

ASX: ADV

Capital structure:

Ordinary shares 366.7m

Options (Unlisted) 68.4m (various)

Undiluted Market Cap: A\$2.9m

Shareholders:

Institutional 13% Board/Mgt 19% Retail 68%

Top 20: 56%

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DRILLING UPDATE – CANADIAN FLAKE GRAPHITE PROJECT

Visible flake graphite intersected in all holes to date with 50 per cent of program now completed

<u>Highlights</u>

- Drill program progressing well at Ardiden's 100%-owned Manitouwadge Graphite Project in Ontario, Canada.
- 500m of 1,000m of diamond drilling now completed with all holes to date intersecting visible flake graphite.
- Core samples for the first five holes expected to be delivered to the Actlabs laboratory in Thunder Bay by the end of the week for assays and beneficiation testwork.
- Extensive jumbo and large flake graphite was identified in four samples at surface by channel sampling completed in 2014.
- The graphite is amenable to beneficiation to up to 94.8% C in graphite using simple, low-cost gravity and flotation techniques. Samples from the current drilling program will be assayed and undergo beneficiation testing.
- Manitouwadge Project located in an established mining province with excellent infrastructure access.

Ardiden Limited (ASX: ADV) is pleased to advise that the maiden 1,000m diamond drilling program at its 100%-owned **Manitouwadge Graphite Project** in Ontario, Canada is progressing well with visible flake graphite encountered in all holes completed to date. Assay results are pending.

The first five holes of the 10-hole program have been completed on schedule with drilling expected to be completed within the next two weeks (Table 1). All holes to date have intersected visible flake graphite with some holes also containing narrow bands of massive sulphide (mainly pyrrhotite), which will be be subject to separate testing and confirmation.



Figure 1: Visible graphite intervals from MG-02

A plan showing the drill-hole locations for this maiden drill program (including locations of the six historical MaxMin HLEM conductors and the channel samples from last year) is shown below. To date, holes MG-01, MG-02, MG-03 and MG-04 and a short metallurgical test hole (between MG-03 and MG-04) have been completed.

The remaining program is expected to move from west to east and will be completed based on a geophysical review of EM conductor targets (in red) with some minor adjustments based on visual interpretation of flake graphite intercepts from holes to date.



Figure 2: Map of EM Conductors (in red), Channel Samples and Proposed Drill Holes

Access to site and drilling conditions have been excellent to date with fully maintained logging roads to site ensuring efficient logistics. The drilling team is staying in the town of Manitouwadge which is a 30-minute drive from the project. Manitouwadge has a population of 2,000 people with key nearby industries including logging and mining.

The town of Manitouwadge was set up by Noranda to service the Geco copper-zinc mine which was mined from 1957 to 1994 and had a total deposit resource of **58.4 Mt @ 3.45% Zn, 1.86% Cu, 0.15% Pb, 50 g/t Ag**. The Hemlo gold mine, which has a 20 Moz gold resource, is located 50 km to the south.



Figure 3: Rig drilling MG-03

The core samples from the first five holes are expected to be delivered to the Actlabs laboratory in Thunder Bay, Ontario by the end of the week for initial assays and beneficiation testing. This lab has undertaken historical work on samples from this project and specialises in graphite assaying and beneficiation work with a significant proportion of its current work being in the graphite area.

Assay results from the first half of the program are anticipated to be received approximately 3 weeks from submission of core samples with beneficiation testing typically taking another 3-4 weeks. The balance of the core samples from the second half of the drill program will also be sent to the lab at the completion of the drilling program in late March for assaying and beneficiation testing.

Subject to results from the assaying and beneficiation program, samples from the beneficiation program are expected to be made available for review by potential customers.

Recently reported results from initial beneficiation test work conducted on channel samples indicate that simple, low cost gravity and flotation beneficiation techniques can result in graphite concentrate purity levels of up to 94.8% for jumbo flake (>300 microns) and 94.0% for large flake (>180 microns and <300 microns).

These flake sizes are expected to be subject to rapidly increasing demand over the next decade for use in new technologies such as lithium-ion batteries and electric vehicles.

Board of Directors Ardiden Ltd

ENDS

About Ardiden

Ardiden owns 100% of the Manitouwadge graphite project.

The Manitouwadge Project is located in an established mining province with significant graphite potential. Numerous other projects surround the project, including the world-class Albany graphite deposit being developed by Zenyatta Ventures, which lies ~100km from Manitouwadge. The project is also 20kms from the historic Geco copper-zinc mine and 50kms from the Hemlo gold mine which has a 20m oz gold resource.

The project has proven outcropping graphite, and initial metallurgical test work on samples taken from site indicates that up to 55% of the graphite is large or jumbo flake size, which is the highest value and most sought after graphite flake size. With its use in new technologies such as batteries and electric vehicles, demand for graphite is expected to rapidly expand over the next decade.

Exploration conducted by Noranda, including aerial electromagnetic (EM) surveys focused on the discovery of VHMS deposits. A ground horizontal loop electromagnetic survey (HLEM) undertaken by Rare Earth Metals Inc identified six significant conductors on the property.

A maiden drilling program of 1,000m of diamond drilling to test the EM conductors is being undertaken.

The information in this report that relates to Exploration Results is based on information reviewed by Dr Dennis Arne who is a Registered Professional Geoscientist of the Australian Institute of Geoscientists, and a Professional Geoscientist registered in the provinces of British Columbia and Ontario, Canada. Dr Arne is a Principal Consultant to CSA Global, has a minimum of five years relevant exploration experience, and qualifies as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Arne consents to the inclusion of the information in this report in the form and context in which it appears.

Forward Looking Statement

This announcement may contain some references to forecasts, estimates, assumptions and other forwardlooking statements. Although the company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions, it can give no assurance that they will be achieved. They may be affected by a variety of variables and changes in underlying assumptions that are subject to risk factors associated with the nature of the business, which could cause actual results to differ materially from those expressed herein. All references to dollars (\$) and cents in this presentation are to Australian currency, unless otherwise stated.

Investors should make and rely upon their own enquires and assessments before deciding to acquire or deal in the Company's securities.

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</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. 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. 	 Split diamond drill core over intervals containing visible flake graphite. Splitting of core is at a high angle to foliation in the rock that controls the distribution of graphite.
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). 	Diamond drill core (BTW).
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. 	 Recoveries are recorded and are generally >95% outside of infrequent fault zones.
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 	 All core is geologically and geotechnically logged. Sampling occurs well to either side of graphitic intervals to close off zones.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	 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. 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. 	 ½ core split over a 1 m interval. Core samples will be jaw-crushed and 100 g split for pulverisation for C in graphite analysis. Coarse crusher split duplicates will be used to monitor random sampling precision. Individual core samples are estimated to weigh 2 kg. Certified graphite reference material will be submitted with the samples at the rate of 1 in 20 samples. Blanks consisting of barren pegmatite material will be submitted at the rate of 1 in 50 samples.
<i>Quality of assay data and laboratory tests</i>	 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. 	 The channel samples were analyzed in an induction furnace following acid treatment of the samples to remove all non-graphite C. The CO₂ generated from the high temperature combustion of graphite is measured by absorption of infrared radiation. Accuracy of the analyses was monitored using a graphite certified reference materials and precision monitored using pulp duplicate analyses. Both are acceptable. Metallurgical testing used semi-quantitative scanning electron microscopy with a Mineral Liberation Analyzer. Beneficiation tests included a 3 stage flotation cycle followed two passes over a gravity table. The techniques are both appropriate and relevant.
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. 	The Competent Person responsible for this document has visited the site during drilling.
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 	 Channel sample locations were measured using a handheld DGPS. Drill collar locations have been measured using a handheld GPS in

Criteria	JORC Code explanation	Commentary
	used in Mineral Resource estimation.Specification of the grid system used.Quality and adequacy of topographic control.	averaging mode. Collar locations will be surveyed using handheld DGPS. This is considered adequate for an early stage project.
Data spacing and distribution	 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. Whether sample compositing has been applied. 	 Continuity of graphite horizons has been tested over a strike length of approximately 500 m in outcrop. Further testing of electromagnetic conductors by diamond drilling is underway and will test the strike length up to 800 m. Channel samples have been composited and drill hole intercepts will also be composited upon receipt of all data.
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 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. 	 Channel samples have been collected perpendicular to the strike of the graphite horizons that are sub-vertical. Channel sampled thickness will be close to true thicknesses. Drill holes are orientated perpendicular to the strike of the conductors and inclined at 045. They are designed to intersect the graphitic horizons at approximately 045 degrees.
Sample security	• The measures taken to ensure sample security.	 Channel samples were taken directly from the field to the Activation Laboratories Ltd facility in Thunder Bay, Ontario. Drill core samples will be taken directly to the Activation Laboratories Ltd facility in Thunder Bay, Ontario.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	 Channel sampling has generally confirmed the graphite grades initially suggested by outcrop chip sampling.

Section 2 Reporting of Exploration Results

Criteria

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

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<i>Mineral tenement and land tenure status</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.	•	Channel sampling and drilling are occurring on claims 4268975 (16 units = 256 ha) and 4268976 (15 units = 240 ha). Both claims are in good standing and are 100% owned by Ardiden.
	•	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.		

Criteria	JORC Code explanation	Co	ommenta	ry					
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	•	The pre Earth M the Mar Ontario	evious explor linerals Inc. a nitouwadge g , Canada. 35	ation work re and reported graphite explo 5 p.	ported he by Felix, a pration pro	ere was carr 2012, Tech operty at Ma	ied out l nical rep anitouwa	oy Rare oort on adge,
Geology	Deposit type, geological setting and style of mineralisation.	٠	Meta-se	edimentary g	raphite				
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 		Hole MG-01 MG-02 MG-03 MG-04 MG-07 MG-08 MG-16 MG-18 MG-19	NAD83Z16E 598129 597716 597395 597380 597526 597520 598920 598920 599820 600520	NAD83Z16N 5466917 5466950 5467158 5467233 5467233 5467230 5467280 5467280 5467375 5467305	Azimuth 180 180 180 180 180 180 180 180 180	Inclination -45 -45 -45 -45 -45 -45 -45 -45 -45	Depth 108 87 117 150 94 100 100 100 100	Status Complete Complete In progress Complete Planned Planned Planned Planned
	explain why this is the case.		MET-01	597380	5467237	180	-85	23	Complete
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. 	•	1 m cha 1 % C i	annel sample n graphite.	s have been	composit	ed using a	cut-off g	rade of
Relationship between mineralisation widths and intercept lengths	 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'). 	•	Graphit vertical	ic horizons s	trike approxi	mately ea	st-west and	are sub)-

Criteria	JORC Code explanation	Commentary
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	 See body of the release for locations of drill collars relative to EM conductors.
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	 C in graphite grades from the channel samples vary from <0.05% to a maximum of 10.8%. Drill hole analyses are pending.
<i>Other substantive exploration data</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.	 Emphasis placed on determining grain size characteristics of graphite flakes and beneficiation testing, as per Item 49 of the 2012 edition of the JORC Code.
Further work	 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. 	 Further drilling is planned depending on the results of the current program.