

ASX ANNOUNCEMENT

28th January 2025

Extensive Manganese Mineralisation from Drilling at Junior

HIGHLIGHTS

- Significant down dip and strike extension of manganese mineralisation confirmed at Junior Prospect
- Manganese zones up to 5m wide traced to depths exceeding 30 metres vertical
- Key intercepts include
 - GRCD015
 - 5m @ 21.30% Mn from 22m
 - Including 2m @ 29.65% Mn
 - GRCD007
 - 3m @ 18.74% Mn from 25m
 - Including 2m @ 24.98% Mn
 - Including 1m @ 33.20% Mn
 - 3m @ 12.05% Mn from 38m
 - GRCD014
 - 4m @ 9.07% Mn from 14m
- High grade intersections, including single metre intervals of 36.10% and 33.20% Mn
- Evidence of multiple, shallow, stacked manganese lodes from shallow lode discovery above Junior lode (GRCD007).

Great Dirt Resources Limited (ASX:GR8) (“Great Dirt” of “The Company”) is pleased to announce the results from the recent drilling program at the Junior Prospect, part of the Company’s 100% owned Doherty and Basin Manganese Project in NSW, within tenement EL9527.

In early December, Great Dirt successfully completed its maiden drilling campaign, comprising 19 holes for a total of 1,701m. Results from ALS Laboratory Brisbane confirm extensive manganese mineralisation, bolstering the prospect’s potential.

Managing Director Marty Helean commented: “These results underscore the tremendous potential of the Junior Prospect. Our maiden drilling program not only confirmed manganese mineralisation at depth and along strike, but also identified a shallower, secondary lode. This opens up the exciting potential for stacked lodes, which could significantly enhance the project's tonnage and economic prospects. We commend our team and contractors for their outstanding execution of this program.”

Drilling Highlights

Drilling at the Junior Prospect has successfully mapped manganese mineralisation over 2,000 metres of strike from northeast to southwest (GRCD015 - GRCD016 see Figure 3). Additionally, several holes intersected multiple lodes, substantially increasing the project's future tonnage potential.

Hole GRCD015:

- 21.30% Mn over 5m from 22m downhole which includes 4m at 23.96% Mn, 2m at 29.65% Mn and 1m at 36.10% Mn



Figure 1: RC drill hole GRCD015 intercepted 21.30% Mn over 5 metres from 22m, including 2 metres at 29.65% Mn. Visible black manganese mineralisation in RC chip tray (compartments 28x24x45mm)

Hole GRCD007 had several intersections of Mn including:

- 18.74% Mn over 3m from 25m downhole including 2m at 24.98% Mn and 1m at 33.20% Mn
- 12.05% Mn over 3m from 38m downhole
- 16.10% Mn over 1m from 15m downhole
- 9.35% Mn over 1m from 12m downhole
- 5.91% Mn over 1m from 8m downhole
- GRCD-007 provides further evidence of numerous lodes of manganese mineralisation occurring within the project area adding to the potential size of the Junior Prospect.

Hole GRCD014:

- 9.07% Mn over 4m from 23m downhole including 1m at 10.45% Mn

These results position the Junior Prospect as a key driver at the Doherty and Basin Manganese Project, with the potential to become a significant manganese resource in NSW. Great Dirt looks forward to providing further updates to its shareholders as it continues to unlock the value of this high-potential project.

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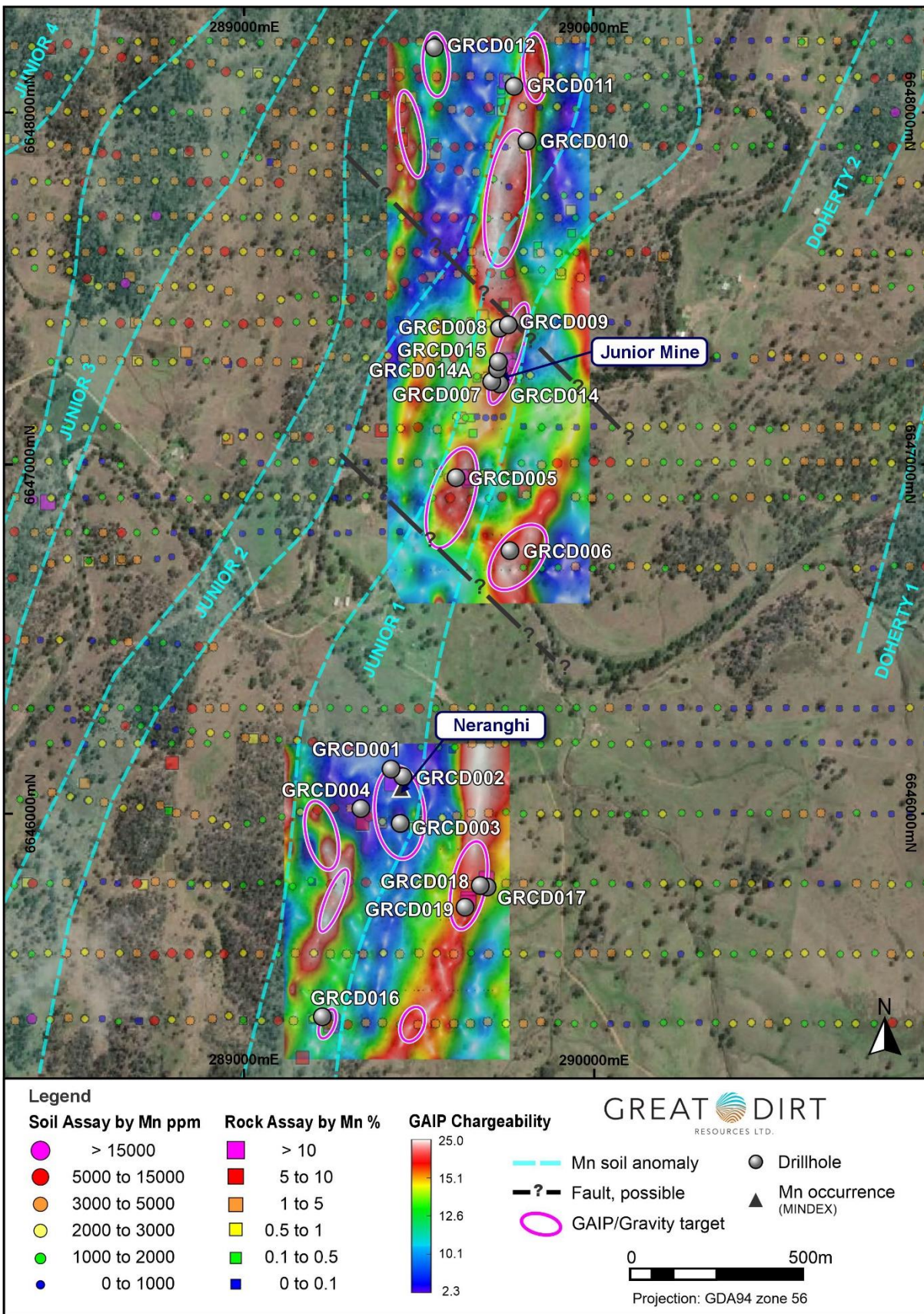


Figure 2 : RC drill holes completed at the Junior Prospect over GAIP Chargeability image

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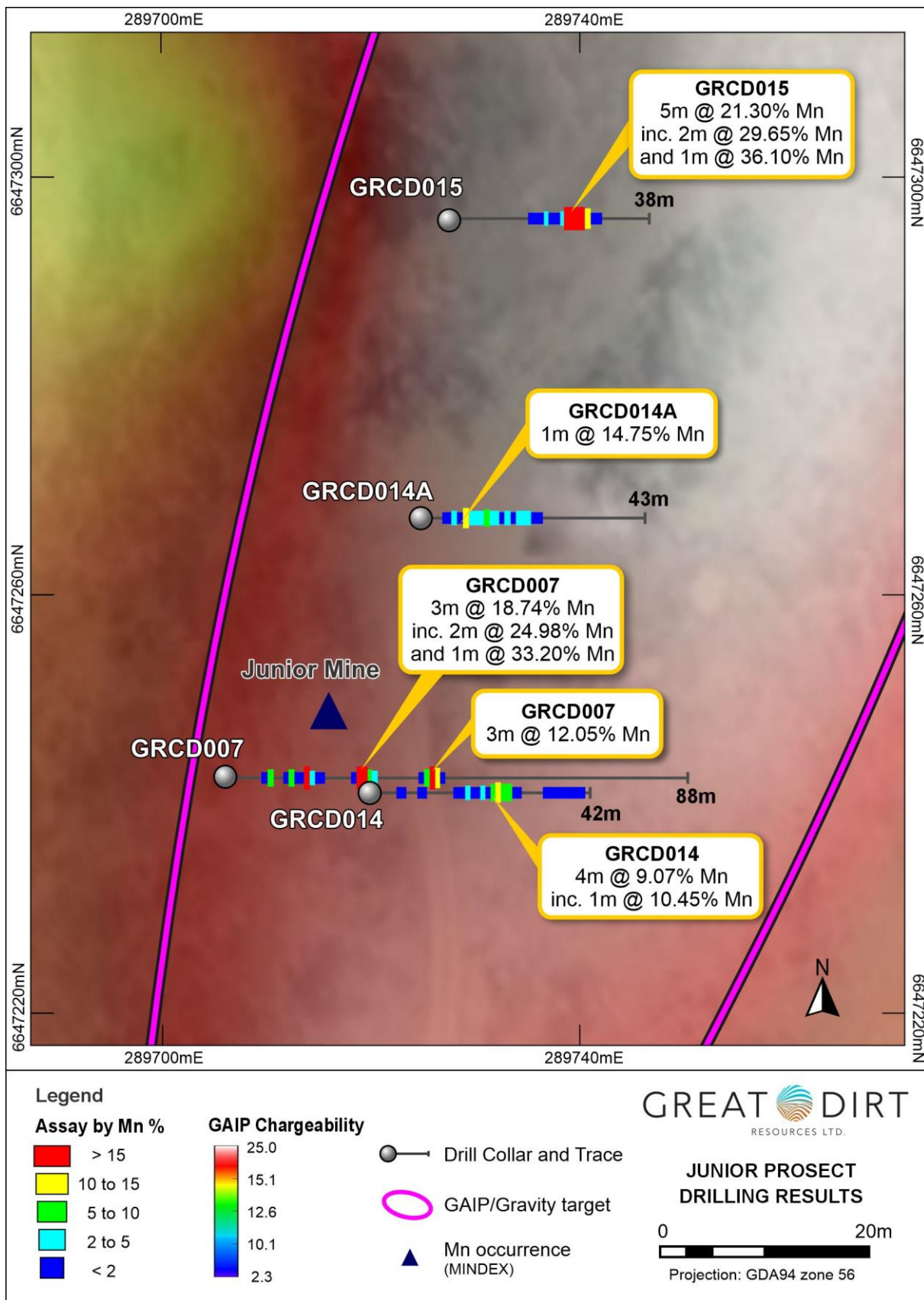


Figure 3 : RC drill holes completed at the Junior Mine area over GAIP Chargeability with drill intercepts

Hole_ID	From	To	Interval	Mn %	Al2O3	Fe2O3	P2O5
GRCD007	8	9	1	5.91	9.69	6.51	0.08
GRCD007	12	13	1	9.35	10.07	14.30	0.25
GRCD007	15	16	1	16.10	4.44	8.25	0.22
GRCD007	25	28	3	18.74	5.47	4.23	0.15
GRCD007	38	41	3	12.05	7.03	4.38	0.11
GRCD014	23	27	4	9.07	7.84	3.64	0.13
GRCD014A	8	9	1	14.75	4.18	3.57	0.13
GRCD014A	12	13	1	6.44	8.62	5.68	0.16
GRCD015	22	27	5	21.30	3.18	7.09	0.32
GRCD016	13	14	1	12.50	5.95	5.53	0.15

Table 1 : RC drill hole intercepts for drilling completed at the Junior Prospect > 5% Mn

Authorised for release to the ASX by the Board of Great Dirt Resources LTD.

For further information, please visit or contact:



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About Great Dirt Resources Ltd

Great Dirt's **Doherty and Basin Projects** are contained within EL 9527, located near the Barraba township, in northern NSW. These projects are prospective for high-grade manganese, with both projects having produced metallurgical and battery grade manganese historically. The Doherty Project comprises the old Doherty and Junior Mines, plus other workings and occurrences of manganese. The Basin Project contains several smaller manganese workings.

From 1941, for two decades, mines of the Doherty Project produced around 9,000 tonnes of battery and metallurgical grade manganese, both from opencut and underground operations. The battery grade ore was delivered to Eveready in Sydney for use in dry cell batteries, the metallurgical grade ore was purchased by BHP for use in steel production.

Great Dirt believes that historical work, while having discovered manganese, is unlikely to have located all sources in the area. Floaters, large rock fragments in the soil profile, of high-grade manganese ore reported outside known mine areas are a direct indication of unidentified manganese mineralisation. Additionally, notes on the mineral occurrences of the area refer to extensions and deposits along strike that were not mined.

A program of modern, systematic, geochemical and geophysical surveys will test known targets and their extents and could locate previously unrecognised blind deposits. Subsurface geophysical methods and drilling is likely to yield further targets that could be developed into projects to produce metallurgical and battery grade manganese.

Great Dirt has significantly expanded its manganese exploration portfolio following the acquisition of two tenements (E45/6949 and E45/6950 – the '**Nullagine Project**'), ~ 50km northeast of Consolidated Minerals Woodie Woodie manganese mine, in the Shire of East Pilbara, Western Australia.

Following a successful ballot application, Great Dirt has expanded its WA portfolio to include a position in one of the most prominent lithium regions in Western Australia and worldwide. Tenement E45/6863 – '**Pilbara Project**' is located approximately 43km from Pilbara Minerals (ASX:PLS), Pilgangoora Lithium Project, one of the largest hard-rock lithium deposits in the world.



Competent Person's Statement

Information in this announcement that relates to exploration results is based on and fairly represents information and supporting documentation prepared and compiled by Mr Michael Leu, who is a Member of the Australian Institute of Geoscientists and a Member of the Australasian Institute of Mining and Metallurgy. Mr Leu is the geological consultant for Great Dirt Resources Limited. Mr Michael Leu 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 in the 2012 Edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves. Mr Michael Leu consents to the inclusion in the announcement of the matters based on this information in the form and context in which it appears.

No New Information

Except where explicitly stated, this announcement contains references to prior exploration results, all of which have been cross-referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements.

Forward Looking Statement

This report contains forward looking statements concerning the projects owned by Great Dirt Resources Ltd. If applicable, statements concerning mining reserves and resources may also be deemed to be forward looking statements in that they involve estimates based on specific assumptions. Forward-looking statements are not statements of historical fact and actual events and results may differ materially from those described in the forward-looking statements as a result of a variety of risks, uncertainties and other factors. Forward looking statements are based on management's beliefs, opinions and estimates as of the dates the forward looking statements are made and no obligation is assumed to update forward looking statements if these beliefs, opinions, and estimates should change or to reflect other future developments.

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 (e.g., 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 (e.g., '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. 	<ul style="list-style-type: none"> Reverse circulation (RC) samples were collected by a cone splitter for one metre sample intervals. Reverse circulation drilling was used to obtain 1 m samples from a nominal 3 - 5 kg weight was supplied to ALS for sample preparation Field duplicates were collected. Certified duplicates and banks were included in sample batch dispatched to ALS. To ensure industry standards, RC drill samples were dispatched to ALS Minerals (Brisbane) and prepared and analysed by the following methods. <table border="1" data-bbox="884 1093 1453 1301"> <thead> <tr> <th colspan="2">SAMPLE PREPARATION</th> </tr> <tr> <th>ALS CODE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>WEI-21</td> <td>Received Sample Weight</td> </tr> <tr> <td>LEV-01</td> <td>Waste Disposal Levy</td> </tr> <tr> <td>LOG-22</td> <td>Sample Login - Rcd w/o BarCode</td> </tr> <tr> <td>LOG-24</td> <td>Pulp Login - Rcd w/o BarCode</td> </tr> <tr> <td>PUL-31</td> <td>Pulverize up to 250g 85% <75 um</td> </tr> <tr> <td>SPL-21</td> <td>Split sample - riffle splitter</td> </tr> <tr> <td>BAG-21</td> <td>Raw Sample in a new bag</td> </tr> <tr> <td>PUL-QC</td> <td>Pulverizing QC Test</td> </tr> </tbody> </table> <table border="1" data-bbox="884 1312 1453 1431"> <thead> <tr> <th colspan="3">ANALYTICAL PROCEDURES</th> </tr> <tr> <th>ALS CODE</th> <th>DESCRIPTION</th> <th>INSTRUMENT</th> </tr> </thead> <tbody> <tr> <td>ME-OG62</td> <td>Ore Grade Elements - Four Acid</td> <td>ICP-AES</td> </tr> <tr> <td>Mn-OG62</td> <td>Ore Grade Mn - Four Acid</td> <td></td> </tr> <tr> <td>ME-ICP61</td> <td>34 element four acid ICP-AES</td> <td>ICP-AES</td> </tr> </tbody> </table> <ul style="list-style-type: none"> RC samples were analysed by ME-ICP61 for 34 elements and overlimit samples by Mn-OG62 	SAMPLE PREPARATION		ALS CODE	DESCRIPTION	WEI-21	Received Sample Weight	LEV-01	Waste Disposal Levy	LOG-22	Sample Login - Rcd w/o BarCode	LOG-24	Pulp Login - Rcd w/o BarCode	PUL-31	Pulverize up to 250g 85% <75 um	SPL-21	Split sample - riffle splitter	BAG-21	Raw Sample in a new bag	PUL-QC	Pulverizing QC Test	ANALYTICAL PROCEDURES			ALS CODE	DESCRIPTION	INSTRUMENT	ME-OG62	Ore Grade Elements - Four Acid	ICP-AES	Mn-OG62	Ore Grade Mn - Four Acid		ME-ICP61	34 element four acid ICP-AES	ICP-AES
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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- 	<ul style="list-style-type: none"> 19 Reverse circulation drill holes were completed using a 5.5" RC hammer 																																			

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	<i>sampling bit or other type, whether core is oriented and if so, by what method, etc.).</i>	
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <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> 	<ul style="list-style-type: none"> • Sample recoveries and wet samples were monitored and recorded qualitatively in RC drill logs. Recoveries were generally 80 - 100%. • High pressure air used to maintain a dry sample and drill sampling equipment was cleaned regularly to minimise contamination. • There is no apparent relationship between sample recovery and grade
<i>Logging</i>	<ul style="list-style-type: none"> • <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> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • All RC holes are geological logged every metre. The lithology, alteration, mineralisation and structural characteristics are logged directly into a digital format. • Logging of RC chips is mostly qualitative, except for some semi-quantitative logging of manganese and sulphide content, quartz veining, alteration.
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> • <i>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> • <i>Measures taken to ensure that the sampling is representative of</i> 	<ul style="list-style-type: none"> • RC samples were split using a rig-mounted cone splitter on 1m intervals to obtain a sample for assay, of approximate weight 3 – 5kg. • RC drilling is an established method designed to minimise drilling-induced contamination of samples, aimed to deliver a representative sample of the interval being drilled. • Sample moisture was monitored, and water is blown out at each rod change prior to resuming drilling. Hole terminated if sample is wet. • If the site location was deemed to have possible transported material, either the soil sample was not taken, or taken from a different site. • The sample sizes are standard industry practice sample sizes collected under standard industry conditions and by standard methods that are considered appropriate for the medium being sampled,

Criteria	JORC Code explanation	Commentary
	<p><i>the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></p> <ul style="list-style-type: none"> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<p>the laboratory techniques employed and the type and style of mineralisation which might be encountered at this project.</p> <ul style="list-style-type: none"> • Sample sizes are considered appropriate for the style of mineralisation sought. • QA/QC procedures included the insertion of certified standards and blanks and field duplicates field duplicates submitted to the laboratory.
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <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> • <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> • RC samples were analysed by ALS Brisbane by ME-ICP61 for 34 elements via four acid digest and ICP-AES, overlimit samples were analysed by Mn-OG62. • The techniques and practices are appropriate for the sample type and style of mineralisation. • Individual field soil samples are stored in numbered, sealed plastic sample bags for transport and at the laboratory. • No geophysical tools were used to determine any element concentrations. • Reference standards and blanks were inserted in sample batch submitted to ALS Results indicate satisfactory accuracy and precision was achieved.
<p><i>Verification of sampling and assaying</i></p>	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> • The Company's exploration manager reviewed the assay results. The Company utilises industry standard sampling techniques and accredited independent assay laboratories. • Twinned holes were not drilled. • All sample data was captured in excel spreadsheets and plotted using GIS software. Assay results were merged with the primary data when received electronically from the laboratory using established database protocols. • There are no adjustments to the assay data. The data is received from the lab and is then loaded into DataShed (database) for data validation, verification and storage. • All reported data was subjected to

Criteria	JORC Code explanation	Commentary
		validation and verification by company personnel prior to reporting. The data is checked and verified prior to entering into a master database. All original records are kept on file. GR8 has done sufficient verification of the data, in the Competent Person's opinion to provide sufficient confidence that sampling was performed to adequate industry standards and is fit for the purpose of planning exploration programs and generating targets for investigation.
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. 	<ul style="list-style-type: none"> • Handheld Garmin GPS were used to locate RC drill collars sample locations with error range of ± 3 to 5 metres for easting and northing. • All current data is in MGA94 grid zone 56. • Topographic control is adequate as measured by the Handheld Garmin GPSMAP 64sx.
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. • Whether sample compositing has been applied. 	<ul style="list-style-type: none"> • Drill collar spacing was determined by anomalies defined by geochemical, geophysical and geological surveys. • Spacing is shown in the accompanying drill collar tables and drill collar plans. • The current density of drilling is not sufficient for resource estimation. • Compositing has not been applied
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. 	<ul style="list-style-type: none"> • Most drill holes were designed to intersect at a high angle the strike of coinciding geochemical and IP anomalies. • Drill holes in the Junior mine area were designed to intersect at a high angle the interpreted strike of known mineralisation. The only known mineralisation parameters are those of the historical workings which have a range of strikes. • No sampling bias is considered to have been introduced during the drill program.

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Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> The chain of custody for all samples from collection to dispatch to assay laboratory is managed by GR8 personnel. The level of security is considered appropriate for exploration surface sampling programs RC drill samples collected in the field placed in a secure, lockable room in the office/residence of the exploration team. Individual samples in calico bags were placed in batches of three in woven poly bags that were sealed with cable ties. These were placed in a large 1m x 1m x 0.5m plastic pod with a fixed forklift accessible base. The pod was wrapped and enclosed in copious plastic stretch wrap. The pod was delivered by truck door-to-door to ALS in Brisbane.
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"> Senior management conduct internal audits and reviews. No external audits and reviews sampling techniques and data have been completed.

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Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> • <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> 	<ul style="list-style-type: none"> • The Doherty and Basin Manganese Projects are contained within EL 9527 and held by Great Dirt Pty. Ltd. which is a wholly owned subsidiary of by Great Dirt Resources Ltd. • Great Dirt Resources Ltd holds 100% interest and all rights in the Doherty and Basin Manganese Projects. • EL9527 lies within predominantly rural free-hold land requiring Great Dirt Pty. Ltd. to enter into formal land access agreements with individual landowners, prior to any field activity, as prescribed by New South Wales State Law including the Mining Act 1992. Great Dirt Pty. Ltd. has rural land access agreements over the majority of EL9527. • EL9527 is considered to be in good standing.
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> • <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> • All historical exploration records are publicly available via the Geological Survey of New South Wales's websites: DIGS[®], Digital Imaging Geological System, (search.geoscience.nsw.gov.au) and Minview (minview.geoscience.nsw.gov.au). <p>Key Sources of Exploration done by other parties include:</p> <ul style="list-style-type: none"> • Brown R.E., Brownlow J.W. & Krynen J.P. 1992. Manilla– Narrabri 1:250 000 Metallogenic Map, Metallogenic study and Mineral Deposit Data sheets. Geological Survey of New South Wales, Department of Mineral Resources, Sydney. Mineral Deposit Data Sheet MAO186 Daileys Deposit page 177; Mineral Deposit Data Sheet MAO188 North Neranghi page 178; Mineral Deposit Data Sheet MAO189 Dougherty Mine (Hungerford and Spencer's Deposit) page 178; Mineral Deposit Data Sheet MAO190 Junior Mine page 179; Mineral Deposit Data Sheet MAO191 Neranghi page 179 • Fitzpatrick K.R. 1975. Woolomin–Texas Block: Woolomin beds and associated sediments. In: Markham N.L. & Basden H.

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Criteria	JORC Code explanation	Commentary
		<p>eds. The mineral deposits of New South Wales, pp. 338–349. Geological Survey of New South Wales, Sydney.</p> <ul style="list-style-type: none"> • Hall L.R. 1959. Manganese. Geological Survey of New South Wales, Mineral Industry 25 • Lloyd A. C., (GS1943/008) Mine Inspector's report 1951, 1954, 1956, 1957, 1958, 1959, 1960, 1961 and 1962 (MR02854, D004054500). Dougherty Mine - Hungerford and Spencer's Deposit; Manganese Deposits Barraba (MR02854, D004054499). Unpublished Report held by the Department of Regional New South Wales – Resources, Geological Survey of New South Wales • Lloyd, J. C., 1962. Mineral deposits of the Namoi Region, R00031183 (GS1962/136). Unpublished Report held by the Department of Regional New South Wales – Resources, Geological Survey of New South Wales • Lusk, J. 1963. Copper ore and their distribution in Western New England. M.Sc. Thesis, University of New England • NSW Department of Primary Industries, Manganese • Several small-scale mines extracted battery and metallurgical grade manganese from the 1940's- 1960's. These mines are recorded in the Metallic and Industrial Deposits records in Minview and Brown et al. 1992. The key Mine Records are reference as follows: 150081-Unnamed, 150082-Unnamed, 150083-Unnamed, 150188-Daileys Deposit, 150190-Unnamed, 150191-Dohery Mine (Hungerford and Spencers Deposit), 150192-Junior Mine (Spencers Manganese Mine), 150193-Unnamed • Various parties have held different parts of the Exploration Licence (EL) 9527 in different periods and explored for different commodities. • No party has ever completed systematic

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		<p>exploration across the area for manganese. Key Research for Exploration Concepts:</p> <ul style="list-style-type: none"> Ashley P.M. 1986. An unusual manganese silicate occurrence at the Hoskins mine, Grenfell district, New South Wales. Australian Journal of Earth Sciences 33, 443–456 Roy S. 1981. <i>Manganese Deposits</i>. 458pp. Academic Press, New York
<p><i>Geology</i></p>	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> Volcanogenic-exhalative stratiform manganese deposits The known previously exploited surficial supergene manganese oxides were very high-grade (46-74% MnO₂) and relatively discrete deposits that occur where either structural, surficial or hydrothermal processes have concentrated underlying mineralisation. These deposits were mined by artisanal miners because they were outcropping, deposits located between areas of outcrop or concealed by transported cover would have gone unrecognised. These blind deposits would contain similar high-grade mineralisation to that mined. The proposed new exploration concept is these surficial deposits are not an expression of an underlying manganese silicate deposit but are actually formed from a primary exhalative stratiform manganese oxide deposit. This dramatically increases the size of the targets to district scale deposits. Historical rudimentary exploration would have been uninterested in manganese mineralisation below 45% as no market existed for mineralisation sub-metallurgical grade with no beneficiation available. Evidence supporting this exploration concept is: Surficial high-grade supergene manganese oxide deposits are likely present regionally, outcropping, some identified, and probably also blind deposits, remaining undiscovered. EL9527 is prospective for these deposits, evidence is found in the numerous mineral occurrences highlight

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		existing resources and extensions to historical mines. Multi-element assays of samples collected by field team and analysed by ALS confirm the high-grade ore has clear chemical affinities with submarine volcanic-sedimentary exhalative Mn deposits, especially the Mn/Fe ratio and anomalous concentrations of Ba, Sr, Co, Cu, As and W, signature characteristics of deep marine fumarolic modern day manganese deposits (Ashley 1986). Ashley states this strongly implies a submarine volcanic exhalative environment of deposition. He notes the high Mn/Fe accords with hydrothermal exhalative Mn deposits at submarine spreading ridges and in ophiolite terrains with exhalative Mn deposits generally (e.g., Roy 1981)
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 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. 	<ul style="list-style-type: none"> Detailed in Appendix 1 below
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 	<ul style="list-style-type: none"> The mineralised drill intersections are reported as downhole intervals and were not converted to true widths. True widths may be up to 50% less than drill intersections pending confirmation of mineralisation geometry.

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Criteria	JORC Code explanation	Commentary
	<p><i>stated.</i></p> <ul style="list-style-type: none"> 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"> No capping of high grades was performed in the aggregation process. RC intersections were assayed at regular 1m intervals and a reported downhole grade >1m simply calculated by the sum of the grade of each metre divided by the number of metres. No metal equivalents are reported.
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"> Most drill holes were designed to intersect at a high angle the strike of coinciding geochemical and IP anomalies. Drill holes in the Junior mine area were designed to intersect at a high angle the interpreted strike of known mineralisation. The only known mineralisation parameters are those of the historical workings which have a range of strikes. All intersections reported are downhole intervals, true widths are not known.
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"> Pertinent maps are included in body of this release Coordinates in MGA94 Zone 56.
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"> Balanced reporting of Exploration Results is presented within this report. All results described in this announcement have been reported. Reporting of grades is done in a consistent manner.
Other substantive	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological 	<ul style="list-style-type: none"> All substantive data has been disclosed.

Criteria	JORC Code explanation	Commentary
<i>exploration data</i>	<i>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>	
<i>Further work</i>	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> Additional sampling targeting key stratigraphy and areas of interest is being planned. This will include surface geological mapping, geochemical and geophysical surveys to define ongoing drill targets.

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Appendix 1

Junior Drill hole location

Hole ID	Hole Type	Max Depth	East GDA94	North GDA94	RL	Dip	Azimuth
GRCD001	RC	88	289420	6646131	591	-60	90
GRCD002	RC	85	289456	6646111	597	-60	90
GRCD003	RC	70	289448	6645971	635	-60	90
GRCD004	RC	100	289330	6646015	634	-60	90
GRCD005	RC	59	289609	6646959	566	-60	90
GRCD006	RC	100	289758	6646751	552	-60	90
GRCD007	RC	88	289706	6647242	574	-60	90
GRCD008	RC	70	289738	6647387	561	-60	90
GRCD009	RC	52	289750	6647391	560	-60	90
GRCD010	RC	142	289809	6647919	632	-60	270
GRCD011	RC	100	289773	6648076	653	-60	90
GRCD012	RC	100	289540	6648191	745	-60	90
GRCD014	RC	42	289720	6647241	570	-60	90
GRCD014A	RC	43	289725	6647267	569	-60	90
GRCD015	RC	38	289728	6647296	570	-60	90
GRCD016	RC	100	289230	6645414	674	-60	55
GRCD017	RC	100	289685	6645795	610	-60	270
GRCD018	RC	100	289687	6645793	611	-60	90
GRCD019	RC	100	289630	6645736	618	-60	90

Drill chips sample assays results.

(Analyses by Australian Laboratory Services, methods ME-ICP61 and overlimits by Mn-OG62)

Hole ID	Sample ID	From	To	Mn %	Al2O3 %	Fe2O3 %	P2O5 %
GRCD001	GRC-001-026	25	26	0.40	3.78	4.80	0.087
GRCD001	GRC-001-46	45	46	0.08	11.56	5.95	0.094
GRCD001	GRC-001-80	79	80	0.13	12.60	6.02	0.092
GRCD002	GRC-002-42	41	42	0.19	11.37	6.25	0.158
GRCD002	GRC-002-78	77	78	0.11	11.28	5.22	0.087
GRCD003	GRC-003-19	18	19	4.18	6.65	25.16	0.121
GRCD003	GRC-003-23	22	23	0.50	2.36	10.55	0.034
GRCD003	GRC-003-42	41	42	0.25	7.95	3.65	0.094
GRCD003	GRC-003-52	51	52	0.23	1.04	3.00	0.05
GRCD004	GRC-004-16	15	16	0.53	1.95	8.84	0.073
GRCD004	GRC-004-25	24	25	0.24	17.29	13.20	0.27
GRCD004	GRC-004-30	29	30	0.18	10.54	5.10	0.16
GRCD004	GRC-004-44	43	44	0.15	10.54	5.15	0.156
GRCD004	GRC-004-58	57	58	0.67	5.25	2.53	0.089
GRCD004	GRC-004-59	58	59	0.39	7.44	3.16	0.099
GRCD004	GRC-004-64	63	64	0.67	2.68	2.82	0.057
GRCD004	GRC-004-65	64	65	0.95	4.93	4.78	0.133

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Hole ID	Sample ID	From	To	Mn %	Al2O3 %	Fe2O3 %	P2O5 %
GRCD004	GRC-004-67	66	67	0.92	1.42	3.60	0.082
GRCD005	GRC-005-21	20	21	0.06	6.18	1.72	0.044
GRCD005	GRC-005-22	21	22	1.93	7.56	4.15	0.151
GRCD005	GRC-005-23	22	23	3.20	7.37	4.85	0.183
GRCD005	GRC-005-24	23	24	4.50	0.55	4.10	0.076
GRCD005	GRC-005-25	24	25	0.41	0.98	4.70	0.082
GRCD005	GRC-005-26	25	26	1.17	0.36	6.73	0.154
GRCD005	GRC-005-27	26	27	0.69	1.00	5.56	0.099
GRCD005	GRC-005-28	27	28	3.34	6.14	4.53	0.137
GRCD005	GRC-005-29	28	29	0.60	7.71	3.15	0.08
GRCD005	GRC-005-30	29	30	1.09	7.01	3.45	0.082
GRCD005	GRC-005-31	30	31	0.19	4.21	2.83	0.05
GRCD005	GRC-005-58	57	58	1.03	4.01	6.63	0.192
GRCD006	GRC-006-39	38	39	0.15	10.18	5.02	0.078
GRCD006	GRC-006-47	46	47	0.16	8.88	4.40	0.066
GRCD006	GRC-006-53	52	53	0.15	10.07	5.23	0.078
GRCD006	GRC-006-64	63	64	0.10	10.86	5.09	0.092
GRCD006	GRC-006-71	70	71	0.09	11.26	5.23	0.096
GRCD006	GRC-006-80	79	80	0.17	11.37	8.05	0.119
GRCD007	GRC-007-8	7	8	0.67	10.77	4.66	0.062
GRCD007	GRC-007-9	8	9	5.91	9.69	6.51	0.08
GRCD007	GRC-007-12	11	12	1.10	9.98	4.63	0.103
GRCD007	GRC-007-13	12	13	9.35	10.07	14.30	0.252
GRCD007	GRC-007-14	13	14	1.17	3.93	11.91	0.154
GRCD007	GRC-007-15	14	15	0.77	3.34	10.31	0.099
GRCD007	GRC-007-16	15	16	16.10	4.44	8.25	0.222
GRCD007	GRC-007-17	16	17	2.83	3.27	8.74	0.144
GRCD007	GRC-007-18	17	18	0.98	6.25	16.30	0.225
GRCD007	GRC-007-19	18	19	0.22	3.51	8.42	0.16
GRCD007	GRC-007-25	24	25	0.29	9.62	4.09	0.105
GRCD007	GRC-007-26	25	26	16.75	9.01	4.23	0.154
GRCD007	GRC-007-27	26	27	33.20	4.86	2.43	0.17
GRCD007	GRC-007-28	27	28	6.27	2.55	6.03	0.124
GRCD007	GRC-007-29	28	29	2.73	2.59	9.12	0.174
GRCD007	GRC-007-38	37	38	0.55	6.86	3.25	0.05
GRCD007	GRC-007-39	38	39	5.11	6.31	4.62	0.08
GRCD007	GRC-007-40	39	40	18.15	5.95	4.46	0.156
GRCD007	GRC-007-41	40	41	12.90	8.84	4.06	0.096
GRCD008	GRC-008-37	36	37	0.15	9.96	5.00	0.11
GRCD008	GRC-008-68	67	68	0.13	15.61	9.15	0.289
GRCD009	GRC-009-23	22	23	0.20	10.73	5.09	0.087
GRCD009	GRC-009-35	34	35	0.23	7.94	4.20	0.057
GRCD009	GRC-009-44	43	44	0.20	6.20	2.66	0.08
GRCD010	GRC-010-58	57	58	0.18	11.37	5.55	0.076

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Hole ID	Sample ID	From	To	Mn %	Al2O3 %	Fe2O3 %	P2O5 %
GRCD010	GRC-010-91	90	91	0.04	2.66	3.09	0.071
GRCD010	GRC-010-95	94	95	0.04	2.21	2.30	0.082
GRCD010	GRC-010-101	100	101	0.14	11.54	5.53	0.087
GRCD010	GRC-010-112	111	112	0.12	10.96	5.35	0.078
GRCD010	GRC-010-121	120	121	0.13	10.64	5.10	0.082
GRCD011	GRC-011-33	32	33	0.03	4.52	2.69	0.069
GRCD011	GRC-011-41	40	41	0.02	2.48	1.74	0.078
GRCD011	GRC-011-62	61	62	0.10	10.22	4.88	0.096
GRCD011	GRC-011-73	72	73	0.12	10.26	5.08	0.06
GRCD011	GRC-011-78	77	78	0.09	7.58	3.97	0.078
GRCD011	GRC-011-85	84	85	0.06	8.64	4.72	0.094
GRCD012	GRC-012-47	46	47	0.13	7.94	3.86	0.142
GRCD012	GRC-012-57	56	57	0.01	4.48	2.40	0.032
GRCD012	GRC-012-59	58	59	0.01	3.99	1.72	0.027
GRCD012	GRC-012-94	93	94	0.31	5.29	22.37	0.275
GRCD014	GRC-014-6	5	6	0.56	10.51	5.50	0.069
GRCD014	GRC-014-7	6	7	0.40	10.52	5.79	0.069
GRCD014	GRC-014-10	9	10	1.25	6.20	3.89	0.064
GRCD014	GRC-014-11	10	11	0.59	7.99	3.46	0.103
GRCD014	GRC-014-17	16	17	1.01	6.41	2.93	0.11
GRCD014	GRC-014-18	17	18	1.30	4.53	2.46	0.094
GRCD014	GRC-014-19	18	19	2.42	6.92	3.47	0.101
GRCD014	GRC-014-20	19	20	1.10	6.10	2.99	0.092
GRCD014	GRC-014-21	20	21	0.58	7.33	3.26	0.085
GRCD014	GRC-014-22	21	22	4.49	5.76	3.10	0.105
GRCD014	GRC-014-23	22	23	1.55	6.42	3.00	0.076
GRCD014	GRC-014-24	23	24	7.25	6.75	3.60	0.121
GRCD014	GRC-014-25	24	25	10.45	6.46	3.57	0.142
GRCD014	GRC-014-26	25	26	9.42	8.26	3.35	0.117
GRCD014	GRC-014-27	26	27	9.15	9.88	4.02	0.14
GRCD014	GRC-014-28	27	28	1.47	4.59	3.47	0.073
GRCD014	GRC-014-29	28	29	0.43	8.20	3.86	0.073
GRCD014	GRC-014-34	33	34	0.38	5.37	3.39	0.069
GRCD014	GRC-014-35	34	35	0.41	6.12	4.00	0.078
GRCD014	GRC-014-36	35	36	0.92	5.06	11.25	0.335
GRCD014	GRC-014-37	36	37	0.80	2.95	7.73	0.238
GRCD014	GRC-014-38	37	38	0.60	3.72	3.77	0.119
GRCD014	GRC-014-39	38	39	1.38	7.20	6.05	0.213
GRCD014	GRC-014-40	39	40	0.58	4.46	4.10	0.131
GRCD014	GRC-014-41	40	41	1.20	5.06	4.68	0.076
GRCD014A	GRC-014A-5	4	5	0.43	9.73	4.02	0.071
GRCD014A	GRC-014A-6	5	6	0.48	9.43	5.10	0.087
GRCD014A	GRC-014A-7	6	7	4.08	10.62	7.21	0.179
GRCD014A	GRC-014A-8	7	8	0.94	11.22	3.96	0.117

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Hole ID	Sample ID	From	To	Mn %	Al2O3 %	Fe2O3 %	P2O5 %
GRCD014A	GRC-014A-9	8	9	14.75	4.18	3.57	0.133
GRCD014A	GRC-014A-10	9	10	4.34	6.33	3.56	0.094
GRCD014A	GRC-014A-11	10	11	4.60	9.98	4.05	0.135
GRCD014A	GRC-014A-12	11	12	2.45	7.22	3.67	0.103
GRCD014A	GRC-014A-13	12	13	6.44	8.62	5.68	0.16
GRCD014A	GRC-014A-14	13	14	3.92	9.60	5.92	0.149
GRCD014A	GRC-014A-15	14	15	2.65	2.97	3.87	0.069
GRCD014A	GRC-014A-16	15	16	1.04	3.12	2.70	0.039
GRCD014A	GRC-014A-17	16	17	4.54	1.45	3.49	0.066
GRCD014A	GRC-014A-18	17	18	1.18	1.28	6.45	0.082
GRCD014A	GRC-014A-19	18	19	3.22	7.09	12.45	0.234
GRCD014A	GRC-014A-20	19	20	3.99	3.12	5.30	0.11
GRCD014A	GRC-014A-21	20	21	3.15	2.02	4.26	0.078
GRCD014A	GRC-014A-22	21	22	1.76	5.44	4.06	0.08
GRCD014A	GRC-014A-23	22	23	0.27	4.16	2.62	0.05
GRCD015	GRC-015-16	15	16	1.16	8.03	19.30	0.36
GRCD015	GRC-015-17	16	17	0.90	7.75	6.16	0.119
GRCD015	GRC-015-18	17	18	0.78	6.61	9.52	0.222
GRCD015	GRC-015-19	18	19	2.44	6.18	5.80	0.151
GRCD015	GRC-015-20	19	20	0.23	5.93	2.16	0.044
GRCD015	GRC-015-21	20	21	0.20	5.12	2.76	0.032
GRCD015	GRC-015-22	21	22	3.59	6.33	12.87	0.28
GRCD015	GRC-015-23	22	23	19.65	4.55	11.75	0.504
GRCD015	GRC-015-24	23	24	16.90	4.08	5.26	0.264
GRCD015	GRC-015-25	24	25	23.20	2.55	8.96	0.337
GRCD015	GRC-015-26	25	26	36.10	3.46	6.22	0.332
GRCD015	GRC-015-27	26	27	10.65	1.25	3.25	0.156
GRCD015	GRC-015-28	27	28	1.79	0.76	2.29	0.046
GRCD015	GRC-015-29	28	29	0.82	2.00	2.63	0.016
GRCD016	GRC-016-10	9	10	0.09	9.20	3.62	0.156
GRCD016	GRC-016-11	10	11	0.53	9.54	3.05	0.112
GRCD016	GRC-016-12	11	12	0.34	7.88	3.05	0.099
GRCD016	GRC-016-13	12	13	1.89	8.11	5.03	0.117
GRCD016	GRC-016-14	13	14	12.50	5.95	5.53	0.154
GRCD016	GRC-016-15	14	15	0.37	1.40	5.83	0.066
GRCD016	GRC-016-16	15	16	0.92	4.91	4.30	0.133
GRCD016	GRC-016-17	16	17	3.34	8.75	9.35	0.353
GRCD016	GRC-016-18	17	18	0.68	15.72	12.98	1.331
GRCD016	GRC-016-19	18	19	0.36	17.97	13.94	1.494
GRCD016	GRC-016-20	19	20	0.14	16.91	11.88	1.07
GRCD016	GRC-016-21	20	21	0.17	17.89	10.01	0.385
GRCD016	GRC-016-22	21	22	0.23	16.63	9.58	0.309
GRCD016	GRC-016-23	22	23	0.15	18.40	10.37	0.309
GRCD016	GRC-016-24	23	24	0.17	18.29	10.57	0.36

Hole ID	Sample ID	From	To	Mn %	Al2O3 %	Fe2O3 %	P2O5 %
GRCD016	GRC-016-25	24	25	0.13	17.19	11.82	1.242
GRCD016	GRC-016-26	25	26	0.15	17.33	13.07	1.299
GRCD016	GRC-016-27	26	27	0.21	16.08	11.92	1.258
GRCD016	GRC-016-28	27	28	0.40	15.65	8.41	1.21
GRCD016	GRC-016-29	28	29	1.21	9.32	18.66	0.564
GRCD016	GRC-016-30	29	30	0.33	13.66	8.38	0.236
GRCD016	GRC-016-44	43	44	0.24	10.83	5.65	0.099
GRCD016	GRC-016-56	55	56	0.02	7.94	3.19	0.137
GRCD016	GRC-016-060	59	60	0.86	3.12	5.00	0.261
GRCD016	GRC-016-66	65	66	0.18	12.58	9.15	0.082
GRCD016	GRC-016-97	96	97	0.09	5.50	3.36	0.069
GRCD017	GRC-017-21	20	21	0.19	9.94	4.73	0.069
GRCD017	GRC-017-51	50	51	0.22	11.58	5.35	0.089
GRCD017	GRC-017-64	63	64	0.17	10.35	5.55	0.103
GRCD017	GRC-017-87	86	87	0.18	10.56	5.32	0.087
GRCD017	GRC-017-95	94	95	0.13	8.07	4.23	0.057
GRCD018	GRC-018-45	44	45	0.14	11.22	5.39	0.101
GRCD018	GRC-018-49	48	49	0.14	11.75	5.58	0.078
GRCD018	GRC-018-75	74	75	0.08	10.47	4.62	0.103
GRCD018	GRC-018-93	92	93	0.10	10.39	5.30	0.085
GRCD019	GRC-019-21	20	21	0.12	11.30	5.08	0.105
GRCD019	GRC-019-27	26	27	0.13	10.77	5.03	0.105
GRCD019	GRC-019-62	61	62	0.14	10.54	5.35	0.082
GRCD019	GRC-019-68	67	68	0.11	11.15	5.30	0.085
GRCD019	GRC-019-73	72	73	0.10	10.11	4.86	0.069
GRCD019	GRC-019-83	82	83	0.16	10.66	5.80	0.082
GRCD019	GRC-019-96	95	96	0.09	10.43	4.88	0.094

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