

To: Company Announcements Officer
 Australian Securities Exchange
 21st April 2010.

HIGH GRADE SILVER INTERSECTED IN DRILLING - OVER 100 OUNCES PER TONNE SILVER.

- Preliminary results (to be verified by laboratory) obtained using **Handheld Thermo Scientific Niton x-ray fluorescence (XRF) analyzer.**
- **Handheld XRF** has been used by SVL for past 18 months with good correlation between laboratory assays and field analysis (see table 3 below for previous results comparisons).
- **RC076** returned a down hole intersection as follows;

Interval (m downhole)#	Ag g/t##	Ag Oz/t	Cu %	Zn %	Pb %
156-168	1901.3	93.8	2.6	9.9	0.1
incl. 161-162	3124.8	100.5	4.6	14.1	0.0
incl. 162-163	4435.3	142.6	6.9	13.5	0.0
incl. 163-164	3443.5	110.7	6.3	24.0	0.1

Table 1: RC076 high grade intersection.

Downhole in intersections are NOT true widths due to the geometry of the lodes and angle of intersection of the drill hole. True widths are estimated to be half to one third of downhole interval.

Average of multiple readings on bulk bag collected per meter from drilling rig cyclone.

- RC076 is **109m further south than the previously drilled high grade pod at Webbs Silver South which was discovered in 2008.**

Silver Mines Limited (SVL) is pleased to announce that preliminary **Handheld Niton XRF*** results from the current reverse circulation program at the 100% owned Webbs Silver Project have again intersected very high grade silver-rich polymetallic mineralisation further south along strike in the prospect. The results are very exciting and demonstrate that very high grade (exceeding 100 ounces per tonne silver) mineralisation is not only localised in the one area at Webbs Silver South as had previously been suggested by earlier drilling. This high grade intersection is less than 100m vertically below surface and so would be within the proposed initial open pit currently being modelled.

Drilling will continue in 2 weeks after a rostered-off break for the drilling contractor. New drill sites are being prepared to test IP anomalies to the north of the historic Webbs Silver Mine where a broad IP Chargeability anomaly exists. Further RC drilling will also be completed to the south of RC076 to test for further lateral continuity to the mineralisation. SVL is very pleased

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with our ongoing success at Webbs and sees the project as expanding rapidly with further targeted drilling in the short term.

Mineralised intersections have been sent to ALS Chemex in Brisbane for analysis. Readers are to be aware that these Niton XRF results should be viewed with caution and may differ from actual assays. SVL has conducted extensive testwork with the Niton Handheld XRF on previous drilling programs at Webbs and is confident yet cautious that it provides a sound preliminary indication of metal content. Visually the drill drips are highly mineralised showing a high percentage of sulphide minerals providing further confidence in the results.

Hole ID	Easting	Northing	RL	Azimuth (Mag)	Dip
RC075	358907	6751691	722	290	60
RC076	358911	6751664	722	290	60
RC077	358917	6751644	722	290	60
RC078	358917	6751630	722	290	55
RC079	358920	6751615	722	290	55

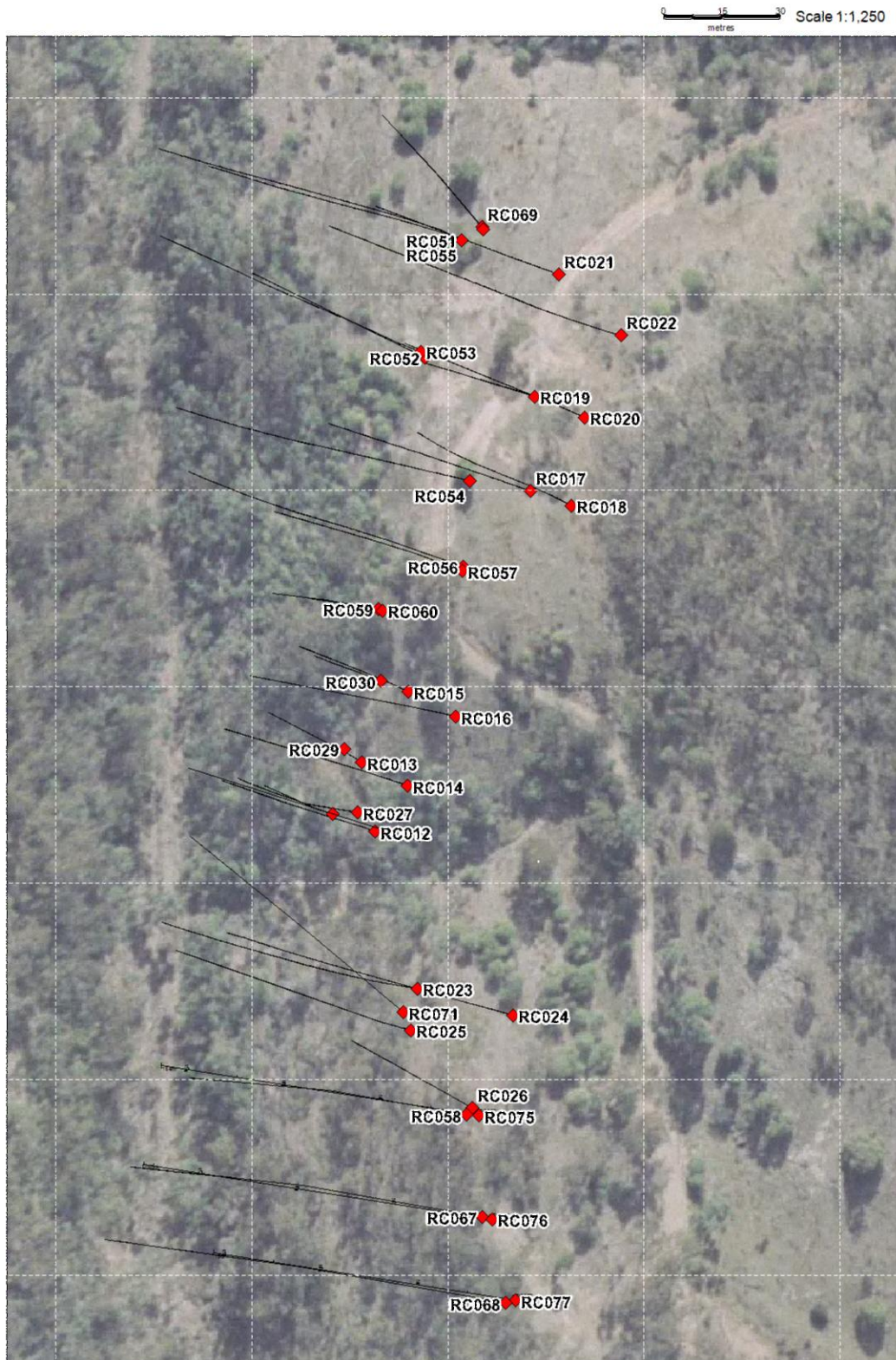
Table 2 – Webbs Silver South RC collars (not surveyed), April 2010 program.

RC075 – drilled at an angle of 60 degrees to a depth of 168m and is the 2nd hole on the same section as RC058 (drilled in October 2009). RC075 and 58 were designed as pre-collar holes for an upcoming diamond drilling program planned for May/June 2010 where diamond core ‘tails’ will be extended at the bottom of both holes. Both holes were stopped approximately 10m short of the predicted main lode.

RC076 – drilled at an angle of 60 degrees to a total depth of 180m and is the 2nd hole on the same section line with RC067 (drilled in October 2009). RC067 was drilled to a depth of 162m at 55 degrees and intersected 940g/t Ag at 147m. A diamond tail will be drilled from RC067 in the upcoming diamond program.

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Map 1: Webbs Silver South Prospect RC Drill Holes



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NITON XLT3 PORTABLE XRF ANALYSER DISCUSSION.

SVL use the Thermo Scientific **Niton XL3t XRF Analyser** in all aspects of exploration, including obtaining an instant geochemical analysis for completed RC drill samples during the drilling of each hole. As well as obtaining preliminary geochemical data of the sample, including metal content, the XRF also provides guidance for terminating or extending holes when very fine grained sulphide mineralisation may not be quickly recognised. The analyser also assists in determining which samples to composite and which to send as single one meter samples for independent assay analysis, this saves cost and improves efficiency on each program.

For a successful XRF field analysis, a trained SVL senior geologist first calibrates the Niton XL3t using the in-built calibration on the device. Additional calibration against known standards is also regularly done. The XRF is used by placing the sensor directly onto the bulk sample bag, after the bag area has been wiped down. Each reading is taken for at least 1 minute, which is the minimum recommended time for a successful reading. This process is repeated at several different points on the bag with at least three individual readings taken of mineralised material prior to the results being recorded. The average of these results is then used as an indicator of what to expect from the lab. SVL geologists will regularly double check high grade results by using a mortar and pestle and grinding a sample to less than 50 microns and re-analysing.

Table 3 below shows a comparison between Niton XRF results collected on drill chips using the method discussed above and laboratory results. These analyses were done in late 2009.

The updated resource model, expected imminently, does NOT include these results. Once the assays have been received from the laboratory in the next few weeks, they will be incorporated into the evolving and growing model.

Please direct any queries regarding the content of this report to Charles Straw (CEO) on +61 2 9436 0533 or cstraw@silverminesltd.com.au.

The information in this report that relates to Exploration Results is based on information compiled by Charles Straw, consulting geologist and General Manager, who is a Member of The Australasian Institute of Mining and Metallurgy. Charles Straw 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 for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Charles Straw 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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Table 3: Analysis Comparison - ALS Chemex vs SVL XRF

RC059 - ALS Laboratory Tested Assay Results VS Niton XRF Assay Results

Units - ppm

Sample Number	Ag	Ag	Pb	Pb	As	As	Zn	Zn	Cu	Cu	Sn	Sn
RC059 7-8	0.5	< LOD	476	180.18	58	54.29	2060	1372.01	46	54.27	<10	< LOD
RC059 8-9	9.3	26.32	4390	2603.82	117	217	1585	804.11	137	76.98	40	131.89
RC059 9-10	198	162.16	>10000	13817.2	8390	9119.2	2300	3655.47	1625	1604.44	140	197.99
RC059 10-11	85.9	18.03	6790	3984.89	3870	2123.35	2140	1942.02	927	454.14	70	47.63
RC059 11-12	22.1	< LOD	2450	1237.35	2590	2238.71	2000	2060.18	291	106.76	30	23.12
RC059 12-13	6.1	< LOD	829	356.29	2260	818.5	1500	1273.26	149	< LOD	10	< LOD
RC059 13-14	1.3	< LOD	172	217.57	506	299.51	1865	1783.67	49	< LOD	<10	< LOD
RC059 14-15	2.4	< LOD	539	838.73	2830	505.28	1545	1517.03	34	< LOD	10	< LOD
RC059 15-16	178	114.94	>10000	14894.25	15600	14469.73	4140	3494.28	1980	1919.26	240	199.57
RC059 16-17	37.5	22.84	5100	2543.02	3840	1799.16	2350	2276.47	877	552.29	50	42.54
RC059 17-18	15.2	12.18	1950	2001.43	2170	1926.56	2140	2248.12	259	215.89	20	48.91
RC059 18-19	37.4	37.65	4060	3677.38	2140	1220.8	3730	4147.48	549	530.49	40	67.39
RC059 19-20	35.4	28.18	3760	2620.22	2760	1719.99	7240	7458.51	357	160.42	80	88.07
RC059 20-21	60	90.71	4680	4214.13	1705	1086.03	7510	7167.61	193	201.91	70	44.76

RC060 - ALS Laboratory Tested Assay Results VS Niton XRF Assay Results

Units - ppm

Sample Number	Ag	Ag	Pb	Pb	As	As	Zn	Zn	Cu	Cu	Sn	Sn
RC060 19-20	1.1	< LOD	154	111.58	81	58.9	2150	1820.88	34	< LOD	<10	< LOD
RC060 20-21	4.1		1440		195		2350		69		10	
RC060 21-22	6.7		2750		643		4730		94		20	
RC060 22-23	22.6		8070		1530		8690		168		70	
RC060 23-24	14.8		5130		394		5270		132		60	
RC060 24-25	37	24.53	>10000	11037.59	1825	1496.94	>10000	13400.19	207	110.87	90	81.45
RC060 25-26	23.8	21.35	7550	4983.84	2080	907	>10000	18820.81	192	198.43	70	116.82
RC060 26-27	12.5		2180		1030		>10000		189		110	
RC060 27-28	15.7	< LOD	4270	2367.48	1080	659	>10000	22673.88	155	< LOD	90	45.02
RC060 28-29	8.1	< LOD	1670	505.42	1360	655.64	>10000	16908.37	99	90.45	50	26.47
RC060 29-30	8.6	< LOD	2380	1148.81	3450	1808.21	>10000	19051.45	107	84.21	70	< LOD
RC060 30-31	4.1	< LOD	810	738.4	6630	4981.69	>10000	32575.43	86	122.95	60	< LOD
RC060 31-32	14.5	28.9	5060	3884.28	5730	1626.89	>10000	9121.96	122	137.44	70	94.69
RC060 32-33	16.5	12.03	3610	3454.75	1785	1054.44	5740	6290.73	179	178.37	60	52.37
RC060 33-34	10.2	< LOD	1910	1156.36	1710	594.46	3160	2393.46	122	84.89	20	47.12
RC060 34-35	6.6	< LOD	1670	1303.45	292	234.08	2420	2260.27	77	56.02	10	< LOD
RC060 35-36	3.9		957		260		1780		65		10	
RC060 36-37	25		5380		1500		4300		286		90	
RC060 37-38	23.7		6030		1865		4790		299		90	
RC060 38-39	42.9		3660		1525		4230		661		50	
RC060 39-40	20	36.68	1780	1383.97	3070	1707.38	1715	1668.53	330	247.32	40	58.58
RC060 40-41	8.2	30.87	936	1072.81	1710	1480.93	827	1143.39	130	126.32	20	47.07
RC060 41-42	19.4		1810		899		1605		283		30	
RC060 42-43	24.5		3130		984		3680		382		50	
RC060 43-44	69.8	89.15	2870	3303.22	5160	4022.94	3640	5315.3	1005	1474.05	50	< LOD
RC060 44-45	35.6	< LOD	2530	158.62	3220	1367.94	2790	725.16	490	< LOD	30	48.42
RC060 45-46	7.1		580		4610		1035		118		20	
RC060 46-47	12.8		968		5960		1110		198		30	
RC060 47-48	31.8		2600		5830		2240		422		40	
RC060 48-49	7.4		820		4290		1030		124		20	
RC060 49-50	24.6	31.79	2530	3309.14	6900	2167.53	2400	4008.09	189	265.24	30	< LOD
RC060 50-51	10		1090		1425		1175		95		10	
RC060 51-52	6.1		933		1015		879		86		20	
RC060 52-53	7.9		1310		1230		1070		120		20	
RC060 53-54	23.8	40.3	3220	2301.2	378	176.57	2930	2874.4	303	300.73	40	53.15
RC060 54-55	343	392.79	6980	5185.85	11550	9751.94	>10000	17689.31	4180	5674.52	90	121.13
RC060 55-56	83.1	50.42	7470	5186.98	1335	298.01	6590	6693.15	1000	678.12	80	63.46
RC060 56-57	53.2	41.52	6090	5464.27	754	435.93	7260	9216.51	785	678.88	120	115.93
RC060 57-58	49.1	31.02	7120	4511.4	361	263.34	6680	6338.07	777	583.59	150	144.25
RC060 58-59	27.9		4540		247		6280		294		100	
RC060 59-60	30.4	49.69	3380	2000.75	2420	2337.34	4020	3454.88	297	382.22	70	82.14
RC060 60-61	48.6	15.86	6830	4106.88	1490	682.23	9260	6063.15	403	186.05	170	44.68
RC060 61-62	20.3	13.81	4160	2697.74	2230	1528.97	4100	3898.52	110	78.03	70	83.31
RC060 62-63	12.2	18.94	2180	1295.4	1415	352.84	2380	1500.9	59	< LOD	40	71.94
RC060 63-64	12.3	< LOD	2200	1919.63	2160	1234.4	2820	2771.93	56	< LOD	40	101.92
RC060 64-65	5.9	< LOD	1230	822.58	2540	1209.49	1910	1646.94	35	< LOD	30	43.15
RC060 65-66	3.4	< LOD	645	1024.63	2470	1395.2	791	1874.1	35	< LOD	10	45.79

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