
HyLogger Spectral Data Highlights Narraburra Rare Earth Elements (REE) are Strongly Correlated with Highly Weathered Kaolinite Clay Zone

- HyLogger spectral results received from 31 diamond cored drill holes across the Narraburra Project
 - Project chosen for HyLogger spectral analysis by the Geological Survey of NSW highlighting Narraburra's considerable potential
 - HyLogger results provide more detailed understanding of the distribution of REE mineralisation
 - Higher levels of REE in shallower highly weathered material also provide potential for low mining cost near-term extraction opportunities
 - QEMSCAN (an automated mineralogical analysis technique) mineralogy results also received from ANSTO for six samples from the initial leachability test work
 - The model mineralogy results indicate that the most abundant REE-bearing minerals include lanthanite-Nd; cerite-Ce; and microcrystalline REEs
 - Liberation statistics indicate that most abundant REE-bearing minerals are moderately liberated, confirming the ready leachability of the kaolinite clay zone – unlocking additional development and processing opportunities
 - Further Metallurgical test work currently underway at ANSTO, to determine optimum extraction pathways and size fraction analysis, is progressing well with results expected shortly
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Godolphin Resources Limited (ASX: GRL) (**Godolphin** or the **Company**) is pleased to advise it has received HyLogger spectral results from 31 diamond cored drill holes (GNBDD001 through GNBDD031) at the Company's Narraburra Rare Earth Element Project (**Narraburra** or **the Project**), located 12km northeast of Temora in central west New South Wales (refer ASX: GRL announcements: 24 October 2022 and 13 December 2022). Godolphin has also received QEMSCAN mineralogy results from the six initial metallurgical samples sent to Australian Nuclear Science and Technology Organisation (**ANSTO**) earlier this year for initial REE leachability testing (refer ASX:GRL announcement: 5 April 2023).

Management commentary:

Managing Director Ms Jeneta Owens said:

"To have the Geological Survey of NSW select our project for spectral scanning using their Hylogger machine points to the value of this Project, to not only GRL but also the state of NSW. The results of this QEMSCAN spectral work combined with the initial leach testing, which indicated extremely high recovery rates of the most important four magnet REE minerals, really assist to understand the key characteristics of the deposit and start to define processing options to recover the REE's.

The Company is now awaiting the receipt of the second round of metallurgical testing from ANSTO, where we have processed composite samples that are reflective of mining intervals. Getting results of the size fraction analysis work and different leaching conditions will provide information that can be directly fed into early-stage project flowsheet development.

Having a clay hosted REE Project in a geopolitically stable jurisdiction such as NSW, that is stacking up in terms of recovery of permanent magnet minerals is a major coup for Godolphin. We will continue to update the market regarding the results of ongoing leachability and processing test work at Narraburra".



HyLogger background and results:

The Narraburra area was first explored for REE's associated with the Devonian-aged Narraburra peralkaline granite. In recent months, the Company has significantly advanced the project by drilling diamond holes that can be used for metallurgical test work, informative scanning technologies and enabled the maiden (JORC 2012) Mineral Resource Estimate ("MRE") of 96Mt at 739ppm Total Rare Earth Oxide (TREO)¹, with a higher-grade zone of 20Mt at 1,079ppm TREO, which highlights a major low-carbon metal opportunity in an established mining region. (Refer ASX: GRL announcements: 19 April 2023 and 21 April 2023).

Hylogger Spectroscopic logging of all diamond drill core was undertaken by the Geological Survey of NSW at its WB Clarke Geoscience Centre at Londonderry. The spectral reflectance and absorption characteristics of the drill core is measured using spectrometers with various ranges. These are primarily sensitive to:

- Iron oxides (in the visible and near infrared or VNIR)
- Hydroxide (clay), carbonate and sulphate minerals (in the shortwave infrared or SWIR)
- Anhydrous minerals, such as quartz and feldspars, pyroxenes, as well as carbonates, sulphates and some hydrous minerals (in the thermal infrared or TIR)

Specific mineralogy is determined using automated and manually-assisted methods controlled using reference libraries of standard mineral spectral characteristics and spectral shapes. Spectral logging is completed at a nominal pixel resolution of 10 x 10 mm, where the pixel comprises a mineral mixture and generally not a single mineral grain.

Upon completion of the logging the REE spectral data was grouped into major mineral groupings for SWIR and TIR as follows :

- SWIR – kaolin, white mica, smectite, generally comprising more weathered material
- TIR – silica, K-feldspar, plagioclase, kaolin, smectite, and carbonate, generally comprising variably weathered bedrock material

These were subsequently uploaded into the geological database and cross checked with the imported TREO assay data in parts per million (ppm). TREO values for all sample intervals have been calculated from assay results by summing the rare earth elements Cerium (Ce), Dysprosium (Dy), Erbium (Er), Europium (Eu), Gadolinium (Gd), Holmium (Ho), Lanthanum (La), Lutetium (Lu), Neodymium (Nd), Praseodymium (Pr), Samarium (Sm), Terbium (Tb), Thulium (Tm), Yttrium (Y) and Ytterbium (Yb). Oxide conversion factors have been applied to all results reported in this announcement (refer Table 1).

See Appendix 2 for a summary table of HyLogger results.

¹Total REO (TREO) = Total REOs + Yttrium oxide ((La₂O₃ + CeO₂ + Pr₆O₁₁ + Nd₂O₃ + Sm₂O₃ + Eu₂O₃ + Gd₂O₃ + Tb₄O₇ + Dy₂O₃ + Ho₂O₃ + Er₂O₃ + Er₂O₃ + Tm₂O₃ + Yb₂O₃ + Lu₂O₃) + Y₂O₃)

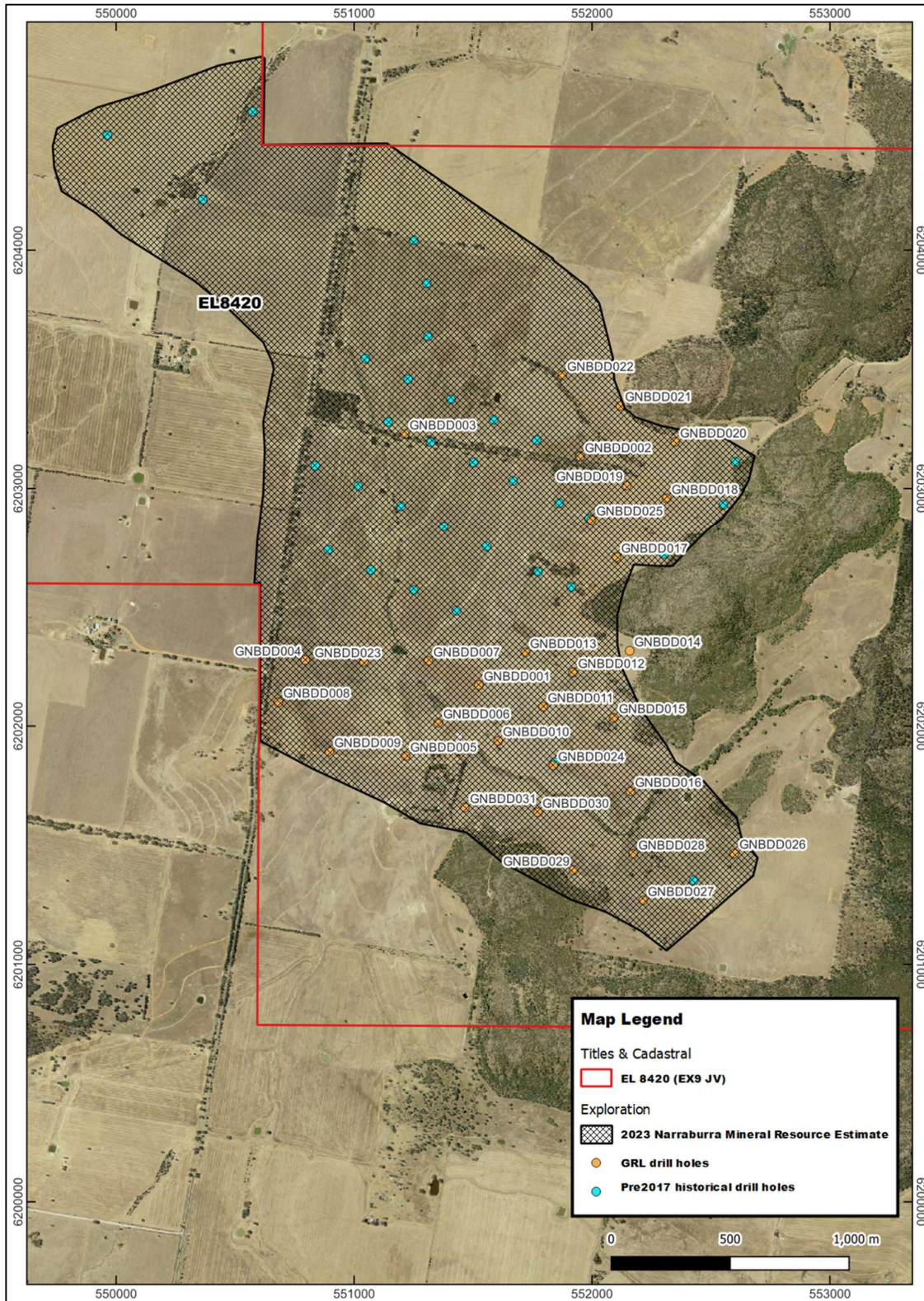


Figure 1: Location of the existing drill holes at the Narraburra Project, only GRL drill holes were spectrally scanned using Hylogger

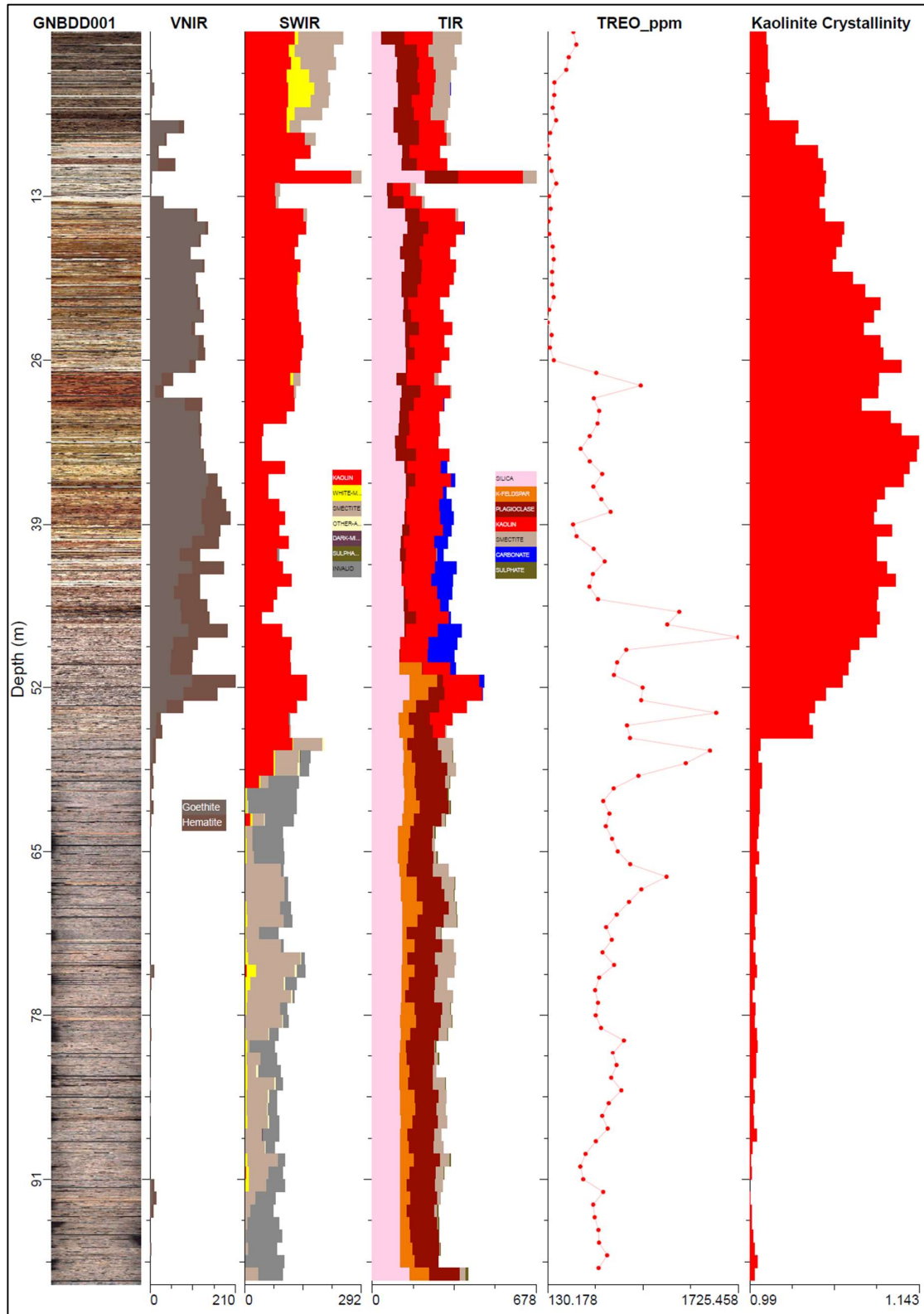


Figure 2: Strip log of drill hole GNBDD001 showing SWIR, TIR and TREO with highest TREO values at the kaolin – plagioclase transition zone

Note: SWIR and TIR are normalised to 100% and scale represents total spectral count per 1m interval

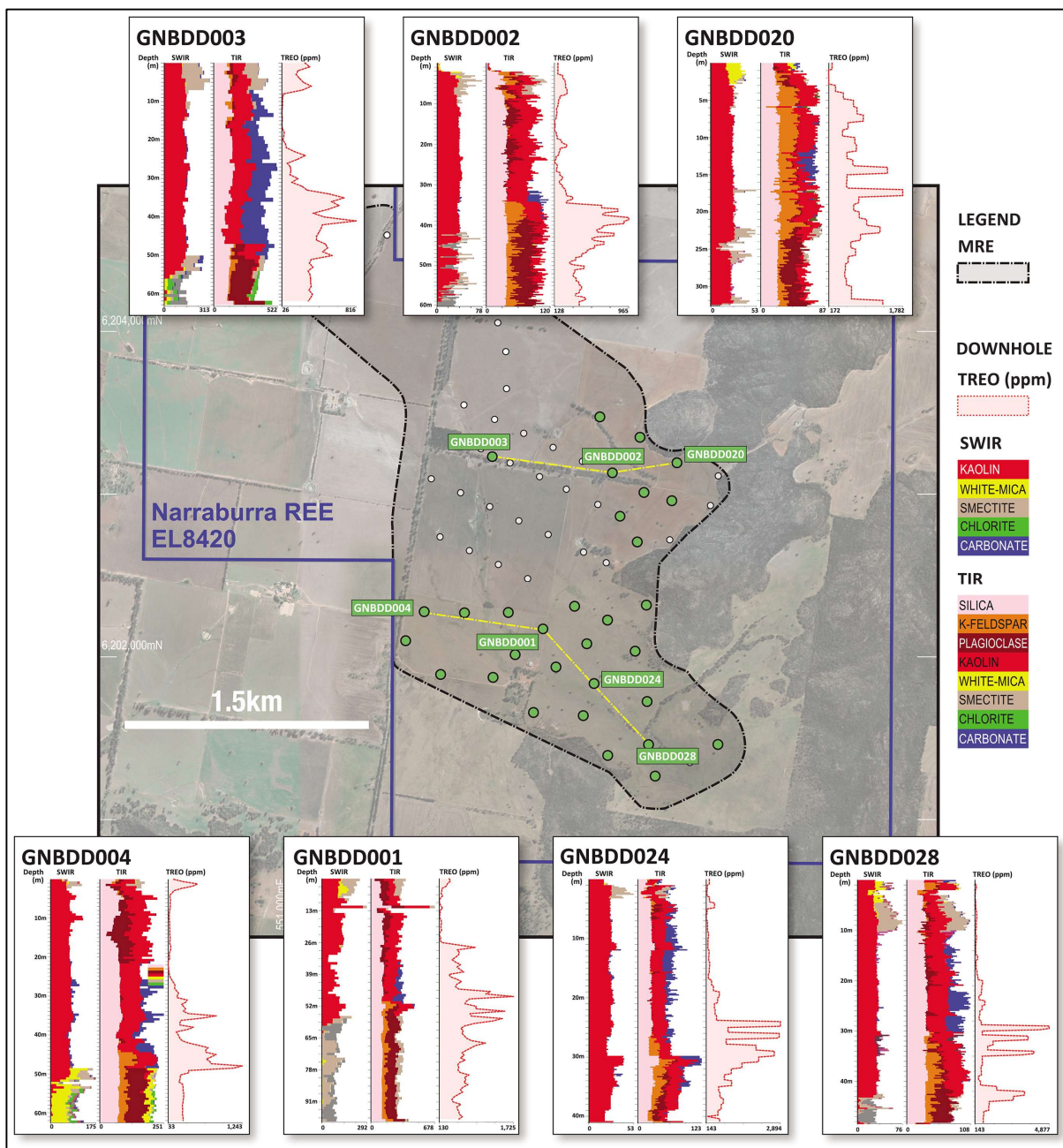


Figure 3: Plan showing correlation of highest SWIR, TIR and TREO values at the kaolin – plagioclase transition zone

Note: SWIR and TIR are normalised to 100% and scale represents total spectral count per 1m interval

QEMSCAN background and results:

Quantitative evaluation of minerals by scanning electron microscopy (QEMSCAN) is an integrated automated mineralogy and petrography system providing quantitative analysis of minerals. QEMSCAN employs a scanning electron microscope (SEM), four X-ray detectors and a software package to allow discrimination of minerals, without reliance on visual judgments. It can make 12,000 mineral analyses per minute and be used to assess the mineralogy of a sample which may assist in streamlining metallurgical processes.



The QEMSCAN mineralogy results have been received for six leachability samples sent to ANSTO in Q1 2023 for initial REE leachability testing. Results for the leachability testing highlighted exceptional recoveries of up to 92% for the key magnet REE minerals (Nd, Pr, Dy and Tb) and 87% for TREO (plus Y), see Table 1 for chemical analysis results for head samples (Refer ASX: GRL announcement 5 April 2023). The six samples from the Narraburra REE Project also underwent mineralogical characterisation of REE-containing minerals, which will increase the Company's understanding of how REEs are hosted within the deposit and how they may be liberated.

The samples were crushed to a particle size of <300 microns. A representative portion of each sample was then mixed with similarly sized particles of graphite to ensure good separation of the sample particles for examination using QEMSCAN. Each sample/graphite blend was then impregnated with epoxy resin to form a resin block with a polished surface for examination by SEM/QEMSCAN.

Table 1: QEMSCAN Model Mineralogy (wt%, nd = not detected)

Mineral	GNBMET/ 0001	GNBMET/ 0002	GNBMET/ 0003	GNBMET/ 0004	GNBMET/ 0005	GNBMET/ 0006
Lanthanite-Nd	0.027	0.11	0.10	0.047	0.014	0.011
Cerite-Ce	0.022	0.009	0.001	0.082	nd	0.14
Monazite	nd	0.001	0.002	<0.001	0.020	0.001
Xenotime	nd	0.004	<0.001	0.002	0.11	nd
Britholite-Y	nd	0.002	0.054	nd	nd	nd
Samarskite-Y	nd	0.006	nd	nd	nd	nd
Titanian Samarskite-Y	nd	<0.001	0.004	nd	nd	0.027
REE Minerals	0.034	0.030	0.037	0.038	0.006	0.023
Quartz	43.2	40.0	38.0	42.5	21.9	42.1
Kaolinite	40.7	2.64	0.13	7.28	18.4	16.5
Chlorite	8.46	0.16	0.15	0.22	5.63	1.43
Smectites	5.17	1.23	0.74	1.85	2.77	2.63
Fe-Oxide/Hydroxide	1.04	1.07	1.05	0.60	1.21	0.40
Biotite/Annite	0.67	0.29	0.35	0.29	16.1	0.92
Zircon	0.10	0.054	0.19	0.016	0.077	0.40
Rutile/Ilmenite	0.058	0.011	0.062	0.046	0.61	0.019
K-Feldspar	0.017	27.4	25.6	38.9	17.2	29.8
Albite	0.016	26.2	32.6	4.17	11.0	0.039
Muscovite	0.001	0.44	0.35	2.57	1.91	1.85
Andesine	<0.001	nd	0.001	nd	2.14	<0.001
Amphibole	nd	0.002	0.001	0.50	<0.001	2.27
Pyroxene	nd	<0.001	0.001	0.41	<0.001	0.97
Apatite	nd	nd	nd	nd	0.187	<0.001
Others	0.021	0.065	0.31	0.16	0.18	0.19
Unclassified	0.41	0.22	0.27	0.27	0.45	0.29

Note: REE Minerals represent REE-bearing phases that could not be conclusively identified due to their small grain size.

The model mineralogy results indicate that generally the most abundant REE-bearing minerals, including lanthanite-Nd; cerite-Ce; and microcrystalline REE's; occur with albite, K-feldspar, kaolinite, smectites and quartz, indicating an association with the kaolinite clay saprolite zone and the underlying weathered rock interval saprock.

In sample GNBMET002, which achieved 92% recovery of the four magnet minerals from the initial



metallurgical test work program, the main REE-bearing minerals are lanthanite-Nd; cerite-Ce; and microcrystalline REE's (REE minerals in Table 1 above).

Liberation statistics also indicate that most abundant REE-bearing minerals including lanthanite-Nd; cerite-Ce; and the microcrystalline REE's, are generally moderately liberated. This confirms the ready leachability and processing of the kaolinite ionic adsorption clay zone. The least abundant REE-bearing minerals, monzonite and xenotime, are generally poorly liberated which may indicate lower levels of uranium and thorium leaching, another positive outcome for potential development.

See Appendix 3 for summary tables of liberation statistics of the various REE-bearing minerals.

Key findings:

The Hylogger spectral results are measured on a much finer 10 mm resolution compared to standard 1 m assay intervals from the diamond core drilling, giving a much more detailed understanding of mineral distribution both vertically and laterally and complements the existing geological and assay dataset for the Project.

REE distribution is highest in the spectro-mineralised domains that represent the base of the most intense weathering. This horizon corresponding to the kaolinite clay zone with highest adsorbed REE concentrations.

Based on the SWIR and TIR spectral data there is a clear delineation of this kaolinite clay zone across the Project and also the underlying weathered bedrock interface where residual plagioclase becomes dominant over kaolinite. This transitional Domain at the base of the kaolinite clay zone and the top of the feldspar (K-feldspar and plagioclase) zone also hosts strong REE spectral signatures.

It is also important to note that higher levels of REE in shallower more highly weathered kaolinite material may provide potential for low cost near-term extraction opportunities.

The spectral data also identifies zones of carbonate and these may aid any future mining by assisting in the identified of acid buffering materials for mineral processing purposes.

The model mineralogy results indicate that generally the most abundant REE-bearing minerals, such as lanthanite-Nd; cerite-Ce; and the microcrystalline REE's; occur with albite, K-feldspar, kaolinite, smectites and quartz, indicating an association with the kaolinite clay zone and the underlying weathered rock interval (albite, k-feldspar).

Liberation statistics also indicate that most abundant REE-bearing minerals, including lanthanite-Nd; cerite-Ce; and the microcrystalline REE's, are generally moderately liberated, confirming the ready leachability and processing of the kaolinite clay zone.

Next Steps:

The second phase of metallurgical test work results for the Project are expected shortly from ANSTO. The samples are currently within the ANSTO workstream and undergoing multiple assessments.

The second phase metallurgical test work program includes desorption testing, a size fraction analysis and leach testing of composite samples under different conditions. The size fraction analysis is designed to determine if REE's are present in a particular size particle that may lead to easy screening and upgrading before leaching. The leaching program has been designed to test for leachability down the weathered profile in composites that more represent mining intervals and across the defined resource area to better understand the metallurgy of the Project and provide input into future mining studies.

<<ENDS>>



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This market announcement has been authorised for release to the market by the Board of Godolphin Resources Limited.

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About Godolphin Resources

Godolphin Resources (ASX: GRL) is an ASX listed resources company, with 100% controlled Australian-based projects in the Lachlan Fold Belt (“LFB”) NSW, a world-class gold-copper province. A strategic focus on critical minerals and green metals through ongoing exploration and development in central west NSW. Currently the Company’s tenements cover 3,400km² of highly prospective ground focussed on the Lachlan Fold Belt, a highly regarded province for the discovery of REE, copper and gold deposits. Additional prospectivity attributes of GRL tenure include the McPhillamys gold hosting Godolphin Fault and the Boda gold-copper hosting Molong Volcanic Belt.

Godolphin is exploring for REE, structurally hosted, epithermal gold and base-metal deposits and large, gold-copper Cadia style porphyry deposits and is pleased to announce a re-focus of exploration efforts for unlocking the potential of its East Lachlan tenement holdings, including increasing the mineral resource of its advanced Lewis Ponds Project. Reinvigoration of exploration efforts across the tenement package is the key to discovery and represents a transformational stage for the Company and its shareholders.

COMPLIANCE STATEMENTS: The information in this report that relates to reporting of Exploration Results, Mineral Resources or Ore Reserves is based on REE exploration information (excluding the RM information) reviewed by Mr Robin Rankin, a Competent Person who is a Member (#110551) of the Australasian Institute of Mining and Metallurgy (AusIMM) and accredited since 2000 as a Chartered Professional (CP) by the AusIMM in the Geology discipline. The exploration information was compiled by Godolphin Resources Limited (GRL, see secondary CP Statement below). Mr Robin Rankin is an independent consultant to GR and provided this service to his Client GRL as paid consulting work in his capacity as Principal Consulting Geologist and operator of independent geological consultancy GeoRes. He and GeoRes are professionally and financially independent in the general sense and specifically of their Client and of the Client’s project. This consulting was provided on a paid basis, governed by a (in this case an on-going engagement) scope of work and a fee and expenses schedule, and the results or conclusions reported were not contingent on payments. Mr Rankin has sufficient experience that is relevant to the REE style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person (CP) as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Rankin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Mr Rankin’s CP Statement is given on the basis that GRL takes responsibility to a Competent Persons level (as given below) for the collection and integrity of the source data.

The actual REE exploration information in this report that relates to Exploration data, Sampling Techniques or Geochemical Assay Methodology is based on information compiled by Ms Jeneta Owens, Competent Person who is a Member of the Australian Institute of Geoscientists. Ms Owens is the Managing Director and full-time employee of Godolphin Resources Limited. Ms Owens has sufficient experience to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ms Owens consents to the inclusion in the report of the matters based on her information in the form and context in which it appears.

Information in this announcement is extracted from reports lodged as market announcements referred to above and available on the Company’s website www.godolphinresources.com.au.

The Company confirms that it is not aware of any new information that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons’ findings are presented have not been materially modified from the original market announcements.



Appendix 1 – JORC Code, 2012 Edition, Table 1 report

Section 1 Sampling Techniques and Data (Criteria in this section applies to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> 	<p><u>Diamond Drilling</u></p> <ul style="list-style-type: none"> The 31-hole program employed diamond core drilling techniques to obtain representative material for geological logging and assays. All drill holes in this program were drilled at a vertical angle. Entire drill holes were sampled on a 1 m interval basis. A minor number of samples were sampled on a minimum of 0.5 m intervals and maximum of 3.0 m intervals where there were areas of core loss, or sampled to geological boundaries Each sample was cut in half, with a total of one half of each designated interval sent for assay analysis and the other half of the interval stored for future use in mineralogical and metallurgical testwork All intervals were logged and recorded in a GRL Narraburra-specific template and saved in the Company's database. Data includes: from and to measurements, colour, weathering, regolith profile, lithology, magnetic susceptibility, specific gravity, rock quality designation, rock strength characterisation including penetrometer readings, structures, and alteration. Magnetic Susceptibility measurements were taken every 50 cm downhole Penetrometer measurements were taken at observed rock strength boundaries using a Penetrometer ST 315 instrument. The Competent Person ensured all sampling was to industry standard and in-line with previous sampling protocols. All relevant sampling details were continuously monitored and recorded. Hylogger Spectroscopic logging of all diamond drill core by the Geological Survey of NSW Specific HyLogger Spectroscopic mineralogy is determined using automated and manually-assisted methods controlled using reference libraries of standard mineral spectral characteristics and spectral shapes. Spectral logging is completed at a nominal pixel resolution of 10 x 10 mm, where the pixel comprises a mineral mixture and generally not a single mineral grain. Upon completion of the logging the REE spectral data was grouped into major mineral groupings for SWIR and TIR as follows: <ul style="list-style-type: none"> SWIR – kaolin, white mica, smectite, generally comprising more weathered material. TIR – silica, K-feldspar, plagioclase, kaolin, smectite, and carbonate, generally comprising variably weathered bedrock material. The six head samples from the Narraburra REE Project were received for mineralogical characterisation of any REE-containing minerals, including their degree of liberation and associations with gangue minerals. Mineralogical characterisation of the six head samples was carried out using QEMSCAN (an automated mineralogical analysis technique), and manual scanning electron microscopy (SEM) The samples were crushed to a particle size of <300 microns. A representative portion of each sample was then mixed with similarly sized particles of graphite to ensure good separation of the sample particles for examination using QEMSCAN. Each sample/graphite blend was then impregnated with epoxy resin to form a resin block with a polished surface for examination by SEM/QEMSCAN.
Drilling techniques	<ul style="list-style-type: none"> <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details.</i> 	<ul style="list-style-type: none"> Diamond Drilling - diamond drilling (DD) with PQ core size using a triple tube. Multi-shot surveys were taken at the end of the hole whilst pulling the rods. All holes were drilled vertically. Holes were not orientated. Drill collar locations were pegged by GRL contractors prior to drilling using a hand-held GPS. The collars of completed drill holes have been surveyed with a Differential GPS (DGPS) by a GRL geologist to an accuracy of less than 0.77m.
Drill sample recovery	<ul style="list-style-type: none"> <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> 	<p><u>Diamond Drilling</u></p> <ul style="list-style-type: none"> Drill core recovery was determined by comparing the drilled length of each interval with the physical core in the tray. The drill depth and drill run length data is recorded on the core blocks by the drilling company and checked by GRL geologists. GRL geologists attributed any core loss to the likely position it came from within a drill run. Diamond core recoveries are recorded in logging sheets and also via a digital photograph of core trays.



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Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> Overall estimated recoveries were high. GNBDD005 recovered 97%, GNBDD006 recovered 92%, GNBDD007 recovered 96%, GNBDD008 recovered 99% and GNBDD009 recovered 96% of all drilled material Care was taken to ensure the core was representatively sampled in the broken or friable zones and that sample intervals aligned with core loss
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. 	<p><u>Diamond Drilling</u></p> <ul style="list-style-type: none"> The drill core was geologically logged by a GRL geologist and geotechnically logged by a suitably trained technician. The log includes detailed datasets for: lithology, alteration, mineralisation, veins, structure, geotechnical logs, core recovery and magnetic susceptibility. The data is logged and quality checked by a qualified geologist and is suitable for use in any future geological modelling, resource estimation, mining and/or metallurgical studies
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> For all sample types, the nature, quality and appropriateness of the sample preparation technique. 	<p><u>Diamond Drilling</u></p> <ul style="list-style-type: none"> Sample intervals were allocated by a GRL geologist using geological boundaries or material type boundaries as a guide. Sample lengths are not equal, but an average length of 1.0 m was obtained for this program. The PQ core was split using hand methods for weathered material, which involved using stainless steel tools to split the core in half lengthways. For hard material, a core saw was used to cut the sample in half. As such, core was sampled for assay as half-core samples. All core samples are treated individual assay samples irrespective of their sample interval. Care was taken to ensure the assigned sampled ID was unique, and that the corresponding drill hole and sample interval were accurately recorded on the sample log sheet. Routine assay samples employ a sequential 8-digit number. QAQC was employed. A standard and blank was inserted into the sample stream at about every 20th assay sample. Standards were quantified industry standards. Sample sizes are appropriate for the nature of mineralisation.
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><u>Diamond Drilling</u></p> <ul style="list-style-type: none"> All GRL samples were submitted to ALS laboratories in Orange. The assay methods are appropriate for this style of mineralization. The samples were sorted, wet weighed, dried then weighed again. Primary preparation involved crushing and splitting the sample with a riffle splitter where necessary to obtain a sub-fraction which was pulverised in a vibrating pulveriser. Samples were assayed using both a four-acid digest with ICP-MS analysis (ALS code ME-MS61, 0.25g sample) and with a lithium-borate fusion prior to acid dissolution and ICP-MS analysis (ALS code ME-MS81, 2g sample). All assay results discussed in this announcement reflect results received by lithium-borate fusion analysis. The lab routinely inserts analytical blanks, standards and duplicates into the client sample batches for laboratory QAQC performance monitoring. GRL also inserted QAQC samples into the sample stream as mentioned above. All of the QAQC data has been statistically assessed and if required a batch or a portion of the batch may be re-assayed. (no re-assays required for the data in the release). Verification of sampling and assaying.



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Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> The lab routinely inserts analytical blanks, standards and duplicates into the client sample batches for laboratory QAQC performance monitoring. GRL also inserted QAQC samples as mentioned above All of the QAQC data has been statistically assessed. GRL has undertaken its own further review of QAQC results of the ALS routine standards. The results are considered to be acceptable and suitable for reporting. All data and logging were recorded directly into field laptops. Visual validation as well as numerical validation were completed by two or more geologists. REE/RM oxides were calculated for all reported ICP-MS results. The oxides were calculated according to the following factors listed below: $La_2O_3: 1.173$ (i.e. $ppm\ La \times 1.1728 = ppm\ La_2O_3$); $CeO_2: 1.2284$; $Pr_6O_{11}: 1.2082$; $Nd_2O_3: 1.1664$; $Sm_2O_3: 1.1596$; $Eu_2O_3: 1.1579$; $Gd_2O_3: 1.1526$; $Tb_4O_7: 1.1762$; $Dy_2O_3: 1.1477$; $Ho_2O_3: 1.1445$; $Er_2O_3: 1.1435$; $Tm_2O_3: 1.1421$; $Yb_2O_3: 1.1387$; $Lu_2O_3: 1.1371$; $Y_2O_3: 1.2699$; $Ga_2O_3: 1.3442$; $HfO_2: 1.1793$; $Nb_2O_5: 1.4305$; $Rb_2O: 1.0936$; $ZrO_2: 1.3508$ Total rare earth oxide is the industry standard and accepted form of reporting rare earth elements. TREO, TLREO, THREO as calculated as below TREO (total rare earth oxide) = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$ TLREO (total light rare earth oxide) = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3$ THREO (total heavy rare earth oxide) = $Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$
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. 	<ul style="list-style-type: none"> A handheld GPS was used to locate the drilling, with an averaged waypoint measurement: accuracy of less than 5 m. A DGPS was used after drilling to pick up the final collar location: accuracy of less than 0.77 m Coordinates used are WGS84 and transformed into Map Grid of Australia 1994 Zone 55 Hole paths have been systematically surveyed at 6 m intervals by the drill contractor
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"> Early-stage drilling program for Narraburra. Target is broad disseminated flat lying mineralisation above fresh igneous rock, as a result the drill density for this program is representative to indicate variability across the project area.
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. 	<ul style="list-style-type: none"> Mineralisation is interpreted to be in flat lying layers associated with weathering profiles of the underlying granite. Vertical orientation of the drillholes was deemed suitable to target mineralisation of this style. No significant bias is likely as a result of the pattern of intersection angles.



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Criteria	JORC Code explanation	Commentary
Sample security	<ul style="list-style-type: none"><i>The measures taken to ensure sample security.</i>	<ul style="list-style-type: none">For the program, care has been taken to have standard procedures for sample processing. They have been simple and industry standard to avoid sample bias.All samples were collected and accounted for by GRL employees/consultants during drilling. All logging was done by GRL personnel. All samples were bagged into calico bags by GRL contractors under the instruction of GRL personnel.GRL personnel or contractors were present at the drill rig daily during the drillingDiamond Drill core was geotechnically logged at the drill rig prior to transportation, and collected from the site and taken to the GRL shed in Orange for further processing.The appropriate manifest of sample numbers and a sample submission form containing laboratory instructions were submitted to the laboratory. Any discrepancies between sample submissions and samples received are routinely followed up and accounted for.
Audits or reviews	<ul style="list-style-type: none"><i>The results of any audits or reviews of sampling techniques and data.</i>	<ul style="list-style-type: none">Surveys, Assays, Geology, previous resource estimates were studied internally for factors likely to introduce bias, up or down.No external audits have been done on this data.An external review was conducted on this data by the Competent Person using core photographs and geological logs.



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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
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 license to operate in the area. 	<p>Narraburra</p> <ul style="list-style-type: none"> The Narraburra rare earth and rare metals project is located 12km to the north east of the township of Temora in NSW and has an elevation approximately 315 m above sea-level. The exploration rights to the project are granted via a JV agreement with EX9, a private entity. Earn-in terms – two tranche agreement allows Godolphin to progress to 51% ownership with \$1M exploration spend in the first two years of the JV agreement and 75% ownership through an additional \$2M in expenditure over the next two-year period See ASX announcement by Godolphin Resources (ASX: GRL) on 2nd March 2022: "Godolphin Secures Farm-in on Advanced Rare Earth Element Project" The Narraburra rare earth prospect, lies on Exploration License number 8420 and is held 100% by EX9. The land is owned by private land holders northeast of the township of Temora The security deposit paid by EX9 for EL8420 was \$10,000.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<p>Narraburra</p> <ul style="list-style-type: none"> See ASX announcements by Godolphin Resources (ASX: GRL) on 2nd March 2022, and Capitol Mining Limited (ASX: CMY) on 9 November 2011 Previous exploration includes airborne magnetic surveys, re-processing of public Aster data, geological mapping, mineralogical studies, preliminary metallurgical test work, with irregular wide-spaced RAB and RC drilling.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralization. 	<p>Narraburra</p> <p>Geology</p> <ul style="list-style-type: none"> EL8420 is situated over part of the Narraburra Complex, comprising three suites of alkaline granite at the triple junction of the Tumut, Girilambone-Goonumbla and Wagga Zones, central southern New South Wales. EL8420 straddles the northern edge of the junction between the Gilmore Fault and the Parkes Thrust, both structures known for their relationship to precious and base metal mineralisation. The Narraburra rare earth element (REE) and rare metal (RM) mineralisation is hosted within the saprolite cap of highly fractionated Devonian alkaline and peralkaline granites. Mineralisation occurs within these alkaline units as concentric bands, wrapping around the southern and western side of the largest sub-unit in the Narraburra complex, the Bodingerra Granite.
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 	<p>Total drilling at Narraburra is 1397.80 meters, comprising of:</p> <ul style="list-style-type: none"> 31 diamond holes <p>Drill hole information for drill holes currently reported from this drilling is presented in the table below</p>



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Criteria	JORC Code explanation	Commentary	Hole ID	Hole Type	Lease ID	MGA55 East	MGA55 North	MGA_RL	Dip	Depth m
	drill holes:		GNBDD001	DD	EL8420	551523.506	6202173.25	313.04	90	99.3
			GNBDD002	DD	EL8420	551949.953	6203135.182	309.07	90	60.3
			GNBDD003	DD	EL8420	551213.079	6203230.508	291.99	90	63.4
			GNBDD004	DD	EL8420	550793.933	6202278.262	302.46	90	62.6
			GNBDD005	DD	EL8420	551216.205	6201875.116	312.12	90	54.8
			GNBDD006	DD	EL8420	551353.271	6202014.722	313.99	90	92.7
			GNBDD007	DD	EL8420	551311.818	6202274.288	308.43	90	81.1
			GNBDD008	DD	EL8420	550680.968	6202100.43	313.02	90	12.7
			GNBDD009	DD	EL8420	550894.971	6201893.96	308.46	90	25.1
			GNBDD010	DD	EL8420	551605.131	6201938.503	314.55	90	69.7
			GNBDD011	DD	EL8420	551793.894	6202082.586	320.53	90	53.4
			GNBDD012	DD	EL8420	551920.209	6202226.466	325.44	90	39.6
			GNBDD013	DD	EL8420	551719.483	6202310.031	316.35	90	48.7
			GNBDD014	DD	EL8420	552158.114	6202316.94	337.78	90	11.1
			GNBDD015	DD	EL8420	552091.327	6202035.053	337.25	90	9.2
			GNBDD016	DD	EL8420	552161.175	6201727.309	326.26	90	45.6
			GNBDD017	DD	EL8420	552102.872	6202710.411	325.95	90	44.9
			GNBDD018	DD	EL8420	552313.39	6202960.36	325.72	90	16.9
			GNBDD019	DD	EL8420	552145.364	6203013.629	318.35	90	42.6
			GNBDD020	DD	EL8420	552348.95	6203196.802	325.29	90	32.8
			GNBDD021	DD	EL8420	552118.818	6203348.302	311.36	90	10.7
			GNBDD022	DD	EL8420	551874.1	6203476.63	300.05	90	84
			GNBDD023	DD	EL8420	551040.343	6202271.2	301.72	90	51.7
			GNBDD024	DD	EL8420	551837.448	6201835.551	320.32	90	41.1
			GNBDD025	DD	EL8420	551996.957	6202868.1	317.06	90	54.5
			GNBDD026	DD	EL8420	552598.405	6201465.923	336.35	90	57.6
			GNBDD027	DD	EL8420	552214.442	6201269.349	331.49	90	33.6
			GNBDD028	DD	EL8420	552173.21	6201464.249	321.97	90	48.4
			GNBDD029	DD	EL8420	551922.016	6201396.545	331.44	90	6.6
			GNBDD030	DD	EL8420	551772.043	6201639.486	319.1	90	36.6



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Criteria	JORC Code explanation	Commentary
		<div>GNBDD031</div> <div>DD</div> <div>EL8420</div> <div>551465.041</div> <div>6201659.145</div> <div>313.3</div> <div>90</div> <div>6.5</div>
Data aggregation methods	<ul style="list-style-type: none"> <i>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.</i> <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i> 	<ul style="list-style-type: none"> Weighted averages have been used for this announcement. Oxide equivalents have been calculated as discussed above A 500 ppm TREO lower cut-off grade has been applied to all reported grades and considers the geology and material types included in each mineralised interval. Dilution has been kept to a minimum and only included where the grade carries. A 50 ppm Hf, and Ga oxide lower cut-off grade has been applied to all reported grades. A 100 ppm Nb oxide lower cut-off grade has been applied to all reported grades. A 700 ppm Zr oxide cut-off grade has been applied to all reported grades. No top-cut has been applied.
Relationship between mineralization widths and intercept lengths	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> The holes were drilled at an average of -90° declination (i.e. vertical) The mineralisation has been interpreted as relatively flat lying
Diagrams	<ul style="list-style-type: none"> <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> 	<ul style="list-style-type: none"> Diagrams pertaining to this drilling program can be found in the body of the attached announcement.



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Criteria	JORC Code explanation	Commentary
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 Results. 	<ul style="list-style-type: none"> These are results from the second round of drilling completed at Narraburra by GRL All significant drill intercepts of mineralisation in these drill holes have been assayed and reported
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"> See ASX announcements by Godolphin Resources (ASX: GRL) on 2nd March 2022, and Godolphin Resources (ASX:GRL) on 11th November 2022, and Capitol Mining Limited (ASX: CMY) on 9 November 2011
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). 	<ul style="list-style-type: none"> Metallurgical test results are pending for an additional 15 samples Further exploration activities are currently under assessment



Appendix 2 SWIR (Short wave infrared) & TIR (Thermal infrared) total spectral count

Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE-MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K-FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD001	0.0	1.0	41.50	3.41	55.09	10.75	0.00	13.82	0.00
GNBDD001	1.0	2.0	37.02	6.79	56.19	42.00	0.00	12.75	0.00
GNBDD001	2.0	3.0	46.30	9.03	44.67	49.86	0.00	11.69	0.00
GNBDD001	3.0	4.0	49.79	24.49	25.72	58.74	0.00	12.77	0.00
GNBDD001	4.0	5.0	52.28	28.42	19.30	66.20	0.00	12.93	0.01
GNBDD001	5.0	6.0	55.60	24.90	19.50	72.12	0.00	7.84	0.00
GNBDD001	6.0	7.0	66.02	8.99	25.00	42.03	0.00	14.53	0.00
GNBDD001	7.0	8.0	90.37	1.77	7.86	13.26	0.00	20.97	0.00
GNBDD001	8.0	9.0	92.75	0.00	7.25	33.55	0.00	10.71	0.00
GNBDD001	9.0	10.0	100.00	0.00	0.00	53.96	0.00	2.44	0.00
GNBDD001	10.0	11.0	100.00	0.00	0.00	41.87	0.00	6.24	0.00
GNBDD001	11.0	12.0	96.96	0.00	3.04	13.62	0.00	5.40	0.00
GNBDD001	12.0	13.0	93.90	0.00	6.10	11.19	0.00	3.83	0.00
GNBDD001	13.0	14.0	97.51	0.00	2.49	16.50	0.00	15.22	0.00
GNBDD001	14.0	15.0	98.09	0.00	1.91	16.70	0.00	5.41	0.00
GNBDD001	15.0	16.0	100.00	0.00	0.00	24.27	0.00	7.40	0.03
GNBDD001	16.0	17.0	100.00	0.00	0.00	20.59	0.00	8.73	0.00
GNBDD001	17.0	18.0	100.00	0.00	0.00	18.82	0.00	9.49	0.00
GNBDD001	18.0	19.0	100.00	0.00	0.00	23.55	0.00	7.22	0.00
GNBDD001	19.0	20.0	99.75	0.25	0.00	21.61	0.00	7.48	0.00
GNBDD001	20.0	21.0	100.00	0.00	0.00	19.37	0.00	5.99	0.00
GNBDD001	21.0	22.0	100.00	0.00	0.00	23.61	0.00	1.72	0.00
GNBDD001	22.0	23.0	100.00	0.00	0.00	22.33	0.00	3.42	0.00
GNBDD001	23.0	24.0	100.00	0.00	0.00	32.97	0.00	5.29	0.00
GNBDD001	24.0	25.0	100.00	0.00	0.00	36.12	0.00	1.42	0.00
GNBDD001	25.0	26.0	100.00	0.00	0.00	27.85	0.00	3.16	0.00
GNBDD001	26.0	27.0	100.00	0.00	0.00	19.94	0.00	0.63	0.00
GNBDD001	27.0	28.0	93.55	2.22	4.24	11.86	0.00	3.19	0.00
GNBDD001	28.0	29.0	98.69	0.31	1.00	14.02	0.00	7.52	0.00
GNBDD001	29.0	30.0	100.00	0.00	0.00	16.59	0.00	6.78	0.03
GNBDD001	30.0	31.0	100.00	0.00	0.00	21.98	0.00	3.71	0.00
GNBDD001	31.0	32.0	100.00	0.00	0.00	11.50	0.00	4.23	0.00
GNBDD001	32.0	33.0	100.00	0.00	0.00	8.93	0.00	3.85	0.00
GNBDD001	33.0	34.0	100.00	0.00	0.00	7.20	0.00	8.91	0.00
GNBDD001	34.0	35.0	100.00	0.00	0.00	24.18	0.00	1.32	0.66
GNBDD001	35.0	36.0	100.00	0.00	0.00	27.24	0.00	3.63	0.54
GNBDD001	36.0	37.0	100.00	0.00	0.00	26.10	0.00	1.17	0.67
GNBDD001	37.0	38.0	100.00	0.00	0.00	35.83	0.00	0.15	1.99
GNBDD001	38.0	39.0	100.00	0.00	0.00	38.86	0.00	0.84	2.17
GNBDD001	39.0	40.0	100.00	0.00	0.00	23.90	0.00	2.00	1.22
GNBDD001	40.0	41.0	100.00	0.00	0.00	33.80	0.00	0.94	2.60
GNBDD001	41.0	42.0	95.29	0.00	0.00	35.27	0.00	2.39	0.99
GNBDD001	42.0	43.0	100.00	0.00	0.00	32.56	0.00	1.24	4.02
GNBDD001	43.0	44.0	100.00	0.00	0.00	35.98	0.00	0.00	3.29
GNBDD001	44.0	45.0	100.00	0.00	0.00	36.34	0.00	0.72	2.68
GNBDD001	45.0	46.0	100.00	0.00	0.00	35.64	0.00	1.84	1.26
GNBDD001	46.0	47.0	100.00	0.00	0.00	29.60	0.00	4.60	0.20
GNBDD001	47.0	48.0	100.00	0.00	0.00	35.76	0.00	0.51	3.07
GNBDD001	48.0	49.0	100.00	0.00	0.00	40.86	0.00	0.18	10.12
GNBDD001	49.0	50.0	100.00	0.00	0.00	42.91	0.00	0.28	8.75
GNBDD001	50.0	51.0	100.00	0.00	0.00	48.02	14.42	0.27	1.00
GNBDD001	51.0	52.0	100.00	0.00	0.00	43.98	13.98	2.81	2.60
GNBDD001	52.0	53.0	100.00	0.00	0.00	41.90	12.62	10.82	0.11
GNBDD001	53.0	54.0	99.79	0.00	0.21	53.28	9.66	18.42	0.00
GNBDD001	54.0	55.0	99.11	0.00	0.00	61.79	7.65	19.62	0.00
GNBDD001	55.0	56.0	99.79	0.00	0.21	57.92	13.85	19.18	0.00
GNBDD001	56.0	57.0	67.01	0.38	32.09	59.74	3.58	34.66	0.00
GNBDD001	57.0	58.0	44.63	1.06	32.87	59.14	5.33	32.37	0.00
GNBDD001	58.0	59.0	45.66	2.27	29.42	55.00	11.03	32.46	0.00
GNBDD001	59.0	60.0	23.55	1.59	10.20	55.76	8.99	34.13	0.00
GNBDD001	60.0	61.0	0.78	3.13	0.78	55.54	10.05	34.31	0.00
GNBDD001	61.0	62.0	0.78	3.10	0.78	55.23	12.73	31.97	0.00



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE-MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K-FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD001	62.0	63.0	7.31	2.92	22.12	55.17	9.41	34.85	0.00
GNBDD001	63.0	64.0	0.52	2.20	14.64	55.99	12.51	31.07	0.00
GNBDD001	64.0	65.0	0.79	1.66	14.95	55.52	9.91	34.19	0.00
GNBDD001	65.0	66.0	1.06	1.01	17.08	51.89	10.28	37.44	0.00
GNBDD001	66.0	67.0	0.00	0.38	93.10	56.11	6.83	35.01	0.00
GNBDD001	67.0	68.0	0.00	0.97	91.03	53.81	14.03	30.27	0.00
GNBDD001	68.0	69.0	0.00	0.90	89.63	50.04	15.05	33.38	0.00
GNBDD001	69.0	70.0	0.00	1.41	71.55	50.85	18.28	29.83	0.00
GNBDD001	70.0	71.0	0.00	3.61	76.59	55.72	11.77	31.00	0.00
GNBDD001	71.0	72.0	0.00	2.91	39.26	56.84	3.62	38.91	0.00
GNBDD001	72.0	73.0	0.00	3.45	89.41	54.18	10.00	34.17	0.00
GNBDD001	73.0	74.0	0.27	4.78	87.27	58.56	3.55	35.46	0.00
GNBDD001	74.0	75.0	1.54	9.72	68.92	57.60	9.12	30.55	0.00
GNBDD001	75.0	76.0	0.34	6.54	64.81	57.46	6.07	35.24	0.00
GNBDD001	76.0	77.0	0.00	3.44	91.56	56.29	2.47	39.49	0.00
GNBDD001	77.0	78.0	0.00	4.21	78.95	50.97	13.50	34.60	0.00
GNBDD001	78.0	79.0	0.00	2.08	84.18	55.52	12.92	29.94	0.00
GNBDD001	79.0	80.0	0.00	2.23	70.89	53.52	8.69	36.56	0.00
GNBDD001	80.0	81.0	0.00	8.92	7.89	54.05	5.48	40.35	0.00
GNBDD001	81.0	82.0	0.00	6.17	41.98	53.94	6.57	39.17	0.00
GNBDD001	82.0	83.0	0.00	5.84	27.06	54.87	8.60	36.02	0.00
GNBDD001	83.0	84.0	1.11	5.94	73.14	54.08	8.07	35.94	0.00
GNBDD001	84.0	85.0	0.58	4.20	68.26	51.92	13.98	32.41	0.00
GNBDD001	85.0	86.0	0.53	4.91	63.98	56.52	12.21	29.86	0.00
GNBDD001	86.0	87.0	1.25	6.92	60.80	53.82	10.63	33.99	0.00
GNBDD001	87.0	88.0	0.00	1.79	48.81	55.91	7.12	36.16	0.00
GNBDD001	88.0	89.0	0.00	0.00	70.06	56.74	5.74	35.78	0.00
GNBDD001	89.0	90.0	0.00	3.15	77.82	53.87	11.20	33.56	0.00
GNBDD001	90.0	91.0	1.19	6.00	52.78	56.59	7.95	34.13	0.00
GNBDD001	91.0	92.0	0.79	3.90	43.09	53.82	5.06	40.33	0.00
GNBDD001	92.0	93.0	0.00	1.32	34.21	54.51	7.54	37.57	0.00
GNBDD001	93.0	94.0	0.00	0.00	20.00	57.20	5.14	37.21	0.00
GNBDD001	94.0	95.0	0.00	0.00	7.06	56.76	6.74	36.39	0.00
GNBDD001	95.0	96.0	0.00	0.00	3.23	56.50	6.54	36.94	0.00
GNBDD001	96.0	97.0	0.00	0.00	11.11	54.67	11.63	33.59	0.00
GNBDD001	97.0	98.0	0.00	0.00	0.00	56.37	12.12	31.51	0.00
GNBDD001	98.0	99.0	0.00	0.00	33.80	57.01	10.24	31.99	0.00
GNBDD001	99.0	100.0	0.00	0.00	34.78	58.58	20.12	20.69	0.00
GNBDD002	0.0	1.0	36.50	52.39	0.00	96.87	0.00	0.00	0.00
GNBDD002	1.0	2.0	44.36	49.48	6.16	85.13	3.74	6.69	0.00
GNBDD002	2.0	3.0	54.60	14.53	30.86	69.20	16.96	2.40	0.00
GNBDD002	3.0	4.0	68.49	6.62	24.89	68.26	10.08	5.41	0.00
GNBDD002	4.0	5.0	71.22	0.00	28.78	41.86	13.89	5.17	0.00
GNBDD002	5.0	6.0	78.16	0.54	21.30	25.86	5.80	6.60	0.00
GNBDD002	6.0	7.0	80.99	0.00	19.01	32.38	3.92	11.51	0.00
GNBDD002	7.0	8.0	77.22	0.00	22.78	58.49	7.44	5.52	0.00
GNBDD002	8.0	9.0	96.61	0.00	3.39	57.69	8.06	3.64	0.00
GNBDD002	9.0	10.0	95.28	0.00	4.72	49.69	0.10	3.37	0.00
GNBDD002	10.0	11.0	99.82	0.00	0.18	53.93	1.22	2.52	0.00
GNBDD002	11.0	12.0	100.00	0.00	0.00	32.95	0.23	6.30	0.00
GNBDD002	12.0	13.0	100.00	0.00	0.00	26.80	0.00	5.35	0.00
GNBDD002	13.0	14.0	100.00	0.00	0.00	32.63	0.14	8.13	0.00
GNBDD002	14.0	15.0	100.00	0.00	0.00	17.09	0.00	7.14	0.00
GNBDD002	15.0	16.0	100.00	0.00	0.00	43.88	0.60	4.09	0.00
GNBDD002	16.0	17.0	100.00	0.00	0.00	49.43	0.16	0.47	0.11
GNBDD002	17.0	18.0	100.00	0.00	0.00	60.17	0.37	0.85	0.00
GNBDD002	18.0	19.0	100.00	0.00	0.00	44.63	0.07	2.40	0.00
GNBDD002	19.0	20.0	100.00	0.00	0.00	25.04	0.00	5.71	0.29
GNBDD002	20.0	21.0	100.00	0.00	0.00	16.01	0.00	8.54	0.09
GNBDD002	21.0	22.0	99.85	0.00	0.00	11.70	0.00	4.75	0.02
GNBDD002	22.0	23.0	100.00	0.00	0.00	20.50	0.00	5.12	0.00
GNBDD002	23.0	24.0	100.00	0.00	0.00	18.83	0.00	6.35	0.00
GNBDD002	24.0	25.0	100.00	0.00	0.00	17.24	0.00	2.62	0.00
GNBDD002	25.0	26.0	100.00	0.00	0.00	24.53	0.00	1.20	0.03



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE-MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K-FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD002	26.0	27.0	100.00	0.00	0.00	15.66	0.00	1.28	0.00
GNBDD002	27.0	28.0	100.00	0.00	0.00	19.47	0.00	1.41	0.00
GNBDD002	28.0	29.0	100.00	0.00	0.00	16.53	0.08	0.30	0.13
GNBDD002	29.0	30.0	100.00	0.00	0.00	15.87	0.00	0.46	0.04
GNBDD002	30.0	31.0	99.82	0.00	0.00	16.61	0.06	1.39	0.00
GNBDD002	31.0	32.0	99.88	0.00	0.00	27.55	0.00	0.18	1.44
GNBDD002	32.0	33.0	100.00	0.00	0.00	32.92	0.00	0.40	2.02
GNBDD002	33.0	34.0	99.05	0.00	0.00	32.27	0.23	0.12	6.27
GNBDD002	34.0	35.0	99.72	0.00	0.00	43.52	11.44	0.30	2.24
GNBDD002	35.0	36.0	100.00	0.00	0.00	56.88	18.01	0.00	0.38
GNBDD002	36.0	37.0	99.07	0.00	0.00	57.90	21.27	0.11	1.03
GNBDD002	37.0	38.0	99.73	0.00	0.00	57.70	21.72	0.79	0.71
GNBDD002	38.0	39.0	99.88	0.00	0.00	55.45	20.47	7.74	1.35
GNBDD002	39.0	40.0	100.00	0.00	0.00	48.86	8.61	40.63	0.00
GNBDD002	40.0	41.0	99.88	0.00	0.00	49.99	10.83	34.78	0.00
GNBDD002	41.0	42.0	96.44	0.00	3.56	51.23	5.56	40.42	0.00
GNBDD002	42.0	43.0	57.90	0.00	28.25	51.88	9.48	37.77	0.00
GNBDD002	43.0	44.0	82.48	0.00	17.52	52.40	4.19	40.42	0.00
GNBDD002	44.0	45.0	55.01	0.00	12.24	52.02	5.23	40.61	0.00
GNBDD002	45.0	46.0	36.23	0.00	11.85	44.88	15.42	39.55	0.00
GNBDD002	46.0	47.0	94.85	0.00	1.82	48.90	17.78	32.28	0.00
GNBDD002	47.0	48.0	63.53	0.00	14.92	49.86	7.60	41.79	0.00
GNBDD002	48.0	49.0	80.99	0.00	18.18	52.45	4.36	41.23	0.00
GNBDD002	49.0	50.0	92.94	0.00	1.97	52.97	3.08	41.73	0.00
GNBDD002	50.0	51.0	47.12	0.00	0.00	46.39	7.15	45.08	0.00
GNBDD002	51.0	52.0	91.91	0.00	8.09	50.75	6.37	41.75	0.00
GNBDD002	52.0	53.0	93.04	0.00	6.96	50.94	6.89	40.68	0.00
GNBDD002	53.0	54.0	78.03	0.00	21.14	48.58	7.29	39.98	0.00
GNBDD002	54.0	55.0	40.50	0.00	44.05	50.22	8.07	41.22	0.00
GNBDD002	55.0	56.0	39.59	0.00	44.24	47.29	11.72	40.70	0.00
GNBDD002	56.0	57.0	39.86	0.00	5.80	48.08	8.85	42.64	0.00
GNBDD002	57.0	58.0	50.57	0.00	5.34	49.95	9.39	40.01	0.00
GNBDD002	58.0	59.0	24.83	0.00	25.67	47.43	8.48	41.79	0.00
GNBDD002	59.0	60.0	0.00	0.00	3.85	39.81	19.72	40.47	0.00
GNBDD002	60.0	61.0	3.13	0.00	0.00	41.09	14.60	44.00	0.00
GNBDD003	0.0	1.0	53.04	1.67	44.12	45.09	3.55	3.58	0.07
GNBDD003	1.0	2.0	46.65	0.00	53.35	44.68	1.44	2.73	0.00
GNBDD003	2.0	3.0	41.93	0.00	57.35	34.70	2.45	7.01	0.09
GNBDD003	3.0	4.0	52.78	0.00	46.04	52.94	5.41	7.77	0.00
GNBDD003	4.0	5.0	54.01	0.00	45.75	42.64	1.91	5.23	0.43
GNBDD003	5.0	6.0	59.65	1.09	39.27	34.52	2.38	2.59	0.09
GNBDD003	6.0	7.0	61.02	0.00	38.87	33.33	0.21	0.93	0.00
GNBDD003	7.0	8.0	94.50	0.00	5.50	14.45	0.25	0.80	0.72
GNBDD003	8.0	9.0	100.00	0.00	0.00	16.94	0.00	0.05	1.52
GNBDD003	9.0	10.0	99.61	0.00	0.39	15.11	0.61	0.06	2.71
GNBDD003	10.0	11.0	95.03	0.00	4.97	10.25	3.13	0.98	0.89
GNBDD003	11.0	12.0	96.07	0.00	3.93	12.48	2.23	1.78	2.02
GNBDD003	12.0	13.0	99.42	0.00	0.00	23.06	0.00	0.06	6.84
GNBDD003	13.0	14.0	99.45	0.00	0.00	27.41	0.13	0.00	10.35
GNBDD003	14.0	15.0	97.19	0.00	2.81	14.02	2.88	0.62	1.66
GNBDD003	15.0	16.0	99.65	0.00	0.22	13.98	1.03	0.74	3.89
GNBDD003	16.0	17.0	100.00	0.00	0.00	9.90	0.00	0.48	8.01
GNBDD003	17.0	18.0	99.76	0.00	0.00	26.89	0.00	1.39	3.56
GNBDD003	18.0	19.0	99.37	0.00	0.00	45.14	0.00	0.00	8.34
GNBDD003	19.0	20.0	99.55	0.00	0.00	48.83	0.00	0.00	6.45
GNBDD003	20.0	21.0	99.70	0.00	0.00	45.82	0.00	0.00	7.10
GNBDD003	21.0	22.0	99.18	0.00	0.00	48.25	0.00	0.00	8.96
GNBDD003	22.0	23.0	98.79	0.00	0.00	50.89	0.00	0.00	8.23
GNBDD003	23.0	24.0	99.51	0.00	0.00	41.74	0.00	0.00	11.42
GNBDD003	24.0	25.0	99.78	0.00	0.00	41.46	0.00	0.00	10.33
GNBDD003	25.0	26.0	99.49	0.00	0.00	35.07	0.00	0.00	11.80
GNBDD003	26.0	27.0	99.68	0.00	0.00	39.44	0.00	0.00	11.31
GNBDD003	27.0	28.0	99.62	0.00	0.00	33.96	0.00	0.00	9.91
GNBDD003	28.0	29.0	99.35	0.00	0.00	39.52	0.00	0.00	11.80



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE- MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K- FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD003	29.0	30.0	99.78	0.00	0.00	34.42	0.00	0.00	12.66
GNBDD003	30.0	31.0	99.06	0.00	0.00	43.00	0.00	0.00	11.52
GNBDD003	31.0	32.0	99.55	0.00	0.00	32.66	0.00	0.00	13.86
GNBDD003	32.0	33.0	99.31	0.00	0.00	25.61	0.00	0.00	15.52
GNBDD003	33.0	34.0	99.89	0.00	0.00	20.80	0.00	0.00	8.57
GNBDD003	34.0	35.0	99.76	0.00	0.00	37.28	0.00	0.00	7.84
GNBDD003	35.0	36.0	99.90	0.00	0.00	23.50	0.00	0.00	13.71
GNBDD003	36.0	37.0	99.86	0.00	0.00	25.71	0.00	0.00	10.84
GNBDD003	37.0	38.0	100.00	0.00	0.00	18.34	0.00	0.00	17.45
GNBDD003	38.0	39.0	99.77	0.00	0.00	16.56	0.00	0.00	15.89
GNBDD003	39.0	40.0	99.88	0.00	0.00	12.17	0.00	0.00	14.43
GNBDD003	40.0	41.0	100.00	0.00	0.00	22.07	0.00	0.00	13.13
GNBDD003	41.0	42.0	99.73	0.00	0.00	17.77	0.00	0.00	14.55
GNBDD003	42.0	43.0	99.07	0.00	0.00	36.46	0.00	0.00	15.71
GNBDD003	43.0	44.0	99.68	0.00	0.00	7.67	0.00	0.00	15.71
GNBDD003	44.0	45.0	99.90	0.00	0.00	12.43	0.00	0.00	17.97
GNBDD003	45.0	46.0	98.12	0.00	0.00	21.78	0.00	0.05	30.05
GNBDD003	46.0	47.0	99.54	0.00	0.00	9.71	0.08	0.00	14.05
GNBDD003	47.0	48.0	99.74	0.00	0.14	27.75	2.99	13.10	5.03
GNBDD003	48.0	49.0	99.25	0.00	0.32	22.59	1.95	19.62	3.39
GNBDD003	49.0	50.0	100.00	0.00	0.00	20.58	4.86	4.20	6.35
GNBDD003	50.0	51.0	75.29	0.00	21.48	21.63	2.40	30.65	1.77
GNBDD003	51.0	52.0	63.44	0.22	29.93	38.73	15.06	30.98	0.12
GNBDD003	52.0	53.0	65.90	0.27	32.05	40.64	10.31	41.06	0.00
GNBDD003	53.0	54.0	60.28	2.41	35.35	34.43	11.96	35.65	0.00
GNBDD003	54.0	55.0	37.07	0.00	31.31	38.96	4.84	43.68	0.02
GNBDD003	55.0	56.0	21.97	6.25	19.63	41.54	4.67	40.14	0.09
GNBDD003	56.0	57.0	0.00	6.39	0.00	47.13	2.74	46.37	0.00
GNBDD003	57.0	58.0	0.00	12.16	0.00	44.62	4.21	46.81	0.00
GNBDD003	58.0	59.0	0.00	8.33	0.00	40.99	3.64	47.63	0.60
GNBDD003	59.0	60.0	7.39	4.63	12.51	47.14	2.96	41.97	0.00
GNBDD003	60.0	61.0	0.00	0.65	0.00	41.62	0.18	47.59	0.00
GNBDD003	61.0	62.0	6.93	8.00	9.96	40.38	2.60	45.61	0.05
GNBDD003	62.0	63.0	0.00	5.97	0.00	47.50	0.80	45.61	0.00
GNBDD003	63.0	64.0	0.00	0.00	0.00	45.69	2.93	44.04	0.00
GNBDD004	0.0	1.0	76.50	4.53	11.97	58.59	3.54	4.63	0.00
GNBDD004	1.0	2.0	64.42	2.04	32.62	14.34	0.83	6.45	0.00
GNBDD004	2.0	3.0	98.10	0.00	1.90	11.98	0.00	6.99	0.00
GNBDD004	3.0	4.0	99.22	0.00	0.63	12.22	0.98	1.46	0.00
GNBDD004	4.0	5.0	100.00	0.00	0.00	11.19	0.44	2.63	0.00
GNBDD004	5.0	6.0	100.00	0.00	0.00	17.40	0.00	3.37	0.00
GNBDD004	6.0	7.0	100.00	0.00	0.00	13.51	0.00	4.84	0.05
GNBDD004	7.0	8.0	100.00	0.00	0.00	15.25	0.00	4.44	0.04
GNBDD004	8.0	9.0	100.00	0.00	0.00	14.10	0.00	4.86	0.04
GNBDD004	9.0	10.0	100.00	0.00	0.00	5.28	0.00	9.06	0.00
GNBDD004	10.0	11.0	100.00	0.00	0.00	4.17	0.00	17.78	0.00
GNBDD004	11.0	12.0	100.00	0.00	0.00	4.89	0.00	22.69	0.00
GNBDD004	12.0	13.0	100.00	0.00	0.00	6.85	0.00	19.87	0.00
GNBDD004	13.0	14.0	100.00	0.00	0.00	3.01	0.00	22.71	0.00
GNBDD004	14.0	15.0	100.00	0.00	0.00	4.40	0.00	24.48	0.00
GNBDD004	15.0	16.0	100.00	0.00	0.00	7.07	0.00	24.95	0.00
GNBDD004	16.0	17.0	100.00	0.00	0.00	11.29	0.00	17.80	0.00
GNBDD004	17.0	18.0	99.87	0.00	0.00	15.12	0.00	16.69	0.07
GNBDD004	18.0	19.0	100.00	0.00	0.00	22.99	0.00	12.91	0.05
GNBDD004	19.0	20.0	100.00	0.00	0.00	27.27	0.00	9.63	0.03
GNBDD004	20.0	21.0	99.63	0.00	0.00	29.99	0.00	9.12	0.05
GNBDD004	21.0	22.0	98.71	0.00	0.00	30.36	0.00	4.02	0.41
GNBDD004	22.0	23.0	99.87	0.00	0.00	37.55	0.00	0.08	0.22
GNBDD004	23.0	24.0	100.00	0.00	0.00	38.70	0.00	0.13	0.00
GNBDD004	24.0	25.0	100.00	0.00	0.00	36.14	0.00	0.28	0.00
GNBDD004	25.0	26.0	98.50	0.00	0.00	30.17	0.00	0.05	1.35
GNBDD004	26.0	27.0	96.79	0.00	0.00	36.80	0.00	0.12	3.03
GNBDD004	27.0	28.0	96.18	0.00	0.00	36.85	0.00	0.10	2.98
GNBDD004	28.0	29.0	97.71	0.00	0.00	36.20	0.00	0.04	3.63



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE- MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K- FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD004	29.0	30.0	98.79	0.00	0.00	36.76	0.00	0.00	3.43
GNBDD004	30.0	31.0	99.38	0.00	0.00	29.90	0.00	1.53	0.76
GNBDD004	31.0	32.0	99.00	0.00	0.00	27.52	0.00	0.37	1.31
GNBDD004	32.0	33.0	99.88	0.00	0.00	32.69	0.00	0.00	0.55
GNBDD004	33.0	34.0	100.00	0.00	0.00	34.19	0.00	0.00	0.28
GNBDD004	34.0	35.0	97.90	0.00	0.00	30.83	0.00	0.39	3.23
GNBDD004	35.0	36.0	97.77	0.00	0.00	28.83	0.00	0.14	3.36
GNBDD004	36.0	37.0	98.75	0.00	0.00	34.54	0.00	0.38	2.34
GNBDD004	37.0	38.0	99.65	0.00	0.00	26.94	0.00	0.21	0.69
GNBDD004	38.0	39.0	99.32	0.00	0.00	23.20	0.00	0.07	1.58
GNBDD004	39.0	40.0	99.21	0.00	0.00	28.64	0.00	0.00	1.32
GNBDD004	40.0	41.0	98.13	0.00	0.00	28.49	0.00	0.13	2.15
GNBDD004	41.0	42.0	99.76	0.00	0.00	30.59	0.33	2.10	0.71
GNBDD004	42.0	43.0	99.33	0.00	0.00	43.57	0.05	0.82	14.04
GNBDD004	43.0	44.0	99.08	0.00	0.00	32.73	0.47	0.00	16.63
GNBDD004	44.0	45.0	99.12	0.00	0.00	41.20	10.02	0.32	4.73
GNBDD004	45.0	46.0	98.75	0.00	0.00	34.29	19.77	0.32	0.43
GNBDD004	46.0	47.0	98.94	0.00	0.00	35.60	15.82	4.94	0.45
GNBDD004	47.0	48.0	97.21	0.00	0.00	41.14	16.06	0.19	1.30
GNBDD004	48.0	49.0	73.78	22.60	2.95	49.48	7.43	17.13	5.86
GNBDD004	49.0	50.0	62.77	19.46	17.77	46.64	11.73	34.92	0.00
GNBDD004	50.0	51.0	49.38	18.03	28.03	51.38	7.06	35.35	0.10
GNBDD004	51.0	52.0	33.58	33.08	19.45	51.09	8.92	34.12	0.00
GNBDD004	52.0	53.0	3.60	66.38	8.05	53.42	8.46	36.83	0.00
GNBDD004	53.0	54.0	17.57	57.62	22.16	46.78	13.41	36.13	0.00
GNBDD004	54.0	55.0	10.39	64.28	14.19	53.79	11.78	29.74	0.00
GNBDD004	55.0	56.0	3.08	74.32	4.77	54.34	10.96	32.13	0.00
GNBDD004	56.0	57.0	0.72	84.79	1.70	47.56	15.24	34.59	0.00
GNBDD004	57.0	58.0	2.32	67.31	0.53	49.87	9.94	34.98	0.52
GNBDD004	58.0	59.0	1.67	76.04	3.74	47.32	15.12	35.43	0.00
GNBDD004	59.0	60.0	0.20	81.61	6.45	47.89	12.02	38.05	0.00
GNBDD004	60.0	61.0	3.69	70.41	11.83	53.03	9.29	36.17	0.00
GNBDD004	61.0	62.0	0.62	88.52	2.54	53.81	10.01	33.76	0.00
GNBDD004	62.0	63.0	0.32	69.32	2.40	49.13	14.18	34.43	0.00
GNBDD005	0.0	1.0	65.15	23.20	11.66	77.28	0.00	0.82	0.23
GNBDD005	1.0	2.0	48.92	3.47	47.29	69.00	8.41	3.25	0.01
GNBDD005	2.0	3.0	56.54	0.00	43.46	63.05	2.18	0.00	0.00
GNBDD005	3.0	4.0	56.98	2.26	40.62	54.72	9.82	5.52	0.00
GNBDD005	4.0	5.0	47.55	0.74	51.59	36.34	4.77	3.75	0.00
GNBDD005	5.0	6.0	45.10	0.00	54.90	33.18	0.61	2.24	0.00
GNBDD005	6.0	7.0	63.22	0.00	36.78	22.63	0.81	3.49	0.14
GNBDD005	7.0	8.0	97.81	0.00	2.19	47.30	2.09	2.08	0.00
GNBDD005	8.0	9.0	100.00	0.00	0.00	42.56	0.71	3.85	0.01
GNBDD005	9.0	10.0	100.00	0.00	0.00	44.01	0.00	0.57	0.07
GNBDD005	10.0	11.0	100.00	0.00	0.00	45.95	0.00	0.58	0.36
GNBDD005	11.0	12.0	100.00	0.00	0.00	49.61	0.00	0.55	0.30
GNBDD005	12.0	13.0	99.53	0.27	0.10	54.77	0.00	0.68	0.24
GNBDD005	13.0	14.0	100.00	0.00	0.00	32.38	0.00	0.00	1.16
GNBDD005	14.0	15.0	100.00	0.00	0.00	29.01	0.00	0.00	1.13
GNBDD005	15.0	16.0	99.77	0.00	0.00	26.85	0.00	0.38	0.41
GNBDD005	16.0	17.0	100.00	0.00	0.00	26.16	0.00	0.00	1.92
GNBDD005	17.0	18.0	98.58	0.00	0.00	26.55	0.00	0.00	3.53
GNBDD005	18.0	19.0	99.75	0.00	0.00	20.91	0.00	0.06	0.60
GNBDD005	19.0	20.0	100.00	0.00	0.00	27.38	0.00	0.19	0.59
GNBDD005	20.0	21.0	99.83	0.00	0.00	28.94	0.00	0.00	1.03
GNBDD005	21.0	22.0	99.68	0.00	0.00	28.20	0.00	0.62	0.40
GNBDD005	22.0	23.0	99.63	0.00	0.00	27.21	0.00	0.04	2.77
GNBDD005	23.0	24.0	99.75	0.00	0.00	30.09	0.00	0.00	3.14
GNBDD005	24.0	25.0	100.00	0.00	0.00	33.36	0.00	0.00	6.06
GNBDD005	25.0	26.0	100.00	0.00	0.00	35.94	0.00	0.00	4.52
GNBDD005	26.0	27.0	100.00	0.00	0.00	34.47	0.00	0.00	4.13
GNBDD005	27.0	28.0	99.88	0.00	0.00	36.57	0.00	0.00	2.60
GNBDD005	28.0	29.0	100.00	0.00	0.00	36.44	0.00	0.30	1.01
GNBDD005	29.0	30.0	100.00	0.00	0.00	35.71	0.00	0.00	9.41



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE-MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K-FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD005	30.0	31.0	100.00	0.00	0.00	34.86	0.00	0.00	10.32
GNBDD005	31.0	32.0	100.00	0.00	0.00	34.78	0.00	0.00	11.84
GNBDD005	32.0	33.0	99.87	0.00	0.00	37.38	0.00	0.00	9.44
GNBDD005	33.0	34.0	100.00	0.00	0.00	37.54	0.00	0.00	10.88
GNBDD005	34.0	35.0	99.64	0.00	0.00	39.34	0.00	0.00	11.32
GNBDD005	35.0	36.0	100.00	0.00	0.00	35.06	0.00	0.00	10.13
GNBDD005	36.0	37.0	99.85	0.00	0.00	37.39	0.00	0.00	9.65
GNBDD005	37.0	38.0	99.87	0.00	0.00	37.70	0.00	0.00	11.88
GNBDD005	38.0	39.0	99.71	0.00	0.00	32.00	0.00	0.00	10.47
GNBDD005	39.0	40.0	99.61	0.00	0.00	41.32	0.00	0.00	11.38
GNBDD005	40.0	41.0	99.64	0.00	0.00	45.79	0.42	0.19	7.80
GNBDD005	41.0	42.0	99.89	0.00	0.00	43.27	8.53	1.48	4.34
GNBDD005	42.0	43.0	100.00	0.00	0.00	41.11	16.03	1.93	1.53
GNBDD005	43.0	44.0	99.88	0.00	0.00	47.64	13.22	2.29	1.63
GNBDD005	44.0	45.0	100.00	0.00	0.00	46.13	15.36	2.29	0.92
GNBDD005	45.0	46.0	98.25	0.00	1.47	41.42	16.44	3.38	0.38
GNBDD005	46.0	47.0	83.79	7.07	9.15	47.07	11.36	23.33	0.30
GNBDD005	47.0	48.0	69.68	4.72	25.60	49.72	10.21	25.57	0.34
GNBDD005	48.0	49.0	87.48	0.12	12.26	51.36	15.31	25.52	0.12
GNBDD005	49.0	50.0	62.43	0.29	37.27	50.17	18.26	28.35	0.00
GNBDD005	50.0	51.0	70.32	5.60	24.09	49.88	12.66	26.56	0.28
GNBDD005	51.0	52.0	63.63	21.09	15.28	52.47	13.97	29.10	0.00
GNBDD005	52.0	53.0	53.19	40.94	5.72	55.65	13.00	27.91	0.00
GNBDD005	53.0	54.0	57.79	24.75	17.45	53.18	18.71	25.30	0.00
GNBDD005	54.0	55.0	34.75	59.55	4.58	48.77	20.34	29.47	0.00
GNBDD006	0.0	1.0	90.21	3.37	4.97	78.15	3.51	2.06	0.00
GNBDD006	1.0	2.0	53.15	0.00	46.85	13.96	3.99	0.92	0.46
GNBDD006	2.0	3.0	44.90	0.00	55.10	3.76	2.16	1.36	1.49
GNBDD006	3.0	4.0	41.24	1.13	57.63	39.25	0.38	3.85	0.05
GNBDD006	4.0	5.0	45.34	0.00	54.66	44.20	1.98	4.08	0.00
GNBDD006	5.0	6.0	54.32	0.00	45.68	34.74	8.83	2.40	0.02
GNBDD006	6.0	7.0	81.56	0.00	18.44	37.24	5.89	4.12	0.11
GNBDD006	7.0	8.0	99.80	0.00	0.20	23.01	3.36	1.35	0.47
GNBDD006	8.0	9.0	95.37	0.00	4.63	23.77	1.66	3.90	0.87
GNBDD006	9.0	10.0	98.20	0.00	1.80	27.71	2.56	1.59	0.10
GNBDD006	10.0	11.0	99.37	0.00	0.63	25.91	5.78	0.22	0.12
GNBDD006	11.0	12.0	98.83	0.00	1.17	30.74	2.38	0.81	0.09
GNBDD006	12.0	13.0	100.00	0.00	0.00	37.91	1.20	0.24	0.54
GNBDD006	13.0	14.0	100.00	0.00	0.00	43.41	0.00	0.37	0.20
GNBDD006	14.0	15.0	100.00	0.00	0.00	42.69	0.00	0.00	1.03
GNBDD006	15.0	16.0	100.00	0.00	0.00	40.15	0.22	0.42	0.06
GNBDD006	16.0	17.0	100.00	0.00	0.00	41.03	0.00	0.84	0.61
GNBDD006	17.0	18.0	100.00	0.00	0.00	53.02	0.00	0.00	0.23
GNBDD006	18.0	19.0	100.00	0.00	0.00	46.93	0.34	0.46	0.06
GNBDD006	19.0	20.0	100.00	0.00	0.00	30.13	0.16	1.50	0.12
GNBDD006	20.0	21.0	100.00	0.00	0.00	37.08	0.17	1.52	0.39
GNBDD006	21.0	22.0	100.00	0.00	0.00	41.27	0.05	0.70	0.00
GNBDD006	22.0	23.0	100.00	0.00	0.00	37.29	0.02	0.50	0.00
GNBDD006	23.0	24.0	100.00	0.00	0.00	28.11	0.00	0.50	0.17
GNBDD006	24.0	25.0	100.00	0.00	0.00	23.42	0.00	0.00	0.02
GNBDD006	25.0	26.0	100.00	0.00	0.00	31.95	0.00	0.00	0.97
GNBDD006	26.0	27.0	100.00	0.00	0.00	38.43	0.00	0.00	3.54
GNBDD006	27.0	28.0	100.00	0.00	0.00	26.29	0.00	0.00	0.36
GNBDD006	28.0	29.0	100.00	0.00	0.00	26.97	0.00	0.00	0.79
GNBDD006	29.0	30.0	100.00	0.00	0.00	23.14	0.00	0.00	5.18
GNBDD006	30.0	31.0	100.00	0.00	0.00	27.08	0.00	0.00	8.75
GNBDD006	31.0	32.0	100.00	0.00	0.00	27.79	0.00	0.00	10.18
GNBDD006	32.0	33.0	100.00	0.00	0.00	27.46	0.00	0.00	12.36
GNBDD006	33.0	34.0	100.00	0.00	0.00	30.82	0.00	0.00	13.32
GNBDD006	34.0	35.0	100.00	0.00	0.00	36.19	0.00	0.00	11.51
GNBDD006	35.0	36.0	100.00	0.00	0.00	36.62	0.00	0.00	13.29
GNBDD006	36.0	37.0	100.00	0.00	0.00	30.22	0.00	0.00	14.71
GNBDD006	37.0	38.0	100.00	0.00	0.00	54.53	0.00	0.00	9.01
GNBDD006	38.0	39.0	100.00	0.00	0.00	47.96	0.00	0.00	6.66



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE-MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K-FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD006	39.0	40.0	100.00	0.00	0.00	43.85	0.00	0.00	14.74
GNBDD006	40.0	41.0	100.00	0.00	0.00	43.28	0.00	0.00	9.31
GNBDD006	41.0	42.0	100.00	0.00	0.00	45.40	0.00	0.00	13.38
GNBDD006	42.0	43.0	100.00	0.00	0.00	41.31	0.00	0.00	12.46
GNBDD006	43.0	44.0	100.00	0.00	0.00	39.02	0.00	0.00	12.69
GNBDD006	44.0	45.0	100.00	0.00	0.00	38.06	0.00	0.00	10.39
GNBDD006	45.0	46.0	100.00	0.00	0.00	30.36	0.00	0.00	19.12
GNBDD006	46.0	47.0	100.00	0.00	0.00	29.69	0.00	0.00	15.60
GNBDD006	47.0	48.0	100.00	0.00	0.00	32.10	0.00	0.00	15.84
GNBDD006	48.0	49.0	100.00	0.00	0.00	26.83	0.00	0.00	14.31
GNBDD006	49.0	50.0	100.00	0.00	0.00	32.87	0.00	0.00	11.81
GNBDD006	50.0	51.0	100.00	0.00	0.00	30.51	0.00	0.00	13.15
GNBDD006	51.0	52.0	100.00	0.00	0.00	30.53	0.00	0.00	16.38
GNBDD006	52.0	53.0	100.00	0.00	0.00	35.27	0.00	0.00	19.40
GNBDD006	53.0	54.0	100.00	0.00	0.00	35.21	0.00	0.00	24.42
GNBDD006	54.0	55.0	100.00	0.00	0.00	35.93	0.00	0.00	20.81
GNBDD006	55.0	56.0	100.00	0.00	0.00	38.48	0.82	0.00	12.79
GNBDD006	56.0	57.0	100.00	0.00	0.00	38.50	8.13	0.11	7.47
GNBDD006	57.0	58.0	100.00	0.00	0.00	38.27	11.38	0.82	4.29
GNBDD006	58.0	59.0	100.00	0.00	0.00	38.70	10.44	1.21	2.02
GNBDD006	59.0	60.0	100.00	0.00	0.00	40.56	11.68	2.71	1.21
GNBDD006	60.0	61.0	100.00	0.00	0.00	43.19	16.15	2.85	0.19
GNBDD006	61.0	62.0	100.00	0.00	0.00	37.89	16.64	0.62	1.11
GNBDD006	62.0	63.0	100.00	0.00	0.00	41.20	11.86	0.31	2.73
GNBDD006	63.0	64.0	100.00	0.00	0.00	43.52	12.48	1.74	0.92
GNBDD006	64.0	65.0	100.00	0.00	0.00	42.42	13.70	1.24	0.39
GNBDD006	65.0	66.0	100.00	0.00	0.00	47.22	12.41	2.24	0.64
GNBDD006	66.0	67.0	100.00	0.00	0.00	41.43	14.94	2.82	0.24
GNBDD006	67.0	68.0	100.00	0.00	0.00	42.96	15.58	4.31	0.06
GNBDD006	68.0	69.0	99.84	0.00	0.16	37.08	12.12	3.80	1.42
GNBDD006	69.0	70.0	99.85	0.00	0.15	45.77	7.76	18.45	0.03
GNBDD006	70.0	71.0	100.00	0.00	0.00	45.11	5.65	20.13	1.34
GNBDD006	71.0	72.0	99.87	0.00	0.13	39.00	9.57	13.74	0.34
GNBDD006	72.0	73.0	99.70	0.00	0.30	37.29	9.64	7.59	2.87
GNBDD006	73.0	74.0	99.52	0.00	0.48	32.02	9.84	10.00	1.57
GNBDD006	74.0	75.0	99.55	0.00	0.45	33.26	12.19	4.78	4.11
GNBDD006	75.0	76.0	98.47	0.00	1.53	41.29	6.93	20.38	0.61
GNBDD006	76.0	77.0	97.85	0.00	2.15	42.45	7.20	18.45	1.04
GNBDD006	77.0	78.0	100.00	0.00	0.00	46.79	4.42	19.87	1.40
GNBDD006	78.0	79.0	99.55	0.00	0.45	49.94	4.63	26.12	0.23
GNBDD006	79.0	80.0	99.64	0.00	0.36	42.98	4.17	24.50	0.70
GNBDD006	80.0	81.0	98.85	0.00	1.15	47.10	6.76	17.29	1.20
GNBDD006	81.0	82.0	91.83	1.51	6.66	48.57	6.94	17.50	0.56
GNBDD006	82.0	83.0	97.20	0.23	2.57	42.62	5.12	20.04	1.51
GNBDD006	83.0	84.0	98.46	0.00	1.54	44.07	8.26	13.78	1.15
GNBDD006	84.0	85.0	100.00	0.00	0.00	40.90	11.91	13.15	1.90
GNBDD006	85.0	86.0	99.83	0.00	0.17	45.06	8.25	17.10	1.09
GNBDD006	86.0	87.0	97.19	0.00	2.81	45.45	4.59	23.47	0.29
GNBDD006	87.0	88.0	94.91	0.00	5.09	46.70	3.92	26.96	0.07
GNBDD006	88.0	89.0	90.64	0.22	9.14	52.02	5.23	23.29	0.23
GNBDD006	89.0	90.0	67.95	12.91	19.15	51.28	15.29	27.00	0.06
GNBDD006	90.0	91.0	90.77	0.56	8.67	46.48	1.96	19.20	0.71
GNBDD006	91.0	92.0	85.26	0.19	14.55	48.42	6.01	22.05	0.46
GNBDD006	92.0	93.0	87.29	0.60	12.11	49.93	6.01	20.19	0.53
GNBDD007	0.0	1.0	45.25	3.38	47.79	59.01	1.41	1.92	0.02
GNBDD007	1.0	2.0	51.09	2.36	35.94	45.05	6.93	3.66	0.00
GNBDD007	2.0	3.0	42.59	0.98	53.98	20.65	4.21	4.15	0.00
GNBDD007	3.0	4.0	45.90	0.43	52.50	42.99	0.00	2.60	0.02
GNBDD007	4.0	5.0	89.80	0.43	7.89	40.37	0.16	2.69	0.06
GNBDD007	5.0	6.0	97.71	0.00	0.41	24.24	0.80	1.49	0.00
GNBDD007	6.0	7.0	98.78	0.00	0.00	22.68	0.00	7.79	0.13
GNBDD007	7.0	8.0	98.44	0.00	0.00	28.59	0.00	5.62	0.11
GNBDD007	8.0	9.0	99.02	0.00	0.00	43.83	0.00	4.15	0.34
GNBDD007	9.0	10.0	99.31	0.00	0.00	37.91	0.05	3.28	0.00



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE-MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K-FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD007	10.0	11.0	98.87	0.00	0.59	39.21	0.17	5.78	0.12
GNBDD007	11.0	12.0	99.87	0.00	0.00	27.84	0.00	11.55	0.00
GNBDD007	12.0	13.0	99.53	0.00	0.00	32.43	0.00	10.95	0.04
GNBDD007	13.0	14.0	98.18	0.00	0.00	38.09	0.00	3.50	0.00
GNBDD007	14.0	15.0	99.88	0.00	0.00	28.20	0.00	7.15	0.00
GNBDD007	15.0	16.0	99.88	0.12	0.00	39.08	0.00	1.29	0.00
GNBDD007	16.0	17.0	100.00	0.00	0.00	30.40	0.00	2.99	0.00
GNBDD007	17.0	18.0	99.57	0.00	0.00	38.36	0.00	2.34	0.00
GNBDD007	18.0	19.0	99.57	0.00	0.00	41.92	0.00	2.95	0.00
GNBDD007	19.0	20.0	100.00	0.00	0.00	42.16	0.00	2.35	0.00
GNBDD007	20.0	21.0	100.00	0.00	0.00	39.24	0.00	3.36	0.00
GNBDD007	21.0	22.0	99.34	0.00	0.00	33.89	0.00	3.58	0.00
GNBDD007	22.0	23.0	99.23	0.00	0.00	25.63	0.40	3.47	0.00
GNBDD007	23.0	24.0	100.00	0.00	0.00	33.20	0.48	0.37	0.03
GNBDD007	24.0	25.0	100.00	0.00	0.00	35.18	0.16	0.06	0.05
GNBDD007	25.0	26.0	100.00	0.00	0.00	37.90	0.11	0.35	0.03
GNBDD007	26.0	27.0	99.64	0.00	0.00	31.90	0.36	0.56	0.00
GNBDD007	27.0	28.0	99.86	0.00	0.00	37.70	0.00	1.81	0.14
GNBDD007	28.0	29.0	99.68	0.00	0.00	34.37	0.00	0.38	0.14
GNBDD007	29.0	30.0	98.53	0.00	0.00	35.20	0.00	2.22	0.10
GNBDD007	30.0	31.0	99.81	0.00	0.00	37.52	0.13	0.11	0.06
GNBDD007	31.0	32.0	100.00	0.00	0.00	31.79	0.10	0.15	0.06
GNBDD007	32.0	33.0	99.70	0.00	0.00	34.97	0.14	0.08	0.00
GNBDD007	33.0	34.0	99.73	0.00	0.00	43.97	0.00	0.00	0.00
GNBDD007	34.0	35.0	97.98	0.00	0.00	45.14	0.00	0.00	0.00
GNBDD007	35.0	36.0	97.92	0.00	0.45	57.18	0.00	0.00	0.00
GNBDD007	36.0	37.0	73.62	2.87	20.41	83.72	0.00	2.42	0.00
GNBDD007	37.0	38.0	90.23	0.00	7.13	64.33	0.00	0.00	0.08
GNBDD007	38.0	39.0	100.00	0.00	0.00	64.21	0.00	0.00	0.25
GNBDD007	39.0	40.0	100.00	0.00	0.00	57.92	0.00	0.00	0.12
GNBDD007	40.0	41.0	100.00	0.00	0.00	24.23	0.00	0.00	0.62
GNBDD007	41.0	42.0	100.00	0.00	0.00	25.42	0.00	0.06	0.81
GNBDD007	42.0	43.0	100.00	0.00	0.00	33.45	0.00	0.00	2.30
GNBDD007	43.0	44.0	100.00	0.00	0.00	18.55	0.00	0.05	0.04
GNBDD007	44.0	45.0	100.00	0.00	0.00	12.07	0.00	1.95	0.29
GNBDD007	45.0	46.0	100.00	0.00	0.00	12.98	0.00	0.88	0.88
GNBDD007	46.0	47.0	100.00	0.00	0.00	15.41	0.00	0.48	1.59
GNBDD007	47.0	48.0	100.00	0.00	0.00	21.49	0.00	1.00	3.46
GNBDD007	48.0	49.0	100.00	0.00	0.00	17.41	0.00	0.97	3.70
GNBDD007	49.0	50.0	100.00	0.00	0.00	20.36	0.27	0.17	9.44
GNBDD007	50.0	51.0	100.00	0.00	0.00	26.83	0.86	0.39	13.41
GNBDD007	51.0	52.0	100.00	0.00	0.00	25.15	4.85	7.64	1.70
GNBDD007	52.0	53.0	100.00	0.00	0.00	29.93	5.46	2.36	5.49
GNBDD007	53.0	54.0	100.00	0.00	0.00	29.94	6.12	1.05	6.01
GNBDD007	54.0	55.0	100.00	0.00	0.00	30.56	5.97	1.50	4.73
GNBDD007	55.0	56.0	100.00	0.00	0.00	33.09	10.81	2.59	2.03
GNBDD007	56.0	57.0	100.00	0.00	0.00	30.10	12.14	5.99	0.31
GNBDD007	57.0	58.0	100.00	0.00	0.00	35.05	14.24	1.56	0.97
GNBDD007	58.0	59.0	100.00	0.00	0.00	26.55	12.01	7.51	1.10
GNBDD007	59.0	60.0	100.00	0.00	0.00	32.70	15.37	5.10	0.00
GNBDD007	60.0	61.0	100.00	0.00	0.00	29.90	11.23	2.66	0.88
GNBDD007	61.0	62.0	100.00	0.00	0.00	33.67	16.62	5.96	0.06
GNBDD007	62.0	63.0	100.00	0.00	0.00	37.96	18.98	2.29	0.38
GNBDD007	63.0	64.0	100.00	0.00	0.00	39.37	15.33	1.67	0.91
GNBDD007	64.0	65.0	100.00	0.00	0.00	44.28	15.42	1.51	1.18
GNBDD007	65.0	66.0	100.00	0.00	0.00	47.01	11.39	0.39	1.43
GNBDD007	66.0	67.0	100.00	0.00	0.00	42.23	12.83	0.70	1.22
GNBDD007	67.0	68.0	100.00	0.00	0.00	43.55	13.84	1.49	0.85
GNBDD007	68.0	69.0	100.00	0.00	0.00	46.16	14.28	1.06	1.03
GNBDD007	69.0	70.0	100.00	0.00	0.00	43.47	16.76	0.54	0.44
GNBDD007	70.0	71.0	100.00	0.00	0.00	42.90	20.00	4.12	0.07
GNBDD007	71.0	72.0	100.00	0.00	0.00	42.40	15.47	8.05	0.11
GNBDD007	72.0	73.0	100.00	0.00	0.00	33.17	12.30	14.24	0.14
GNBDD007	73.0	74.0	79.48	12.30	4.66	39.20	17.81	20.70	0.01



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE-MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K-FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD007	74.0	75.0	53.68	15.57	11.35	47.11	12.07	33.16	0.30
GNBDD007	75.0	76.0	19.74	39.76	9.75	51.12	12.80	33.05	0.00
GNBDD007	76.0	77.0	84.78	11.00	2.81	51.72	7.27	28.41	0.00
GNBDD007	77.0	78.0	82.51	6.84	9.28	45.10	6.65	26.60	0.03
GNBDD007	78.0	79.0	75.78	2.43	20.02	41.71	11.03	27.86	0.05
GNBDD007	79.0	80.0	65.13	8.03	17.42	47.46	11.44	29.59	0.47
GNBDD007	80.0	81.0	4.32	7.44	6.33	48.83	17.47	32.65	0.00
GNBDD007	81.0	82.0	0.00	0.00	0.00	52.51	2.98	44.51	0.00
GNBDD008	0.0	1.0	100.00	0.00	0.00	29.32	4.39	4.77	2.55
GNBDD008	1.0	2.0	82.73	4.61	12.52	37.11	3.18	25.05	0.00
GNBDD008	2.0	3.0	68.54	17.92	13.54	46.22	5.59	28.31	0.00
GNBDD008	3.0	4.0	64.09	28.65	7.13	51.58	13.12	25.82	0.85
GNBDD008	4.0	5.0	85.68	6.43	7.77	44.12	5.67	29.83	0.10
GNBDD008	5.0	6.0	50.35	36.00	13.65	53.36	7.30	34.18	0.00
GNBDD008	6.0	7.0	58.50	26.46	13.54	50.89	10.98	32.14	0.00
GNBDD008	7.0	8.0	70.56	11.60	17.84	48.12	6.63	32.92	0.33
GNBDD008	8.0	9.0	37.61	35.47	26.91	51.55	11.29	33.53	0.02
GNBDD008	9.0	10.0	43.49	28.00	28.51	49.90	9.87	34.69	0.00
GNBDD008	10.0	11.0	30.34	49.89	19.78	47.66	9.83	39.11	0.00
GNBDD008	11.0	12.0	33.80	47.61	18.60	51.60	13.92	28.95	0.02
GNBDD008	12.0	13.0	40.94	32.43	26.62	50.66	12.31	28.30	0.05
GNBDD009	0.0	1.0	78.69	5.56	15.75	46.26	4.55	6.16	0.28
GNBDD009	1.0	2.0	98.29	0.12	1.59	36.50	6.19	5.52	0.10
GNBDD009	2.0	3.0	100.00	0.00	0.00	27.21	4.27	2.11	0.06
GNBDD009	3.0	4.0	100.00	0.00	0.00	13.25	0.72	1.30	0.90
GNBDD009	4.0	5.0	100.00	0.00	0.00	12.05	0.00	0.17	3.38
GNBDD009	5.0	6.0	100.00	0.00	0.00	13.60	0.00	0.00	4.43
GNBDD009	6.0	7.0	100.00	0.00	0.00	15.44	0.00	0.00	5.15
GNBDD009	7.0	8.0	100.00	0.00	0.00	19.81	0.00	0.00	3.63
GNBDD009	8.0	9.0	100.00	0.00	0.00	21.64	0.03	0.00	4.89
GNBDD009	9.0	10.0	100.00	0.00	0.00	26.50	0.10	0.13	8.15
GNBDD009	10.0	11.0	100.00	0.00	0.00	37.50	0.97	0.52	4.77
GNBDD009	11.0	12.0	100.00	0.00	0.00	43.93	5.03	0.93	4.69
GNBDD009	12.0	13.0	100.00	0.00	0.00	40.84	15.19	2.33	0.41
GNBDD009	13.0	14.0	100.00	0.00	0.00	35.55	11.70	13.69	0.83
GNBDD009	14.0	15.0	98.78	0.00	1.22	38.56	6.78	22.62	0.54
GNBDD009	15.0	16.0	67.16	21.37	11.47	57.59	11.65	27.11	0.00
GNBDD009	16.0	17.0	20.45	68.69	10.87	54.10	14.10	30.60	0.00
GNBDD009	17.0	18.0	0.00	80.11	1.05	54.57	13.08	31.32	0.00
GNBDD009	18.0	19.0	0.00	94.29	0.00	53.55	15.28	30.26	0.00
GNBDD009	19.0	20.0	11.12	79.97	7.35	52.85	14.52	30.86	0.00
GNBDD009	20.0	21.0	17.71	71.06	7.70	57.66	9.22	31.06	0.00
GNBDD009	21.0	22.0	16.42	68.21	9.63	50.43	18.39	29.91	0.00
GNBDD009	22.0	23.0	89.42	8.72	1.87	48.29	3.69	29.76	0.03
GNBDD009	23.0	24.0	79.39	5.35	15.25	43.10	13.31	25.60	0.08
GNBDD009	24.0	25.0	58.38	26.43	15.19	50.68	16.34	27.62	0.00
GNBDD009	25.0	26.0	45.08	54.92	0.00	47.72	28.66	22.81	0.00
GNBDD010	0.0	1.0	71.73	15.71	12.36	64.66	0.19	0.57	0.15
GNBDD010	1.0	2.0	50.49	0.00	49.51	38.86	1.01	1.11	0.00
GNBDD010	2.0	3.0	49.23	0.30	50.22	18.81	3.51	3.22	0.41
GNBDD010	3.0	4.0	73.94	0.00	26.06	43.30	2.44	7.30	0.00
GNBDD010	4.0	5.0	70.08	4.79	25.13	52.25	1.94	4.37	0.00
GNBDD010	5.0	6.0	100.00	0.00	0.00	48.16	0.00	13.51	0.00
GNBDD010	6.0	7.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GNBDD010	7.0	8.0	97.36	0.39	2.25	29.05	2.84	5.15	0.25
GNBDD010	8.0	9.0	99.87	0.13	0.00	21.42	2.75	4.47	0.20
GNBDD010	9.0	10.0	99.16	0.00	0.84	12.47	1.78	6.15	0.14
GNBDD010	10.0	11.0	100.00	0.00	0.00	33.71	0.00	1.57	1.77
GNBDD010	11.0	12.0	100.00	0.00	0.00	31.63	0.53	1.71	0.71
GNBDD010	12.0	13.0	100.00	0.00	0.00	26.15	2.26	1.14	0.13
GNBDD010	13.0	14.0	100.00	0.00	0.00	22.34	1.87	1.70	0.02
GNBDD010	14.0	15.0	100.00	0.00	0.00	22.79	0.85	0.97	0.07
GNBDD010	15.0	16.0	100.00	0.00	0.00	30.85	0.77	0.62	0.15
GNBDD010	16.0	17.0	100.00	0.00	0.00	32.55	0.38	0.12	0.18



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE- MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K- FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD010	17.0	18.0	100.00	0.00	0.00	32.71	0.03	0.00	0.66
GNBDD010	18.0	19.0	100.00	0.00	0.00	39.39	0.00	0.00	0.91
GNBDD010	19.0	20.0	100.00	0.00	0.00	35.56	0.04	0.04	0.00
GNBDD010	20.0	21.0	100.00	0.00	0.00	42.62	0.00	0.00	0.15
GNBDD010	21.0	22.0	99.89	0.00	0.00	44.47	0.00	0.00	0.90
GNBDD010	22.0	23.0	100.00	0.00	0.00	41.90	0.26	0.13	0.03
GNBDD010	23.0	24.0	100.00	0.00	0.00	39.50	0.00	0.00	0.26
GNBDD010	24.0	25.0	99.88	0.12	0.00	37.01	0.00	0.00	0.00
GNBDD010	25.0	26.0	100.00	0.00	0.00	40.31	0.00	5.63	0.10
GNBDD010	26.0	27.0	100.00	0.00	0.00	43.33	0.05	4.91	0.13
GNBDD010	27.0	28.0	100.00	0.00	0.00	48.86	0.47	4.25	0.02
GNBDD010	28.0	29.0	100.00	0.00	0.00	49.24	0.76	14.47	0.00
GNBDD010	29.0	30.0	100.00	0.00	0.00	52.99	0.10	13.02	0.00
GNBDD010	30.0	31.0	100.00	0.00	0.00	46.80	0.08	12.50	0.00
GNBDD010	31.0	32.0	100.00	0.00	0.00	46.03	0.16	7.37	0.10
GNBDD010	32.0	33.0	100.00	0.00	0.00	54.05	0.00	6.71	0.00
GNBDD010	33.0	34.0	100.00	0.00	0.00	36.51	0.03	0.42	0.55
GNBDD010	34.0	35.0	99.88	0.00	0.00	35.09	0.00	0.39	0.62
GNBDD010	35.0	36.0	100.00	0.00	0.00	44.06	0.00	0.00	0.36
GNBDD010	36.0	37.0	100.00	0.00	0.00	37.63	0.00	0.25	0.70
GNBDD010	37.0	38.0	99.85	0.00	0.00	37.11	0.00	0.00	0.55
GNBDD010	38.0	39.0	100.00	0.00	0.00	39.74	0.00	0.00	1.37
GNBDD010	39.0	40.0	100.00	0.00	0.00	63.66	0.68	1.12	0.55
GNBDD010	40.0	41.0	100.00	0.00	0.00	86.31	1.80	3.69	0.00
GNBDD010	41.0	42.0	99.61	0.15	0.24	43.93	0.88	1.17	1.19
GNBDD010	42.0	43.0	100.00	0.00	0.00	32.19	0.08	0.06	1.22
GNBDD010	43.0	44.0	100.00	0.00	0.00	30.81	0.00	0.00	6.03
GNBDD010	44.0	45.0	99.89	0.11	0.00	35.10	0.06	0.06	6.22
GNBDD010	45.0	46.0	100.00	0.00	0.00	44.90	0.00	0.00	11.65
GNBDD010	46.0	47.0	100.00	0.00	0.00	43.66	0.00	0.00	12.88
GNBDD010	47.0	48.0	100.00	0.00	0.00	43.90	0.00	0.00	12.78
GNBDD010	48.0	49.0	99.85	0.00	0.00	47.06	0.00	0.00	13.36
GNBDD010	49.0	50.0	99.87	0.00	0.00	39.12	0.16	0.43	21.97
GNBDD010	50.0	51.0	100.00	0.00	0.00	52.66	0.00	1.59	13.75
GNBDD010	51.0	52.0	99.68	0.00	0.00	53.51	2.18	3.35	6.07
GNBDD010	52.0	53.0	100.00	0.00	0.00	64.12	0.00	17.15	0.00
GNBDD010	53.0	54.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GNBDD010	54.0	55.0	100.00	0.00	0.00	50.82	16.49	4.58	0.00
GNBDD010	55.0	56.0	99.12	0.00	0.00	29.26	29.47	0.32	0.66
GNBDD010	56.0	57.0	99.85	0.00	0.00	3.90	37.15	0.20	4.11
GNBDD010	57.0	58.0	99.82	0.00	0.00	37.95	23.68	6.77	0.06
GNBDD010	58.0	59.0	99.83	0.00	0.17	38.34	21.44	11.75	0.10
GNBDD010	59.0	60.0	100.00	0.00	0.00	31.16	24.45	10.15	0.07
GNBDD010	60.0	61.0	83.20	0.00	16.66	46.13	7.05	29.63	0.00
GNBDD010	61.0	62.0	37.95	0.40	59.09	60.85	3.26	33.44	0.00
GNBDD010	62.0	63.0	53.15	0.00	45.91	57.57	3.69	36.54	0.00
GNBDD010	63.0	64.0	43.77	0.00	46.34	62.21	2.77	33.78	0.00
GNBDD010	64.0	65.0	25.27	0.00	45.31	60.87	2.12	35.24	0.00
GNBDD010	65.0	66.0	67.65	0.00	20.58	60.63	1.10	37.84	0.00
GNBDD010	66.0	67.0	85.17	0.00	12.13	54.67	6.07	36.71	0.00
GNBDD010	67.0	68.0	86.42	0.00	13.58	60.45	6.94	30.53	0.00
GNBDD010	68.0	69.0	72.65	0.00	8.60	57.00	7.32	34.60	0.00
GNBDD010	69.0	70.0	22.73	0.00	5.53	55.37	6.79	37.60	0.00
GNBDD011	0.0	1.0	72.91	2.11	24.98	22.83	1.39	3.77	0.67
GNBDD011	1.0	2.0	100.00	0.00	0.00	52.78	0.39	0.15	3.39
GNBDD011	2.0	3.0	99.47	0.00	0.00	65.96	0.00	0.04	3.64
GNBDD011	3.0	4.0	100.00	0.00	0.00	68.17	0.00	0.00	3.18
GNBDD011	4.0	5.0	99.87	0.00	0.00	71.72	0.00	0.00	3.51
GNBDD011	5.0	6.0	100.00	0.00	0.00	71.35	0.00	0.00	4.28
GNBDD011	6.0	7.0	99.58	0.00	0.00	64.50	0.00	0.19	4.47
GNBDD011	7.0	8.0	99.85	0.00	0.00	65.97	0.06	0.00	4.90
GNBDD011	8.0	9.0	99.88	0.00	0.00	68.98	0.00	0.00	2.83
GNBDD011	9.0	10.0	99.89	0.00	0.00	64.98	0.00	0.00	3.96
GNBDD011	10.0	11.0	99.73	0.00	0.00	64.35	0.00	0.00	3.69



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE- MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K- FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD011	11.0	12.0	99.80	0.00	0.00	64.78	0.00	0.07	2.80
GNBDD011	12.0	13.0	99.85	0.00	0.00	62.92	0.00	0.00	2.41
GNBDD011	13.0	14.0	100.00	0.00	0.00	61.28	0.00	0.06	3.07
GNBDD011	14.0	15.0	99.87	0.00	0.00	62.23	0.00	0.00	2.43
GNBDD011	15.0	16.0	99.18	0.00	0.00	62.45	0.00	0.00	6.03
GNBDD011	16.0	17.0	99.83	0.00	0.00	60.82	0.08	0.10	4.20
GNBDD011	17.0	18.0	99.86	0.00	0.00	56.88	0.00	3.75	1.26
GNBDD011	18.0	19.0	100.00	0.00	0.00	59.74	0.00	2.33	0.31
GNBDD011	19.0	20.0	99.87	0.00	0.00	55.28	0.00	3.91	0.58
GNBDD011	20.0	21.0	100.00	0.00	0.00	42.59	0.00	9.02	0.13
GNBDD011	21.0	22.0	100.00	0.00	0.00	59.72	0.06	3.88	0.79
GNBDD011	22.0	23.0	100.00	0.00	0.00	56.74	0.19	1.90	2.05
GNBDD011	23.0	24.0	99.75	0.00	0.00	58.71	0.06	4.56	2.14
GNBDD011	24.0	25.0	99.18	0.00	0.00	49.71	0.00	1.37	1.87
GNBDD011	25.0	26.0	99.87	0.00	0.00	54.26	0.00	0.11	1.98
GNBDD011	26.0	27.0	99.31	0.00	0.00	57.79	0.17	1.75	2.38
GNBDD011	27.0	28.0	100.00	0.00	0.00	63.65	0.00	0.00	0.54
GNBDD011	28.0	29.0	100.00	0.00	0.00	59.46	0.34	0.33	0.44
GNBDD011	29.0	30.0	99.87	0.00	0.00	55.07	4.93	3.17	0.87
GNBDD011	30.0	31.0	99.78	0.00	0.00	61.98	6.46	0.52	13.73
GNBDD011	31.0	32.0	98.73	0.00	0.00	61.64	10.07	4.11	6.08
GNBDD011	32.0	33.0	100.00	0.00	0.00	54.59	17.23	4.56	0.53
GNBDD011	33.0	34.0	99.58	0.00	0.12	57.38	19.39	6.71	0.70
GNBDD011	34.0	35.0	99.39	0.00	0.00	64.51	13.86	17.25	1.63
GNBDD011	35.0	36.0	95.68	0.00	3.37	54.23	12.98	27.15	0.84
GNBDD011	36.0	37.0	97.62	0.00	1.87	51.51	13.54	17.71	0.20
GNBDD011	37.0	38.0	98.60	0.00	0.65	57.10	9.48	28.90	0.09
GNBDD011	38.0	39.0	88.60	0.00	11.08	49.72	11.29	32.01	0.05
GNBDD011	39.0	40.0	89.49	0.00	10.31	55.32	7.89	35.04	0.00
GNBDD011	40.0	41.0	86.91	0.00	13.09	53.47	9.00	35.80	0.00
GNBDD011	41.0	42.0	23.39	0.00	5.43	53.81	9.13	36.84	0.00
GNBDD011	42.0	43.0	60.32	0.00	39.68	53.50	10.70	33.17	0.00
GNBDD011	43.0	44.0	21.15	0.00	11.83	50.60	9.08	39.72	0.00
GNBDD011	44.0	45.0	7.58	0.00	2.59	48.75	12.68	38.30	0.00
GNBDD011	45.0	46.0	45.19	0.00	18.54	50.37	10.65	38.35	0.00
GNBDD011	46.0	47.0	83.13	0.00	14.41	50.10	14.80	33.40	0.00
GNBDD011	47.0	48.0	57.78	0.00	14.88	53.29	7.43	38.54	0.00
GNBDD011	48.0	49.0	82.42	0.00	16.75	53.61	10.45	34.18	0.00
GNBDD011	49.0	50.0	36.07	0.00	14.42	48.56	16.10	34.72	0.00
GNBDD011	50.0	51.0	37.67	0.00	32.24	45.89	20.86	32.51	0.00
GNBDD011	51.0	52.0	70.50	0.00	11.64	47.61	19.74	30.84	0.00
GNBDD011	52.0	53.0	40.27	0.00	21.27	50.83	15.14	32.90	0.00
GNBDD011	53.0	54.0	71.17	0.00	28.83	51.60	17.32	27.91	0.00
GNBDD012	0.0	1.0	55.74	16.40	27.86	37.78	2.73	14.04	0.00
GNBDD012	1.0	2.0	61.91	0.64	37.45	22.44	9.06	11.02	0.25
GNBDD012	2.0	3.0	87.04	0.00	12.96	27.19	8.44	2.16	0.56
GNBDD012	3.0	4.0	98.42	0.00	1.58	15.15	0.87	1.75	0.29
GNBDD012	4.0	5.0	96.40	0.00	3.37	14.50	0.53	1.24	2.31
GNBDD012	5.0	6.0	99.67	0.00	0.33	16.38	0.44	1.37	2.47
GNBDD012	6.0	7.0	100.00	0.00	0.00	25.01	0.00	0.27	6.42
GNBDD012	7.0	8.0	100.00	0.00	0.00	34.92	0.00	0.31	7.87
GNBDD012	8.0	9.0	100.00	0.00	0.00	24.06	0.00	0.80	7.88
GNBDD012	9.0	10.0	100.00	0.00	0.00	32.41	0.20	0.07	6.20
GNBDD012	10.0	11.0	100.00	0.00	0.00	35.07	0.37	0.39	9.28
GNBDD012	11.0	12.0	100.00	0.00	0.00	42.28	1.06	0.91	14.46
GNBDD012	12.0	13.0	99.89	0.11	0.00	50.10	13.17	2.41	2.61
GNBDD012	13.0	14.0	100.00	0.00	0.00	49.62	23.36	1.29	0.42
GNBDD012	14.0	15.0	100.00	0.00	0.00	50.45	23.99	0.54	1.23
GNBDD012	15.0	16.0	100.00	0.00	0.00	52.59	28.79	0.00	0.91
GNBDD012	16.0	17.0	100.00	0.00	0.00	53.50	27.72	0.30	1.13
GNBDD012	17.0	18.0	100.00	0.00	0.00	50.09	30.24	0.00	6.49
GNBDD012	18.0	19.0	100.00	0.00	0.00	54.40	29.88	0.00	1.92
GNBDD012	19.0	20.0	100.00	0.00	0.00	53.45	31.13	0.00	4.83
GNBDD012	20.0	21.0	99.89	0.00	0.00	56.42	29.85	0.29	5.89



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE- MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K- FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD012	21.0	22.0	100.00	0.00	0.00	58.33	29.58	0.00	1.74
GNBDD012	22.0	23.0	100.00	0.00	0.00	59.00	30.90	0.00	4.78
GNBDD012	23.0	24.0	100.00	0.00	0.00	49.03	31.73	0.46	9.98
GNBDD012	24.0	25.0	100.00	0.00	0.00	53.47	29.18	1.05	7.50
GNBDD012	25.0	26.0	100.00	0.00	0.00	58.28	30.87	0.22	1.01
GNBDD012	26.0	27.0	100.00	0.00	0.00	62.01	28.37	0.17	2.47
GNBDD012	27.0	28.0	100.00	0.00	0.00	59.30	31.21	0.84	2.31
GNBDD012	28.0	29.0	100.00	0.00	0.00	54.88	31.15	3.13	1.29
GNBDD012	29.0	30.0	86.17	0.00	0.00	49.29	16.27	33.71	0.00
GNBDD012	30.0	31.0	30.82	0.00	2.04	43.40	23.65	32.14	0.00
GNBDD012	31.0	32.0	28.15	0.00	0.00	49.38	10.75	38.92	0.00
GNBDD012	32.0	33.0	91.87	0.00	0.00	50.98	12.85	35.58	0.00
GNBDD012	33.0	34.0	22.97	0.00	0.00	49.36	11.79	37.39	0.00
GNBDD012	34.0	35.0	78.01	0.00	0.00	51.72	15.88	31.50	0.00
GNBDD012	35.0	36.0	98.60	0.00	0.00	51.38	9.71	38.20	0.00
GNBDD012	36.0	37.0	99.27	0.00	0.00	50.80	11.91	36.59	0.00
GNBDD012	37.0	38.0	97.04	0.00	0.00	50.19	10.47	38.91	0.00
GNBDD012	38.0	39.0	100.00	0.00	0.00	54.14	12.86	31.85	0.00
GNBDD012	39.0	40.0	100.00	0.00	0.00	60.10	15.40	18.85	0.00
GNBDD013	0.0	1.0	47.24	4.30	48.46	13.51	4.25	3.13	0.21
GNBDD013	1.0	2.0	43.21	0.00	56.79	2.96	0.77	0.58	0.04
GNBDD013	2.0	3.0	43.86	0.00	56.14	3.81	0.82	3.92	0.00
GNBDD013	3.0	4.0	76.90	3.53	19.35	50.53	5.07	2.06	0.00
GNBDD013	4.0	5.0	70.40	0.75	28.85	15.12	2.98	0.74	0.00
GNBDD013	5.0	6.0	79.70	0.00	20.30	14.96	1.40	0.90	0.00
GNBDD013	6.0	7.0	89.77	0.00	10.23	20.40	2.15	0.73	0.11
GNBDD013	7.0	8.0	93.85	0.00	6.15	29.59	1.17	1.36	0.64
GNBDD013	8.0	9.0	100.00	0.00	0.00	45.98	0.43	3.92	0.50
GNBDD013	9.0	10.0	100.00	0.00	0.00	39.58	0.21	5.05	0.60
GNBDD013	10.0	11.0	100.00	0.00	0.00	40.20	0.00	1.70	1.40
GNBDD013	11.0	12.0	100.00	0.00	0.00	36.10	0.00	1.97	1.30
GNBDD013	12.0	13.0	100.00	0.00	0.00	30.35	0.07	1.27	0.37
GNBDD013	13.0	14.0	100.00	0.00	0.00	20.29	0.00	0.67	1.14
GNBDD013	14.0	15.0	99.61	0.00	0.00	21.64	0.00	0.11	2.02
GNBDD013	15.0	16.0	100.00	0.00	0.00	19.52	0.00	1.11	0.75
GNBDD013	16.0	17.0	100.00	0.00	0.00	24.60	0.06	0.73	0.71
GNBDD013	17.0	18.0	99.88	0.00	0.00	58.96	0.08	0.00	4.33
GNBDD013	18.0	19.0	100.00	0.00	0.00	47.18	0.00	0.12	4.99
GNBDD013	19.0	20.0	99.84	0.00	0.00	54.59	0.00	0.00	4.28
GNBDD013	20.0	21.0	100.00	0.00	0.00	34.99	0.00	0.00	0.81
GNBDD013	21.0	22.0	99.32	0.00	0.00	45.23	0.00	0.00	7.16
GNBDD013	22.0	23.0	100.00	0.00	0.00	45.14	0.00	0.00	10.26
GNBDD013	23.0	24.0	99.72	0.00	0.00	36.17	0.00	0.00	8.07
GNBDD013	24.0	25.0	100.00	0.00	0.00	38.81	0.00	0.05	8.67
GNBDD013	25.0	26.0	99.87	0.00	0.00	42.72	0.00	0.00	7.88
GNBDD013	26.0	27.0	99.87	0.00	0.00	44.20	0.00	0.00	9.56
GNBDD013	27.0	28.0	99.88	0.00	0.00	36.36	0.00	0.00	12.59
GNBDD013	28.0	29.0	99.85	0.00	0.00	48.69	0.00	0.00	14.94
GNBDD013	29.0	30.0	99.88	0.00	0.00	52.40	0.00	0.00	16.67
GNBDD013	30.0	31.0	99.76	0.00	0.00	40.44	0.00	0.00	16.20
GNBDD013	31.0	32.0	99.75	0.00	0.00	46.51	0.00	0.21	21.11
GNBDD013	32.0	33.0	100.00	0.00	0.00	53.00	0.00	0.12	15.14
GNBDD013	33.0	34.0	100.00	0.00	0.00	50.10	0.00	0.00	10.58
GNBDD013	34.0	35.0	100.00	0.00	0.00	43.99	0.00	0.00	8.18
GNBDD013	35.0	36.0	100.00	0.00	0.00	55.74	2.25	3.47	3.33
GNBDD013	36.0	37.0	100.00	0.00	0.00	52.46	4.89	5.04	3.27
GNBDD013	37.0	38.0	100.00	0.00	0.00	60.36	18.69	3.33	0.00
GNBDD013	38.0	39.0	100.00	0.00	0.00	59.05	22.45	3.10	1.43
GNBDD013	39.0	40.0	100.00	0.00	0.00	57.32	8.34	33.14	0.00
GNBDD013	40.0	41.0	86.39	0.00	13.61	54.25	10.02	32.99	0.00
GNBDD013	41.0	42.0	91.16	0.00	8.56	52.79	12.19	27.37	0.00
GNBDD013	42.0	43.0	98.34	0.00	1.66	52.11	14.07	32.54	0.00
GNBDD013	43.0	44.0	99.07	0.00	0.93	55.08	8.13	35.04	0.00
GNBDD013	44.0	45.0	50.41	0.00	32.63	53.10	9.25	35.15	0.06



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE- MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K- FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD013	45.0	46.0	84.50	0.00	3.35	54.74	14.17	30.15	0.00
GNBDD013	46.0	47.0	95.25	0.00	3.02	54.92	12.28	30.21	0.00
GNBDD013	47.0	48.0	49.18	0.00	0.00	48.56	15.61	35.15	0.00
GNBDD013	48.0	49.0	0.00	0.00	0.00	45.73	20.74	33.54	0.00
GNBDD014	0.0	1.0	51.06	0.00	44.74	51.28	3.72	26.96	0.00
GNBDD014	1.0	2.0	37.39	0.00	61.04	56.16	4.27	33.76	0.00
GNBDD014	2.0	3.0	99.64	0.00	0.15	50.80	9.12	35.39	0.00
GNBDD014	3.0	4.0	99.00	0.00	0.33	52.98	8.04	35.47	0.00
GNBDD014	4.0	5.0	84.23	0.00	0.00	51.29	11.59	35.74	0.00
GNBDD014	5.0	6.0	41.60	0.00	56.64	54.49	8.36	33.25	0.01
GNBDD014	6.0	7.0	56.44	0.00	22.94	50.55	12.31	33.55	0.00
GNBDD014	7.0	8.0	34.89	0.00	9.47	49.72	9.32	38.87	0.00
GNBDD014	8.0	9.0	4.30	0.00	12.61	45.98	14.08	38.57	0.00
GNBDD014	9.0	10.0	56.77	0.00	38.88	43.75	8.35	39.16	0.00
GNBDD015	0.0	1.0	51.06	0.00	44.74	51.28	3.72	26.96	0.00
GNBDD015	1.0	2.0	37.39	0.00	61.04	56.16	4.27	33.76	0.00
GNBDD015	2.0	3.0	99.64	0.00	0.15	50.80	9.12	35.39	0.00
GNBDD015	3.0	4.0	99.00	0.00	0.33	52.98	8.04	35.47	0.00
GNBDD015	4.0	5.0	84.23	0.00	0.00	51.29	11.59	35.74	0.00
GNBDD015	5.0	6.0	41.60	0.00	56.64	54.49	8.36	33.25	0.01
GNBDD015	6.0	7.0	56.44	0.00	22.94	50.55	12.31	33.55	0.00
GNBDD015	7.0	8.0	34.89	0.00	9.47	49.72	9.32	38.87	0.00
GNBDD015	8.0	9.0	4.30	0.00	12.61	45.98	14.08	38.57	0.00
GNBDD015	9.0	10.0	56.77	0.00	38.88	43.75	8.35	39.16	0.00
GNBDD016	0.0	1.0	60.12	39.88	0.00	61.77	2.04	10.43	0.00
GNBDD016	1.0	2.0	50.63	19.46	29.92	45.92	1.95	10.28	0.00
GNBDD016	2.0	3.0	55.55	12.23	32.21	36.46	7.75	5.02	0.03
GNBDD016	3.0	4.0	74.42	16.50	9.08	62.48	16.77	2.91	0.10
GNBDD016	4.0	5.0	65.85	8.33	25.82	53.36	18.37	2.74	0.00
GNBDD016	5.0	6.0	74.48	5.91	19.61	60.17	7.85	9.35	0.00
GNBDD016	6.0	7.0	66.27	0.92	32.81	61.14	10.64	1.67	0.00
GNBDD016	7.0	8.0	76.26	1.36	22.37	53.96	17.83	5.70	0.00
GNBDD016	8.0	9.0	97.72	1.39	0.90	58.11	0.00	22.83	0.06
GNBDD016	9.0	10.0	82.13	6.80	11.07	66.83	1.14	12.48	0.00
GNBDD016	10.0	11.0	93.38	3.61	3.00	52.01	1.48	10.04	0.05
GNBDD016	11.0	12.0	96.09	0.93	2.98	44.42	1.31	5.92	0.00
GNBDD016	12.0	13.0	100.00	0.00	0.00	22.62	0.07	1.56	0.64
GNBDD016	13.0	14.0	100.00	0.00	0.00	25.70	0.00	0.96	1.03
GNBDD016	14.0	15.0	100.00	0.00	0.00	40.55	0.00	1.41	2.16
GNBDD016	15.0	16.0	100.00	0.00	0.00	49.35	0.09	0.46	4.38
GNBDD016	16.0	17.0	100.00	0.00	0.00	49.76	0.00	3.67	2.32
GNBDD016	17.0	18.0	100.00	0.00	0.00	55.29	0.00	0.99	3.60
GNBDD016	18.0	19.0	100.00	0.00	0.00	44.95	0.00	0.00	3.35
GNBDD016	19.0	20.0	100.00	0.00	0.00	63.64	0.00	4.99	6.88
GNBDD016	20.0	21.0	100.00	0.00	0.00	57.81	0.00	2.41	5.85
GNBDD016	21.0	22.0	100.00	0.00	0.00	58.76	0.15	3.16	7.17
GNBDD016	22.0	23.0	100.00	0.00	0.00	54.53	3.52	1.47	7.44
GNBDD016	23.0	24.0	100.00	0.00	0.00	42.08	1.83	0.08	12.42
GNBDD016	24.0	25.0	100.00	0.00	0.00	45.02	4.52	0.52	7.40
GNBDD016	25.0	26.0	100.00	0.00	0.00	49.00	2.47	2.60	9.25
GNBDD016	26.0	27.0	100.00	0.00	0.00	36.80	7.06	2.46	3.72
GNBDD016	27.0	28.0	100.00	0.00	0.00	37.16	7.89	8.48	2.31
GNBDD016	28.0	29.0	100.00	0.00	0.00	36.29	15.93	7.03	0.05
GNBDD016	29.0	30.0	100.00	0.00	0.00	27.92	22.18	3.35	1.57
GNBDD016	30.0	31.0	100.00	0.00	0.00	29.64	23.26	0.40	0.34
GNBDD016	31.0	32.0	100.00	0.00	0.00	35.34	24.92	3.94	0.06
GNBDD016	32.0	33.0	100.00	0.00	0.00	38.42	20.14	14.00	0.08
GNBDD016	33.0	34.0	100.00	0.00	0.00	41.99	12.39	22.18	0.00
GNBDD016	34.0	35.0	98.26	0.00	1.74	51.24	5.39	30.73	0.12
GNBDD016	35.0	36.0	99.55	0.00	0.45	56.68	5.07	33.32	0.10
GNBDD016	36.0	37.0	95.22	0.00	4.78	33.87	7.24	30.25	0.19
GNBDD016	37.0	38.0	92.28	0.00	7.72	51.99	6.23	32.86	0.03
GNBDD016	38.0	39.0	84.25	0.00	15.75	43.71	8.52	29.90	0.00
GNBDD016	39.0	40.0	78.92	0.00	21.08	36.55	8.26	29.92	0.00



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE-MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K-FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD016	40.0	41.0	93.83	0.00	6.17	26.67	10.21	16.10	0.40
GNBDD016	41.0	42.0	47.38	0.90	18.99	41.96	11.87	31.13	0.05
GNBDD016	42.0	43.0	0.00	0.00	0.86	45.96	18.24	35.81	0.00
GNBDD016	43.0	44.0	1.69	0.00	0.00	48.14	16.40	35.42	0.00
GNBDD016	44.0	45.0	0.00	0.00	0.00	50.45	6.55	43.00	0.00
GNBDD016	45.0	46.0	28.94	0.00	1.61	50.55	11.12	37.96	0.00
GNBDD017	0.0	1.0	98.49	1.25	0.00	65.82	7.27	5.98	0.05
GNBDD017	1.0	2.0	88.80	3.00	8.20	21.53	6.56	5.54	0.00
GNBDD017	2.0	3.0	90.91	0.00	8.85	34.12	8.39	0.98	0.85
GNBDD017	3.0	4.0	99.79	0.00	0.21	41.65	5.66	1.05	1.76
GNBDD017	4.0	5.0	100.00	0.00	0.00	25.49	1.79	0.42	0.04
GNBDD017	5.0	6.0	100.00	0.00	0.00	25.58	0.43	1.38	0.41
GNBDD017	6.0	7.0	100.00	0.00	0.00	19.90	0.00	12.49	0.01
GNBDD017	7.0	8.0	100.00	0.00	0.00	13.72	0.71	5.77	0.00
GNBDD017	8.0	9.0	100.00	0.00	0.00	11.70	0.00	3.03	0.00
GNBDD017	9.0	10.0	100.00	0.00	0.00	23.90	0.12	2.09	0.12
GNBDD017	10.0	11.0	100.00	0.00	0.00	17.00	0.00	3.77	0.00
GNBDD017	11.0	12.0	100.00	0.00	0.00	10.14	0.00	7.81	0.00
GNBDD017	12.0	13.0	99.88	0.00	0.00	20.87	0.00	2.34	0.72
GNBDD017	13.0	14.0	100.00	0.00	0.00	32.13	0.00	1.69	0.54
GNBDD017	14.0	15.0	99.88	0.00	0.00	33.94	0.00	0.73	4.31
GNBDD017	15.0	16.0	99.77	0.00	0.00	35.33	0.00	1.31	7.41
GNBDD017	16.0	17.0	100.00	0.00	0.00	41.31	0.00	2.35	2.64
GNBDD017	17.0	18.0	99.87	0.00	0.00	37.82	0.00	0.49	11.36
GNBDD017	18.0	19.0	99.75	0.00	0.00	29.67	0.04	1.54	3.83
GNBDD017	19.0	20.0	99.72	0.00	0.00	35.22	0.00	0.88	8.18
GNBDD017	20.0	21.0	99.27	0.00	0.00	30.72	7.93	3.44	2.74
GNBDD017	21.0	22.0	99.88	0.00	0.00	42.24	23.81	1.44	0.35
GNBDD017	22.0	23.0	99.85	0.00	0.00	49.91	34.31	0.12	0.98
GNBDD017	23.0	24.0	99.69	0.00	0.00	48.45	29.91	1.68	0.85
GNBDD017	24.0	25.0	99.89	0.00	0.00	39.96	23.68	0.23	1.04
GNBDD017	25.0	26.0	100.00	0.00	0.00	34.19	22.08	0.82	0.38
GNBDD017	26.0	27.0	100.00	0.00	0.00	31.43	20.04	7.79	0.22
GNBDD017	27.0	28.0	99.49	0.00	0.39	31.08	23.91	4.83	0.30
GNBDD017	28.0	29.0	100.00	0.00	0.00	35.66	24.74	4.55	0.05
GNBDD017	29.0	30.0	99.41	0.00	0.59	31.81	26.25	1.63	0.09
GNBDD017	30.0	31.0	99.86	0.00	0.14	34.15	20.44	16.45	0.04
GNBDD017	31.0	32.0	98.75	0.00	1.25	35.57	12.21	21.99	0.26
GNBDD017	32.0	33.0	81.96	0.00	18.04	30.53	10.37	23.85	0.17
GNBDD017	33.0	34.0	69.22	0.00	30.18	26.04	19.14	15.08	0.02
GNBDD017	34.0	35.0	54.06	0.00	45.94	42.05	11.57	23.13	0.00
GNBDD017	35.0	36.0	76.88	0.00	21.28	43.65	8.75	20.34	0.34
GNBDD017	36.0	37.0	93.01	0.00	5.99	49.41	8.18	27.72	0.00
GNBDD017	37.0	38.0	87.02	0.00	11.80	56.59	7.58	30.30	0.17
GNBDD017	38.0	39.0	25.19	0.00	74.68	55.23	5.50	31.54	0.00
GNBDD017	39.0	40.0	32.38	0.00	66.85	53.82	7.02	32.32	0.00
GNBDD017	40.0	41.0	57.72	0.60	40.89	54.89	8.74	32.07	0.00
GNBDD017	41.0	42.0	14.21	0.55	82.82	58.74	7.75	27.64	0.00
GNBDD017	42.0	43.0	0.00	1.70	84.89	53.18	13.61	32.15	0.00
GNBDD017	43.0	44.0	2.92	0.00	81.57	50.99	12.09	34.85	0.00
GNBDD017	44.0	45.0	0.98	0.58	80.72	46.21	10.83	41.87	0.00
GNBDD018	0.0	1.0	60.21	39.79	0.00	66.36	4.49	4.71	0.23
GNBDD018	1.0	2.0	47.67	17.55	34.35	49.61	7.37	12.81	0.00
GNBDD018	2.0	3.0	44.03	0.00	55.70	61.47	14.06	9.79	0.00
GNBDD018	3.0	4.0	89.85	1.09	9.06	46.04	29.86	6.82	0.00
GNBDD018	4.0	5.0	99.51	0.00	0.35	54.06	34.83	5.46	0.00
GNBDD018	5.0	6.0	100.00	0.00	0.00	58.81	21.35	17.89	0.03
GNBDD018	6.0	7.0	100.00	0.00	0.00	49.13	32.11	12.43	0.00
GNBDD018	7.0	8.0	99.65	0.00	0.00	60.11	25.20	12.64	0.00
GNBDD018	8.0	9.0	99.19	0.00	0.00	55.92	23.71	18.86	0.06
GNBDD018	9.0	10.0	99.71	0.00	0.00	54.12	19.55	24.71	0.00
GNBDD018	10.0	11.0	99.71	0.00	0.00	51.24	18.46	28.36	0.00
GNBDD018	11.0	12.0	99.82	0.00	0.00	57.81	16.52	23.59	0.00
GNBDD018	12.0	13.0	97.97	0.00	0.00	54.11	14.04	30.14	0.00



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE-MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K-FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD018	13.0	14.0	98.01	0.00	0.00	53.33	14.31	29.19	0.00
GNBDD018	14.0	15.0	99.29	0.00	0.00	58.66	17.84	21.44	0.00
GNBDD018	15.0	16.0	95.86	0.00	0.00	50.20	20.66	28.36	0.00
GNBDD018	16.0	17.0	73.41	0.33	0.00	46.87	19.62	31.85	0.00
GNBDD019	0.0	1.0	100.00	0.00	0.00	63.72	0.09	0.29	2.58
GNBDD019	1.0	2.0	85.69	0.00	13.74	67.29	4.95	4.47	0.20
GNBDD019	2.0	3.0	96.26	0.00	3.43	56.55	6.75	4.14	0.00
GNBDD019	3.0	4.0	100.00	0.00	0.00	57.88	5.07	2.34	0.00
GNBDD019	4.0	5.0	100.00	0.00	0.00	57.59	15.90	1.56	0.46
GNBDD019	5.0	6.0	100.00	0.00	0.00	60.67	26.46	0.16	0.00
GNBDD019	6.0	7.0	100.00	0.00	0.00	51.36	25.90	1.23	0.02
GNBDD019	7.0	8.0	99.75	0.00	0.00	53.91	28.57	1.45	0.05
GNBDD019	8.0	9.0	99.88	0.00	0.00	55.10	32.10	0.58	0.06
GNBDD019	9.0	10.0	99.87	0.00	0.00	52.84	33.99	0.77	0.13
GNBDD019	10.0	11.0	100.00	0.00	0.00	59.84	27.43	2.02	0.00
GNBDD019	11.0	12.0	100.00	0.00	0.00	51.95	25.29	2.77	0.00
GNBDD019	12.0	13.0	100.00	0.00	0.00	56.51	34.89	0.31	0.11
GNBDD019	13.0	14.0	100.00	0.00	0.00	53.28	30.08	1.34	0.00
GNBDD019	14.0	15.0	100.00	0.00	0.00	46.94	33.98	2.08	0.00
GNBDD019	15.0	16.0	100.00	0.00	0.00	56.92	25.85	13.29	0.00
GNBDD019	16.0	17.0	100.00	0.00	0.00	56.00	38.29	2.56	0.82
GNBDD019	17.0	18.0	100.00	0.00	0.00	62.30	32.69	0.75	0.44
GNBDD019	18.0	19.0	100.00	0.00	0.00	60.03	29.79	7.37	0.00
GNBDD019	19.0	20.0	100.00	0.00	0.00	61.44	22.57	14.09	0.00
GNBDD019	20.0	21.0	100.00	0.00	0.00	54.15	24.98	15.76	0.00
GNBDD019	21.0	22.0	99.80	0.00	0.20	44.18	18.79	14.87	0.68
GNBDD019	22.0	23.0	95.57	0.00	4.43	47.59	16.60	19.79	0.00
GNBDD019	23.0	24.0	100.00	0.00	0.00	58.10	21.69	15.78	0.00
GNBDD019	24.0	25.0	100.00	0.00	0.00	52.85	25.07	17.76	0.11
GNBDD019	25.0	26.0	100.00	0.00	0.00	55.70	13.93	29.29	0.00
GNBDD019	26.0	27.0	100.00	0.00	0.00	57.59	14.66	26.10	0.00
GNBDD019	27.0	28.0	100.00	0.00	0.00	52.55	18.48	18.90	0.30
GNBDD019	28.0	29.0	100.00	0.00	0.00	58.39	23.07	16.22	0.00
GNBDD019	29.0	30.0	100.00	0.00	0.00	56.85	29.09	8.66	0.08
GNBDD019	30.0	31.0	100.00	0.00	0.00	59.04	23.62	14.09	0.03
GNBDD019	31.0	32.0	99.90	0.00	0.00	49.62	26.08	8.45	0.76
GNBDD019	32.0	33.0	100.00	0.00	0.00	55.16	18.65	21.03	0.15
GNBDD019	33.0	34.0	100.00	0.00	0.00	61.09	10.93	23.14	0.10
GNBDD019	34.0	35.0	100.00	0.00	0.00	55.82	10.65	28.28	0.12
GNBDD019	35.0	36.0	94.23	0.00	5.65	46.78	28.35	4.08	0.00
GNBDD019	36.0	37.0	100.00	0.00	0.00	56.97	17.15	21.94	0.00
GNBDD019	37.0	38.0	98.47	0.00	1.53	55.53	32.05	1.80	0.02
GNBDD019	38.0	39.0	99.88	0.00	0.00	57.16	31.55	4.92	0.24
GNBDD019	39.0	40.0	99.78	0.00	0.22	58.97	25.79	9.67	0.00
GNBDD019	40.0	41.0	100.00	0.00	0.00	59.61	30.76	0.80	0.00
GNBDD019	41.0	42.0	100.00	0.00	0.00	60.47	29.94	3.42	0.00
GNBDD019	42.0	43.0	100.00	0.00	0.00	46.49	26.44	6.49	0.00
GNBDD020	0.0	1.0	71.73	28.27	0.00	58.45	0.00	2.91	1.39
GNBDD020	1.0	2.0	72.56	24.77	2.67	54.44	7.19	5.45	0.08
GNBDD020	2.0	3.0	83.84	8.76	6.86	47.51	7.28	6.16	0.00
GNBDD020	3.0	4.0	98.98	0.41	0.49	48.96	17.89	2.62	0.09
GNBDD020	4.0	5.0	97.96	0.00	1.80	34.89	26.61	0.47	0.06
GNBDD020	5.0	6.0	98.03	0.00	1.97	36.28	24.33	1.41	0.42
GNBDD020	6.0	7.0	99.80	0.00	0.20	54.62	28.89	0.00	0.39
GNBDD020	7.0	8.0	99.75	0.00	0.00	50.10	25.42	1.44	0.26
GNBDD020	8.0	9.0	99.84	0.00	0.00	43.26	28.39	0.92	0.68
GNBDD020	9.0	10.0	99.88	0.00	0.00	50.92	31.71	0.18	0.00
GNBDD020	10.0	11.0	100.00	0.00	0.00	46.55	27.97	1.36	0.07
GNBDD020	11.0	12.0	100.00	0.00	0.00	54.38	23.74	2.48	2.36
GNBDD020	12.0	13.0	99.86	0.00	0.00	52.59	22.57	2.48	9.88
GNBDD020	13.0	14.0	100.00	0.00	0.00	49.56	24.88	1.74	11.43
GNBDD020	14.0	15.0	99.87	0.00	0.00	56.37	23.15	2.27	6.13
GNBDD020	15.0	16.0	99.75	0.00	0.00	49.74	24.50	4.29	1.46
GNBDD020	16.0	17.0	99.17	0.00	0.00	42.34	33.50	2.58	0.78



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GNBDD020	17.0	18.0	82.83	0.00	17.05	25.64	26.55	0.11	0.22
GNBDD020	18.0	19.0	99.02	0.00	0.44	43.00	29.72	3.18	0.33
GNBDD020	19.0	20.0	99.30	0.00	0.22	59.13	28.68	2.89	0.13
GNBDD020	20.0	21.0	98.65	0.00	1.06	47.11	28.49	3.77	0.46
GNBDD020	21.0	22.0	99.58	0.00	0.18	51.61	24.77	2.86	0.00
GNBDD020	22.0	23.0	78.41	0.00	20.94	37.07	22.26	8.45	0.06
GNBDD020	23.0	24.0	85.07	0.00	14.60	48.93	15.91	20.79	0.04
GNBDD020	24.0	25.0	49.36	0.00	43.07	53.66	6.40	39.73	0.00
GNBDD020	25.0	26.0	60.89	0.00	37.90	54.23	16.63	27.71	0.00
GNBDD020	26.0	27.0	76.35	0.00	20.78	52.78	11.79	33.76	0.00
GNBDD020	27.0	28.0	98.39	0.00	0.36	55.23	5.72	35.96	0.00
GNBDD020	28.0	29.0	100.00	0.00	0.00	54.14	4.66	39.04	0.00
GNBDD020	29.0	30.0	99.01	0.00	0.00	52.72	11.47	32.62	0.00
GNBDD020	30.0	31.0	96.33	0.00	0.00	53.41	13.85	31.85	0.00
GNBDD020	31.0	32.0	90.06	0.00	7.65	53.34	13.68	31.98	0.00
GNBDD020	32.0	33.0	62.51	0.00	22.91	51.25	13.62	32.99	0.00
GNBDD021	0.0	1.0	97.97	0.00	1.03	71.46	4.16	0.53	0.31
GNBDD021	1.0	2.0	100.00	0.00	0.00	71.08	3.33	0.00	1.02
GNBDD021	2.0	3.0	100.00	0.00	0.00	52.98	23.44	5.82	0.27
GNBDD021	3.0	4.0	96.23	0.00	3.77	58.07	26.03	6.51	0.25
GNBDD021	4.0	5.0	77.16	0.00	22.84	54.28	6.50	32.66	0.68
GNBDD021	5.0	6.0	100.00	0.00	0.00	57.22	3.72	31.35	0.00
GNBDD021	6.0	7.0	99.85	0.00	0.00	61.35	12.99	20.53	0.16
GNBDD021	7.0	8.0	88.57	0.00	11.26	49.87	10.04	29.29	0.02
GNBDD021	8.0	9.0	97.55	0.00	1.30	48.63	15.03	27.20	0.00
GNBDD021	9.0	10.0	95.29	0.00	4.71	44.52	9.04	36.25	0.00
GNBDD021	10.0	11.0	78.05	0.00	12.24	45.69	7.07	46.49	0.00
GNBDD022	0.0	1.0	52.24	0.23	45.82	63.36	4.74	4.59	0.33
GNBDD022	1.0	2.0	68.47	0.85	30.22	72.54	9.50	1.05	0.04
GNBDD022	2.0	3.0	79.31	0.21	20.48	62.36	1.91	0.13	0.14
GNBDD022	3.0	4.0	72.05	0.25	27.70	28.02	2.75	0.47	0.34
GNBDD022	4.0	5.0	96.65	0.00	3.35	40.48	2.24	2.97	0.62
GNBDD022	5.0	6.0	100.00	0.00	0.00	58.84	3.13	3.40	0.32
GNBDD022	6.0	7.0	100.00	0.00	0.00	82.37	0.23	0.17	0.00
GNBDD022	7.0	8.0	100.00	0.00	0.00	75.79	0.55	0.80	0.00
GNBDD022	8.0	9.0	98.53	0.00	1.47	67.50	0.00	1.52	0.00
GNBDD022	9.0	10.0	100.00	0.00	0.00	40.76	1.62	0.13	0.00
GNBDD022	10.0	11.0	100.00	0.00	0.00	42.76	0.93	5.03	0.01
GNBDD022	11.0	12.0	100.00	0.00	0.00	54.03	0.53	6.95	0.02
GNBDD022	12.0	13.0	100.00	0.00	0.00	59.63	1.40	6.32	0.00
GNBDD022	13.0	14.0	100.00	0.00	0.00	53.68	3.47	4.69	0.00
GNBDD022	14.0	15.0	100.00	0.00	0.00	61.03	3.12	2.63	0.12
GNBDD022	15.0	16.0	100.00	0.00	0.00	52.51	1.65	4.45	0.08
GNBDD022	16.0	17.0	100.00	0.00	0.00	43.59	0.00	10.60	0.00
GNBDD022	17.0	18.0	99.24	0.00	0.00	46.87	0.26	9.34	0.00
GNBDD022	18.0	19.0	100.00	0.00	0.00	48.73	0.09	9.11	0.05
GNBDD022	19.0	20.0	100.00	0.00	0.00	46.81	0.15	6.16	0.00
GNBDD022	20.0	21.0	100.00	0.00	0.00	45.61	0.13	6.69	0.00
GNBDD022	21.0	22.0	100.00	0.00	0.00	42.13	0.00	9.57	0.03
GNBDD022	22.0	23.0	100.00	0.00	0.00	36.49	0.00	17.00	0.00
GNBDD022	23.0	24.0	100.00	0.00	0.00	34.13	0.00	17.57	0.00
GNBDD022	24.0	25.0	100.00	0.00	0.00	30.07	0.25	8.05	0.26
GNBDD022	25.0	26.0	100.00	0.00	0.00	36.55	0.07	0.96	0.74
GNBDD022	26.0	27.0	100.00	0.00	0.00	43.51	0.05	10.27	0.39
GNBDD022	27.0	28.0	100.00	0.00	0.00	45.99	0.13	12.78	0.07
GNBDD022	28.0	29.0	100.00	0.00	0.00	37.96	0.00	0.25	0.04
GNBDD022	29.0	30.0	100.00	0.00	0.00	36.63	0.17	0.57	0.17
GNBDD022	30.0	31.0	100.00	0.00	0.00	35.62	0.00	0.00	0.20
GNBDD022	31.0	32.0	100.00	0.00	0.00	26.85	0.00	10.52	0.00
GNBDD022	32.0	33.0	100.00	0.00	0.00	26.39	0.00	1.45	0.02
GNBDD022	33.0	34.0	100.00	0.00	0.00	31.48	0.00	4.71	0.06
GNBDD022	34.0	35.0	100.00	0.00	0.00	17.77	0.00	0.10	0.09
GNBDD022	35.0	36.0	100.00	0.00	0.00	17.09	0.00	2.79	0.89
GNBDD022	36.0	37.0	100.00	0.00	0.00	18.77	0.00	18.09	0.10



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE- MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K- FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD022	37.0	38.0	99.73	0.00	0.00	9.40	0.00	2.56	0.91
GNBDD022	38.0	39.0	100.00	0.00	0.00	5.33	0.00	20.60	0.00
GNBDD022	39.0	40.0	100.00	0.00	0.00	2.71	0.00	15.06	0.72
GNBDD022	40.0	41.0	99.54	0.00	0.00	4.84	0.00	18.48	3.91
GNBDD022	41.0	42.0	100.00	0.00	0.00	6.66	0.00	0.00	15.24
GNBDD022	42.0	43.0	100.00	0.00	0.00	7.81	0.00	0.00	25.18
GNBDD022	43.0	44.0	100.00	0.00	0.00	3.79	0.00	0.00	8.60
GNBDD022	44.0	45.0	99.88	0.00	0.00	4.16	0.00	0.24	9.57
GNBDD022	45.0	46.0	100.00	0.00	0.00	0.03	0.00	0.09	31.49
GNBDD022	46.0	47.0	100.00	0.00	0.00	3.36	0.00	0.03	18.99
GNBDD022	47.0	48.0	99.33	0.00	0.00	16.88	0.00	0.12	5.01
GNBDD022	48.0	49.0	100.00	0.00	0.00	4.17	0.00	0.05	16.88
GNBDD022	49.0	50.0	100.00	0.00	0.00	0.00	0.00	0.00	14.77
GNBDD022	50.0	51.0	100.00	0.00	0.00	1.97	0.00	0.15	13.94
GNBDD022	51.0	52.0	99.76	0.00	0.00	12.20	0.00	1.93	6.01
GNBDD022	52.0	53.0	99.51	0.00	0.00	16.02	0.00	0.07	10.04
GNBDD022	53.0	54.0	99.89	0.00	0.00	4.06	0.00	0.00	15.25
GNBDD022	54.0	55.0	100.00	0.00	0.00	0.00	0.00	0.05	8.84
GNBDD022	55.0	56.0	99.88	0.00	0.00	2.53	0.00	0.14	8.77
GNBDD022	56.0	57.0	99.71	0.00	0.00	10.11	0.22	1.41	3.25
GNBDD022	57.0	58.0	99.77	0.00	0.00	10.02	0.87	6.12	5.84
GNBDD022	58.0	59.0	100.00	0.00	0.00	5.17	1.02	0.74	6.80
GNBDD022	59.0	60.0	100.00	0.00	0.00	1.36	1.77	0.00	11.68
GNBDD022	60.0	61.0	100.00	0.00	0.00	1.10	0.00	0.35	9.22
GNBDD022	61.0	62.0	100.00	0.00	0.00	17.93	0.65	5.18	1.33
GNBDD022	62.0	63.0	100.00	0.00	0.00	18.53	3.04	14.03	0.57
GNBDD022	63.0	64.0	99.51	0.00	0.49	15.99	0.13	11.10	4.57
GNBDD022	64.0	65.0	95.86	0.00	4.14	33.01	0.00	31.61	0.00
GNBDD022	65.0	66.0	50.32	0.00	49.27	42.26	2.31	38.88	0.00
GNBDD022	66.0	67.0	24.71	0.00	73.78	42.32	3.86	42.60	0.05
GNBDD022	67.0	68.0	39.25	0.00	48.00	40.84	6.39	35.86	0.12
GNBDD022	68.0	69.0	41.55	0.00	57.45	44.09	3.20	39.99	0.00
GNBDD022	69.0	70.0	45.92	3.90	50.03	38.12	3.20	42.00	0.00
GNBDD022	70.0	71.0	36.91	8.49	53.39	40.05	3.48	39.80	0.00
GNBDD022	71.0	72.0	52.55	0.00	47.15	29.27	0.44	44.17	0.23
GNBDD022	72.0	73.0	47.34	0.00	52.30	28.09	1.05	46.80	0.03
GNBDD022	73.0	74.0	45.30	0.00	54.58	35.69	2.64	41.63	0.00
GNBDD022	74.0	75.0	32.54	1.51	62.48	41.68	7.38	36.55	0.09
GNBDD022	75.0	76.0	6.54	11.68	34.45	48.60	8.29	40.11	0.13
GNBDD022	76.0	77.0	17.47	12.21	37.70	49.10	11.43	35.37	0.00
GNBDD022	77.0	78.0	31.84	3.27	64.29	36.71	8.95	32.02	0.11
GNBDD022	78.0	79.0	37.20	2.20	57.82	39.84	9.75	34.20	0.48
GNBDD022	79.0	80.0	26.25	7.64	44.80	40.84	9.10	35.67	0.13
GNBDD022	80.0	81.0	20.10	11.23	28.46	46.41	7.37	34.32	0.19
GNBDD022	81.0	82.0	12.78	18.30	14.28	46.60	10.62	35.65	0.00
GNBDD022	82.0	83.0	4.86	22.54	16.53	43.37	14.56	32.55	0.00
GNBDD022	83.0	84.0	0.95	27.08	0.69	44.31	17.19	32.80	0.00
GNBDD023	0.0	1.0	22.13	19.61	8.25	77.37	2.75	4.84	0.00
GNBDD023	1.0	2.0	47.93	21.94	30.13	54.19	0.46	12.11	0.00
GNBDD023	2.0	3.0	52.41	1.97	45.62	62.73	4.50	3.65	0.03
GNBDD023	3.0	4.0	60.25	4.42	35.22	57.14	11.77	5.84	0.00
GNBDD023	4.0	5.0	75.90	0.29	23.81	29.78	6.70	0.69	0.78
GNBDD023	5.0	6.0	96.27	0.00	1.72	27.96	0.06	0.79	4.70
GNBDD023	6.0	7.0	97.72	0.00	0.00	34.17	0.00	0.37	7.60
GNBDD023	7.0	8.0	99.25	0.00	0.00	29.32	0.00	1.18	5.21
GNBDD023	8.0	9.0	98.61	0.00	0.00	30.57	0.00	0.39	3.82
GNBDD023	9.0	10.0	95.84	0.00	0.00	32.82	0.04	0.49	6.05
GNBDD023	10.0	11.0	98.58	0.00	0.00	24.58	0.13	0.76	2.62
GNBDD023	11.0	12.0	96.84	0.00	0.00	18.52	0.00	0.28	3.37
GNBDD023	12.0	13.0	95.63	0.00	0.00	31.10	0.00	0.08	7.38
GNBDD023	13.0	14.0	96.93	0.00	0.00	35.07	0.00	0.00	7.18
GNBDD023	14.0	15.0	95.50	0.00	0.00	35.28	0.00	0.00	7.49
GNBDD023	15.0	16.0	94.62	0.00	0.00	34.53	0.00	0.06	5.26
GNBDD023	16.0	17.0	96.04	0.00	0.00	32.98	0.00	0.19	7.63



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE- MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K- FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD023	17.0	18.0	97.86	0.00	0.00	31.08	0.00	0.00	9.54
GNBDD023	18.0	19.0	98.50	0.00	0.00	28.88	0.00	0.25	9.32
GNBDD023	19.0	20.0	98.84	0.00	0.00	30.77	0.00	0.00	14.08
GNBDD023	20.0	21.0	96.65	0.00	0.00	32.99	0.00	0.00	9.41
GNBDD023	21.0	22.0	96.82	0.00	0.00	29.66	0.00	0.00	7.97
GNBDD023	22.0	23.0	95.84	0.00	0.00	32.66	0.00	0.00	9.07
GNBDD023	23.0	24.0	98.82	0.00	0.00	36.08	0.00	0.00	11.49
GNBDD023	24.0	25.0	99.58	0.00	0.00	37.72	0.00	0.00	10.15
GNBDD023	25.0	26.0	98.75	0.00	0.00	33.22	0.00	0.00	13.04
GNBDD023	26.0	27.0	98.88	0.00	0.00	30.25	0.00	0.00	9.07
GNBDD023	27.0	28.0	99.38	0.00	0.00	19.75	4.27	0.49	14.25
GNBDD023	28.0	29.0	98.17	0.00	0.00	28.34	5.02	0.86	15.17
GNBDD023	29.0	30.0	98.88	0.00	0.00	41.87	3.58	0.25	9.03
GNBDD023	30.0	31.0	99.31	0.00	0.00	43.52	5.64	1.16	9.60
GNBDD023	31.0	32.0	99.59	0.00	0.00	47.33	4.03	1.88	10.20
GNBDD023	32.0	33.0	99.14	0.00	0.00	44.60	9.10	2.57	4.43
GNBDD023	33.0	34.0	99.88	0.00	0.00	41.20	8.54	10.99	3.83
GNBDD023	34.0	35.0	100.00	0.00	0.00	44.29	4.19	19.67	0.56
GNBDD023	35.0	36.0	100.00	0.00	0.00	44.14	4.80	24.08	0.29
GNBDD023	36.0	37.0	99.52	0.00	0.48	50.88	4.47	29.19	0.10
GNBDD023	37.0	38.0	99.54	0.21	0.00	50.69	10.65	21.13	0.07
GNBDD023	38.0	39.0	100.00	0.00	0.00	49.16	2.19	33.31	0.12
GNBDD023	39.0	40.0	97.96	0.63	1.12	48.35	4.17	31.32	0.00
GNBDD023	40.0	41.0	97.13	2.87	0.00	47.67	7.66	31.79	0.00
GNBDD023	41.0	42.0	90.09	7.21	2.69	48.67	5.90	33.33	0.00
GNBDD023	42.0	43.0	89.80	8.79	1.41	49.20	6.59	32.73	0.00
GNBDD023	43.0	44.0	86.90	8.58	4.52	49.27	6.38	33.12	0.00
GNBDD023	44.0	45.0	96.40	1.49	2.00	46.43	4.70	33.28	0.03
GNBDD023	45.0	46.0	84.02	1.24	14.74	45.50	6.05	34.36	0.00
GNBDD023	46.0	47.0	77.08	3.95	18.98	50.87	5.33	30.33	0.00
GNBDD023	47.0	48.0	66.83	19.82	13.35	51.23	8.40	33.16	0.00
GNBDD023	48.0	49.0	47.69	33.35	18.96	46.44	15.95	32.16	0.00
GNBDD023	49.0	50.0	34.23	46.44	13.87	45.31	18.75	33.35	0.00
GNBDD023	50.0	51.0	73.88	19.06	7.06	51.83	10.89	32.52	0.00
GNBDD023	51.0	52.0	70.37	23.65	5.98	48.46	13.73	30.89	0.02
GNBDD024	0.0	1.0	98.12	0.82	1.06	26.88	1.27	0.52	0.84
GNBDD024	1.0	2.0	88.45	0.00	11.55	10.62	1.88	2.10	0.66
GNBDD024	2.0	3.0	82.87	0.00	17.13	8.94	0.70	0.00	0.43
GNBDD024	3.0	4.0	94.89	0.16	4.95	21.07	2.55	0.94	0.19
GNBDD024	4.0	5.0	100.00	0.00	0.00	31.65	2.51	5.76	0.43
GNBDD024	5.0	6.0	99.85	0.00	0.00	34.77	0.95	6.73	1.89
GNBDD024	6.0	7.0	99.76	0.00	0.00	35.84	0.19	6.26	3.61
GNBDD024	7.0	8.0	99.75	0.00	0.00	28.10	0.00	0.14	2.19
GNBDD024	8.0	9.0	99.88	0.00	0.00	34.89	0.00	0.31	4.17
GNBDD024	9.0	10.0	100.00	0.00	0.00	38.78	0.07	0.08	5.79
GNBDD024	10.0	11.0	100.00	0.00	0.00	43.28	0.00	0.45	6.36
GNBDD024	11.0	12.0	99.60	0.00	0.00	39.82	0.00	0.94	2.42
GNBDD024	12.0	13.0	99.16	0.00	0.00	51.32	0.00	0.00	5.96
GNBDD024	13.0	14.0	99.43	0.00	0.00	58.16	0.00	0.00	6.48
GNBDD024	14.0	15.0	100.00	0.00	0.00	65.81	0.00	0.00	6.20
GNBDD024	15.0	16.0	99.34	0.00	0.00	52.73	1.20	2.94	5.38
GNBDD024	16.0	17.0	98.69	0.00	0.00	40.57	0.00	0.07	5.92
GNBDD024	17.0	18.0	100.00	0.00	0.00	36.88	0.00	0.55	1.94
GNBDD024	18.0	19.0	99.88	0.00	0.00	28.83	0.00	0.03	3.24
GNBDD024	19.0	20.0	99.89	0.00	0.00	32.65	0.00	0.00	3.52
GNBDD024	20.0	21.0	99.64	0.00	0.00	18.99	0.00	0.32	3.30
GNBDD024	21.0	22.0	100.00	0.00	0.00	28.78	0.00	0.21	1.21
GNBDD024	22.0	23.0	99.87	0.00	0.00	34.41	0.00	0.46	0.83
GNBDD024	23.0	24.0	99.88	0.00	0.00	35.86	0.00	0.00	1.84
GNBDD024	24.0	25.0	100.00	0.00	0.00	35.08	0.00	0.00	0.15
GNBDD024	25.0	26.0	99.88	0.00	0.00	45.62	0.29	0.86	2.16
GNBDD024	26.0	27.0	99.70	0.00	0.00	47.46	4.15	0.31	4.29
GNBDD024	27.0	28.0	99.50	0.00	0.00	39.16	13.76	0.00	2.07
GNBDD024	28.0	29.0	99.83	0.00	0.00	44.54	19.94	0.29	0.05



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GNBDD024	29.0	30.0	99.85	0.00	0.00	45.17	12.90	0.32	1.31
GNBDD024	30.0	31.0	99.79	0.00	0.13	49.26	10.53	2.15	3.52
GNBDD024	31.0	32.0	100.00	0.00	0.00	46.86	15.94	2.02	4.02
GNBDD024	32.0	33.0	98.46	0.00	0.00	43.17	22.38	3.34	0.61
GNBDD024	33.0	34.0	98.61	0.00	0.72	41.00	19.12	16.48	1.50
GNBDD024	34.0	35.0	99.72	0.00	0.00	44.60	19.88	5.27	7.26
GNBDD024	35.0	36.0	99.39	0.00	0.38	50.10	17.35	8.19	1.39
GNBDD024	36.0	37.0	100.00	0.00	0.00	56.92	23.96	10.44	0.00
GNBDD024	37.0	38.0	100.00	0.00	0.00	50.30	12.86	19.96	0.27
GNBDD024	38.0	39.0	100.00	0.00	0.00	47.67	13.31	28.63	0.05
GNBDD024	39.0	40.0	100.00	0.00	0.00	49.67	15.38	20.95	0.78
GNBDD024	40.0	41.0	100.00	0.00	0.00	49.11	18.58	26.87	0.13
GNBDD024	41.0	42.0	100.00	0.00	0.00	56.85	29.30	9.85	0.00
GNBDD025	0.0	1.0	73.67	15.38	10.43	61.10	0.33	0.98	0.50
GNBDD025	1.0	2.0	65.98	2.79	28.17	66.21	7.45	4.49	0.23
GNBDD025	2.0	3.0	82.75	0.00	16.01	63.15	16.33	0.72	0.05
GNBDD025	3.0	4.0	76.50	0.00	23.37	50.92	9.92	3.85	0.97
GNBDD025	4.0	5.0	95.89	0.00	3.72	67.83	10.84	1.88	1.65
GNBDD025	5.0	6.0	64.13	0.13	35.74	37.34	0.28	2.08	0.38
GNBDD025	6.0	7.0	82.39	0.00	17.32	38.11	3.88	7.26	0.45
GNBDD025	7.0	8.0	90.44	0.00	9.43	62.39	1.74	1.27	1.48
GNBDD025	8.0	9.0	100.00	0.00	0.00	54.43	2.32	0.33	1.16
GNBDD025	9.0	10.0	100.00	0.00	0.00	44.37	2.24	2.15	1.12
GNBDD025	10.0	11.0	100.00	0.00	0.00	27.96	4.82	1.98	0.03
GNBDD025	11.0	12.0	100.00	0.00	0.00	33.80	1.81	0.55	1.09
GNBDD025	12.0	13.0	99.48	0.00	0.00	25.56	0.83	0.06	1.67
GNBDD025	13.0	14.0	100.00	0.00	0.00	31.67	0.00	0.00	0.92
GNBDD025	14.0	15.0	100.00	0.00	0.00	26.82	0.22	0.37	0.55
GNBDD025	15.0	16.0	99.53	0.00	0.00	34.66	0.21	0.32	2.50
GNBDD025	16.0	17.0	99.64	0.00	0.00	44.10	0.00	0.00	7.34
GNBDD025	17.0	18.0	99.85	0.00	0.00	46.23	0.41	0.70	5.77
GNBDD025	18.0	19.0	99.40	0.00	0.00	58.58	0.00	0.00	10.48
GNBDD025	19.0	20.0	99.52	0.00	0.00	55.78	0.00	0.00	6.47
GNBDD025	20.0	21.0	100.00	0.00	0.00	71.71	0.00	0.00	13.11
GNBDD025	21.0	22.0	100.00	0.00	0.00	69.62	0.00	0.00	12.27
GNBDD025	22.0	23.0	99.87	0.00	0.00	68.43	0.00	0.11	11.67
GNBDD025	23.0	24.0	99.19	0.00	0.00	81.89	0.00	0.10	7.20
GNBDD025	24.0	25.0	99.76	0.00	0.00	58.58	0.00	0.97	6.72
GNBDD025	25.0	26.0	99.27	0.00	0.00	57.84	0.49	1.91	11.55
GNBDD025	26.0	27.0	98.90	0.00	0.00	48.44	0.00	0.00	14.07
GNBDD025	27.0	28.0	99.49	0.00	0.00	49.05	0.00	0.00	20.54
GNBDD025	28.0	29.0	98.29	0.00	0.00	46.80	0.00	0.13	26.73
GNBDD025	29.0	30.0	99.20	0.00	0.00	48.14	9.88	0.30	24.63
GNBDD025	30.0	31.0	99.35	0.00	0.00	44.89	8.06	0.85	24.90
GNBDD025	31.0	32.0	99.47	0.00	0.00	47.78	14.12	0.83	13.14
GNBDD025	32.0	33.0	99.86	0.00	0.00	51.06	16.69	1.09	14.88
GNBDD025	33.0	34.0	99.26	0.00	0.00	38.60	4.54	0.22	2.92
GNBDD025	34.0	35.0	100.00	0.00	0.00	32.81	14.08	0.57	6.09
GNBDD025	35.0	36.0	99.57	0.00	0.00	44.49	20.24	0.47	6.58
GNBDD025	36.0	37.0	99.46	0.00	0.00	47.66	8.24	0.15	15.95
GNBDD025	37.0	38.0	99.83	0.00	0.00	63.30	14.98	1.47	5.68
GNBDD025	38.0	39.0	99.75	0.00	0.00	53.95	25.40	0.00	2.96
GNBDD025	39.0	40.0	99.73	0.00	0.00	51.76	16.74	0.08	7.92
GNBDD025	40.0	41.0	99.88	0.00	0.00	54.02	22.13	0.00	5.12
GNBDD025	41.0	42.0	100.00	0.00	0.00	51.86	23.38	1.19	0.00
GNBDD025	42.0	43.0	100.00	0.00	0.00	49.91	24.33	2.39	0.33
GNBDD025	43.0	44.0	99.49	0.00	0.39	38.42	27.95	0.39	0.55
GNBDD025	44.0	45.0	100.00	0.00	0.00	49.03	23.47	0.94	0.00
GNBDD025	45.0	46.0	100.00	0.00	0.00	47.36	24.73	0.45	0.00
GNBDD025	46.0	47.0	100.00	0.00	0.00	53.56	23.15	0.53	0.29
GNBDD025	47.0	48.0	99.56	0.00	0.00	54.39	11.23	1.66	2.94
GNBDD025	48.0	49.0	100.00	0.00	0.00	57.11	17.76	4.48	0.00
GNBDD025	49.0	50.0	100.00	0.00	0.00	55.86	18.87	5.49	0.00
GNBDD025	50.0	51.0	99.84	0.00	0.00	51.90	16.27	5.18	3.91



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE-MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K-FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD025	51.0	52.0	99.82	0.00	0.00	55.37	19.56	5.98	2.54
GNBDD025	52.0	53.0	100.00	0.00	0.00	51.59	19.49	7.44	0.00
GNBDD025	53.0	54.0	100.00	0.00	0.00	54.40	25.13	9.72	0.00
GNBDD025	54.0	55.0	100.00	0.00	0.00	55.82	20.11	18.86	0.00
GNBDD026	0.0	1.0	96.94	0.00	2.32	70.98	0.00	0.12	2.19
GNBDD026	1.0	2.0	75.63	0.00	24.01	62.79	8.77	0.69	0.00
GNBDD026	2.0	3.0	88.06	0.00	11.38	42.24	7.07	6.19	0.24
GNBDD026	3.0	4.0	89.74	0.00	9.18	31.73	5.74	3.09	1.10
GNBDD026	4.0	5.0	65.72	0.00	32.81	40.06	3.30	1.46	0.60
GNBDD026	5.0	6.0	77.72	0.00	21.72	39.33	3.26	1.36	0.85
GNBDD026	6.0	7.0	79.27	0.00	20.61	32.22	4.07	0.86	0.61
GNBDD026	7.0	8.0	83.10	0.00	16.57	58.55	0.37	0.71	0.99
GNBDD026	8.0	9.0	90.61	0.00	9.39	38.07	2.88	1.71	0.40
GNBDD026	9.0	10.0	99.52	0.00	0.48	45.64	1.81	0.59	1.36
GNBDD026	10.0	11.0	98.54	0.00	1.46	20.57	7.04	1.66	0.11
GNBDD026	11.0	12.0	99.48	0.00	0.52	17.69	5.25	5.54	0.34
GNBDD026	12.0	13.0	99.23	0.00	0.14	23.94	5.79	4.30	0.06
GNBDD026	13.0	14.0	100.00	0.00	0.00	32.03	0.18	2.92	1.64
GNBDD026	14.0	15.0	99.84	0.00	0.00	34.21	0.14	0.36	1.65
GNBDD026	15.0	16.0	100.00	0.00	0.00	37.04	0.80	0.87	0.62
GNBDD026	16.0	17.0	100.00	0.00	0.00	30.28	0.00	0.00	0.04
GNBDD026	17.0	18.0	99.71	0.00	0.00	30.99	0.09	0.87	0.52
GNBDD026	18.0	19.0	99.89	0.00	0.00	44.11	0.00	0.57	0.86
GNBDD026	19.0	20.0	100.00	0.00	0.00	42.91	0.00	1.84	0.56
GNBDD026	20.0	21.0	100.00	0.00	0.00	40.83	0.00	0.62	1.04
GNBDD026	21.0	22.0	99.89	0.00	0.00	38.24	0.00	0.79	0.73
GNBDD026	22.0	23.0	99.89	0.00	0.00	32.95	0.00	0.06	1.69
GNBDD026	23.0	24.0	99.66	0.00	0.00	33.01	0.00	0.29	0.86
GNBDD026	24.0	25.0	100.00	0.00	0.00	30.59	0.00	0.00	1.90
GNBDD026	25.0	26.0	99.86	0.00	0.00	33.04	0.00	0.00	3.79
GNBDD026	26.0	27.0	99.74	0.00	0.00	38.22	0.00	0.00	4.50
GNBDD026	27.0	28.0	100.00	0.00	0.00	35.39	0.00	0.00	7.18
GNBDD026	28.0	29.0	99.87	0.00	0.00	39.54	0.00	0.00	9.93
GNBDD026	29.0	30.0	99.86	0.00	0.00	48.71	0.00	0.00	14.01
GNBDD026	30.0	31.0	99.58	0.00	0.00	50.37	0.00	0.82	11.16
GNBDD026	31.0	32.0	99.88	0.00	0.00	47.59	0.00	0.10	16.27
GNBDD026	32.0	33.0	99.47	0.00	0.00	53.38	0.00	0.00	4.86
GNBDD026	33.0	34.0	99.85	0.00	0.00	75.64	0.00	0.09	4.47
GNBDD026	34.0	35.0	99.84	0.00	0.00	38.52	0.00	0.00	9.72
GNBDD026	35.0	36.0	99.71	0.00	0.00	41.31	0.00	0.00	8.32
GNBDD026	36.0	37.0	99.51	0.00	0.00	34.76	0.00	0.00	14.79
GNBDD026	37.0	38.0	99.47	0.00	0.00	52.51	0.00	0.00	8.83
GNBDD026	38.0	39.0	99.83	0.00	0.00	61.11	0.00	0.00	9.51
GNBDD026	39.0	40.0	99.74	0.00	0.00	53.50	0.00	0.00	16.02
GNBDD026	40.0	41.0	99.61	0.00	0.00	51.15	0.00	0.00	18.44
GNBDD026	41.0	42.0	99.55	0.00	0.00	56.90	0.00	0.60	18.07
GNBDD026	42.0	43.0	99.51	0.00	0.00	59.53	0.00	0.00	11.78
GNBDD026	43.0	44.0	99.77	0.00	0.00	65.47	0.00	0.19	8.13
GNBDD026	44.0	45.0	99.77	0.00	0.00	52.44	0.00	0.00	13.56
GNBDD026	45.0	46.0	99.85	0.00	0.00	53.76	0.00	0.89	13.78
GNBDD026	46.0	47.0	99.86	0.00	0.00	57.93	1.07	0.82	14.06
GNBDD026	47.0	48.0	99.89	0.00	0.00	56.62	2.87	3.85	12.56
GNBDD026	48.0	49.0	100.00	0.00	0.00	55.19	11.18	16.23	5.79
GNBDD026	49.0	50.0	100.00	0.00	0.00	57.31	7.58	23.11	4.03
GNBDD026	50.0	51.0	99.51	0.00	0.34	51.00	14.69	17.88	1.63
GNBDD026	51.0	52.0	90.08	0.00	3.94	50.76	5.54	30.21	0.79
GNBDD026	52.0	53.0	20.66	0.00	60.35	45.31	8.81	41.20	0.11
GNBDD026	53.0	54.0	0.63	0.00	77.03	50.96	6.77	39.12	0.00
GNBDD026	54.0	55.0	0.32	0.00	8.09	52.11	5.64	40.98	0.00
GNBDD026	55.0	56.0	0.00	0.00	5.08	54.89	1.98	42.53	0.00
GNBDD026	56.0	57.0	2.30	0.00	9.43	51.76	7.63	36.33	0.00
GNBDD026	57.0	58.0	0.00	0.00	0.00	41.00	17.08	41.92	0.00
GNBDD027	0.0	1.0	100.00	0.00	0.00	64.58	0.00	4.09	0.10
GNBDD027	1.0	2.0	100.00	0.00	0.00	58.47	0.00	13.73	0.10



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE-MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K-FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD027	2.0	3.0	95.12	0.93	3.60	46.31	5.57	8.42	0.28
GNBDD027	3.0	4.0	83.79	2.12	12.69	34.01	6.27	7.73	0.43
GNBDD027	4.0	5.0	81.62	4.25	8.97	39.01	2.48	4.82	0.19
GNBDD027	5.0	6.0	88.50	4.27	4.13	55.39	2.50	2.46	0.26
GNBDD027	6.0	7.0	87.95	0.50	9.41	43.38	1.53	3.12	0.05
GNBDD027	7.0	8.0	91.17	0.00	7.42	16.44	2.02	0.38	0.29
GNBDD027	8.0	9.0	100.00	0.00	0.00	92.43	0.00	0.00	0.42
GNBDD027	9.0	10.0	100.00	0.00	0.00	80.91	0.08	0.39	1.69
GNBDD027	10.0	11.0	100.00	0.00	0.00	30.68	0.54	0.07	11.25
GNBDD027	11.0	12.0	100.00	0.00	0.00	29.76	2.48	8.48	2.07
GNBDD027	12.0	13.0	100.00	0.00	0.00	36.91	13.27	4.35	0.21
GNBDD027	13.0	14.0	100.00	0.00	0.00	53.91	20.80	23.68	0.02
GNBDD027	14.0	15.0	100.00	0.00	0.00	50.24	19.77	28.64	0.00
GNBDD027	15.0	16.0	100.00	0.00	0.00	59.91	20.63	11.58	0.00
GNBDD027	16.0	17.0	100.00	0.00	0.00	59.27	20.56	17.37	0.00
GNBDD027	17.0	18.0	100.00	0.00	0.00	43.10	19.63	6.67	0.05
GNBDD027	18.0	19.0	100.00	0.00	0.00	53.36	18.63	22.12	0.03
GNBDD027	19.0	20.0	100.00	0.00	0.00	56.38	20.92	20.17	0.00
GNBDD027	20.0	21.0	100.00	0.00	0.00	50.42	26.50	18.14	0.00
GNBDD027	21.0	22.0	100.00	0.00	0.00	44.21	24.25	30.45	0.00
GNBDD027	22.0	23.0	100.00	0.00	0.00	49.70	17.13	31.54	0.00
GNBDD027	23.0	24.0	99.07	0.00	0.00	50.22	13.47	35.29	0.00
GNBDD027	24.0	25.0	99.71	0.00	0.00	44.89	18.53	26.85	0.22
GNBDD027	25.0	26.0	99.28	0.00	0.58	51.19	17.77	28.29	0.00
GNBDD027	26.0	27.0	95.71	0.00	4.29	52.82	13.31	28.10	0.03
GNBDD027	27.0	28.0	89.27	0.00	10.73	53.01	11.39	22.08	0.10
GNBDD027	28.0	29.0	11.92	1.66	17.26	49.40	13.30	36.81	0.00
GNBDD027	29.0	30.0	0.00	0.89	2.68	45.69	18.09	36.09	0.00
GNBDD027	30.0	31.0	0.00	0.00	0.00	40.72	24.71	34.57	0.00
GNBDD027	31.0	32.0	0.00	0.00	0.00	44.02	18.90	37.08	0.00
GNBDD027	32.0	33.0	0.00	0.00	0.00	48.91	15.92	35.16	0.00
GNBDD027	33.0	34.0	0.00	0.00	0.00	45.57	14.67	39.76	0.00
GNBDD028	0.0	1.0	80.18	12.89	3.46	66.22	6.75	0.00	1.56
GNBDD028	1.0	2.0	69.01	17.26	3.16	51.31	11.67	3.14	0.00
GNBDD028	2.0	3.0	67.63	26.99	0.00	63.35	9.47	1.70	0.00
GNBDD028	3.0	4.0	72.67	21.40	0.00	80.53	0.07	0.33	0.09
GNBDD028	4.0	5.0	64.94	11.04	17.55	55.55	2.39	2.45	0.07
GNBDD028	5.0	6.0	59.28	2.56	35.67	35.91	1.24	1.95	0.21
GNBDD028	6.0	7.0	55.61	2.64	39.93	46.20	0.00	2.20	0.26
GNBDD028	7.0	8.0	65.68	1.35	29.98	36.77	0.89	3.85	0.05
GNBDD028	8.0	9.0	60.13	0.00	39.87	25.31	0.22	4.33	0.11
GNBDD028	9.0	10.0	53.40	0.00	44.50	23.67	0.22	5.00	0.04
GNBDD028	10.0	11.0	89.01	0.00	5.15	10.97	0.64	2.05	0.07
GNBDD028	11.0	12.0	99.61	0.00	0.00	10.05	0.37	0.94	0.31
GNBDD028	12.0	13.0	97.90	0.00	0.00	9.30	0.09	0.67	0.13
GNBDD028	13.0	14.0	99.23	0.00	0.00	21.35	0.01	0.09	2.37
GNBDD028	14.0	15.0	99.32	0.00	0.00	21.08	0.00	0.24	2.72
GNBDD028	15.0	16.0	97.82	0.00	0.00	23.07	0.00	2.46	1.10
GNBDD028	16.0	17.0	99.14	0.00	0.00	28.05	0.00	1.02	2.21
GNBDD028	17.0	18.0	99.88	0.00	0.00	26.43	0.00	1.95	0.74
GNBDD028	18.0	19.0	99.85	0.00	0.00	21.52	0.00	7.12	0.23
GNBDD028	19.0	20.0	100.00	0.00	0.00	23.68	0.00	2.77	0.70
GNBDD028	20.0	21.0	99.62	0.00	0.00	28.97	0.00	4.40	0.68
GNBDD028	21.0	22.0	99.03	0.00	0.00	38.18	0.00	2.23	0.43
GNBDD028	22.0	23.0	99.72	0.00	0.00	43.11	0.00	0.49	3.65
GNBDD028	23.0	24.0	99.86	0.00	0.00	37.43	0.00	0.00	9.03
GNBDD028	24.0	25.0	99.88	0.00	0.00	47.29	0.00	0.00	8.83
GNBDD028	25.0	26.0	98.95	0.00	0.00	48.53	0.00	0.00	5.52
GNBDD028	26.0	27.0	99.61	0.00	0.00	37.88	0.00	5.46	0.28
GNBDD028	27.0	28.0	98.95	0.00	0.00	41.13	0.00	0.09	6.75
GNBDD028	28.0	29.0	99.88	0.00	0.00	42.17	0.00	0.15	4.33
GNBDD028	29.0	30.0	100.00	0.00	0.00	41.34	0.00	1.12	5.14
GNBDD028	30.0	31.0	97.52	0.00	0.00	44.95	1.29	1.09	0.62
GNBDD028	31.0	32.0	93.06	0.00	0.00	47.15	5.43	1.57	0.00



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE-MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K-FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD028	32.0	33.0	97.82	0.00	0.00	44.84	7.72	3.49	0.04
GNBDD028	33.0	34.0	90.92	0.00	0.00	39.93	4.88	6.89	0.00
GNBDD028	34.0	35.0	95.52	0.00	0.00	40.34	9.80	6.94	0.00
GNBDD028	35.0	36.0	100.00	0.00	0.00	51.56	16.91	2.52	0.00
GNBDD028	36.0	37.0	98.77	0.12	0.00	44.69	13.24	6.06	0.01
GNBDD028	37.0	38.0	98.89	0.00	0.00	46.86	15.97	3.83	0.00
GNBDD028	38.0	39.0	99.11	0.00	0.00	45.91	12.37	5.40	0.12
GNBDD028	39.0	40.0	99.74	0.00	0.00	48.37	11.66	5.07	0.08
GNBDD028	40.0	41.0	99.62	0.00	0.00	47.99	14.29	5.92	0.05
GNBDD028	41.0	42.0	99.51	0.00	0.49	50.46	17.69	18.17	0.00
GNBDD028	42.0	43.0	90.83	0.00	7.25	48.80	9.27	31.19	0.00
GNBDD028	43.0	44.0	26.69	0.81	47.18	51.44	8.33	38.37	0.00
GNBDD028	44.0	45.0	5.06	0.48	33.01	50.46	13.11	35.24	0.00
GNBDD028	45.0	46.0	9.22	0.00	42.11	53.55	11.88	33.05	0.00
GNBDD028	46.0	47.0	1.17	0.00	10.12	51.47	6.25	41.96	0.00
GNBDD028	47.0	48.0	0.86	0.00	0.00	49.73	10.95	39.01	0.00
GNBDD028	48.0	49.0	24.77	0.00	10.59	50.26	8.16	37.48	0.06
GNBDD029	0.0	1.0	88.42	9.06	0.00	78.07	3.79	2.79	0.15
GNBDD029	1.0	2.0	81.70	0.29	9.80	54.08	14.38	24.31	0.04
GNBDD029	2.0	3.0	77.81	0.00	0.73	51.84	5.11	38.02	0.00
GNBDD029	3.0	4.0	53.79	0.00	1.36	50.44	8.40	34.33	0.00
GNBDD029	4.0	5.0	55.43	0.37	0.52	50.50	11.23	34.22	0.00
GNBDD029	5.0	6.0	75.53	0.00	3.30	51.55	7.16	35.45	0.00
GNBDD029	6.0	7.0	29.94	0.00	0.40	48.68	16.49	32.61	0.00
GNBDD030	0.0	1.0	47.43	5.57	47.00	27.84	1.10	10.95	0.00
GNBDD030	1.0	2.0	36.90	0.00	63.10	16.94	0.25	11.75	0.00
GNBDD030	2.0	3.0	47.61	0.00	52.39	44.83	0.14	7.28	0.00
GNBDD030	3.0	4.0	67.65	0.55	31.80	66.57	7.77	3.43	0.00
GNBDD030	4.0	5.0	68.29	0.23	31.48	54.68	3.39	1.57	0.03
GNBDD030	5.0	6.0	62.93	0.00	37.07	23.47	3.96	0.90	0.00
GNBDD030	6.0	7.0	82.48	0.00	17.52	20.34	8.88	2.11	0.25
GNBDD030	7.0	8.0	98.33	0.00	1.42	38.11	2.39	5.16	0.66
GNBDD030	8.0	9.0	99.61	0.00	0.39	48.32	1.35	5.23	0.01
GNBDD030	9.0	10.0	99.58	0.00	0.00	48.20	0.00	2.30	0.30
GNBDD030	10.0	11.0	99.71	0.00	0.00	13.29	1.18	1.37	0.00
GNBDD030	11.0	12.0	99.72	0.00	0.00	19.74	0.25	3.08	0.01
GNBDD030	12.0	13.0	100.00	0.00	0.00	22.16	0.11	1.27	0.28
GNBDD030	13.0	14.0	100.00	0.00	0.00	22.31	0.00	0.57	1.51
GNBDD030	14.0	15.0	99.89	0.00	0.00	26.73	0.00	0.00	1.09
GNBDD030	15.0	16.0	100.00	0.00	0.00	27.94	0.00	0.00	0.70
GNBDD030	16.0	17.0	100.00	0.00	0.00	35.69	0.00	0.00	2.73
GNBDD030	17.0	18.0	99.87	0.00	0.00	47.42	0.00	0.00	3.13
GNBDD030	18.0	19.0	99.20	0.00	0.00	37.91	0.07	0.00	10.08
GNBDD030	19.0	20.0	99.52	0.00	0.00	32.34	0.00	0.00	12.01
GNBDD030	20.0	21.0	99.52	0.00	0.00	35.42	0.00	0.00	12.02
GNBDD030	21.0	22.0	99.58	0.00	0.00	42.38	0.07	0.15	13.21
GNBDD030	22.0	23.0	99.86	0.00	0.00	51.15	0.07	0.29	5.87
GNBDD030	23.0	24.0	99.74	0.00	0.00	48.03	0.84	0.24	3.87
GNBDD030	24.0	25.0	100.00	0.00	0.00	51.07	23.39	2.60	5.29
GNBDD030	25.0	26.0	100.00	0.00	0.00	64.54	23.85	3.68	0.00
GNBDD030	26.0	27.0	100.00	0.00	0.00	60.26	10.85	8.02	0.23
GNBDD030	27.0	28.0	93.14	0.00	0.00	53.92	7.39	37.95	0.00
GNBDD030	28.0	29.0	97.31	0.00	0.00	52.72	18.53	27.24	0.01
GNBDD030	29.0	30.0	93.53	0.00	0.00	53.15	4.38	41.80	0.00
GNBDD030	30.0	31.0	98.41	0.00	0.00	57.10	5.45	32.79	0.31
GNBDD030	31.0	32.0	100.00	0.00	0.00	55.57	8.61	29.45	0.13
GNBDD030	32.0	33.0	99.59	0.00	0.00	62.38	5.75	29.16	0.03
GNBDD030	33.0	34.0	93.62	0.00	0.00	54.86	6.15	36.83	0.00
GNBDD030	34.0	35.0	97.16	0.00	0.00	57.04	7.94	33.30	0.00
GNBDD030	35.0	36.0	75.66	0.00	4.79	52.17	8.14	38.61	0.00
GNBDD030	36.0	37.0	25.86	0.00	14.53	46.79	9.15	43.74	0.00
GNBDD031	0.0	1.0	50.07	9.50	35.65	65.10	6.72	3.23	0.00
GNBDD031	1.0	2.0	51.72	0.18	46.55	47.96	10.56	16.77	0.01
GNBDD031	2.0	3.0	18.82	0.00	42.72	41.08	1.43	37.40	0.00



Hole_ID	From (m)	To (m)	SWIR - KAOLIN	SWIR - WHITE- MICA	SWIR - SMECTITE	TIR - SILICA	TIR - K- FELDSPAR	TIR - PLAGIOCLASE	TIR - CARBONATE
GNBDD031	3.0	4.0	14.90	0.00	2.50	52.81	0.86	40.12	0.00
GNBDD031	4.0	5.0	11.83	0.00	7.56	52.39	0.27	45.02	0.00
GNBDD031	5.0	6.0	50.07	0.00	10.86	49.33	3.07	34.72	0.00
GNBDD031	6.0	7.0	36.50	0.00	41.57	54.74	0.00	41.74	0.00



Appendix 3: QEMSCAN Liberation statistics

Table A1: Liberation Statistics of the REE-bearing Minerals in GNBMET001 (normalised %)

GNBMET0001	0-10%	10-20%	20-30%	30-40%	40-50%	50-60%	60-70%	70-80%	80-90%	90-100%
Lanthanite-Nd	28.8	1.6	8.3	2.4	1.6	2.0	42.3	0.0	0.0	13.0
Cerite-Ce	28.0	24.6	0.0	11.3	10.6	0.0	20.5	0.0	0.0	5.0
REE Minerals	28.5	10.0	5.0	0.0	56.5	0.0	0.0	0.0	0.0	0.0

Table A2: Liberation Statistics of the REE-bearing Minerals in GNBMET002 (normalised %)

GNBMET0002	0-10%	10-20%	20-30%	30-40%	40-50%	50-60%	60-70%	70-80%	80-90%	90-100%
Lanthanite-Nd	53.2	10.5	0.6	1.1	11.0	8.3	0.9	1.1	1.0	12.3
Cerite-Ce	27.0	13.5	8.1	0.0	0.0	0.0	0.0	0.0	40.5	10.8
Monazite	13.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	86.9
Xenotime	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Britholite-Y	88.9	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Samarskite-Y	0.0	0.0	0.0	0.0	100	0.0	0.0	0.0	0.0	0.0
Titanian	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Samarskite-Y	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REE Minerals	87.0	6.7	1.7	0.6	0.9	0.0	0.0	0.0	0.0	3.2

Table A3: Liberation Statistics of the REE-bearing Minerals in GNBMET003 (normalised %)

GNBMET0003	0-10%	10-20%	20-30%	30-40%	40-50%	50-60%	60-70%	70-80%	80-90%	90-100%
Lanthanite-Nd	10.9	3.9	25.2	0.2	0.0	1.7	0.0	47.7	0.0	10.4
Cerite-Ce	67.0	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Monazite	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Xenotime	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Britholite-Y	12.0	24.3	62.9	0.0	0.0	0.0	0.8	0.0	0.0	0.0
Titanian	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Samarskite-Y	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REE Minerals	69.4	27.6	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.7

Table A4: Liberation Statistics of the REE-bearing Minerals in GNBMET004 (normalised %)

GNBMET0004	0-10%	10-20%	20-30%	30-40%	40-50%	50-60%	60-70%	70-80%	80-90%	90-100%
Lanthanite-Nd	66.8	1.6	14.8	1.8	1.1	4.0	0.9	4.1	0.0	4.7
Cerite-Ce	26.3	0.3	1.6	61.3	0.0	0.0	2.9	3.3	2.0	2.3
Monazite	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Xenotime	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REE Minerals	87.0	4.5	0.8	0.8	0.8	2.3	0.0	2.3	0.0	1.7

**Table A5: Liberation Statistics of the REE-bearing Minerals in GNBMET005 (normalised %)**

GNBMET0005	0-10%	10-20%	20-30%	30-40%	40-50%	50-60%	60-70%	70-80%	80-90%	90-100%
Lanthanite-Nd	76.1	2.6	8.3	10.4	0.0	0.0	0.0	0.0	0.0	2.6
Monazite	27.4	16.2	2.4	0.0	0.0	0.0	23.6	0.0	0.0	30.5
Xenotime	6.0	3.4	0.0	0.1	0.1	5.4	0.4	0.0	76.3	8.3
REE Minerals	82.9	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.4

Table A6: Liberation Statistics of the REE-bearing Minerals in GNBMET006 (normalised %)

GNBMET0006	0-10%	10-20%	20-30%	30-40%	40-50%	50-60%	60-70%	70-80%	80-90%	90-100%
Lanthanite-Nd	45.1	6.6	0.0	0.0	3.1	0.0	2.6	33.5	0.0	9.1
Cerite-Ce	0.4	12.0	0.0	0.0	0.0	0.0	0.0	75.7	0.0	12.0
Monazite	100	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Titanian	0.0	84.4	0.0	14.4	1.1	0.0	0.0	0.0	0.0	0.0
Samarskite-Y	0.0	84.4	0.0	14.4	1.1	0.0	0.0	0.0	0.0	0.0
REE Minerals	82.1	14.1	1.5	0.8	0.0	0.0	1.5	0.0	0.0	0.0