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To: LIBERTY STAR URANIUM & METALS
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 Plus Appendix Pages
 Finalized Date: 25-OCT-2020
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CERTIFICATE TU20211476

Project: Hay Mountain-Red Rock Canyon

This report is for 23 Rock samples submitted to our lab in Tucson, AZ, USA on 22-SEP-2020.

The following have access to data associated with this certificate:

JAY CRAWFORD		
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SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-22	Sample login - Rcd w/o BarCode
SND-ALS	Send samples to internal laboratory
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
CRU-31	Fine crushing - 70% <2mm
SPL-22Y	Split Sample - Boyd Rotary Splitter
PUL-31	Pulverize up to 250g 85% <75 um

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG46	Ore Grade Elements - AquaRegia	ICP-AES
Cu-OG46	Ore Grade Cu - Aqua Regia	
Au-GRA21	Au 30g FA-GRAV finish	WST-SIM
ME-MS41	Ultra Trace Aqua Regia ICP-MS	

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Saa Traxler, General Manager, North Vancouver



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CERTIFICATE OF ANALYSIS TU20211476

Sample Description	Method Analyte Units LOD	WEI-21	Au-GRA21	Au-GRA21	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41
		Recvd Wt. kg	Au ppm	Au Check ppm	Ag ppm	Al %	As ppm	Au ppm	B ppm	Ba ppm	Be ppm	Bi ppm	Ca %	Cd ppm	Ce ppm	Co ppm
		0.02	0.05	0.05	0.01	0.01	0.1	0.02	10	10	0.05	0.01	0.01	0.01	0.02	0.1
314087		1.40	1.84		0.73	0.05	112.0	1.86	<10	10	0.06	0.03	6.57	0.37	0.91	0.6
314088		0.86	13.55		1.28	0.21	574	13.95	<10	20	0.46	5.80	0.12	0.11	4.93	1.2
314089		1.31	4.87		1.69	0.06	450	4.60	<10	20	0.08	1.19	0.27	0.13	0.53	0.3
314090		1.68	0.89		0.18	0.14	85.8	0.84	<10	60	0.09	0.06	0.13	0.08	2.94	0.5
314091		1.75	0.68		0.47	0.16	65.6	0.50	10	70	0.10	0.06	0.17	0.08	3.31	0.5
314092		1.61	0.07		3.83	0.10	76.6	0.13	10	290	0.09	0.04	0.17	0.07	1.17	0.4
314093		1.68	3.31		0.10	0.10	195.5	3.23	<10	30	0.36	0.04	0.47	0.08	6.71	0.7
314094		1.92	3.26		4.02	0.09	239	3.26	10	30	0.07	0.05	0.06	0.11	1.57	0.3
314095		1.54	0.10		1.62	0.05	80.0	0.19	<10	20	0.06	0.04	0.13	0.09	0.81	0.3
314096		1.76	0.97		1.94	0.21	92.7	1.01	10	20	0.08	0.02	1.14	0.06	2.53	0.3
314097		1.95	0.10		0.22	0.07	9.2	<0.02	<10	20	0.14	0.05	6.02	4.32	3.40	0.9
314098		1.89	0.31		4.77	0.25	37.0	0.22	<10	10	0.21	0.02	0.54	0.09	1.13	0.4
314099		1.56	0.19		1.41	0.08	95.9	0.11	10	20	0.21	0.09	0.08	0.16	1.05	1.4
314100		1.77	0.10		0.10	0.35	2.8	0.04	<10	60	0.12	0.07	3.12	0.03	3.42	0.7
314101		1.84	2.20		0.10	0.17	63.5	0.62	<10	40	0.19	0.47	2.29	0.09	13.00	0.8
314102		1.54	0.44		0.04	0.25	28.6	0.31	<10	60	0.27	0.16	2.96	0.11	5.10	0.9
314103		1.69	<0.05		0.72	0.16	5.2	<0.02	<10	40	0.30	0.05	9.83	0.08	2.60	1.4
314104		1.73	<0.05		1.22	0.11	10.4	0.02	<10	40	0.18	0.06	0.09	0.06	3.95	0.4
314105		1.51	10.70	10.50	8.94	0.52	8.0	2.92	10	120	4.16	0.30	4.46	1.32	39.5	6.0
314106		1.33	0.07		0.03	0.44	0.5	<0.02	<10	60	0.49	0.10	1.25	0.08	14.60	1.4
314107		1.71	1.74		0.07	0.30	18.9	0.03	<10	20	0.78	0.06	10.25	0.29	6.10	1.2
314108		1.46	<0.05		0.06	0.26	3.8	<0.02	10	30	2.04	0.05	10.05	0.11	10.55	1.1
314109		1.50	<0.05		0.08	0.36	9.0	<0.02	10	30	0.99	0.04	0.60	0.06	4.76	0.7



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CERTIFICATE OF ANALYSIS TU20211476

Sample Description	Method Analyte Units LOD	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	
		Cr ppm	Cs ppm	Cu ppm	Fe %	Ga ppm	Ge ppm	Hf ppm	Hg ppm	In ppm	K %	La ppm	Li ppm	Mg %	Mn ppm	Mo ppm
		1	0.05	0.2	0.01	0.05	0.05	0.02	0.01	0.005	0.01	0.2	0.1	0.01	5	0.05
314087		25	0.41	3.4	0.53	0.26	<0.05	<0.02	0.08	<0.005	0.01	0.5	3.3	0.46	47	68.8
314088		32	2.77	4.5	3.69	1.40	<0.05	0.12	0.08	0.039	0.05	2.1	4.3	0.04	72	193.0
314089		49	0.89	4.4	2.35	0.66	<0.05	<0.02	0.14	<0.005	0.01	0.3	1.4	0.04	46	956
314090		36	1.96	6.7	1.15	1.88	<0.05	0.03	0.04	<0.005	0.05	1.7	2.2	0.03	59	930
314091		30	2.41	4.8	0.81	1.86	<0.05	0.02	0.06	<0.005	0.04	1.7	2.7	0.02	75	1265
314092		40	0.78	7.1	0.88	0.63	<0.05	<0.02	0.17	<0.005	0.02	0.6	3.8	0.05	83	1850
314093		52	0.60	2.5	1.25	0.41	<0.05	0.04	0.03	<0.005	0.06	3.9	5.5	0.03	65	51.5
314094		51	1.87	9.1	1.73	1.53	<0.05	<0.02	0.11	<0.005	0.03	0.8	2.1	0.01	69	1510
314095		42	0.44	5.3	0.70	0.49	<0.05	<0.02	0.15	<0.005	0.02	0.3	1.9	0.02	58	870
314096		40	1.92	4.4	0.73	1.43	<0.05	0.03	0.20	<0.005	0.06	1.0	7.8	0.06	59	1310
314097		27	0.29	4.0	0.79	0.30	<0.05	0.02	0.17	<0.005	0.02	1.4	4.1	3.12	223	13.10
314098		43	1.20	2.2	0.44	1.16	<0.05	0.05	0.03	<0.005	0.13	0.6	3.3	0.04	38	416
314099		82	0.22	59.9	5.70	1.64	<0.05	0.03	0.55	0.010	0.01	0.7	1.7	0.01	58	956
314100		30	0.71	3.2	0.35	0.86	<0.05	0.04	<0.01	<0.005	0.35	1.3	2.5	0.01	81	4.82
314101		22	1.18	3.5	0.80	0.74	<0.05	0.14	0.01	0.030	0.17	6.0	3.3	0.05	244	6.29
314102		20	7.86	2.1	0.38	0.58	<0.05	0.09	0.03	<0.005	0.11	2.1	6.0	0.02	323	4.98
314103		33	0.48	12.9	1.85	0.73	<0.05	0.04	0.01	<0.005	0.04	1.3	5.0	0.12	76	4.96
314104		37	0.93	3.5	0.52	0.48	<0.05	0.02	0.01	<0.005	0.05	1.6	3.5	0.01	62	21.2
314105		9	4.96	>10000	1.53	2.16	0.06	0.16	0.01	0.023	0.25	18.6	12.4	0.09	247	0.81
314106		17	0.78	22.3	0.75	2.01	<0.05	0.04	0.05	0.006	0.10	7.7	21.9	0.30	129	1.49
314107		17	5.54	5.7	0.38	1.44	0.10	0.05	0.01	0.005	0.14	2.7	36.6	0.10	179	4.06
314108		19	13.45	30.7	0.35	1.07	0.22	0.10	0.02	<0.005	0.24	5.3	249	0.14	94	1.71
314109		41	2.75	3.8	0.49	1.12	0.37	0.10	0.01	<0.005	0.35	2.3	570	0.06	42	7.29



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CERTIFICATE OF ANALYSIS TU20211476

Sample Description	Method Analyte Units LOD	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	
		Na %	Nb ppm	Ni ppm	P ppm	Pb ppm	Rb ppm	Re ppm	S %	Sb ppm	Sc ppm	Se ppm	Sn ppm	Sr ppm	Ta ppm	Te ppm
314087		<0.01	<0.05	2.4	50	2.2	1.0	<0.001	0.01	4.30	0.2	1.1	<0.2	37.8	<0.01	0.02
314088		<0.01	0.08	2.6	110	15.6	9.2	<0.001	0.01	6.85	1.3	1.6	0.6	18.2	<0.01	0.01
314089		<0.01	<0.05	1.8	60	3.3	2.0	<0.001	0.01	13.50	0.2	11.3	<0.2	35.4	<0.01	0.05
314090		<0.01	0.08	2.3	360	4.7	5.3	<0.001	0.02	7.08	0.4	2.9	<0.2	33.1	<0.01	0.02
314091		<0.01	0.06	2.4	270	6.3	5.9	<0.001	0.01	9.61	0.4	1.2	<0.2	47.0	<0.01	0.02
314092		<0.01	<0.05	2.1	210	2.9	2.7	0.001	0.02	4.94	0.1	2.6	<0.2	14.4	<0.01	0.01
314093		<0.01	0.24	4.2	40	1.4	4.6	0.001	0.01	1.88	0.4	1.0	<0.2	88.5	<0.01	0.01
314094		<0.01	<0.05	2.6	60	3.2	3.0	0.001	0.04	14.25	0.2	9.6	<0.2	62.6	<0.01	0.01
314095		<0.01	<0.05	1.9	60	2.9	1.6	0.002	0.02	14.60	0.1	7.1	<0.2	25.3	<0.01	0.01
314096		<0.01	0.05	1.9	60	1.7	7.5	0.001	0.03	7.19	0.5	6.5	<0.2	45.0	<0.01	<0.01
314097		<0.01	<0.05	4.1	180	3.8	1.2	0.001	0.01	0.83	0.4	0.5	<0.2	23.7	<0.01	0.02
314098		<0.01	0.06	2.4	60	1.6	11.7	0.002	0.02	1.91	0.5	1.4	<0.2	16.2	<0.01	<0.01
314099		<0.01	0.06	4.0	110	199.5	0.6	0.004	0.13	10.90	0.2	3.9	0.2	28.5	<0.01	0.03
314100		<0.01	0.08	1.6	100	4.4	28.0	0.001	0.03	0.31	0.9	0.2	<0.2	10.0	<0.01	0.03
314101		<0.01	0.31	2.1	190	7.4	11.1	<0.001	0.01	1.45	0.8	0.2	0.4	19.3	<0.01	0.01
314102		<0.01	0.13	1.7	360	5.6	13.6	<0.001	<0.01	0.53	0.3	0.6	<0.2	34.8	<0.01	0.01
314103		<0.01	0.30	7.6	140	5.0	4.0	0.001	0.01	0.70	0.3	0.5	<0.2	31.5	<0.01	0.06
314104		<0.01	0.05	2.3	330	5.2	4.7	0.001	0.01	0.74	0.3	0.2	<0.2	8.8	<0.01	0.01
314105		0.01	0.05	4.8	400	13.1	25.1	0.015	0.01	2.03	1.7	0.3	0.3	88.5	<0.01	0.05
314106		<0.01	<0.05	1.9	140	2.6	7.7	<0.001	0.01	0.09	0.7	<0.2	0.2	11.7	<0.01	0.01
314107		0.01	0.09	2.6	160	4.3	18.5	<0.001	0.01	0.42	0.9	0.3	<0.2	193.0	<0.01	0.01
314108		0.01	0.17	2.9	100	3.1	41.5	<0.001	0.01	1.33	0.9	0.3	<0.2	356	<0.01	0.01
314109		0.01	0.62	3.4	50	4.9	48.0	0.001	0.01	1.41	0.8	0.5	0.2	12.8	<0.01	0.02



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Sample Description	Method Analyte Units LOD	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	ME-MS41	Cu-OG46	
		Th ppm	Ti %	Tl ppm	U ppm	V ppm	W ppm	Y ppm	Zn ppm	Zr ppm	Cu %
		0.2	0.005	0.02	0.05	1	0.05	0.05	2	0.5	0.001
314087		<0.2	<0.005	0.17	0.65	11	0.11	0.47	9	<0.5	
314088		0.6	<0.005	0.21	3.56	32	0.35	3.04	39	3.6	
314089		<0.2	<0.005	0.16	1.16	49	0.42	0.21	10	<0.5	
314090		0.4	<0.005	0.76	0.94	97	0.32	0.41	10	1.0	
314091		0.4	<0.005	1.04	1.22	73	0.41	0.65	7	1.0	
314092		0.2	<0.005	0.12	0.95	44	0.12	0.38	15	<0.5	
314093		0.5	0.011	0.29	1.28	14	0.34	0.60	14	1.6	
314094		0.2	<0.005	2.13	1.24	63	0.59	0.24	7	<0.5	
314095		<0.2	<0.005	1.24	1.06	26	0.22	0.16	6	<0.5	
314096		<0.2	<0.005	0.51	1.59	31	0.21	1.25	6	1.0	
314097		0.4	<0.005	0.20	0.66	8	0.12	1.48	52	0.7	
314098		0.3	<0.005	0.36	0.47	57	0.41	0.48	5	1.6	
314099		0.5	<0.005	0.83	1.76	43	0.81	0.23	36	1.1	
314100		0.2	<0.005	0.28	0.49	11	0.09	1.03	3	1.6	
314101		2.5	<0.005	0.23	0.99	17	0.36	5.79	13	2.4	
314102		1.1	<0.005	0.13	0.60	2	0.13	3.24	17	1.5	
314103		0.4	0.013	0.06	0.95	30	0.72	0.72	12	1.2	
314104		0.5	<0.005	0.04	0.18	9	0.09	0.69	7	0.7	
314105		4.1	<0.005	0.14	10.55	45	0.29	15.45	59	6.2	1.450
314106		1.2	<0.005	0.05	0.14	11	0.07	1.90	17	0.8	
314107		0.5	<0.005	0.15	0.21	13	1.28	2.68	12	1.4	
314108		1.3	0.015	0.20	0.25	9	1.75	3.43	7	2.3	
314109		0.6	0.022	0.19	0.92	11	14.20	1.15	5	2.9	



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CERTIFICATE COMMENTS									
	ANALYTICAL COMMENTS								
Applies to Method:	Gold determinations by this method are semi-quantitative due to the small sample weight used (0.5g). ME-MS41								
	LABORATORY ADDRESSES								
Applies to Method:	Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada. <table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">Au-GRA21</td> <td style="width: 25%;">Cu-OG46</td> <td style="width: 25%;">ME-MS41</td> <td style="width: 25%;">ME-OG46</td> </tr> </table>	Au-GRA21	Cu-OG46	ME-MS41	ME-OG46				
Au-GRA21	Cu-OG46	ME-MS41	ME-OG46						
Applies to Method:	Processed at ALS Tucson, Arizona, USA <table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">CRU-31</td> <td style="width: 25%;">CRU-QC</td> <td style="width: 25%;">LOG-22</td> <td style="width: 25%;">PUL-31</td> </tr> <tr> <td>PUL-QC</td> <td>SND-ALS</td> <td>SPL-22Y</td> <td>WEI-21</td> </tr> </table>	CRU-31	CRU-QC	LOG-22	PUL-31	PUL-QC	SND-ALS	SPL-22Y	WEI-21
CRU-31	CRU-QC	LOG-22	PUL-31						
PUL-QC	SND-ALS	SPL-22Y	WEI-21						