	Refer to figures within this report.
<i>Balanced reporting</i>	• <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>	All meaningful information has been included in the body of the text, including all results shown on Figure 1.
<i>Other substantive exploration data</i>	• <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>	All material data and information has been included in the body of this announcement.
<i>Further work</i>	• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <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>	Further work, including review and analysis of results and drill planning, detailed in the body of the announcement.