

15 July 2019

# EAST PILBARA PROJECTS – EXPLORATION UPDATE

## HIGHLIGHTS

- The multi-element assay results have now been received for the 40 rock samples collected at MinRex's two Marble Bar Project areas and the 140 rock samples collected in MinRex's East Pilbara Project areas during June 2019;
- At the Daltons Project (E45/4681) a total of 100 rock samples were collected from a wide area within the centre of the exploration licence. This new sampling aimed to test outcrop, float and smaller workings and prospecting pits across the full width of the licence. These 100 new samples returned assays of up to 60.6/t Au and 5.8% Cu, with the average grade of all 100 samples being 1.80g/t Au and 0.12% Cu;
- Sampling at the Marble Bar South Project (P45/3039) mostly returned low values from areas in the south of the licence with a highest gold assay of 42.5g/t Au. Sampling at the Marble Bar North Project (P45/3040) returned several values of over 0.1g/t Au from the south of the area and a highest gold assay of 5.0g/t Au;
- These new results continue the assessment of MinRex's East Pilbara Project areas and build on the excellent exploration outcomes from MinRex's four previous exploration and sampling campaigns in the East Pilbara;
- The new assay results highlight the prospectivity and potential of these Project areas and the latest sampling will be used to determine target areas for further exploration and detailed evaluation later in 2019.





Figure 1: Location of MinRex's East Pilbara Project Areas

MinRex Resources Limited (ASX: MRR) ('MinRex' or 'the Company') is pleased to announce that it has now received the assay results for the 140 rock samples collected in June 2019, at its Daltons, Marble Bar North and Marble Bar South Project areas, during the geological evaluation and sampling program at its 70% owned East Pilbara Project tenements (Figure 1).

As announced in December 2017, East Pilbara field program recovered gold nuggets from the Marble Bar North Project tenement (P45/3040) and collected ten rock samples from the Marble Bar South Project tenement (P45/3039). An additional 190 rock samples, from the Marble Bar North (P45/3040), Marble Bar South (P45/3039), Daltons (E45/4681) and Bamboo Creek (E45/4560 & E45/4853) Project areas, were subsequently collected in May 2018. Subsequent follow up field exploration work was then completed on all four of the East Pilbara Project areas during August and October 2018, with the collection of a further 270 rock samples from the project areas (Figure 2).





Figure 2: East Pilbara satellite image showing MinRex's East Pilbara Project Areas

From December 2017 through to October 2018, a total of 470 rock samples were collected from MinRex's four East Pilbara Project areas, with many of the assays being highly anomalous for gold, copper, silver, nickel, chrome and zinc. The projects were also historically researched, old workings and prospects identified and extensive reconnaissance work completed, which included air photo interpretation, metal detecting, photography and geological mapping.

During June 2019 and after the summer wet season, the first field exploration program at MinRex's East Pilbara Projects was completed with the assay results for the rock sampling work completed at the Daltons, Marble Bar North and Marble Bar South Projects now reported herein. This was the fifth exploration program in the East Pilbara in the eighteen months that the Company has held the Project areas.

#### **Daltons Project**

At the Daltons Project (E45/4681) a total of 100 rock samples (DAR061-160) were collected from a large area, including the centre and across the entire width, of the exploration licence (Figure 3). This included multiple rock types, structural settings, alteration zones, float, scree and colluvium.



Some of the samples were also from the main old workings, and previously un-sampled old workings.



Figure 3: View to the west across the licence from the old workings at Daltons in E45/4681

The old gold workings at the Daltons Mining Centre are located along a north-northwest-trending line of quartz and quartz-carbonate veins which have intruded the foliation of mafic greenstone schist and associated alteration zones, in metabasalt, high-Mg basalt, dolerite and other mafic and ultramafic rock types of the Archean Warrawoona Group Greenstones. The geology in the project area strikes north-northwest is steeply dipping and layered with bands of jaspilite, quartzite, banded iron formation, ultramafic, felsic, mafic and amphibolite rocks, and granitoid. There are many structurally complex areas, numerous shear zones, major faults and steeply plunging fold axes, dips are between steeply east-dipping and vertical (Figure 4).

The Daltons gold workings can be traced for about 1500m strike length, with the main quartz lode marked by workings for about 700m with the maximum width of up to 10m and the strike of 340-350°. Recorded production of gold was 5.543kg from 409.5t of ore, for an average grade of 13.5g/t Au. The quartz reefs are principally parallel with the schistosity, within the greenstones. There are several shafts, two of which extend to depths of over 20m, an inclined adit and some open stoping. There were copper minerals as well as gold in the workings.

The 100 rock samples collected at the Daltons project in June 2019 were from various rock types, quartz veins, shear zones, dumps, scree and float. The samples were analysed for a total of 20 elements at Bureau Veritas in Perth. These included gold, silver, arsenic, cobalt, copper, chrome, bismuth, iron, lithium, manganese, molybdenum, nickel, lead, antimony, tin, tellurium, thorium, uranium, tungsten and zinc.

The outstanding assay results from June 2019 sampling were in the gold and copper assays which were up to 60.6g/t Au and 5.8% Cu, with the average grade from all 100 samples being 1.8g/t Au and 0.12% Cu, with a total of 14 samples assayed over 1.0g/t Au. The full assay results for gold and base metals are listed below in Appendix 1, while the gold results are also shown on the plan below (Figure 4).





Figure 4: Daltons Project E45/4681 showing old workings and new June 2019 gold assay results

This lease area is large and holds the remains of an old battery, with old tracks that provide access to most of the workings. The mineralisation occurs as gold-copper in quartz veins with the highest copper content (shown by green malachite and red cuprite minerals in the quartz) being associated with the highest gold grades. The lease is remote and best accessed by driving 72km south on the Marble Bar-Hillside road (unsealed) and then 17km by weak tracks into the lease area – the 89km drive takes about 2 ½ hours and the last 17km of track driving is difficult. The long access time dictates that work in this area requires camping on site.

MinRex has now collected at total of 160 rock samples from the Daltons Project area, and the gold results for all 160 of these samples are shown on the plan below (Figure 5). It is encouraging that gold is seen to occur along a strike length of over 1500m and also in several parallel structures over a zone up to 500m wide.

![](_page_5_Picture_0.jpeg)

![](_page_5_Figure_1.jpeg)

Figure 5: Daltons Project E45/4681 showing workings and all 160 gold assay results

#### Marble Bar North

At the Marble Bar North Project (P45/3040) a total of 20 rock samples (MNR061-080) were collected in June 2019, many from new previously untested areas, mainly in the south of the licence, but also some from old dumps, bulldozer heaps and minor old workings at the Ironclad mine site. The gold mineralisation in this area occurs as quartz veins in sheared and strongly carbonated greenstones, and associated alteration zones, close to the greenstone/granite contact.

![](_page_6_Picture_0.jpeg)

![](_page_6_Figure_1.jpeg)

2Figure 6: Marble Bar North Project showing workings and new June 2019 gold assay results

The 20 new rock samples from the Marble Bar North Project area were analysed for a total of 20 elements at Bureau Veritas in Perth. These included gold, silver, arsenic, cobalt, copper, chrome, bismuth, iron, lithium, manganese, molybdenum, nickel, lead, antimony, tin, tellurium, thorium, uranium, tungsten and zinc. The samples were generally low for most elements, except the gold assays, which varied from zero up to 5.0g/t Au, with six samples being over 0.1g/t Au. The full assay results for gold and base metals are listed below in Appendix 2, while the gold results are also shown diagrammatically on the plan above (Figure 6).

The new samples were collected from throughout the licence area, mainly in the south, in areas beyond the previous sampling programs, which largely focussed on the old workings and were typically taken from scree, float and old dumps. The plan below (Figure 7) shows the gold assay results for all 80 rock samples collected at the Marble Bar North Project to date.

![](_page_7_Picture_0.jpeg)

![](_page_7_Figure_1.jpeg)

Figure 7: Marble Bar North Project showing workings, nugget finds and all 80 gold assays to date

#### Marble Bar South

At the Marble Bar South Project (P45/3039) a total of 20 rock samples (MSR071-090) were collected in June 2019, from various locations, mainly in the southern sector of the licence, and were taken from scree, float and outcrops beyond and around the old workings. This licence contains the old McKays Find mine which runs along a 30-40m high ridge of greenstone rocks which is truncated to the north by the presence of basal Fortescue Group conglomerate rocks. The known gold mineralisation occurs as a 100m long and 2m wide zone of quartz veining in pyritic-fuchsite-carbonate rock, which lies parallel to the regional schistosity. The aim of the current work was to commence testing of other parts of the licence for previously undetected gold mineralisation.

The 20 new rock samples from Marble Bar South were analysed for a total of 20 elements at Bureau Veritas in Perth. These included gold, silver, arsenic, cobalt, copper, chrome, bismuth, iron, lithium, manganese, molybdenum, nickel, lead, antimony, tin, tellurium, thorium, uranium, tungsten and zinc. Some samples were anomalous in various elements but the outstanding results were in the gold assays which varied from zero up to 42.5g/t Au. Full assay results for gold and base metals are listed below in Appendix 3, with the gold results for the new 20 samples also shown on the plan below (Figure 8).

![](_page_8_Picture_0.jpeg)

![](_page_8_Figure_1.jpeg)

Figure 8: Marble Bar South Project showing geology and new June 2019 gold assay results

The highest value sample (42.5g/t Au) came from a loose quartz vein float sample in the centre of the licence that may have been transported from higher up on the ridge line, i.e. along strike from the McKays Find mine area. More sampling and geological mapping will be required to determine the significance of this sample. Generally low results were received for samples taken from other areas in the south of the licence area, although these represent only a small portion of this area and only a small number of samples. Further sampling and mapping work, to better understand this area will be completed on the next visit to the project area.

The plan below shows the gold assay results for all 90 rock samples collected at the Marble Bar South Project to date along with the location of old workings and the generalised geology plan (Figure 9). Both of the Marble Bar properties contain old gold mine workings and have returned very encouraging sample assay results in all of the sampling programs completed to date.

![](_page_9_Picture_0.jpeg)

![](_page_9_Figure_1.jpeg)

Figure 9: Marble Bar South Project showing geology, workings and all 90 gold assays to date

The initial exploration completed on the Marble Bar project areas included the collection of a large number of rock samples from the areas of old workings, conglomerate horizons, potential target areas and prospective geological zones and horizons, with these samples then being subjected to multi-element analyses in order to discover the most prospective areas. This work will be on-going and in conjunction with more geological mapping and detailed sampling to be completed in the lesser explored sectors of the project areas in the next sampling program.

The next (sixth) phase of field work on MinRex's East Pilbara Projects will again incorporate visits to all four of the project areas around the Marble Bar area. Further detailed rock sampling, soil sampling in colluvium and soil covered areas and detailed geological mapping will be utilised to better understand these complex gold, base metal and poly-metallic mineralised systems. It is probable that this work will commence in the next couple of months, prior to the summer heat and rain.

![](_page_10_Picture_0.jpeg)

For further information, please contact:

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#### **Competent Persons Statement:**

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Kieron Munro, a Competent Person who is a Member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and 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". Mr Munro is employed as an independent geological consultant by MinRex and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

![](_page_11_Picture_0.jpeg)

Sample	Easting	Northing	Au	Ag	As	Cr	Pb	Cu	Ni	Zn
No.	m	m	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DAR061	734413	7624559	30.4	4.5	173	110	4	4010	398	91
DAR062	734441	7624565	0.04	0	5.2	30	0	26	55	95
DAR063	734373	7624594	0.41	0.2	44.2	40	0	1420	76	21
DAR064	734373	7624594	24.6	4.8	201	20	3	14500	402	24
DAR065	734372	7624618	12.2	0.4	6	25	0	139	119	54
DAR066	734370	7624575	1.18	0.15	34	20	1	1310	140	45
DAR067	734391	7624549	0.034	0	4.8	25	0	63	80	98
DAR068	734421	7624522	0.019	0	14.6	40	1	91	98	102
DAR069	734398	7624491	0.012	0	6.2	15	0	18	39	13
DAR070	734399	7624472	5.8	1.55	57	55	5	5150	149	172
DAR071	734380	7624460	1.23	0.55	876	30	48	711	92	64
DAR072	734344	7624442	0.011	0.1	98	15	5	186	134	164
DAR073	734202	7624512	0.017	0	1.2	15	0	11	13	7
DAR074	734170	7624525	0.008	0	66.4	15	1	8	18	11
DAR075	734205	7624596	0.002	0	1.2	15	0	5	11	6
DAR076	734102	7624560	0.002	0	23.4	35	0	4	55	17
DAR077	734102	7624560	0.002	0	56.6	30	2	12	94	39
DAR078	734141	7624482	0.006	0	65.8	20	0	66	31	26
DAR079	734149	7624478	0.001	0	72.6	10	3	25	67	96
DAR080	734149	7624478	0.001	0.05	0.8	255	1	35	369	137
DAR081	734199	7624487	0.005	0	42	10	0	20	26	30
DAR082	734095	7624429	0.002	0	19.4	15	0	16	18	12
DAR083	734013	7624332	0	0	1.2	10	0	2	4	5
DAR084	733974	7624387	0	0	0.6	20	0	4	14	13
DAR085	733966	7624395	0	0	0.4	10	0	13	45	38
DAR086	733966	7624395	0	0	2.8	1620	0	26	695	9
DAR087	733880	7624445	0	0	26.4	25	1	50	150	41
DAR088	733797	7624477	0	0	1.4	15	0	14	33	40
DAR089	733699	7624486	0	0	2.2	535	0	11	319	12
DAR090	733657	7624691	0	0	17	160	1	20	93	13
DAR091	733737	7624751	0	0	5.6	15	0	31	20	11
DAR092	733867	7624663	0	0	2.2	15	0	5	11	2
DAR093	733982	7624635	0	0	0.4	20	0	6	12	5
DAR094	734062	7624584	0	0	100	30	4	24	31	59
DAR095	734475	7624573	0	0	1	20	0	8	82	49
DAR096	734503	7624614	0	0	20.2	25	0	20	24	11
DAR097	734525	7624620	0	0	35.2	105	0	6	176	15
DAR098	734540	7624629	0	0	13	185	2	5	444	8
DAR099	734597	7624674	0.001	0.05	0.8	195	0	47	59	7
DAR100	734681	7624736	0.002	0.1	0.4	25	0	7	14	4
DAR101	734713	7624766	0	0	9.2	560	0	8	389	30
DAR102	734728	7624753	0	0	19.6	30	2	4	20	21

Appendix 1 – Daltons Project - June 2019 Rock Sample Assay Results

![](_page_12_Picture_0.jpeg)

DAR103	734675	7624804	0	0	12.4	20	0	14	30	88
DAR104	734657	7624840	0	0	2.2	15	0	4	14	10
DAR105	734559	7624818	0.003	0	73.6	410	3	24	111	10
DAR106	734521	7624811	0	0	0.6	380	0	27	76	9
DAR107	734504	7624797	0.006	0.05	128	40	5	8	20	15
DAR108	734502	7624796	0.014	0	27	100	9	7	15	14
DAR109	734474	7624791	0	0	16.4	570	0	14	161	12
DAR110	734448	7624784	0	0	43	275	1	7	231	35
DAR111	734444	7624784	0	0	379	90	3	56	1290	128
DAR112	733985	7624459	0.001	0	7.6	15	0	12	13	11
DAR113	733992	7624477	0.006	0	53.6	20	0	85	58	39
DAR114	733996	7624477	0.004	0	66.4	20	2	86	60	41
DAR115	734090	7624495	0	0	2.2	100	0	3	30	5
DAR116	734354	7624515	0.006	0	20.6	10	2	26	152	90
DAR117	734427	7624460	0.004	0.1	3.8	20	1	30	114	311
DAR118	734494	7624377	6.44	0.85	89.2	50	2	865	155	149
DAR119	734471	7624458	0.072	0.15	5.8	20	0	697	100	72
DAR120	734469	7624473	2.57	0.3	24.6	60	1	11500	355	247
DAR121	734498	7624479	0.664	0.1	7.8	35	1	766	80	78
DAR122	734496	7624519	0.011	0	3.2	10	0	33	22	9
DAR123	734459	7624526	0.005	0.05	7.4	20	0	82	36	57
DAR124	733820	7625281	0.003	0	14.4	0	0	18	28	35
DAR125	733780	7625255	0.015	0	22.2	15	0	48	28	24
DAR126	733772	7625250	0.003	0.1	20.8	20	0	19	22	7
DAR127	733761	7625253	0	0	11.6	25	0	70	26	12
DAR128	733737	7625257	0	0	9	10	0	9	32	25
DAR129	733706	7625258	0.001	0	44.4	25	0	507	266	51
DAR130	733670	7625329	0	0	3.2	40	0	18	35	25
DAR131	733555	7625403	0	0	17	80	0	78	84	26
DAR132	733552	7625257	0	0	2.2	25	0	16	24	20
DAR133	733566	7625266	0	0	13.4	15	0	16	75	44
DAR134	733610	7625177	0	0	2.4	15	0	15	30	15
DAR135	733622	7625208	0	0	2.4	20	0	23	21	21
DAR136	733639	7625227	0	0	11.2	25	0	86	52	31
DAR137	733652	7625231	0	0	8.6	30	0	36	84	37
DAR138	733457	7625093	0	0	3.2	15	2	10	79	62
DAR139	733776	7625177	0	0	16.8	10	0	96	157	107
DAR140	733830	7625213	0	0	89	10	0	10	36	23
DAR141	734730	7623366	1.64	0.15	20.2	15	0	122	27	27
DAR142	734730	7623366	7.99	0.55	10.6	10	0	2740	67	46
DAR143	734865	7623407	0.064	0	206	15	2	730	533	82
DAR144	734860	7623374	0.012	0	47.2	15	0	150	49	22
DAR145	734855	7623333	0.013	0	28	40	2	104	46	20
DAR146	734854	7623306	1.47	0	8.2	20	0	17	15	4
DAR147	734268	7624674	0.01	0	6.6	10	0	5	8	11
DAR148	734100	7624801	0.001	0	0.6	30	0	17	15	19

![](_page_13_Picture_0.jpeg)

DAR149	734153	7624900	0	0	1.8	10	0	17	3	5
DAR150	734166	7624913	0.032	0	572	10	3	558	334	402
DAR151	734169	7624914	0.04	0	964	10	3	208	230	407
DAR152	734173	7624926	0	0	11.8	30	0	7	11	8
DAR153	734227	7624912	0	0	4.6	25	0	8	9	7
DAR154	734261	7624863	0.016	0	15.8	10	0	56	18	24
DAR155	734317	7624823	20.5	7.25	92	265	14	58200	66	66
DAR156	734319	7624813	0.266	0.1	15.2	25	0	82	88	212
DAR157	734292	7623368	60.6	3.05	55.6	15	0	6750	25	1130
DAR158	734223	7623478	0.317	0	24	20	0	101	58	31
DAR159	734381	7623539	0.042	0	127	35	1	199	85	39
DAR160	734365	7623591	1.35	0.15	94.8	25	1	2210	66	138

Appendix 2 – Marble Bar North Project (P45/3040) - June 2019 Rock Sample Assay Results

Sample	Easting	Northing	Au	Ag	As	Cr	Pb	Cu	Ni	Zn
No.	m	m	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
MNR061	786344	7657468	0.012	0	16.6	25	1	18	19	0
<b>MNR062</b>	786303	7657494	0.004	0	5.4	50	0	7	46	0
<b>MNR063</b>	786293	7657497	0.014	0	1.6	30	0	3	10	0
<b>MNR064</b>	786293	7657546	0.020	0	18.2	220	5	31	143	25
<b>MNR065</b>	786287	7657549	0.101	0	50	295	12	69	186	35
<b>MNR066</b>	786287	7657549	0.033	0	20.8	265	13	37	79	10
MNR067	786267	7657521	0.004	0	1.4	20	0	2	6	0
<b>MNR068</b>	786291	7657549	0.022	0	25.8	520	5	67	257	30
<b>MNR069</b>	786310	7657543	0.060	0	27.6	190	7	48	119	20
MNR070	786311	7657555	0.255	0	74.6	510	6	42	268	40
MNR071	786319	7657528	0.055	0	27.2	565	7	60	323	30
MNR072	786319	7657528	0.008	0	4.2	35	0	14	19	0
MNR073	786322	7657524	0.003	0	1.2	15	1	3	9	0
MNR074	786339	7657512	0.214	0	13	30	2	35	34	5
MNR075	786350	7657516	0.004	0	8	20	1	13	29	5
MNR076	786361	7657492	0.039	0	30	140	7	62	128	65
MNR077	786350	7657507	0.003	0	3	25	1	7	7	0
<b>MNR078</b>	786349	7657627	5.02	0.7	34.6	160	45	288	104	45
MNR079	786349	7657626	0.327	0.1	23.2	1620	11	44	844	65
<b>MNR080</b>	786352	7657672	0.981	0.15	433	630	15	53	331	60

![](_page_14_Picture_0.jpeg)

Sample	Easting	Northing	Au	Ag	As	Cr	Pb	Cu	Ni	Zn
No.	m	m	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
MSR071	783743	7647855	0	0	1	20	8	60	80	65
MSR072	783759	7647880	0.001	0	0.6	10	0	2	3	0
MSR073	783773	7647893	0.001	0	29.4	15	7	15	9	0
MSR074	783794	7647943	0	0	0.8	10	0	4	6	5
<b>MSR075</b>	783757	7647927	0.001	0	1.2	15	0	1	8	0
MSR076	783684	7647902	0	0	0.4	10	0	1	2	0
MSR077	783652	7647929	0.01	0	1	90	0	4	21	0
MSR078	783645	7647932	0	0	0.6	15	0	1	8	0
MSR079	783628	7647932	0	0	1.2	70	2	4	22	0
MSR080	783540	7647957	0.007	0	0.6	15	0	8	3	0
MSR081	783609	7647983	0	0	0.4	15	0	2	3	0
MSR082	783644	7647976	0	0	1	35	0	2	9	0
MSR083	783660	7647986	0	0.1	0.8	15	4	17	8	5
<b>MSR084</b>	783670	7647988	0	0	2.4	675	0	20	288	20
<b>MSR085</b>	783705	7647978	0	0	0.6	25	0	8	7	5
<b>MSR086</b>	783688	7647969	0	0	1.8	125	0	6	32	5
<b>MSR087</b>	783730	7647946	0	0	0.8	250	3	58	52	25
<b>MSR088</b>	783760	7647959	0	0	8	30	0	11	45	5
MSR089	783785	7647994	0	0	1	30	0	5	9	0
MSR090	783777	7648000	42.5	1.05	21.2	30	1	32	17	5

### Appendix 3 – Marble Bar South Project (P45/3039) – June 2019 Rock Sample Assay Results

![](_page_15_Picture_0.jpeg)

## Table 1) – Daltons and Marble Bar Projects – Rock Sampling

## **Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>MinRex Resources Limited ('MinRex') has collected random surface rock samples from selected old workings, prospects, outcrops, from float, scree, and colluvium at the Daltons, Marble Bar North and Marble Bar South projects.</li> <li>MinRex has also collected shallow soil samples, along lines, in selected areas at the Daltons, Marble Bar North and Marble Bar South projects.</li> <li>All of the work completed to date is considered to be qualitative and exploratory rather than quantitative and representative. The Daltons, Marble Bar North and Marble Bar South projects remain in an early exploration phase and no mineralisation considered being potentially economic has yet been outlined.</li> <li>MinRex manages its exploration and assaying activities in accordance with industry standard quality assurance and quality control procedures. Samples are collected by appropriately trained personnel and prepared in accordance with specified procedures.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>MinRex has not completed any drilling at the project area. No drilling is being reported.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul> <li>MinRex has not completed any drilling at the project area. No drilling is being reported.</li> </ul>

![](_page_16_Picture_0.jpeg)

Criteria	JORC Code explanation	Commentary
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All surface samples have been geologically logged for rock, soil or colluvium type.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Surface samples are of approximately 1kg weight and were collected into calico or plastic sample bags for transport to the chemical laboratory.</li> <li>When collected, soil samples are screened, in the assay laboratory, to extract the minus 3mm fraction for analysis.</li> <li>No field duplicates were taken due to the early exploration phase of the current work.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Samples from the surface rock sampling were submitted to Bureau Veritas (Ultra Trace Laboratories) in Perth for appropriate industry standard analysis for various metallic elements.</li> <li>The samples have been sorted and dried, crushed and then pulverized in a vibrating disc pulveriser.</li> <li>The samples were digested with Aqua Regia and analysed by ICP; cobalt, copper, chrome, iron, manganese, nickel and zinc by ICP-OES, and gold, arsenic, silver, bismuth, lithium, molybdenum, lead, antimony, tin, tellurium, thorium, uranium and tungsten by ICP-MS.</li> <li>Bureau Veritas run appropriate assay standards, blanks, duplicates and other internal checks on the analytical samples.</li> <li>However, due to the sampling methodology the results are considered to be qualitative and</li> </ul>

![](_page_17_Picture_0.jpeg)

Criteria	JORC Code explanation	Commentary
		exploratory rather than quantitative and representative - at this early stage of the exploration work.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>Independent verification of the sampling is not considered applicable, as the work to date is considered to be qualitative and exploratory and not for use for definitive data purposes.</li> <li>However, all samples are collected by appropriately trained personnel and prepared in accordance with specified procedures.</li> <li>No adjustment has been made to any assay data.</li> </ul>
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>All data points (rock chip and soil sampling) have been determined using a handheld Garmin GPS device with an arbitrary accuracy of about 2-5m – adequate for the early exploration work undertaken. No topographic control has been established for the Project area.</li> <li>The grid system used in the East Pilbara is MGA_GDA94 Zones 50 and 51.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Data spacing for the rock, float, colluvium and other surface samples is random and not for use in definitive data purposes.</li> <li>Soil samples have been collected at a nominal spacing of 50m on sample lines.</li> <li>No sample compositing has been applied.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>The orientation of the sampling is not considered to be important, as the work to date is considered to be qualitative and exploratory and not for use for definitive data purposes.</li> <li>The orientation of geological structure and layering remains speculative.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were placed directly into numbered bags in the field. These bags were then either stapled (plastic bags) or tied (calico bags). The individual sample bags were then placed into larger plastic bags and</li> </ul>

![](_page_18_Picture_0.jpeg)

Criteria	JORC Code explanation	Commentary
		transported directly from the field to the laboratory by the field exploration personnel, at the completion of the field program.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No audits or reviews have been undertaken as the work to date is considered to be qualitative and exploratory and not for use in definitive data purposes.</li> </ul>

## **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> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The Daltons project lies in one granted exploration licence – E45/4681 (of about 9km<sup>2</sup>), located approximately 90km southwest of Marble Bar, by road, which is 70% owned by MinRex Resources Limited.</li> <li>The Marble Bar North project lies in one granted prospecting licence – P45/3040 (of 3.05ha), located approximately 3km north of Marble Bar, which is 70% owned by MinRex Resources Limited.</li> <li>The Marble Bar South project lies in one granted prospecting licence – P45/3039 (of 8.26ha), located approximately 11km south of Marble Bar, which is 70% owned by MinRex Resources Limited.</li> <li>The Marble Bar South project lies in one granted prospecting licence – P45/3039 (of 8.26ha), located approximately 11km south of Marble Bar, which is 70% owned by MinRex Resources Limited.</li> <li>The projects are in the East Pilbara Shire and the East Pilbara region, within Western Australia, The Daltons project is partially on the Panorama pastoral lease. The Marble Bar North project lies in the Marble Bar Township area and the Marble Bar South project lies in the Eginbah pastoral lease. All three projects are covered by the Njamal Native Title Claims.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	The Daltons project area was the subject of historic gold mining activities associated with the Daltons mining centre in the period from its discovery to about 1966. Subsequent exploration was completed by various exploration companies, including Haoma Mining, Gold Partners, Sipa Resources,

![](_page_19_Picture_0.jpeg)

Criteria	JORC Code explanation	Commentary
Criteria	JORC Code explanation	<ul> <li>Commentary</li> <li>Giralia Resources, Clara Resources and Mallina</li> <li>Exploration in the period from 1966 through to 2015. This work included soil sampling, auger drilling, RC drilling and geological mapping.</li> <li>The Marble Bar North project area was the subject of historic gold mining activities associated with the Ironclad gold mine and other smaller operations in the period from the 1890's to about 1933, with various prospectors and small operators holding the area until the 1990's.</li> <li>Subsequent exploration was completed by various exploration companies, including Britannia Gold and Clara Resources in the period from 1994 through to 2008. This work included soil sampling programs, rock chip sampling, geological mapping and 6 RC drill holes – by Britannia in 1996.</li> <li>The Marble Bar South project area was the subject of historic gold mining activities associated with the McKays Find gold mine and other smaller operations in the period from the 1930's to about 1996. Subsequent exploration companies, including Haoma Mining and Clara Resources in the period from 1996 through to 2008. This work included soil sampling programs, rock chip sampling and geological mapping.</li> <li>MinRex has obtained this data from the WAMEX website of the GSWA and the methods and procedures utilised in this historic work are not detailed in the available data.</li> <li>Old work within the project areas is encouraging, especially the early geochemistry and drilling that shows some clearly anomalous gold values. However, this old data is used as a guide to where to apply new exploration and is not itself regarded as material.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The three projects all lie within the Archean Warrawoona Group</li> </ul>

![](_page_20_Picture_0.jpeg)

Criteria	JORC Code explanation	Commentary
		<ul> <li>Greenstone Belt and in the East Pilbara Goldfield of WA.</li> <li>The project areas host Archean greenstones, predominantly meta-basalt and high-Mg meta- basalt, with some meta- sediment, granite dykes and granitic intrusions. Gold mineralisation and gold-copper mineralisation is hosted by shear zones and quartz veins, within Archean greenstones. There are some areas of transported soil, colluvium and alluvium within the project area, which effectively conceal any mineralisation present and MinRex is seeking gold, copper-gold, base metals and polymetallic deposits under this cover within the project areas.</li> </ul>
Drill hole Information	<ul> <li>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> <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> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>MinRex has not completed any drilling in the project areas. No drilling is being reported.</li> <li>MinRex is aware of the results of previous drilling programs in the Dalton and Marble Bar North project areas and has obtained this data from the WAMEX website of the GSWA. This old data is used as a guide to where to apply new exploration and is not regarded as material.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>Rock chip and soil sample assay values are reported as point values.</li> <li>Actual metal assay values are reported with no modification.</li> </ul>

![](_page_21_Picture_0.jpeg)

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	• Not applicable as point values are being reported - not mineralisation widths or drilling results.
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Plan view maps are utilised showing the location of significant rock chip, float, calcrete, ferricrete and soil sample results. These maps may show only the highest values for the sake of easy determination of the most anomalous areas where further work will be completed in subsequent programs.</li> </ul>
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	<ul> <li>All sample assay results are included in tables of results in the text or Appendices. However, maps may show only the highest values for the sake of easy visualisation of the most anomalous areas.</li> </ul>
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>There are no other results to report that are considered material.</li> <li>All of the work completed to date is considered to be qualitative and exploratory rather than quantitative and representative. The Daltons project area remains at an early exploration phase and no mineralisation considered to be significant has yet been outlined by this work.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	• Further rock chip, float, colluvium, calcrete and soil sampling is planned for the future, to further hone into the most anomalous areas within the project area.