



ASX Release

9 November 2009

**NEW RESULTS CONFIRM THIRD HIGH-GRADE
COPPER-GOLD DISCOVERY AT DOOLGUNNA**
*AND MORE OUTSTANDING ASSAYS RECEIVED FROM
DEGRUSSA AND CONDUCTOR 1 DEPOSITS*

HIGHLIGHTS

- **First significant high-grade intersection received from Conductor 4, 200 metres east of DeGrussa:**
 - **5.1m @ 15.0% Cu, 3.7g/t Au (Conductor 4).**
- **Third hole at Conductor 4 (DGDD-043) intersects 5 metres of sulphides/massive sulphides.**
- **Conductor 4 mineralisation now intersected over a lateral (east-west) extent of 160 metres.**
- **New assays from DeGrussa and Conductor 1 include further excellent intersections, confirming the high grade, thickness and extent of the mineralisation. Latest intersections include:**
 - **41.0m @ 13.7% Cu, 2.4g/t Au (DeGrussa)**
 - **36.2m @ 9.4% Cu, 3.7g/t Au (Conductor 1)**
 - **13.6m @ 10.2% Cu, 2.8 g/t Au (Conductor 1)**
 - **36.9m @ 4.0% Cu, 1.7g/t Au (Conductor 1).**
- **Regional drilling underway to test the first five EM anomalies identified within a 5km radius of DeGrussa.**

Sandfire Resources NL (ASX: SFR; Sandfire) is pleased to report that the **Conductor 4 target** at its 100%-owned **Doolgunna Copper-Gold Project** in Western Australia is emerging as a substantial new high-grade copper-gold discovery.

The first assay results from Conductor 4 returned an intersection of **5.1 metres grading 15.0% copper, 3.7g/t gold and 25.3g/t silver** from a downhole depth of 670.9 metres in hole DGDD-016 (see updated drilling location plan in Figure 2 attached).

The most recently completed hole targeting Conductor 4, DGDD-043, intersected **5 metres of sulphides and massive sulphides** from a down hole depth of 632.0 metres.

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Sandfire reported on 22 October that it had intersected 15.0 metres of massive sulphides at Conductor 4 in hole DGDD-035. This intersection has now been adjusted to an **intersection of 18.2 metres of massive sulphides** following final logging of core from the hole.

The results from the three holes drilled so far at Conductor 4 have intersected mineralisation or massive sulphides **over a lateral distance of 160 metres in an east-west direction**.

Conductor 4 lies 200 metres east and approximately 120 metres stratigraphically below the Conductor 1 Deposit, with latest drilling providing further strong evidence that it comprises a deeper, separate massive sulphide deposit.

Sandfire is also pleased to report that assay results have been received from another seven drill holes at DeGrussa/Conductor 1, confirming the high-grade and broad widths of mineralisation within both deposits. Latest assay results are summarised in the table below.

Hole Number	Deposit	From (m)	To (m)	Total (m)	(Cu) (%)	(Au) (g/t)	(Zn) (%)	(Ag) (g/t)
DGDD-012	<i>DeGrussa Oxide</i>	73.8	102.0	28.2	2.8	3.8	-	11.4
	<i>DeGrussa Oxide</i>	107.0	111.0	4.0	3.3	0.1	-	3.4
	<i>Conductor 1</i>	267.0	291.6	24.6	9.4	1.8	0.9	16.5
DGDD-015	<i>DeGrussa</i>	257.8	298.8	40.8	13.7	2.4	-	33.2
	<i>Conductor 1</i>	400.9	410.9	10.0	2.9	2.0	-	14.0
	<i>Conductor 1</i>	434.3	437.0	2.7	15.4	2.3	-	57.3
DGDD-017	<i>Conductor 1</i>	444.2	450.0	5.8	3.6	2.8	-	27.2
	<i>DeGrussa</i>	238.2	244.0	5.8	3.3	0.9	-	8.1
	<i>Conductor 1</i>	286.1	323.0	36.9	4.0	1.7	1.3	15.3
DGDD-018	<i>DeGrussa</i>	121.0	138.7	17.7	5.8	2.1	-	12.8
	<i>Conductor 1</i>	255.7	258.0	2.4	2.4	2.0	-	5.9
	<i>Conductor 1</i>	261.8	282.0	20.2	4.8	2.1	2.1	17.5
DGDD-019	<i>Conductor 1</i>	496.7	500.0	3.3	2.3	0.9	-	14.0
	<i>Conductor 1</i>	504.3	510.0	5.7	5.8	1.6	-	21.3
	<i>Conductor 1</i>	518.4	531.4	13.0	4.8	1.9	-	13.9
DGDD-021	<i>Conductor 1</i>	362.9	399.2	37.1	9.4	3.7	-	22.8
DGDD-023	<i>Conductor 1</i>	353.1	382.7	29.6	4.2	2.2	-	10.0
DGDD-024	<i>Conductor 1</i>	407.5	421.1	13.6	10.2	2.8	-	22.4

Of particular note is the high copper and gold grades intersected in Conductor 1 in holes DGDD-015, DGDD-021 and DGDD-024, drilled in the southern and south-western portions of the deposit.

Significant mineralised intercepts continue to be recorded (*see summary of new mineralised intercepts attached*) with assay results awaited.

The updated drilling plan is shown in Figure 2 attached. The dotted line on this diagram shows the outline of the drill hole pattern which has successfully intersected high-grade copper-gold mineralisation within Conductor 1.

Significantly, all of the holes drilled within this envelope have been successful in intersecting high-grade copper-gold mineralisation. There is also potential for additional mineralisation down-plunge in the DeGrussa Deposit.

In-fill drilling will continue through until the end of 2009 in order to underpin a maiden JORC Resource estimate initially for the DeGrussa and Conductor 1 Deposits. This resource estimate is targeted for completion in the first Quarter of 2010. All three diamond core rigs are currently focused on completing this in-fill drilling program.

Regional Exploration

Sandfire is pleased to confirm that Reverse Circulation (RC) drilling has commenced to test the first five regional VTEM targets identified from the previously completed 150km² regional airborne EM survey over its tenement holdings at Doolgunna.

This drilling program will provide the first definitive test of the potential for the Doolgunna Project to emerge as a new VMS camp with multiple deposits consistent with the geological model for this style of mineralisation. A second 250km² regional airborne EM survey has also commenced over the Doolgunna tenements.

W JOHN EVANS TECHNICAL DIRECTOR (AUSIMM Competent Person)

Competent Person's Statement

The information in this report that relates to Exploration Results is based on information compiled by John Evans who is a Fellow of the Australasian Institute of Mining and Metallurgy. John Evans has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves. John Evans consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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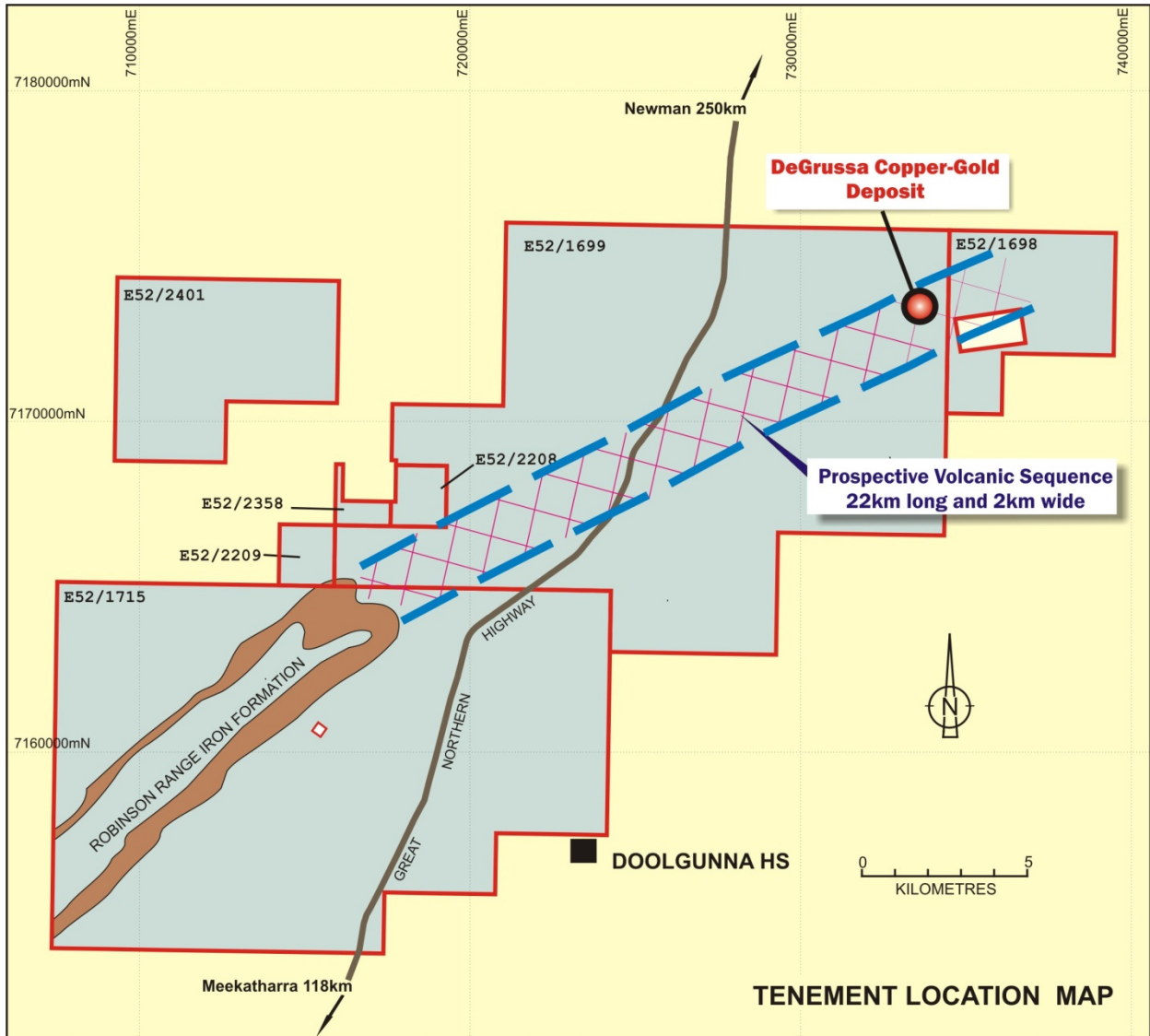
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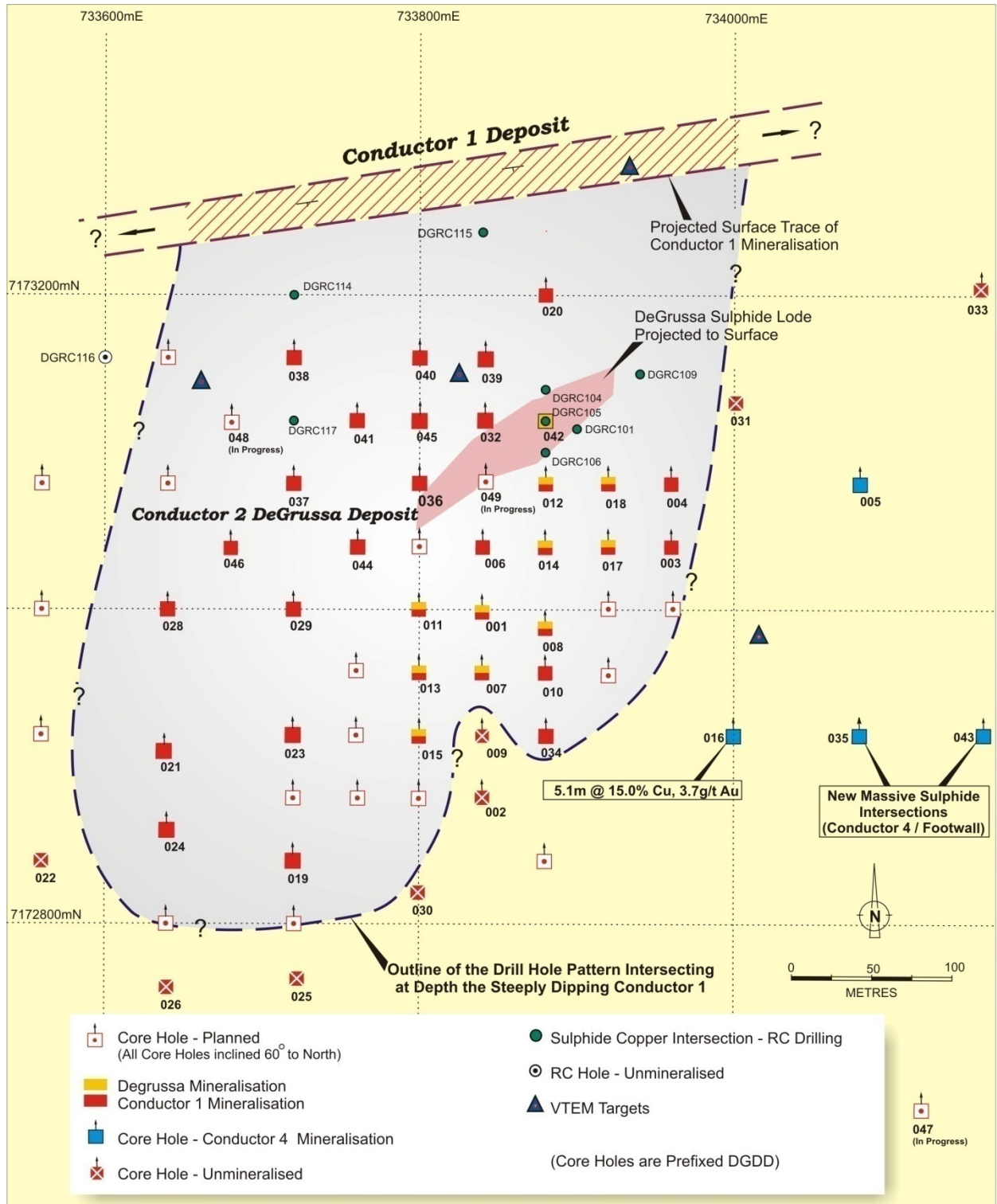
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Figure 1
Doolgunna Project tenements showing DeGrussa
and prospective 22km long Volcanic Sequence



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Figure 2
Diamond Core Drilling Program: DeGrussa, Conductor 1 and Conductor 4



DeGrussa Copper-Gold Deposit DRILLING PROGRAM

04/11/09

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**Table 1
Summary Of All Assay Results To Date For Diamond Core Drilling
Doolgunna Project**

Hole Number	Deposit	Interval (down hole)			Copper (Cu) (%)	Gold (Au) (g/t)	Zinc (Zn) (%)	Silver (Ag) (g/t)
		From (m)	To (m)	Total (m)				
DGDD-001	DeGrussa	146.1	207.8	53.2	17.3	2.6	-	-
	Conductor 1	319.0	356.3	25.1	3.4	1.6	1.5	16.7
DGDD-003	Conductor 1	322.2	344.1	21.9	5.0	2.0	1.8	14.9
DGDD-004	Conductor 1	267.8	281.5	13.7	6.7	2.6	2.2	26.2
DGDD-005	Footwall	481.9	484.0	2.1	4.5	1.3	0.5	18.6
	Footwall	502.5	506	3.5	5.1	1.1	0.3	13.8
DGDD-006	Conductor 1	283.0	323.7	36.7	4.6	3.0	0.9	18.8
DGDD-007	DeGrussa	242.5	292.6	50.1	8.4	2.9	1.6	30.8
	Conductor 1	378.1	387	8.9	5.0	1.5	1.4	26.8
DGDD-008	DeGrussa	245.0	287.0	42.0	6.6	2.4	1.4	20.5
	Conductor 1	347.4	363.0	15.6	3.1	2.5	3.6	24.3
DGDD-010	Conductor 1	370.8	383.0	12.2	2.3	1.4	2.4	21.0
DGDD-011	DeGrussa	279.2	281.0	1.8	3.1	1.6	0.9	9.0
	Conductor 1	335.0	338.0	3.0	1.8	0.4	-	4.9
DGDD-012	DeGrussa Oxide	73.8	102.0	28.2	2.8	3.8	-	11.4
	DeGrussa Oxide	107.0	111.0	4.0	3.3	0.1	-	3.4
	Conductor 1	267.0	291.6	24.6	9.4	1.8	0.9	16.5
DGDD-013	DeGrussa	202.3	212.6	10.3	5.9	1.8	2.4	34.9
	Conductor 1	358.0	363.0	5.0	1.2	3.6	0.3	12.2
DGDD-014	DeGrussa	121.0	130.1	9.1	34.1	3.3	-	29.9
	DeGrussa	130.0	169.0	38.9	4.7	2.2	2.9	24.9
	DeGrussa	187.0	217.0	30.0	8.6	2.8	0.7	20.5
	Conductor 1	306.5	332.6	26.1	7.3	3.1	1.9	27.7
DGDD-015	DeGrussa	257.8	298.8	40.8	13.7	2.4	-	33.2
	Conductor 1	400.9	410.9	10.0	2.9	2.0	-	14.0
	Conductor 1	434.3	437.0	2.7	15.4	2.3	-	57.3
	Conductor 1	444.2	450.0	5.8	3.6	2.8	-	27.2
DGDD-016	Conductor 4/Footwall	670.9	676.0	5.1	15.0	3.7	-	25.3
DGDD-017	DeGrussa	238.2	244.0	5.8	3.3	0.9	-	8.1
	Conductor 1	286.1	323.0	36.9	4.0	1.7	1.3	15.3
DGDD-018	DeGrussa	121.0	138.7	17.7	5.8	2.1	-	12.8
	Conductor 1	255.7	258.0	2.4	2.4	2.0	-	5.9
	Conductor 1	261.8	282.0	20.2	4.8	2.1	2.1	17.5
DGDD-019	Conductor 1	496.7	500.0	3.3	2.3	0.9	-	14.0
	Conductor 1	504.3	510.0	5.7	5.8	1.6	-	21.3
	Conductor 1	518.4	531.4	13.0	4.8	1.9	-	13.9
DGDD-021	Conductor 1	362.9	399.2	37.1	9.4	3.7	-	22.8
DGDD-023	Conductor 1	353.1	382.7	29.6	4.2	2.2	-	10.0
DGDD-024	Conductor 1	407.5	421.1	13.6	10.2	2.8	-	22.4



New significant mineralised intercepts recorded from diamond drilling since the ASX Announcement of 22 October 2009 (note: all intervals are downhole).

Hole DGDD-020

Deposit	From	To	Interval (m)	Type
Oxide capping above Conductor 1	101	105.5	4.5	Copper oxide interval

Hole DGDD-032

Deposit	From	To	Interval (m)	Type
Conductor 1	228.2	234.8	6.6	Sulphides/Massive sulphides
Conductor 1	187.2	191.7	4.5	Sulphides/Massive sulphides

Hole DGDD-034A

Deposit	From	To	Interval (m)	Type
Conductor 1	438.7	448.2	(3.6)*	Sulphides
<i>*Note the collective 3.6m of mineralisation occurs within a 9.5m interval overall</i>				

Hole DGDD-035

Deposit	From	To	Interval (m)	Type
Conductor 4	628.0	646.2	18.2*	Massive sulphides
<i>*Note the interval was adjusted from the previous ASX Announcement of 22-10-09</i>				

Hole DGDD-036

Deposit	From	To	Interval (m)	Type
Conductor 1	202.0	218.0	16	Sulphides/Massive sulphides
Conductor 1	260.0	276.8	16.8	Sulphides/Massive sulphides

Hole DGDD-037

Deposit	From	To	Interval (m)	Type
Conductor 1	157.8	170.2	12.4	Sulphides/Massive sulphides
Conductor 1	198.8	212.9	14.1	Sulphides/Massive sulphides

Hole DGDD-038

Deposit	From	To	Interval (m)	Type
Conductor 1	154.5	155.5	1	Sulphides/Massive sulphides

Hole DGDD-039

Deposit	From	To	Interval (m)	Type
Conductor 1	157.5	171.6	14.1	Sulphides/Massive sulphides
Conductor 1	199.1	213	13.9	Sulphides/Massive sulphides

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**Hole DGDD-040**

Deposit	From	To	Interval (m)	Type
Conductor 1	127.9	132.6	4.7	Sulphides/Massive sulphides

Hole DGDD-041

Deposit	From	To	Interval (m)	Type
Conductor 1	135.7	173.1	37.4	Sulphides/Massive sulphides

Hole DGDD-043

Deposit	From	To	Interval (m)	Type
Conductor 4	632.0	637.0	5	Sulphides/Massive sulphides

Hole DGDD-044

Deposit	From	To	Interval (m)	Type
Conductor 1	212.7	220.7	8	Sulphides/Massive sulphides
Conductor 1	241.2	256.0	14.8	Sulphides/Massive sulphides

Hole DGDD-045

Deposit	From	To	Interval (m)	Type
Conductor 1	130.6	132.8	2.2	Sulphides/Massive sulphides
Conductor 1	144.5	168.5	24	Sulphides/Massive sulphides

Hole DGDD-046

Deposit	From	To	Interval (m)	Type
Conductor 1	243.0	252.0	9	Sulphides/Massive sulphides
Conductor 1	258.6	262.1	3.5	Sulphides/Massive sulphides

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