

**SIRIUS RESOURCES NL**

**ASX:** SIR

**ABN:** 46 009 150 083

**Street address:**

Unit 5, 5 Mumford Place,  
Balcatta 6021,  
Western Australia 6021

**Postal address:**

PO Box 1011,  
Balcatta,  
Western Australia 6914

**Tel:** +61 8 6241 4200

**Fax:** +61 8 6241 4299

**Email:**

admin@siriusresources.com.au

**Web:**

www.siriusresources.com.au

**Projects:**

**Fraser Range** nickel-copper, gold

**Polar Bear** gold, nickel

**Youanmi** nickel, copper, PGM's



# BOLLINGER UPDATE

Sirius Resources NL (**ASX:SIR**) (“**Sirius**” or the “**Company**”) advises that ongoing drilling at its Bollinger nickel-copper deposit continues to define significant widths of sulphide mineralisation, as detailed below.

**Bollinger**

New assays from the Bollinger deposit continue to confirm significant mineralised intercepts (*see Figures 1-6 and Annexure 1*), including:

- **14.72 metres @ 2.60% Ni and 1.04% Cu** from 415.53 metres including **5.85 metres @ 4.89% Ni and 1.82% Cu** from 415.53 metres in hole SFRD0306 on line 625N.
- **18.84 metres @ 5.15% Ni and 2.24% Cu** from 425.02 metres in hole SFRD0297 on line 675N.
- **47.80 metres @ 1.41% Ni and 0.64% Cu** from 397.20 metres in hole SFRD0316 on line 675N.
- **39.02 metres @ 5.15% Ni and 2.20% Cu** from 395.67 metres in hole SFRD0321 on line 680N.
- 17.87 metres @ 0.53% Ni and 0.35% Cu from 402.54 metres and **38.51 metres @ 2.06% Ni and 0.75% Cu** from 452.36 including **7.20 metres @ 5.34% Ni and 1.97% Cu** from 483.67 metres in hole SFRD0294 on line 700N.
- **57.10 metres @ 2.73% Ni and 1.14% Cu** from 420.20 metres including **18.22 metres @ 5.08% Ni and 2.03% Cu** from 449.50 metres in hole SFRD0301 on line 700N.
- **105.68 metres @ 0.72% Ni and 0.27% Cu** from 347.00 metres including **10.27 metres @ 3.42% Ni and 1.15% Cu** from 442.41 metres in hole SFRD0293 on line 725N.

New drill holes at the Bollinger deposit continue to intersect significant zones of mineralisation including:

- **6.00 metres of massive sulphide** from 393.46 metres in hole SFRD0326 on line 650N.

- **13.97 metres of stringer and breccia sulphide** from 361.7 metres and **5.33 metres of mainly massive sulphide** from 407.26 metres in hole SFRD0330 on line 650N.
- **27 metres of disseminated sulphide** from 417.1 metres in SFRD0335 on line 725N.
- **53.5 metres of trace, blebby and disseminated sulphide** from 418 metres in SFRD0325 on line 725N.

These intercepts together with those listed in Annexure 1 and shown in figures 1 to 5 confirm the continuous nature of the mineralisation at Bollinger, which comprises a central core of massive sulphide overlain by a more extensive, thick zone of lower grade disseminated sulphide mineralisation.

### Reconnaissance drilling

Systematic exploration drilling is ongoing elsewhere within the geological structure known as the Eye. Approximately 50% of the prospective area has now been tested, and drilling will continue to test the remaining 50% over the coming months.

Heritage surveys have been completed at the Yardilla target and drilling is planned to commence once statutory approvals have been received.

*As per the new 2012 JORC reporting guidelines, a summary of the information used in these exploration results is as follows:*

*Bollinger is part of a Proterozoic aged gabbroic intrusive complex within metasediments situated in the Albany Fraser mobile belt. It is a high grade metamorphic terrane. The sulphide mineralisation is related to, and part of, the intrusive event. The deposit is analogous to many mafic hosted nickel-copper deposits worldwide.*

*Bollinger is located wholly within Exploration Licence E28/1724. The tenement is part of the Fraser Range JV between Sirius Gold Pty Ltd, a wholly owned subsidiary of Sirius Resources NL, and Ponton Minerals Pty Ltd. Sirius has a 70% interest in the tenement. The tenement sits within the Ngadju Native Title Claim (WC99/002).*

*Drilling of the Bollinger prospect and surrounding area is by diamond drill holes of NQ2 and HQ diameter core (68 holes averaging 510m). The nominal drillhole spacing is 25 m x 25 m in the immediate Bollinger area and 200m x 200m in the surrounding area. Diamond core recoveries are >95% overall. Drillhole collar locations were surveyed using RTK GPS, and all holes were downhole surveyed using high speed gyroscopic survey tools.*

*Sampling of diamond core was based on geological intervals (length 0.2 m to 1.3 m). The core was cut into half (NQ2) or quarter (HQ) to give sample weights around 3 kg. Field quality control procedures involved assay standards, along with blanks and duplicates. These QC samples were inserted at an average rate of 1:15, with an increased rate in mineralised zones.*

*The sample preparation of diamond core involved oven drying, coarse crushing of the half core sample down to ~10 mm followed by pulverisation of the entire sample to a grind size of 85% passing 75 micron. The sample preparation for RC samples was identical, without the coarse crush stage. A pulp sub-sample was collected for analysis by four acid digest with an ICP/OES, ICP/MS (Ni, Cu, Co) finish.*

*All reported assays have been length and bulk density weighted. No top-cuts have been applied. A nominal 0.4% Ni lower cutoff is applied. High grade massive sulphide intervals internal to broader zones of sulphide mineralisation are reported as included intervals.*

*The prospect is dominantly flat lying and is drilled to grid west with drill holes inclined between -60 and -90 degrees. The intersection angles for the drilling appear virtually perpendicular to the mineralised zones. Therefore reported downhole intersections approximate to true width.*

*All samples are measured for their bulk density which ranges from 2.90 g/cm<sup>3</sup> to 4.66g/cm<sup>3</sup>.*

*Multi element assaying is conducted routinely on all samples for a suite of potentially deleterious elements including Arsenic, Sulphur, Zinc and Magnesium.*

*Geotechnical logging was carried out on all diamond drillholes for recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of the database.*

A handwritten signature in black ink that reads "Mark Bennett".

**Mark Bennett, Managing Director and CEO**



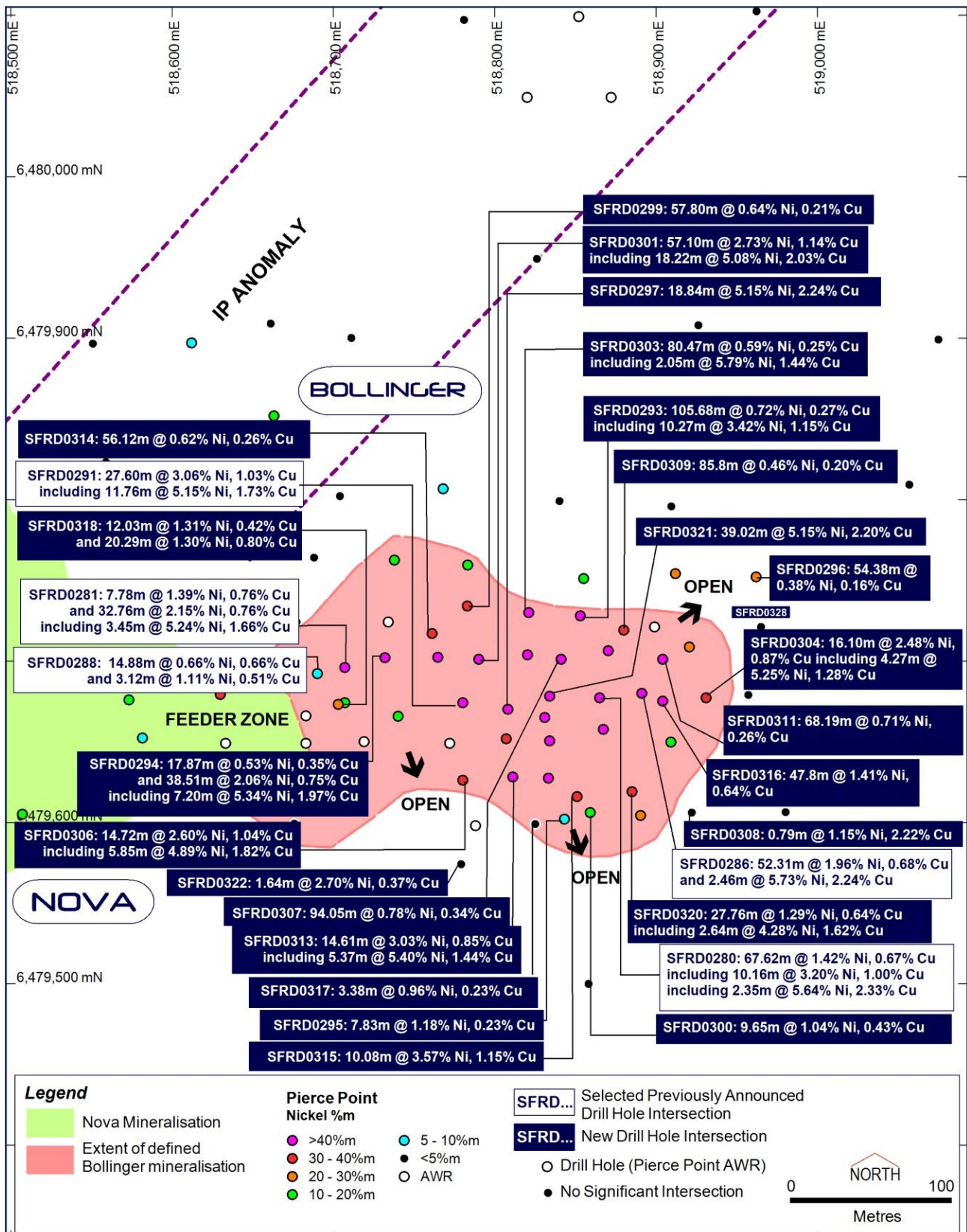


Figure 1. Plan projection showing new assay results and drilling at the Bollinger deposit and adjacent areas.



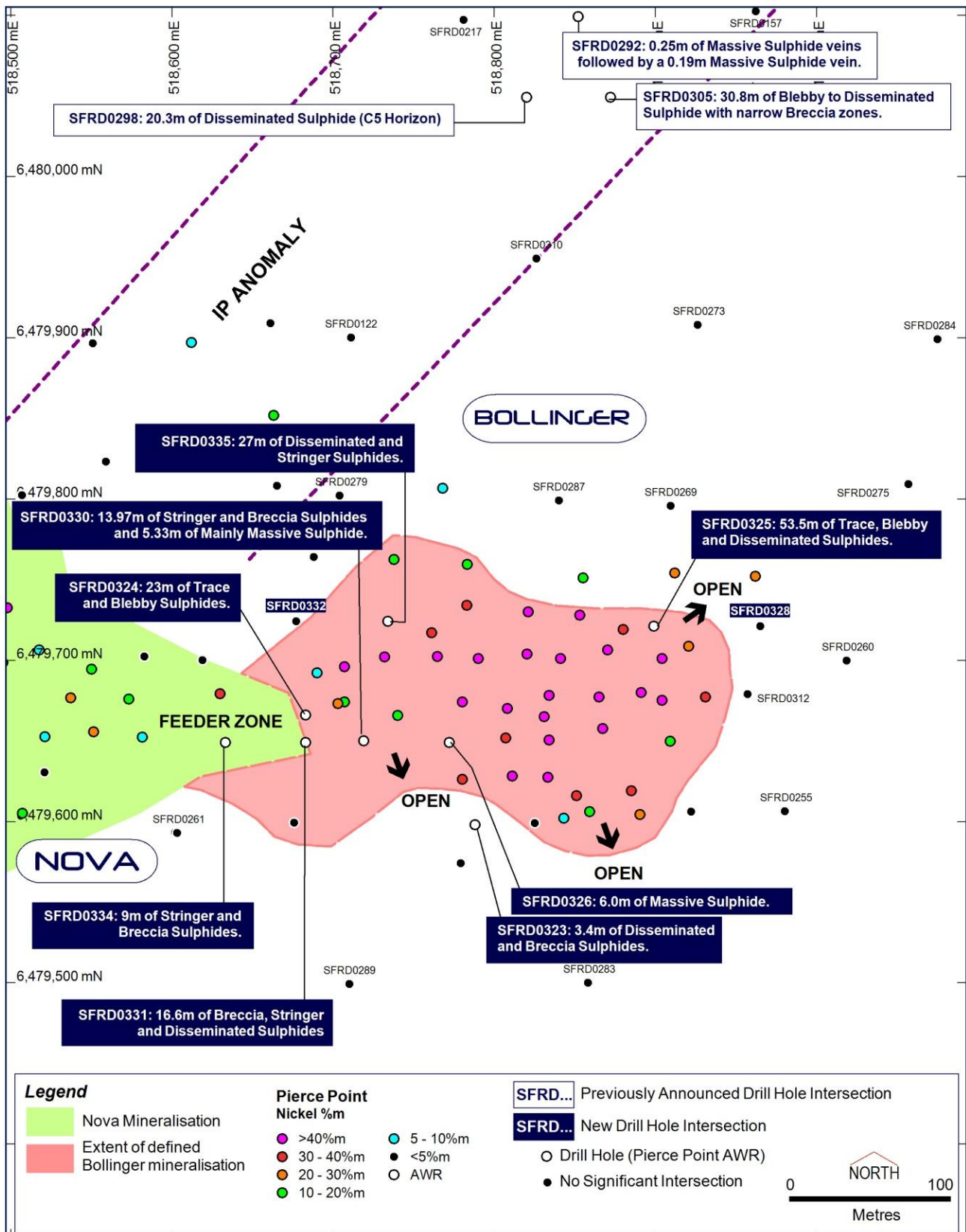


Figure 2. Plan projection showing new visual results and drilling at the Bollinger deposit and adjacent areas.

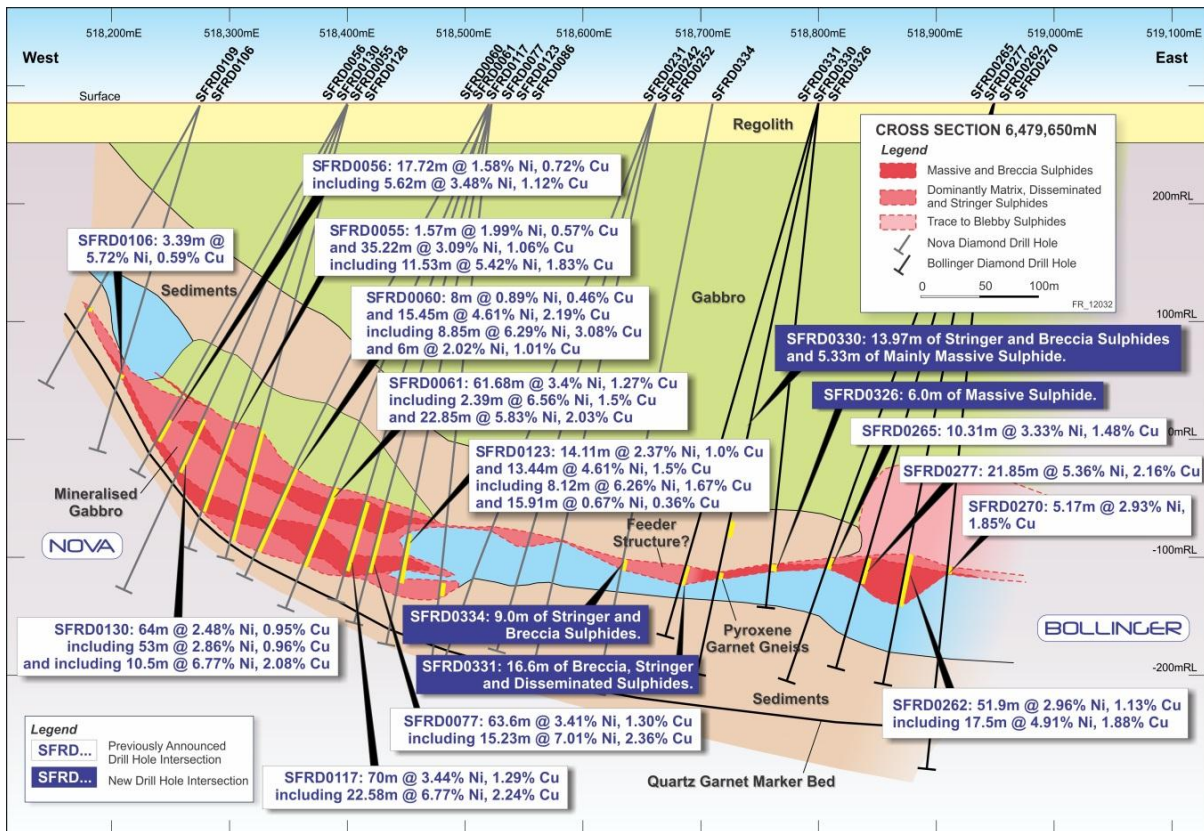


Figure 3. Cross section of line 650N showing new drill intersections in the Bollinger deposit.

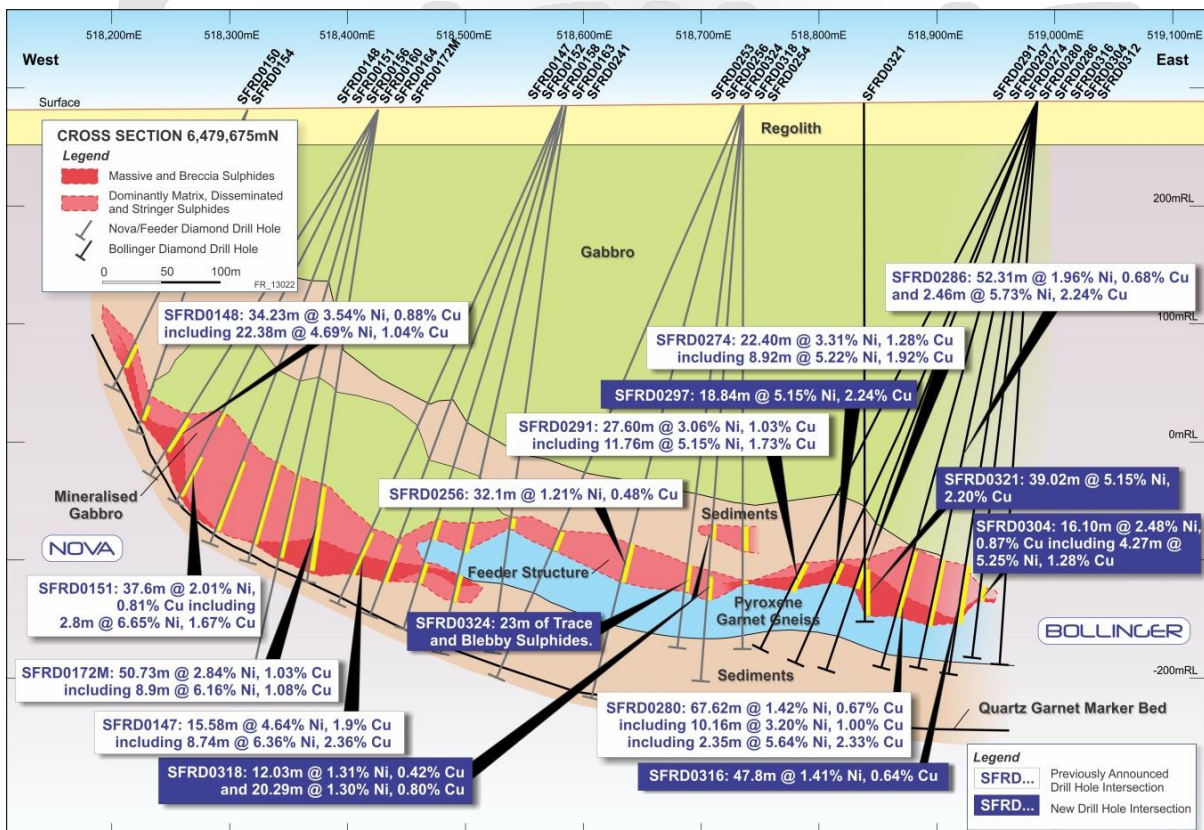


Figure 4. Cross section of line 675N showing new drill intersections in the Bollinger deposit.



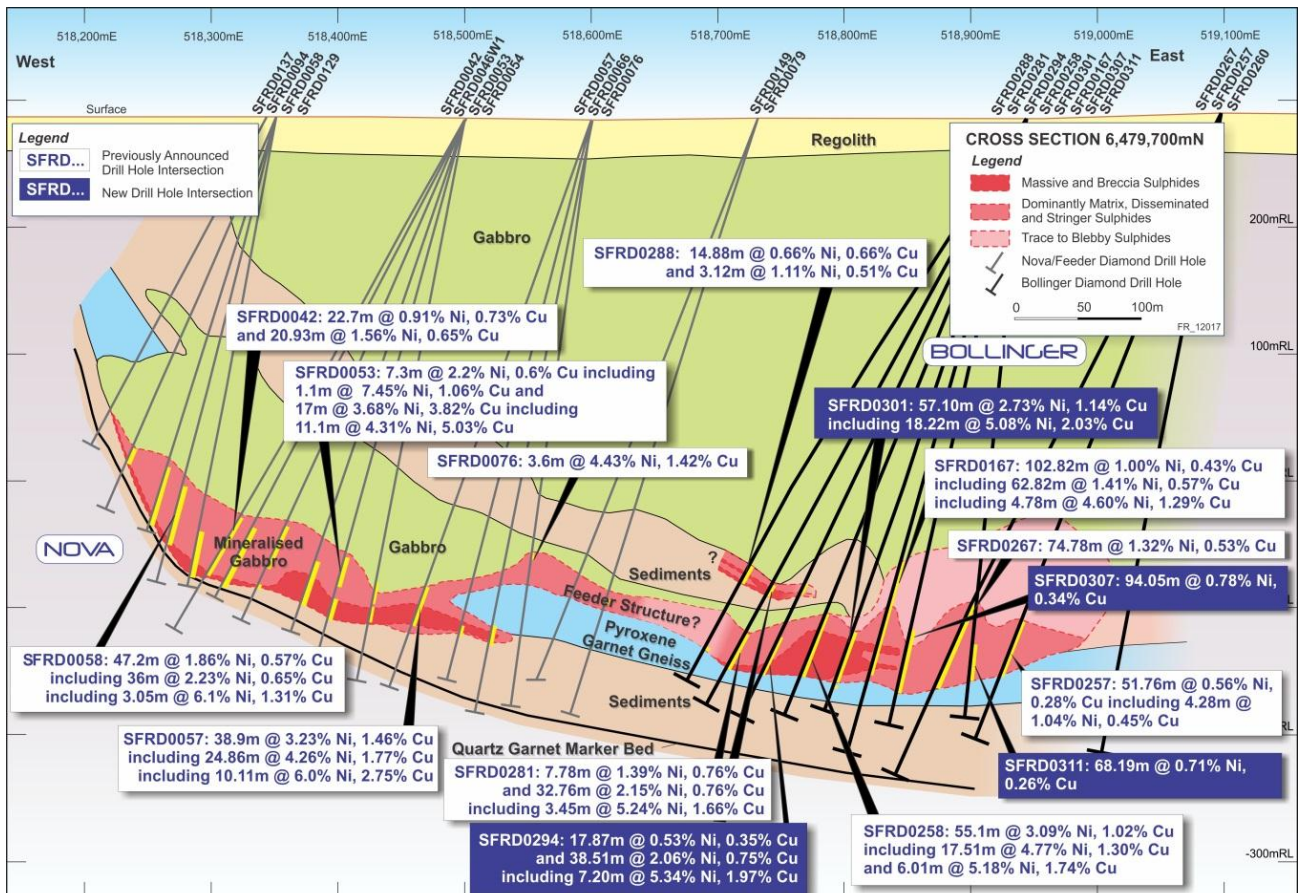


Figure 5. Cross section of line 700N showing new drill intersections in the Bollinger deposit.

**SIRIUS**  
RESOURCES

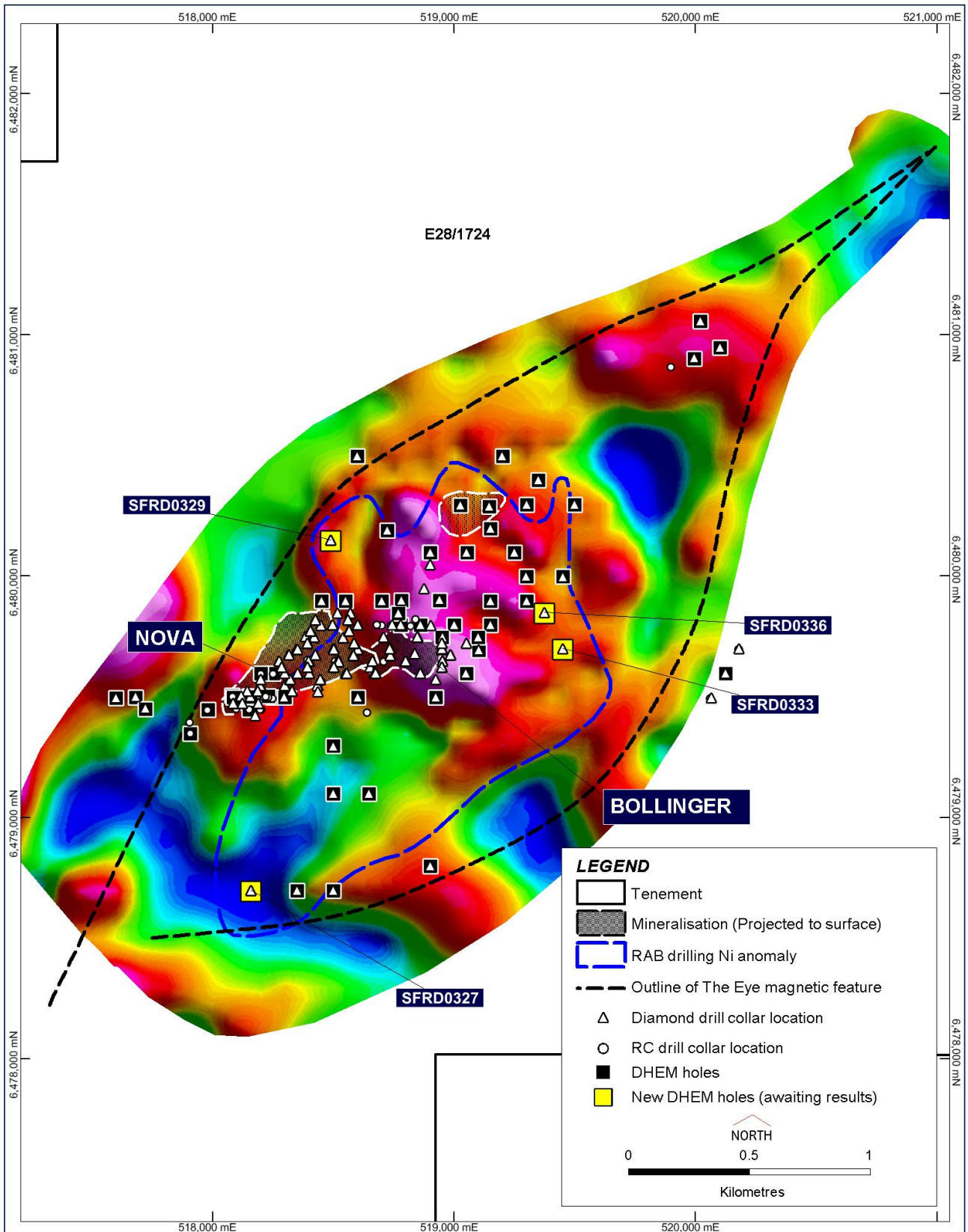


Figure 6. The Eye showing current drill and downhole EM status on gravity image.



## ANNEXURE 1

Hole No.	Zone	Total Depth	North	East	RL	Dip	Azim	From, m	To, m	Width, m	Ni, pct	Cu, pct	Co, pct
SFRD0167	Bollinger	529	6479700	518950	2287	70	270	361.00	463.82	102.82	1.00	0.43	0.04
Including								401.00	463.82	62.82	1.41	0.57	0.06
and								433.92	438.70	4.78	4.60	1.29	0.19
SFRD0251	Feeder Zone	517.1	6479600	518669	2285	65	270	393.71	401.57	7.86	1.83	1.92	0.07
SFRD0252	Feeder Zone	499.2	6479600	518669	2286	65	270	378.46	380.23	1.77	4.31	1.04	0.17
SFRD0253	Feeder Zone	528	6479673	518735	2286	66	270	392.93	410.69	17.76	0.88	0.27	0.04
SFRD0254	Feeder Zone	459.9	6479673	518735	2286	90	270	356.00	378.58	22.58	0.42	0.32	0.02
and								403.56	406.04	2.48	4.27	1.87	0.17
SFRD0256	Feeder Zone	518.3	6479673	518735	2286	75	270	383.15	415.25	32.10	1.21	0.48	0.05
SFRD0257	Bollinger	528.2	6479700	519100	2287	67	270	429.00	480.76	51.76	0.56	0.28	0.02
Including								431.11	435.39	4.28	1.04	0.45	0.04
SFRD0258	Bollinger	509.3	6479700	518950	2287	66	270	423.10	478.20	55.1	3.09	1.02	0.12
Including								437.91	455.42	17.51	4.77	1.30	0.18
and								471.40	477.41	6.01	5.18	1.74	0.20
SFRD0259	Bollinger	541	6479600	519050	2285	63	270	450.25	464.48	14.23	4.78	1.90	0.19
SFRD0260	Bollinger	520	6479700	519100	2287	79	270	NSI					
SFRD0261	Feeder Zone	440	6479600	518670	2285	79	270	NSI					
SFRD0262	Bollinger	501.1	6479650	518950	2287	79	270	385.20	437.10	51.90	2.96	1.13	0.12
Including								416.65	434.15	17.50	4.91	1.88	0.19
SFRD0263	C5	570.5	6479800	519000	2288	60	270	363.24	382.44	19.20	0.47	0.24	0.03
SFRD0265	Bollinger	490	6479650	518951	2287	69	270	412.79	423.10	10.31	3.33	1.48	0.13
SFRD0266	Bollinger	531.9	6479599	519050	2288	68	270	421.50	441.32	19.82	1.50	0.57	0.06
Including								438.05	440.65	2.60	5.24	1.66	0.21
SFRD0267	Bollinger	582.2	6479700	519100	2287	62	270	432.00	506.78	74.78	1.32	0.53	0.06
SFRD0268	Bollinger	544.2	6479600	518675	2285	90	270	390.86	391.85	0.99	3.75	1.24	0.15
SFRD0269	Bollinger	540.8	6479800	519000	2288	78	270	NSI					
SFRD0270	Bollinger	569.9	6479650	518952	2287	84	270	400.47	405.64	5.17	2.93	1.85	0.12
SFRD0272	Bollinger/C5	549.9	6479750	518850	2286.2	75	270	320.00	351.88	31.88	0.58	0.25	0.03
SFRD0274	Bollinger	510.9	6479675	518985	2287.4	68	270	417.00	439.40	22.40	3.31	1.28	0.13
Including								429.95	438.87	8.92	5.22	1.92	0.21
SFRD0276	Bollinger	504.6	6479750	518850	2286	81	270	415.78	450.00	34.22	0.57	0.26	0.02
SFRD0277	Bollinger	520.1	6479650	518950	2286.7	74	270	405.33	427.18	21.85	5.36	2.16	0.21
SFRD0279	Bollinger	480.8	6479800	518860	2287	65	270	NSI					
SFRD0280	Bollinger	495.9	6479675	518985	2287	74	270	394.00	461.62	67.62	1.42	0.67	0.06
Including								433.34	443.50	10.16	3.20	1.00	0.12
Including								459.27	461.62	2.35	5.64	2.33	0.22
SFRD0281	Bollinger/C5	528.4	6479700	518950	2287	60	270	424.00	431.78	7.78	1.39	0.76	0.07
and								465.28	498.04	32.76	2.15	0.76	0.09
Including								494.59	498.04	3.45	5.24	1.66	0.20
SFRD0282	Bollinger/C5	494.0	6479750	518850	2286	68	270	357.88	362.39	4.51	0.66	0.33	0.03
SFRD0285	Bollinger	510.9	6479750	518950	2287	77	270	405.22	407.93	2.71	1.15	0.32	0.05
and								426.39	428.92	2.53	5.08	1.73	0.19
SFRD0286	Bollinger	490	6479675	518985	2287	77.5	270	400.34	452.65	52.31	1.96	0.68	0.08
and								461.16	463.62	2.46	5.73	2.24	0.22
SFRD0287	Bollinger	525.9	6479800	519001	2289	72	270	NSI					
SFRD0288	Feeder Zone	522.8	6479699	518948	2287	56	270	420.50	435.38	14.88	0.66	0.66	0.03
and								491.55	494.67	3.12	1.11	0.51	0.05
SFRD0290	Bollinger	499.1	6479750	518950	2287	85	270	392.70	452.00	59.30	0.42	0.22	0.02

SFRD0291	Bollinger	519.8	6479675	518985	2287	62	270	436.00	463.60	27.60	3.06	1.03	0.12
Including								451.84	463.60	11.76	5.15	1.73	0.20
SFRD0293	Bollinger	513.9	6479725	518950	2287	77	270	347.00	452.68	105.68	0.72	0.27	0.03
Including								442.41	452.68	10.27	3.42	1.15	0.13
SFRD0294	C5/Bollinger	522.9	6479700	518950	2287	63	270	402.54	420.41	17.87	0.53	0.35	0.03
and								452.36	490.87	38.51	2.06	0.75	0.08
Including								483.67	490.87	7.20	5.34	1.97	0.21
SFRD0295	Bollinger	526.1	6479600	519049	2287	62	270	449.40	457.23	7.83	1.18	0.23	0.05
SFRD0296	Bollinger	509.9	6479750	519100	2290	72	270	409.62	464.00	54.38	0.38	0.16	0.02
SFRD0297	Bollinger	516.4	6479675	518985	2287	66	270	425.02	443.86	18.84	5.15	2.24	0.21
SFRD0299	Bollinger	518	6479725	518950	2287	69	270	410.90	468.70	57.80	0.64	0.21	0.03
SFRD0300	Bollinger	509.5	6479600	519049	2287	66	270	445.35	455.00	9.65	1.04	0.43	0.04
SFRD0301	Bollinger	494.7	6479700	518950	2287.3	70	270	420.20	477.30	57.10	2.73	1.14	0.11
Including								449.50	467.72	18.22	5.08	2.03	0.20
SFRD0303	Bollinger	495.9	6479725	518950	2287.3	73	270	383.53	464.00	80.47	0.59	0.25	0.03
Including								427.27	429.32	2.05	5.79	1.44	0.22
SFRD0304	Bollinger	471.8	6479675	518985	2286	83	270	415.67	431.77	16.10	2.48	0.87	0.09
Including								423.51	427.78	4.27	5.25	1.28	0.19
SFRD0306	Bollinger	462.9	6479625	518950	2287	66	270	415.53	430.25	14.72	2.60	1.04	0.10
Including								415.53	421.38	5.85	4.89	1.82	0.19
SFRD0307	Bollinger	487	6479700	518950	2287	77	270	369.60	463.65	94.05	0.78	0.34	0.03
SFRD0308	Bollinger	473.6	6479600	519050	2287	73	270	415.55	416.34	0.79	1.15	2.22	0.05
SFRD0309	Bollinger	492.9	6479725	518950	2287	81	270	362.00	447.80	85.80	0.46	0.20	0.02
SFRD0311	Bollinger	487.1	6479700	518950	2287	84	270	377.73	445.92	68.19	0.71	0.26	0.03
SFRD0312	Bollinger	477.8	6479675	518985	2287	86	270	NSI					
SFRD0313	Bollinger	451	6479625	518950	2286	70	270	412.47	427.08	14.61	3.03	0.85	0.12
Including								414.50	419.87	5.37	5.40	1.44	0.21
SFRD0314	Bollinger	513.9	6479725	518950	2287	65	270	430.85	486.97	56.12	0.62	0.26	0.03
SFRD0315	Bollinger	454.1	6479625	518950	2286	76	270	415.15	425.23	10.08	3.57	1.15	0.14
SFRD0316	Bollinger	480.9	6479675	518985	2288	81	270	397.20	445.00	47.80	1.41	0.64	0.06
SFRD0317	Bollinger	445.2	6479600	518860	2285	84	270	403.01	406.39	3.38	0.96	0.23	0.04
SFRD0318	C5/Bollinger	490.1	6479673	518735	2284	86	270	356.15	368.18	12.03	1.31	0.42	0.06
and								400.76	421.05	20.29	1.30	0.80	0.06
SFRD0320	Bollinger	459.9	6479625	518950	2286	81	270	385.49	413.25	27.76	1.29	0.64	0.05
Including								408.82	411.46	2.64	4.28	1.62	0.17
SFRD0321	Bollinger	490.1	6479680	518838	2286	90	270	395.67	434.69	39.02	5.15	2.20	0.21
SFRD0322	Bollinger	463	6479575	518925	2285	69	270	421.98	423.62	1.64	2.70	0.37	0.10

Hole No.	Zone	Total Depth	North	East	RL	Dip	Azim	From, m	To, m	Width, m	Ni, pct	Cu, pct	Co, pct
SFRC0062	Conductor 2	123.0	6479499	520060	2280	80	90	-	-	-	NSI		
SFRC0063	Conductor 2	123.0	6479499	520061	2280	70	90	-	-	-	NSI		
SFRC0067	Conductor 2	150.0	6479599	520121	2281	80	90	-	-	-	NSI		
SFRC0073	Conductor 2	126.0	6479599	520127	2281	60	90	-	-	-	NSI		
SFRC0074	Conductor 2	150.0	6479700	520177	2282	80	90	-	-	-	NSI		
SFRC0075	Conductor 2	63.0	6479700	520179	2282	70	90	-	-	-	NSI		
SFRC0081	Conductor 3	150.0	6480870	519899	2298	60	0	-	-	-	NSI		
SFRC0082	Conductor 3	132.0	6480907	519994	2299	60	0	-	-	-	NSI		
SFRC0085	Conductor 3	144.0	6480947	520100	2299	75	0	-	-	-	NSI		
SFRD0064	Conductor 2	211.0	6479498	520066	2280	60	90	-	-	-	NSI		
SFRD0072	Conductor 2	247.1	6479599	520124	2281	70	90	-	-	-	NSI		
SFRD0080	Conductor 2	189.5	6479700	520181	2282	60	90	-	-	-	NSI		
SFRD0083	Conductor 3	418.1	6480905	519994	2299	75	0	-	-	-	NSI		
SFRD0084	Conductor 3	446.8	6480949	520100	2299	60	0	-	-	-	NSI		
SFRD0126	Tethys	723.1	6480192	518723	2292	74	270	-	-	-	NSI		
SFRD0127	Tethys	472.0	6480295	519026	2301	70	270	-	-	-	NSI		
SFRD0133	Tethys	374.0	6480290	519140	2303	70	270	212.57	213.75	1.18	1.44	0.31	0.08
And								265.15	265.44	0.29	2.84	1.06	0.11

SFRD0138	Tethys	454.2	6480290	519146	2303	80	270	245.00	263.78	18.78	0.46	0.21	0.02
<b>Including</b>								<b>253.90</b>	<b>254.69</b>	<b>0.79</b>	<b>1.30</b>	<b>0.52</b>	<b>0.06</b>
And								257.65	258.36	0.71	1.70	0.25	0.07
SFRD0139	The Eye	421.0	6478700	518349	2286	60	270	-	-	-	NSI		
SFRD0142	Tethys	433.0	6480298	519299	2301	70	270	-	-	-	NSI		
SFRD0157	The Eye	412.0	6480100	519052	2296	70	270	-	-	-	NSI		
SFRD0168	Tethys	502.1	6478698	518499	2285	60	270	-	-	-	NSI		
SFRD0169	Tethys	529.0	6480299	519499	2298	60	270	-	-	-	NSI		
SFRD0173	Tethys	493.0	6480401	519349	2298	60	270	-	-	-	NSI		
SFRD0177	The Eye	498.9	6479298	518500	2282	65	270	-	-	-	NSI		
SFRD0189	The Eye	498.7	6479101	518499	2282	65	270	-	-	-	NSI		
SFRD0194	Tethys	419.3	6480199	519149	2301	70	270	-	-	-	NSI		
SFRD0198	The Eye	502.5	6479101	518647	2280	65	270	-	-	-	NSI		
SFRD0204	The Eye	483.9	6480499	518599	2288	60	270	-	-	-	NSI		
SFRD0208	The Eye	473.4	6479500	518600	2281	60	270	-	-	-	NSI		
SFRD0217	The Eye	379.0	6480100	518899	2296	60	270	-	-	-	NSI		
SFRD0227	Conductor 3	271.0	6481060	520019	2297	70	180	-	-	-	NSI		
SFRD0233	The Eye	529.0	6480100	519250	2298	70	270	-	-	-	NSI		
SFRD0244	The Eye	724.1	6480500	519199	2298	60	270	-	-	-	NSI		
SFRD0255	The Eye	607.2	6479600	519050	2287	80	270	-	-	-	NSI		
SFRD0264	The Eye	531.9	6480000	519300	2298	70	270	-	-	-	NSI		
SFRD0271	The Eye	580.0	6480000	519500	2298	70	270	-	-	-	NSI		
SFRD0273	The Eye	557.6	6479900	519300	2297	70	270	-	-	-	NSI		
SFRD0275	The Eye	522.9	6479800	519150	2290	77	270	-	-	-	NSI		
SFRD0278	The Eye	484.0	6479900	519300	2295	78	270	-	-	-	NSI		
<b>SFRD0284</b>	<b>The Eye</b>	<b>580.0</b>	<b>6479899</b>	<b>519298</b>	<b>2296</b>	<b>62</b>	<b>270</b>	-	-	-	NSI		
<b>SFRD0289</b>	<b>The Eye</b>	<b>518.0</b>	<b>6479500</b>	<b>518924</b>	<b>2285</b>	<b>62</b>	<b>270</b>	-	-	-	NSI		
<b>SFRD0319</b>	<b>The Eye</b>	<b>574.1</b>	<b>6478800</b>	<b>518900</b>	<b>2280</b>	<b>75</b>	<b>90</b>	-	-	-	NSI		
<b>SFRD0327</b>	<b>The Eye</b>	<b>310.2</b>	<b>6478700</b>	<b>518160</b>	<b>2285</b>	<b>75</b>	<b>270</b>	-	-	-	NSI		
<b>SFRD0329</b>	<b>The Eye</b>	<b>487.3</b>	<b>6480150</b>	<b>518490</b>	<b>2295</b>	<b>90</b>	<b>270</b>	-	-	-	NSI		
<b>SFRD0333</b>	<b>The Eye</b>	<b>497.6</b>	<b>6479700</b>	<b>519450</b>	<b>2285</b>	<b>75</b>	<b>270</b>	-	-	-	NSI		
<b>SFRD0336</b>	<b>The Eye</b>	<b>454.1</b>	<b>6479850</b>	<b>519375</b>	<b>2285</b>	<b>75</b>	<b>270</b>	-	-	-	NSI		

Note: Drillholes in **bold** represent new results whereas the other drillholes have been announced previously.

### Competent Persons statement

The information in this report that relates to Exploration Results is based on information compiled by Mark Bennett and Andy Thompson who are employees of the company and fairly represents this information. Dr Bennett is a member of the Australasian Institute of Mining and Metallurgy, a fellow of the Australian Institute of Geologists and a fellow of the Geological Society of London. Mr Thompson is a member of the Australasian Institute of Mining and Metallurgy. Dr Bennett and Mr Thompson have sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Bennett and Mr Thompson consent to the inclusion in this report of the matters based on information in the form and context in which it appears.

### Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	The Bollinger area is sampled by diamond drill holes (DD) on a nominal 25m (easting) x 25m (northing) grid spacing and 150m (easting) by 200m (northing) for exploration drillholes to be used for DHEM. A total of 68 DD holes have been drilled to an average depth of 520m. Holes are angled towards grid west at varying angles to optimally intersect the mineralised zones. RC drilling is currently not utilized at the Eye.



Criteria	JORC Code explanation	Commentary
	<p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</i></p>	<p>The drill hole locations are picked up and downhole surveyed by survey contractors. Diamond core was used to obtain high quality samples that were logged for lithological, structural, geotechnical, density and other attributes. Sampling was carried out under Sirius protocols and QAQC procedures as per industry best practice.</p>
	<p><i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information</i></p>	<p>Diamond core is HQ and NQ2 size, sampled on geological intervals (0.2 m to 1.2 m), cut into half (NQ2) or quarter (HQ) core to give sample weights under 3 kg. Samples were crushed, dried and pulverised (total prep) to produce a sub sample for analysis by four acid digest with an ICP/OES, ICP/MS or FA/AAS (Au, Pt, Pd) finish.</p>
<b>Drilling techniques</b>	<p><i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></p>	<p>Diamond drilling accounts for 100% of the current drilling at the Eye and Bollinger and comprises NQ2 or HQ sized core. Pre-collar depths range from 20 m to 84m and hole depths range from 450 m to 667 m. The core was oriented using a Camtech orientation tool.</p>
<b>Drill sample recovery</b>	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed</i></p>	<p>Diamond core recoveries are logged and recorded in the database. Overall recoveries are &gt;95% and there are no core loss issues or significant sample recovery problems.</p>
	<p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples</i></p>	<p>Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers.</p>
	<p><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></p>	<p>The mineralisation is defined by diamond core drilling, which has high recoveries. The massive sulphide style of mineralisation and the consistency of the mineralised intervals are considered to preclude any issue of sample bias due to material loss or gain.</p>
<b>Logging</b>	<p><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p>	<p>Geotechnical logging was carried out on all diamond drillholes for recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of the database.</p>
	<p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p>	<p>Logging of diamond core samples records lithology, mineralogy, mineralisation, structural, weathering, colour and other features of the samples. Core was photographed in both dry and wet form.</p>
	<p><i>The total length and percentage of the relevant intersections logged</i></p>	<p>All drillholes were logged in full, apart from rock roller diamond hole pre-collar intervals of between 20 m to 84 m depth.</p>
<b>Sub-sampling techniques and sample preparation</b>	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p>	<p>Core is cut in half (NQ2) and quarter core (HQ) onsite using an automatic core saw. Samples are collected from the same side of the core.</p>
	<p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p>	<p>No RC samples have been collected at Bollinger.</p>
	<p><i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></p>	<p>The sample preparation of diamond core follows industry best practice in sample preparation involving oven drying, coarse crushing of the half core sample down to ~10 mm followed by pulverisation of the entire sample (total prep) using Essa LMS grinding mills to a grind size of 85% passing 75 micron.</p>

Criteria	JORC Code explanation	Commentary
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Field QC procedures involve the use of certified reference material as assay standards, along with blanks, duplicates and barren washes. The insertion rate of these averaged 1:15, with an increased rate in mineralised zones.
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	No field duplicates have been taken. Samples are selected to weigh less than 3kg to ensure total preparation at the pulverisation stage.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	The sample sizes are considered to be appropriate to correctly represent the sulphide mineralisation at Bollinger based on: the style of mineralisation (massive sulphides), the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	The analytical techniques used a four acid digest multi element suite with ICP/OES or ICP/MS finish (25 gram FA/AAS for precious metals). The acids used are hydrofluoric, nitric, perchloric and hydrochloric acids, suitable for silica based samples. The method approaches total dissolution of most minerals. Total sulphur is assayed by combustion furnace.
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	No geophysical tools were used to determine any element concentrations used in this resource estimate.
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	Sample preparation checks for fineness were carried out by the laboratory as part of their internal procedures to ensure the grind size of 85% passing 75 micron was being attained. One diamond hole had duplicates taken from the half core after coarse crushing and the results were within 3% of the original sample values. Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in house procedures. Certified reference materials, having a good range of values, were inserted blindly and randomly. Results highlight that sample assay values are accurate and that contamination has been contained.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Both the Managing and the Technical Director of Sirius has visually verified significant intersections in diamond core from Bollinger.
	<i>The use of twinned holes.</i>	No twin holes have been drilled at Bollinger to date
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Primary data was collected using a set of standard Excel templates on toughbook laptop computers using lookup codes. The information was sent to ioGlobal for validation and compilation into a SQL database server.
	<i>Discuss any adjustment to assay data.</i>	No adjustments or calibrations were made to any assay data used in this estimate.

Criteria	JORC Code explanation	Commentary
Location of data points	<i>Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	Hole collar locations are routinely surveyed by Whelans Surveyors of Kalgoorlie using RTK GPS connected to the state survey mark (SSM) network. Elevation values were in AHD RL and a value of +2,000 m was added to the AHD RL by Sirius for local co-ordinate use. Expected accuracy is + or – 30 mm for easting, northing and elevation coordinates. Downhole surveys used single shot readings during drilling (at 18m, then every 30 m) and Gyro Australia carried out gyroscopic surveys using a Keeper high speed gyroscopic survey tool with readings every 5 m after hole completion. Stated accuracy is $\pm 0.25^\circ$ in azimuth and $\pm 0.05^\circ$ in inclination. QC involved field calibration using a test stand. Final hole downhole survey is based only on gyro data.
	<i>Specification of the grid system used.</i>	The grid system is MGA_GDA94, zone 51 (local RL has 2,000 m added to value). Local easting and northing are in MGA.
	<i>Quality and adequacy of topographic control.</i>	Topographic surface uses 2012 Lidar 50 cm contours.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	The nominal drillhole spacing is 50 m (northing) by 50 m (easting) for scoping Bollinger mineralisation and 150m (northing) by 200m (northing) for exploration drillholes to be used for DHEM.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	The mineralised domains have not yet demonstrated sufficient continuity in both geological and grade continuity to support the definition of Mineral Resource and Reserves, and the classifications applied under the 2012 JORC Code.
	<i>Whether sample compositing has been applied.</i>	No compositing has been applied to the exploration results.
Orientation of data in relation to geological structure	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	The data is drilled to grid west, which is slightly oblique to the orientation of the mineralised trend; however the intersection angles for the bulk of the drilling are nearly perpendicular to the mineralised domains. Structural logging based on oriented core indicates that main sulphide controls are largely perpendicular to drill direction.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	No orientation based sampling bias has been identified in the data at this point.
Sample security	<i>The measures taken to ensure sample security.</i>	Chain of custody is managed by Sirius. Samples are stored on site and either delivered by Sirius personnel to Perth and then to the assay laboratory, or collected from site by Centurion transport and delivered to Perth, then to the assay laboratory. Whilst in storage, they are kept on a locked yard. Tracking sheets have been set up to track the progress of batches of samples.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	A review of the data management system was carried out by Optiro in February 2013 as part of the Nova resource estimation process. The database is considered to be of sufficient quality to carry out resource estimation.

## **Section 2 REPORTING OF EXPLORATION RESULTS**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	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.	Bollinger is located wholly within Exploration Licence E28/1724. The tenement is part of the Fraser Range JV between Sirius Gold Pty Ltd, a wholly owned subsidiary of Sirius Resources NL, and Ponton Minerals Pty Ltd. Sirius has a 70% interest in the tenement. The tenement sits within the Ngadju Native Title Claim (WC99/002).



Criteria	JORC Code explanation	Commentary
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The tenement is in good standing and no known impediments exist.
<b>Exploration done by other parties</b>	Acknowledgment and appraisal of exploration by other parties.	No previous exploration has been undertaken at the Bollinger prospect.
<b>Geology</b>	Deposit type, geological setting and style of mineralisation.	The global geological setting is a Proterozoic aged gabbroic intrusion(s) within metasediments situated in the Albany Fraser mobile belt. It is a high grade metamorphic terrane. The sulphide mineralisation is related to, and part of, the intrusive event. The deposit is analogous to many mafic hosted nickel-copper deposits worldwide.
<b>Drill hole information</b>	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>• easting and northing of the drill hole collar</li> <li>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>• dip and azimuth of the hole</li> <li>• down hole length and interception depth</li> <li>• hole length.</li> </ul>	Refer to Annexure 1 in body of text.
<b>Data aggregation methods</b>	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.	All reported assays have been length and bulk density weighted. No top-cuts have been applied. A nominal 0.4% Ni lower cutoff is applied.
	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.	High grade massive sulphide intervals internal to broader zones of sulphide mineralisation are reported as included intervals.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are used for reporting exploration results.
<b>Relationship between mineralisation widths and intercept lengths</b>	These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	The prospect is dominantly flat lying and is drilled to grid west with drill holes inclined between -60 and -90 degrees. The intersection angles for the drilling appear virtually perpendicular to the mineralised zones. Therefore reported downhole intersections approximate to true width.
<b>Diagrams</b>	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.	Refer to Figures 1-6 in body of text.
<b>Balanced reporting</b>	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results are reported.

Criteria	JORC Code explanation	Commentary
<b>Other substantive exploration data</b>	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.	The outlines of IP anomalies are identified on plan section Fig 1 and Fig 2. All samples are measured for their bulk density which range from 2.90 g/cm <sup>3</sup> to 4.66g/cm <sup>3</sup> . Multi element assaying is conducted routinely on all samples for a suite of potentially deleterious elements including Arsenic, Sulphur, Zinc and Magnesium. Geotechnical logging was carried out on all diamond drillholes for recovery, RQD and number of defects (per interval). Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of the database.
<b>Further work</b>	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	Bollinger will continue to be drilled at a nominal 50m x 50m pattern to scope out limits of mineralisation and then drilling density will be increased to a nominal 25m x 25m where appropriate to allow development of a robust geological model and ultimately leading to a Mineral Resource Estimate. Refer to figures 1 - 5 for current interpretation of mineralisation limits. Metallurgical drilling will commence in April 2013 to provide samples for preliminary liberation and recovery testwork.

