ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

QC CERTIFICATE TB17180529

Project: 0518

This report is for 305 Rock samples submitted to our lab in Thunder Bay, ON, Canada on 25-AUG-2017.

The following have access to data associated with this certificate:

CINDY HU	BILL MERCER	VOLKER MOELLER

SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
SPL-21X	Addnl Crush Split w No Analysis
SPL-21Xd	Addnl Crush Split with No Analysis-DUP
CRU-31	Fine crushing - 70% <2mm
SPL-21	Split sample - riffle splitter
PUL-31	Pulverize split to 85% <75 um
LOG-21	Sample logging - ClientBarCode
CRU-QC	Crushing QC Test
PUL-QC	Pulverizing QC Test
LOG-23	Pulp Login - Rcvd with Barcode

ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP06	Whole Rock Package - ICP-AES	ICP-AES
OA-GRA05	Loss on Ignition at 1000C	WST-SEQ
ME-MS81	Lithium Borate Fusion ICP-MS	ICP-MS
TOT-ICP06	Total Calculation for ICP06	ICP-AES
ME-4ACD81	Base Metals by 4-acid dig.	ICP-AES
Li-OG63	Ore grade Li - 4ACID	ICP-AES
ME-OG62o	Ore Grade open beaker -ICPAES	ICP-AES

To: **AVALON ADVANCED MATERIALS INC.**
ATTN: BILL MERCER
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

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:
Colin Ramshaw, Vancouver Laboratory Manager

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Ba ppm 0.5	ME-MS81 Ce ppm 0.5	ME-MS81 Cr ppm 10	ME-MS81 Cs ppm 0.01	ME-MS81 Dy ppm 0.05	ME-MS81 Er ppm 0.03	ME-MS81 Eu ppm 0.03	ME-MS81 Ga ppm 0.1	ME-MS81 Gd ppm 0.05	ME-MS81 Hf ppm 0.2	ME-MS81 Ho ppm 0.01	ME-MS81 La ppm 0.5	ME-MS81 Lu ppm 0.01	ME-MS81 Nb ppm 0.2	ME-MS81 Nd ppm 0.1
STANDARDS																
AMIS0085		373	73.5	580	4.24	10.70	8.15	0.99	13.7	7.56	4.7	2.49	37.4	1.35	11.3	29.8
AMIS0085		384	78.8	510	4.09	10.65	8.62	0.97	13.3	6.89	4.6	2.60	40.1	1.41	10.8	30.8
AMIS0085		364	73.5	630	4.18	11.75	8.81	0.89	14.1	7.74	4.5	2.65	37.2	1.42	11.6	29.3
AMIS0085		362	70.9	530	4.06	10.50	8.42	0.92	14.2	6.85	4.7	2.67	37.9	1.35	10.2	26.2
AMIS0085		362	76.8	620	4.08	11.40	8.71	0.97	15.3	7.21	4.9	2.59	38.8	1.41	12.6	29.7
Target Range - Lower Bound																
Upper Bound																
AMIS0085																
Target Range - Lower Bound																
Upper Bound																
AMIS0167		82.1	46.0	470	1.04	6.29	3.33	0.67	3.3	5.25	2.6	1.17	23.4	0.32	4.3	18.5
AMIS0167		85.1	47.8	480	1.20	6.01	2.98	0.83	3.7	4.84	2.5	1.14	24.5	0.31	4.8	20.1
AMIS0167		84.9	45.6	460	1.12	5.87	3.17	0.68	3.5	4.79	2.7	1.12	23.0	0.29	4.6	18.4
AMIS0167		82.9	46.6	430	1.06	5.84	3.23	0.67	3.3	4.56	2.7	1.08	23.5	0.30	4.4	18.9
AMIS0167		84.7	45.8	440	0.96	6.10	3.09	0.75	3.5	4.82	2.7	1.09	23.6	0.30	4.9	18.9
Target Range - Lower Bound																
Upper Bound																
AMIS0167																
AMIS0167																
Target Range - Lower Bound																
Upper Bound																
AMIS0185																
AMIS0185																
AMIS0185																
AMIS0185																
Target Range - Lower Bound																
Upper Bound																
AMIS0286																
AMIS0286																
AMIS0286																
AMIS0286																
AMIS0286																
Target Range - Lower Bound																
Upper Bound																

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Pr ppm 0.03	ME-MS81 Rb ppm 0.2	ME-MS81 Sm ppm 0.03	ME-MS81 Sn ppm 1	ME-MS81 Sr ppm 0.1	ME-MS81 Ta ppm 0.1	ME-MS81 Tb ppm 0.01	ME-MS81 Th ppm 0.05	ME-MS81 Tm ppm 0.01	ME-MS81 U ppm 0.05	ME-MS81 V ppm 5	ME-MS81 W ppm 1	ME-MS81 Y ppm 0.5	ME-MS81 Yb ppm 0.03	ME-MS81 Zr ppm 2
STANDARDS																
AMIS0085		8.43	239	7.16	3	106.5	1.6	1.57	54.9	1.36	283	24	2	68.5	8.88	161
AMIS0085		8.48	220	6.94	3	104.5	1.6	1.49	54.5	1.46	266	21	2	69.7	9.01	156
AMIS0085		7.96	233	7.12	3	105.0	1.5	1.62	53.0	1.35	259	28	2	71.9	9.60	164
AMIS0085		7.93	216	6.41	3	100.5	1.6	1.51	50.7	1.32	254	21	2	64.4	9.59	153
AMIS0085		8.26	228	6.52	4	106.0	1.6	1.47	54.3	1.41	273	22	2	73.0	9.55	164
Target Range - Lower Bound																
Upper Bound																
AMIS0085																
Target Range - Lower Bound																
Upper Bound																
AMIS0167		5.12	16.9	4.97	2	19.4	1.4	0.99	48.9	0.47	472	55	1	24.5	2.66	103
AMIS0167		5.36	19.0	4.67	1	20.7	1.8	0.97	51.6	0.43	546	69	1	25.9	2.70	107
AMIS0167		5.12	16.4	4.37	2	18.8	1.8	0.96	47.8	0.42	463	57	1	24.4	2.42	99
AMIS0167		5.13	16.1	4.84	1	19.8	1.7	0.88	48.6	0.40	495	56	2	24.8	2.45	105
AMIS0167		5.00	17.7	4.75	3	19.0	1.9	0.92	47.2	0.42	492	60	1	24.3	2.58	114
Target Range - Lower Bound																
Upper Bound																
AMIS0167																
AMIS0167																
Target Range - Lower Bound																
Upper Bound																
AMIS0185																
AMIS0185																
AMIS0185																
AMIS0185																
Target Range - Lower Bound																
Upper Bound																
AMIS0286																
AMIS0286																
AMIS0286																
AMIS0286																
AMIS0286																
Target Range - Lower Bound																
Upper Bound																

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-ICP06 SiO2 % 0.01	ME-ICP06 Al2O3 % 0.01	ME-ICP06 Fe2O3 % 0.01	ME-ICP06 CaO % 0.01	ME-ICP06 MgO % 0.01	ME-ICP06 Na2O % 0.01	ME-ICP06 K2O % 0.01	ME-ICP06 Cr2O3 % 0.01	ME-ICP06 TiO2 % 0.01	ME-ICP06 MnO % 0.01	ME-ICP06 P2O5 % 0.01	ME-ICP06 SrO % 0.01	ME-ICP06 BaO % 0.01	OA-GRA05 LOI % 0.01	TOT-ICP06 Total % 0.01
STANDARDS																
AMIS0085		73.1	11.05	3.53	3.31	1.77	1.75	4.63	0.08	0.21	0.07	0.07	0.01	0.04		
AMIS0085		69.8	10.80	3.37	3.23	1.70	1.71	4.58	0.08	0.21	0.07	0.07	0.01	0.04		
AMIS0085		71.1	10.80	3.39	3.16	1.71	1.71	4.52	0.08	0.20	0.07	0.07	0.01	0.04		
AMIS0085		69.6	10.60	3.38	3.18	1.66	1.66	4.56	0.08	0.20	0.06	0.07	0.01	0.04		
AMIS0085		70.0	10.80	3.37	3.20	1.70	1.64	4.50	0.08	0.21	0.06	0.07	0.01	0.04		
Target Range - Lower Bound		69.0	10.60	3.33	3.12	1.64	1.62	4.48	0.05	0.18	0.04	0.05	<0.01	0.02		
Upper Bound		72.1	11.35	3.67	3.44	1.86	1.84	4.90	0.10	0.24	0.09	0.10	0.03	0.06		
AMIS0085		71.9	10.85	3.39	3.14	1.75	1.74	4.72	0.08	0.21	0.06	0.07	0.01	0.04		100.50
Target Range - Lower Bound		69.0	10.60	3.33	3.12	1.64	1.62	4.48	0.05	0.18	0.04	0.05	<0.01	0.02		97.99
Upper Bound		72.1	11.35	3.67	3.44	1.86	1.84	4.90	0.10	0.24	0.09	0.10	0.03	0.06		>102.00
AMIS0167		91.5	2.46	3.40	0.13	0.24	0.08	0.50	0.06	0.14	0.02	0.03	<0.01	0.01		
AMIS0167		91.1	2.43	3.28	0.13	0.23	0.08	0.48	0.06	0.14	0.02	0.03	<0.01	0.01		
AMIS0167		92.1	2.45	3.35	0.14	0.23	0.09	0.49	0.06	0.14	0.02	0.03	<0.01	0.01		
AMIS0167		92.4	2.40	3.34	0.13	0.23	0.08	0.47	0.06	0.14	0.02	0.04	<0.01	0.01		
AMIS0167		92.6	2.44	3.37	0.13	0.23	0.09	0.51	0.06	0.14	0.02	0.05	<0.01	0.01		
Target Range - Lower Bound		89.6	2.29	3.28	0.10	0.21	0.06	0.45	0.03	0.12	<0.01	<0.01	<0.01	<0.01		
Upper Bound		93.3	2.55	3.62	0.16	0.27	0.12	0.55	0.08	0.18	0.04	0.05	0.02	0.02		
AMIS0167		93.3	2.46	3.41	0.11	0.24	0.07	0.50	0.06	0.14	0.02	0.03	<0.01	0.01		101.97
AMIS0167		92.5	2.42	3.39	0.11	0.23	0.08	0.48	0.06	0.14	0.02	0.03	<0.01	0.01		101.09
Target Range - Lower Bound		89.6	2.29	3.28	0.10	0.21	0.06	0.45	0.03	0.12	<0.01	<0.01	<0.01	<0.01		97.99
Upper Bound		93.3	2.55	3.62	0.16	0.27	0.12	0.55	0.08	0.18	0.04	0.05	0.02	0.02		>102.00
AMIS0185															21.1	
AMIS0185															21.4	
AMIS0185															21.2	
AMIS0185															21.2	
Target Range - Lower Bound															20.1	
Upper Bound															22.3	
AMIS0286															7.65	
AMIS0286															7.85	
AMIS0286															7.91	
AMIS0286															7.62	
AMIS0286															7.75	
Target Range - Lower Bound															7.25	
Upper Bound															8.03	

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-4ACD81 Ag ppm 0.5	ME-4ACD81 As ppm 5	ME-4ACD81 Cd ppm 0.5	ME-4ACD81 Co ppm 1	ME-4ACD81 Cu ppm 1	ME-4ACD81 Li ppm 10	ME-4ACD81 Mo ppm 1	ME-4ACD81 Ni ppm 1	ME-4ACD81 Pb ppm 2	ME-4ACD81 Sc ppm 1	ME-4ACD81 Tl ppm 10	ME-4ACD81 Zn ppm 2	Li-OG63 Li % 0.005
		STANDARDS												
AMIS0085														
AMIS0085														
AMIS0085														
AMIS0085														
AMIS0085														
Target Range - Lower Bound														
Upper Bound														
AMIS0085														
Target Range - Lower Bound														
Upper Bound														
AMIS0167														
AMIS0167														
AMIS0167														
AMIS0167														
AMIS0167														
Target Range - Lower Bound														
Upper Bound														
AMIS0167														
AMIS0167														
Target Range - Lower Bound														
Upper Bound														
AMIS0185														
AMIS0185														
AMIS0185														
AMIS0185														
Target Range - Lower Bound														
Upper Bound														
AMIS0286														
AMIS0286														
AMIS0286														
AMIS0286														
AMIS0286														
Target Range - Lower Bound														
Upper Bound														

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Ba ppm 0.5	ME-MS81 Ce ppm 0.5	ME-MS81 Cr ppm 10	ME-MS81 Cs ppm 0.01	ME-MS81 Dy ppm 0.05	ME-MS81 Er ppm 0.03	ME-MS81 Eu ppm 0.03	ME-MS81 Ga ppm 0.1	ME-MS81 Gd ppm 0.05	ME-MS81 Hf ppm 0.2	ME-MS81 Ho ppm 0.01	ME-MS81 La ppm 0.5	ME-MS81 Lu ppm 0.01	ME-MS81 Nb ppm 0.2	ME-MS81 Nd ppm 0.1
STANDARDS																
AMIS0304		2680	8110	100	0.44	128.0	33.0	150.5	48.2	348	26.3	17.30	3340	1.94	>2500	4000
AMIS0304		2760	8620	90	0.47	129.0	33.2	151.0	45.2	330	26.8	17.70	3560	1.99	>2500	4210
AMIS0304		2800	8520	100	0.39	145.0	37.2	146.5	50.4	374	28.3	19.05	3510	2.02	>2500	4190
AMIS0304		2720	8050	90	0.47	129.0	33.9	150.0	49.1	338	27.4	18.80	3500	2.01	>2500	3810
AMIS0304		2740	8540	110	0.38	138.0	33.8	147.5	49.5	347	29.2	17.35	3510	2.01	>2500	4100
AMIS0304		2610	7990	90	0.37	128.5	32.2	139.0	48.3	323	26.3	16.95	3270	1.88	>2500	3850
Target Range -	Lower Bound	2340	7280	70	0.35	119.0	30.6	135.0	47.8	309	25.0	16.20	3250	1.83	4670	3610
	Upper Bound	2860	8900	120	0.45	145.5	37.4	165.0	58.7	377	31.0	19.80	3970	2.26	>2500	4410
AMIS0343																
AMIS0343																
AMIS0343																
AMIS0343																
AMIS0343																
AMIS0343																
Target Range -	Lower Bound															
	Upper Bound															
CDN-W-4																
CDN-W-4																
CDN-W-4																
CDN-W-4																
Target Range -	Lower Bound															
	Upper Bound															
MRGeo08																
MRGeo08																
MRGeo08																
MRGeo08																
Target Range -	Lower Bound															
	Upper Bound															
NCSDC86303																
Target Range -	Lower Bound															
	Upper Bound															
NCSDC86304																
NCSDC86304																
Target Range -	Lower Bound															
	Upper Bound															

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Pr ppm 0.03	ME-MS81 Rb ppm 0.2	ME-MS81 Sm ppm 0.03	ME-MS81 Sn ppm 1	ME-MS81 Sr ppm 0.1	ME-MS81 Ta ppm 0.1	ME-MS81 Tb ppm 0.01	ME-MS81 Th ppm 0.05	ME-MS81 Tm ppm 0.01	ME-MS81 U ppm 0.05	ME-MS81 V ppm 5	ME-MS81 W ppm 1	ME-MS81 Y ppm 0.5	ME-MS81 Yb ppm 0.03	ME-MS81 Zr ppm 2
STANDARDS																
AMIS0304		>1000	10.9	591	24	3500	12.8	34.9	450	3.31	22.9	376	5	388	15.55	1110
AMIS0304		>1000	10.0	617	24	3500	12.5	33.6	449	3.46	23.4	331	5	400	15.55	1110
AMIS0304		>1000	10.9	621	26	3540	12.2	36.7	468	3.53	23.4	388	5	422	17.45	1185
AMIS0304		>1000	10.5	604	24	3490	12.8	35.4	436	3.56	23.0	355	5	390	17.15	1125
AMIS0304		>1000	10.9	588	26	3610	13.1	33.5	452	3.45	23.5	372	5	425	16.40	1180
AMIS0304		976	10.2	566	23	3300	11.8	33.2	423	3.18	21.6	342	5	396	15.35	1095
Target Range -	Lower Bound	925	9.3	543	22	3060	11.1	30.8	406	3.14	21.6	331	3	369	15.25	1005
	Upper Bound	>1000	11.8	664	29	3740	13.8	37.7	496	3.86	26.5	415	7	452	18.75	1230
AMIS0343																
AMIS0343																
AMIS0343																
AMIS0343																
AMIS0343																
AMIS0343																
Target Range -	Lower Bound															
	Upper Bound															
CDN-W-4																
CDN-W-4																
CDN-W-4																
CDN-W-4																
Target Range -	Lower Bound															
	Upper Bound															
MRGeo08																
MRGeo08																
MRGeo08																
MRGeo08																
Target Range -	Lower Bound															
	Upper Bound															
NCSDC86303																
Target Range -	Lower Bound															
	Upper Bound															
NCSDC86304																
NCSDC86304																
Target Range -	Lower Bound															
	Upper Bound															

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-ICP06 SiO2 % 0.01	ME-ICP06 Al2O3 % 0.01	ME-ICP06 Fe2O3 % 0.01	ME-ICP06 CaO % 0.01	ME-ICP06 MgO % 0.01	ME-ICP06 Na2O % 0.01	ME-ICP06 K2O % 0.01	ME-ICP06 Cr2O3 % 0.01	ME-ICP06 TiO2 % 0.01	ME-ICP06 MnO % 0.01	ME-ICP06 P2O5 % 0.01	ME-ICP06 SrO % 0.01	ME-ICP06 BaO % 0.01	OA-GRA05 LOI % 0.01	TOT-ICP06 Total % 0.01
							STANDARDS									
AMIS0304		12.15	1.52	21.4	28.8	2.78	0.10	0.27	0.01	1.71	0.45	18.25	0.42	0.28		
AMIS0304		12.35	1.50	20.5	27.7	2.76	0.10	0.27	0.01	1.73	0.44	17.95	0.41	0.28		
AMIS0304		12.75	1.56	21.6	28.7	2.87	0.10	0.28	0.01	1.72	0.45	18.00	0.42	0.29		
AMIS0304		12.00	1.52	20.8	28.6	2.75	0.10	0.28	0.01	1.71	0.44	18.05	0.40	0.28		
AMIS0304		12.05	1.52	20.7	28.2	2.74	0.09	0.28	0.01	1.71	0.44	17.95	0.40	0.28		
AMIS0304																
Target Range - Lower Bound																
Upper Bound																
AMIS0343																
AMIS0343																
AMIS0343																
AMIS0343																
AMIS0343																
AMIS0343																
Target Range - Lower Bound																
Upper Bound																
CDN-W-4															4.41	
CDN-W-4															4.46	
CDN-W-4															4.56	
CDN-W-4															4.36	
Target Range - Lower Bound															4.17	
Upper Bound															4.63	
MRGeo08																
MRGeo08																
MRGeo08																
MRGeo08																
Target Range - Lower Bound																
Upper Bound																
NCSDC86303																
Target Range - Lower Bound																
Upper Bound																
NCSDC86304																
NCSDC86304																
Target Range - Lower Bound																
Upper Bound																

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-4ACD81 Ag ppm 0.5	ME-4ACD81 As ppm 5	ME-4ACD81 Cd ppm 0.5	ME-4ACD81 Co ppm 1	ME-4ACD81 Cu ppm 1	ME-4ACD81 Li ppm 10	ME-4ACD81 Mo ppm 1	ME-4ACD81 Ni ppm 1	ME-4ACD81 Pb ppm 2	ME-4ACD81 Sc ppm 1	ME-4ACD81 Tl ppm 10	ME-4ACD81 Zn ppm 2	Li-OG63 Li % 0.005
STANDARDS														
AMIS0304														
AMIS0304														
AMIS0304														
AMIS0304														
AMIS0304														
AMIS0304														
Target Range - Lower Bound														
Upper Bound														
AMIS0343		<0.5	15	<0.5	1	52	7250	3	14	6	<1	30	84	
AMIS0343		<0.5	12	<0.5	1	50	6860	3	13	6	<1	40	78	
AMIS0343		<0.5	13	<0.5	2	55	7430	4	10	6	<1	40	86	
AMIS0343		<0.5	15	<0.5	1	55	6950	3	14	7	<1	40	82	
AMIS0343		<0.5	16	<0.5	2	54	7070	4	13	11	<1	40	82	
AMIS0343		<0.5	14	<0.5	1	51	7250	3	13	8	<1	40	83	
Target Range - Lower Bound		<0.5	<5	<0.5	<1	47	6300	<1	11	<2	<1	<10	70	
Upper Bound		1.1	24	1.0	5	56	7730	6	17	10	2	50	90	
CDN-W-4														
CDN-W-4														
CDN-W-4														
CDN-W-4														
Target Range - Lower Bound														
Upper Bound														
MRGeo08		4.3	34	2.1	20	637	30	14	718	1105	11	10	832	
MRGeo08		4.7	37	2.3	21	639	30	14	720	1095	11	<10	822	
MRGeo08		4.8	35	2.3	21	654	40	15	722	1100	11	10	835	
MRGeo08		4.5	35	2.3	20	617	30	15	704	1080	10	<10	810	
Target Range - Lower Bound		3.2	21	1.1	17	586	<10	12	621	969	10	<10	722	
Upper Bound		5.7	45	3.4	23	676	50	18	761	1190	15	20	886	
NCSDC86303														0.208
Target Range - Lower Bound														0.201
Upper Bound														0.226
NCSDC86304														1.065
NCSDC86304														1.030
Target Range - Lower Bound														1.022
Upper Bound														1.106

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Ba ppm 0.5	ME-MS81 Ce ppm 0.5	ME-MS81 Cr ppm 10	ME-MS81 Cs ppm 0.01	ME-MS81 Dy ppm 0.05	ME-MS81 Er ppm 0.03	ME-MS81 Eu ppm 0.03	ME-MS81 Ga ppm 0.1	ME-MS81 Gd ppm 0.05	ME-MS81 Hf ppm 0.2	ME-MS81 Ho ppm 0.01	ME-MS81 La ppm 0.5	ME-MS81 Lu ppm 0.01	ME-MS81 Nb ppm 0.2	ME-MS81 Nd ppm 0.1
STANDARDS																
OGGeo08																
OGGeo08																
OGGeo08																
OGGeo08																
OGGeo08																
OGGeo08																
Target Range - Lower Bound																
Upper Bound																
OREAS 146		>10000	4690	210	0.47	233	87.8	121.5	28.3	361	4.5	38.9	2460	6.53	399	2200
OREAS 146		>10000	5010	210	0.56	224	84.8	139.0	30.6	346	4.2	37.1	2660	6.41	406	2370
OREAS 146		>10000	4600	210	0.47	217	82.1	119.0	27.9	330	4.1	36.0	2410	5.91	425	2120
OREAS 146		>10000	5000	210	0.52	219	84.5	125.0	28.8	326	4.1	35.9	2590	6.16	426	2300
OREAS 146		>10000	4890	210	0.51	239	87.8	134.0	28.1	360	4.7	38.5	2630	6.63	424	2340
OREAS 146		>10000	4690	180	0.51	212	80.4	120.5	25.0	326	3.7	35.6	2450	5.95	393	2230
Target Range - Lower Bound		11450	4220	160	0.47	202	78.3	114.5	26.2	323	3.6	33.1	2260	5.66	349	1965
Upper Bound		>10000	5160	220	0.59	246	95.7	139.5	32.2	395	4.8	40.5	2760	6.94	427	2400
OREAS 602																
OREAS 602																
OREAS 602																
OREAS 602																
Target Range - Lower Bound																
Upper Bound																
OREAS-105		679	109.5	50	1.98	11.35	7.10	1.40	24.4	12.20	6.0	2.34	45.8	0.91	39.6	64.3
OREAS-105		735	120.0	50	1.99	11.70	7.12	1.34	24.6	11.70	6.1	2.53	49.8	1.00	38.2	66.4
OREAS-105		718	118.0	40	2.04	13.00	7.63	1.38	25.1	13.45	6.7	2.68	49.0	0.99	40.2	68.0
OREAS-105		681	110.0	50	1.98	11.45	7.10	1.40	26.5	12.20	6.2	2.49	48.6	0.94	37.9	58.4
OREAS-105		722	123.5	60	2.10	12.90	8.16	1.43	29.8	12.40	6.8	2.47	51.1	1.02	41.7	68.8
OREAS-105		711	117.0	50	2.07	12.25	7.47	1.48	27.7	12.90	6.5	2.53	48.7	1.06	40.6	65.5
Target Range - Lower Bound		632	105.0	40	1.96	10.95	6.72	1.32	24.3	11.65	5.6	2.19	45.4	0.88	36.9	57.8
Upper Bound		774	129.0	80	2.42	13.45	8.28	1.68	29.9	14.35	7.2	2.69	56.6	1.10	45.6	70.8
SARM-43																
SARM-43																
SARM-43																
SARM-43																
SARM-43																
Target Range - Lower Bound																
Upper Bound																

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Pr ppm 0.03	ME-MS81 Rb ppm 0.2	ME-MS81 Sm ppm 0.03	ME-MS81 Sn ppm 1	ME-MS81 Sr ppm 0.1	ME-MS81 Ta ppm 0.1	ME-MS81 Tb ppm 0.01	ME-MS81 Th ppm 0.05	ME-MS81 Tm ppm 0.01	ME-MS81 U ppm 0.05	ME-MS81 V ppm 5	ME-MS81 W ppm 1	ME-MS81 Y ppm 0.5	ME-MS81 Yb ppm 0.03	ME-MS81 Zr ppm 2
STANDARDS																
OGGeo08																
OGGeo08																
OGGeo08																
OGGeo08																
OGGeo08																
OGGeo08																
Target Range - Lower Bound																
Upper Bound																
OREAS 146		548	25.4	469	47	3140	4.0	47.8	907	10.05	2.58	149	29	916	51.7	235
OREAS 146		594	29.2	450	45	3360	4.3	44.6	990	9.83	2.88	180	29	970	51.0	243
OREAS 146		537	24.6	432	45	3050	4.3	44.0	878	9.38	2.53	152	28	899	49.0	217
OREAS 146		585	28.1	462	47	3310	4.2	43.0	958	9.73	2.61	165	28	967	52.0	249
OREAS 146		572	26.9	466	50	3260	4.6	46.8	935	10.55	2.79	164	31	958	53.2	264
OREAS 146		547	24.6	441	44	3110	3.9	43.7	882	9.46	2.44	142	26	902	49.6	220
Target Range - Lower Bound		493	23.7	397	40	2790	3.6	42.5	813	8.90	2.37	140	25	814	48.1	204
Upper Bound		603	29.5	485	52	3410	4.6	51.9	993	10.90	3.01	182	33	996	58.9	254
OREAS 602																
OREAS 602																
OREAS 602																
OREAS 602																
Target Range - Lower Bound																
Upper Bound																
OREAS-105		15.30	104.0	14.85	11	87.3	4.7	1.99	375	1.03	541	27	3	58.7	6.66	216
OREAS-105		15.35	98.6	15.45	10	87.0	4.4	2.07	379	1.11	543	26	3	60.5	6.88	220
OREAS-105		15.30	101.5	15.85	11	87.8	4.4	2.11	391	1.05	550	24	3	62.9	7.01	227
OREAS-105		14.65	99.6	15.00	9	85.9	4.4	1.98	354	1.07	508	28	3	58.2	6.90	211
OREAS-105		16.00	111.0	15.60	11	95.6	4.8	2.06	393	1.11	561	31	3	67.9	7.26	240
OREAS-105		15.20	106.0	15.35	9	90.7	4.4	2.06	384	1.12	547	27	3	65.0	7.37	231
Target Range - Lower Bound		14.35	94.8	13.30	8	85.3	4.3	1.95	332	1.02	479	19	<1	57.9	6.54	208
Upper Bound		17.65	116.5	16.30	13	104.5	5.5	2.41	406	1.26	585	43	5	71.9	8.06	259
SARM-43																
SARM-43																
SARM-43																
SARM-43																
SARM-43																
Target Range - Lower Bound																
Upper Bound																

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-ICP06 SiO2 % 0.01	ME-ICP06 Al2O3 % 0.01	ME-ICP06 Fe2O3 % 0.01	ME-ICP06 CaO % 0.01	ME-ICP06 MgO % 0.01	ME-ICP06 Na2O % 0.01	ME-ICP06 K2O % 0.01	ME-ICP06 Cr2O3 % 0.01	ME-ICP06 TiO2 % 0.01	ME-ICP06 MnO % 0.01	ME-ICP06 P2O5 % 0.01	ME-ICP06 SrO % 0.01	ME-ICP06 BaO % 0.01	OA-GRA05 LOI % 0.01	TOT-ICP06 Total % 0.01
							STANDARDS									
OGGeo08																
OGGeo08																
OGGeo08																
OGGeo08																
OGGeo08																
OGGeo08																
Target Range - Lower Bound																
Upper Bound																
OREAS 146		20.1	3.10	28.9	17.90	7.06	0.32	1.30	0.03	1.43	2.53	0.55	0.39	1.56		
OREAS 146		20.1	2.99	28.3	17.10	6.84	0.32	1.27	0.03	1.38	2.44	0.53	0.38	1.49		
OREAS 146		19.95	2.99	28.1	16.90	6.64	0.30	1.24	0.02	1.37	2.40	0.51	0.38	1.42		
OREAS 146		19.95	3.00	28.2	16.85	6.70	0.31	1.26	0.02	1.36	2.39	0.52	0.38	1.48		
OREAS 146		20.3	3.00	27.8	17.40	6.91	0.31	1.28	0.03	1.40	2.47	0.53	0.39	1.53		
OREAS 146																
Target Range - Lower Bound																
Upper Bound																
OREAS 602																
OREAS 602																
OREAS 602																
OREAS 602																
Target Range - Lower Bound																
Upper Bound																
OREAS-105		70.4	13.65	2.79	1.43	0.79	4.97	2.23	0.01	0.40	0.02	0.35	0.01	0.08		
OREAS-105		72.3	13.75	2.73	1.42	0.80	5.07	2.30	0.01	0.42	0.02	0.36	0.01	0.08		
OREAS-105		72.9	13.95	2.79	1.41	0.80	4.95	2.23	0.01	0.40	0.02	0.34	0.01	0.07		
OREAS-105		70.6	13.90	2.78	1.45	0.80	4.97	2.27	0.01	0.41	0.02	0.34	0.01	0.08		
OREAS-105		71.9	14.25	2.81	1.45	0.80	4.99	2.30	0.01	0.42	0.02	0.35	0.01	0.08		
OREAS-105																
Target Range - Lower Bound																
Upper Bound																
SARM-43															47.9	
SARM-43															47.8	
SARM-43															47.9	
SARM-43															47.5	
SARM-43															47.5	
Target Range - Lower Bound															45.7	
Upper Bound															50.5	

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-4ACD81 Ag ppm 0.5	ME-4ACD81 As ppm 5	ME-4ACD81 Cd ppm 0.5	ME-4ACD81 Co ppm 1	ME-4ACD81 Cu ppm 1	ME-4ACD81 Li ppm 10	ME-4ACD81 Mo ppm 1	ME-4ACD81 Ni ppm 1	ME-4ACD81 Pb ppm 2	ME-4ACD81 Sc ppm 1	ME-4ACD81 Tl ppm 10	ME-4ACD81 Zn ppm 2	Li-OG63 Li % 0.005
STANDARDS														
OGGeo08		20.0	110	19.4	100	8560	30	923	8980	7540	10	<10	7340	
OGGeo08		20.1	122	19.2	98	8450	40	913	8870	7430	9	10	7240	
OGGeo08		20.9	124	19.5	101	8720	30	925	9160	7640	10	<10	7280	
OGGeo08		20.4	127	19.4	100	8640	30	924	9090	7450	10	<10	7270	
OGGeo08		20.7	126	19.7	100	8620	30	921	9150	7490	9	10	7330	
OGGeo08		19.7	122	18.5	97	8300	30	896	8710	7220	9	10	6960	
Target Range - Lower Bound		17.7	102	16.2	86	7800	<10	841	8000	6510	8	<10	6500	
Upper Bound		22.7	136	21.0	108	8980	50	1030	9770	7970	13	20	7950	
OREAS 146														
OREAS 146														
OREAS 146														
OREAS 146														
OREAS 146														
OREAS 146														
Target Range - Lower Bound														
Upper Bound														
OREAS 602		>100	672	25.6	9	5020	20	4	61	1020	4	<10	4140	
OREAS 602		>100	715	26.4	11	5400	20	5	63	1080	5	10	4360	
OREAS 602		>100	697	26.0	11	5320	20	5	68	1070	4	<10	4280	
OREAS 602		>100	680	25.5	10	5150	20	5	63	1035	4	<10	4190	
Target Range - Lower Bound		107.5	579	21.7	7	4790	<10	2	53	918	2	<10	3770	
Upper Bound		100.0	719	27.7	12	5510	40	7	67	1125	6	20	4610	
OREAS-105														
OREAS-105														
OREAS-105														
OREAS-105														
OREAS-105														
OREAS-105														
Target Range - Lower Bound														
Upper Bound														
SARM-43														
SARM-43														
SARM-43														
SARM-43														
SARM-43														
Target Range - Lower Bound														
Upper Bound														

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Ba ppm 0.5	ME-MS81 Ce ppm 0.5	ME-MS81 Cr ppm 10	ME-MS81 Cs ppm 0.01	ME-MS81 Dy ppm 0.05	ME-MS81 Er ppm 0.03	ME-MS81 Eu ppm 0.03	ME-MS81 Ga ppm 0.1	ME-MS81 Gd ppm 0.05	ME-MS81 Hf ppm 0.2	ME-MS81 Ho ppm 0.01	ME-MS81 La ppm 0.5	ME-MS81 Lu ppm 0.01	ME-MS81 Nb ppm 0.2	ME-MS81 Nd ppm 0.1
STANDARDS																
SRM-183																
Target Range - Lower Bound																
Upper Bound																
SRM88B		6.6	3.4	10	0.19	0.65	0.42	0.11	0.5	0.64	<0.2	0.14	4.8	0.04	<0.2	3.2
SRM88B		4.9	3.4	<10	0.16	0.52	0.38	0.11	0.4	0.56	<0.2	0.14	4.6	0.04	0.2	3.1
SRM88B		3.9	3.3	<10	0.17	0.67	0.47	0.10	0.2	0.51	<0.2	0.14	4.5	0.03	0.3	3.1
SRM88B		3.7	3.4	10	0.15	0.61	0.42	0.12	0.8	0.58	<0.2	0.16	4.8	0.05	0.3	2.9
SRM88B		5.3	3.4	40	0.16	0.68	0.44	0.11	0.4	0.61	<0.2	0.14	4.7	0.03	0.3	2.8
Target Range - Lower Bound																
Upper Bound																
SRM88B																
Target Range - Lower Bound																
Upper Bound																
SY-4		301	114.0	20	1.43	18.05	14.30	1.78	36.5	13.70	11.6	4.46	53.0	1.99	12.5	52.3
SY-4		334	126.0	10	1.65	17.55	14.50	1.99	36.8	13.10	11.5	4.32	59.3	2.06	13.3	60.3
SY-4		340	121.0	20	1.59	18.60	14.55	1.88	38.0	14.10	11.5	4.38	56.0	2.05	14.1	56.3
SY-4		337	127.5	10	1.63	17.90	14.90	1.82	37.5	13.80	11.4	4.24	59.7	2.02	14.2	59.1
SY-4		330	120.0	20	1.50	18.50	14.20	1.86	37.5	14.00	10.8	4.56	57.0	2.19	12.8	56.6
SY-4		345	125.0	20	1.52	18.30	14.30	1.87	38.7	14.20	10.2	4.53	57.4	2.14	13.0	58.7
Target Range - Lower Bound		306	109.5	<10	1.34	16.35	12.75	1.77	31.4	12.55	9.8	3.86	51.7	1.88	11.5	51.2
Upper Bound		375	134.5	30	1.66	20.1	15.65	2.23	38.6	15.45	12.4	4.74	64.3	2.32	14.5	62.8
SY-4																
SY-4																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound																
Upper Bound																

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Pr ppm 0.03	ME-MS81 Rb ppm 0.2	ME-MS81 Sm ppm 0.03	ME-MS81 Sn ppm 1	ME-MS81 Sr ppm 0.1	ME-MS81 Ta ppm 0.1	ME-MS81 Tb ppm 0.01	ME-MS81 Th ppm 0.05	ME-MS81 Tm ppm 0.01	ME-MS81 U ppm 0.05	ME-MS81 V ppm 5	ME-MS81 W ppm 1	ME-MS81 Y ppm 0.5	ME-MS81 Yb ppm 0.03	ME-MS81 Zr ppm 2
STANDARDS																
SRM-183																
Target Range - Lower Bound																
Upper Bound																
SRM88B		0.86	3.0	0.53	<1	64.6	<0.1	0.08	0.30	0.05	0.16	<5	<1	7.6	0.29	4
SRM88B		0.77	2.7	0.48	<1	61.6	<0.1	0.10	0.25	0.06	0.18	<5	<1	7.2	0.29	5
SRM88B		0.75	2.5	0.53	<1	57.7	<0.1	0.09	0.26	0.04	0.10	<5	<1	7.2	0.29	4
SRM88B		0.78	3.1	0.53	<1	62.2	<0.1	0.08	0.28	0.06	0.13	<5	<1	7.2	0.28	5
SRM88B		0.71	2.9	0.44	<1	61.9	<0.1	0.08	0.26	0.05	0.15	<5	1	7.6	0.31	4
Target Range - Lower Bound																
Upper Bound																
SRM88B																
Target Range - Lower Bound																
Upper Bound																
SY-4		13.70	49.4	13.10	8	1140	0.4	2.62	1.31	2.11	0.91	5	<1	107.5	13.75	614
SY-4		15.45	55.6	13.45	8	1235	0.9	2.55	1.32	2.11	0.93	<5	<1	116.5	14.55	626
SY-4		14.55	52.0	13.05	8	1205	0.9	2.72	1.15	2.25	0.73	7	<1	115.5	14.60	583
SY-4		15.35	52.2	13.25	8	1280	0.8	2.56	1.33	2.28	0.83	5	1	121.0	14.95	617
SY-4		14.40	51.7	12.65	8	1180	0.8	2.67	1.01	2.26	0.66	6	1	112.5	14.45	574
SY-4		14.80	52.8	12.90	8	1235	0.7	2.67	1.29	2.22	0.74	5	1	115.5	15.05	551
Target Range - Lower Bound		13.45	49.3	11.40	6	1070	0.7	2.33	1.11	2.06	0.66	<5	<1	106.5	13.30	523
Upper Bound		16.55	60.7	14.00	10	1310	1.1	2.87	1.47	2.54	0.94	18	3	131.5	16.30	643
SY-4																
SY-4																
Target Range - Lower Bound																
Upper Bound																
BLANKS																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound																
Upper Bound																

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-ICP06 SiO2 % 0.01	ME-ICP06 Al2O3 % 0.01	ME-ICP06 Fe2O3 % 0.01	ME-ICP06 CaO % 0.01	ME-ICP06 MgO % 0.01	ME-ICP06 Na2O % 0.01	ME-ICP06 K2O % 0.01	ME-ICP06 Cr2O3 % 0.01	ME-ICP06 TiO2 % 0.01	ME-ICP06 MnO % 0.01	ME-ICP06 P2O5 % 0.01	ME-ICP06 SrO % 0.01	ME-ICP06 BaO % 0.01	OA-GRA05 LOI % 0.01	TOT-ICP06 Total % 0.01
STANDARDS																
SRM-183																
Target Range - Lower Bound																
Upper Bound																
SRM88B		1.15	0.33	0.29	30.7	21.1	0.03	0.10	<0.01	0.01	0.02	<0.01	0.01	<0.01		
SRM88B		1.14	0.32	0.28	30.6	21.1	0.03	0.10	<0.01	0.02	0.02	<0.01	0.01	<0.01		
SRM88B		1.16	0.33	0.27	30.0	21.1	0.03	0.10	<0.01	0.01	0.02	<0.01	0.01	<0.01		
SRM88B		1.15	0.34	0.27	30.7	20.8	0.03	0.10	<0.01	0.01	0.02	0.01	0.01	<0.01		
SRM88B		1.13	0.33	0.28	30.3	20.8	0.03	0.10	<0.01	0.01	0.02	<0.01	0.01	<0.01		
Target Range - Lower Bound		1.05	0.30	0.24	29.1	20.4	<0.01	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Upper Bound		1.21	0.37	0.31	30.8	21.7	0.05	0.13	0.03	0.04	0.04	0.03	0.03	0.03		
SRM88B		1.12	0.31	0.26	30.3	20.8	0.03	0.10	<0.01	0.01	0.02	0.01	0.01	<0.01		99.95
Target Range - Lower Bound		1.05	0.30	0.24	29.1	20.4	<0.01	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		97.99
Upper Bound		1.21	0.37	0.31	30.8	21.7	0.05	0.13	0.03	0.04	0.04	0.03	0.03	0.03		>102.00
SY-4		50.3	20.6	6.21	7.94	0.50	6.92	1.61	<0.01	0.27	0.11	0.11	0.14	0.04		
SY-4		49.4	20.4	6.14	7.84	0.50	6.99	1.60	<0.01	0.28	0.11	0.12	0.14	0.04		
SY-4		50.4	20.9	6.32	8.11	0.50	7.33	1.62	<0.01	0.28	0.11	0.12	0.14	0.04		
SY-4		48.7	20.3	6.15	7.75	0.50	6.87	1.59	<0.01	0.28	0.10	0.12	0.14	0.04		
SY-4		50.1	20.6	6.09	7.93	0.51	7.07	1.63	<0.01	0.28	0.11	0.12	0.15	0.04		
SY-4																
Target Range - Lower Bound																
Upper Bound																
SY-4		49.4	20.7	6.24	8.03	0.52	7.03	1.65	<0.01	0.27	0.10	0.12	0.14	0.04		98.80
SY-4		49.6	20.6	6.26	7.99	0.51	7.02	1.61	<0.01	0.27	0.10	0.12	0.14	0.04		98.82
Target Range - Lower Bound		48.7	20.1	5.95	7.74	0.49	6.81	1.56	<0.01	0.25	0.08	0.10	0.11	<0.01		97.99
Upper Bound		51.1	21.3	6.47	8.36	0.59	7.39	1.76	0.03	0.32	0.13	0.16	0.17	0.06		>102.00
BLANKS																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound																
Upper Bound																

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-4ACD81 Ag ppm 0.5	ME-4ACD81 As ppm 5	ME-4ACD81 Cd ppm 0.5	ME-4ACD81 Co ppm 1	ME-4ACD81 Cu ppm 1	ME-4ACD81 Li ppm 10	ME-4ACD81 Mo ppm 1	ME-4ACD81 Ni ppm 1	ME-4ACD81 Pb ppm 2	ME-4ACD81 Sc ppm 1	ME-4ACD81 Tl ppm 10	ME-4ACD81 Zn ppm 2	Li-OG63 Li % 0.005
STANDARDS														
SRM-183														1.875
Target Range - Lower Bound														1.838
Upper Bound														1.982
SRM88B														
SRM88B														
SRM88B														
SRM88B														
SRM88B														
Target Range - Lower Bound														
Upper Bound														
SRM88B														
Target Range - Lower Bound														
Upper Bound														
SY-4														
SY-4														
SY-4														
SY-4														
SY-4														
SY-4														
Target Range - Lower Bound														
Upper Bound														
SY-4														
SY-4														
Target Range - Lower Bound														
Upper Bound														
BLANKS														
BLANK														<0.005
BLANK														<0.005
BLANK														<0.005
Target Range - Lower Bound														<0.005
Upper Bound														0.010

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Ba ppm 0.5	ME-MS81 Ce ppm 0.5	ME-MS81 Cr ppm 10	ME-MS81 Cs ppm 0.01	ME-MS81 Dy ppm 0.05	ME-MS81 Er ppm 0.03	ME-MS81 Eu ppm 0.03	ME-MS81 Ga ppm 0.1	ME-MS81 Gd ppm 0.05	ME-MS81 Hf ppm 0.2	ME-MS81 Ho ppm 0.01	ME-MS81 La ppm 0.5	ME-MS81 Lu ppm 0.01	ME-MS81 Nb ppm 0.2	ME-MS81 Nd ppm 0.1
							BLANKS									
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound																
Upper Bound																
BLANK		<0.5	<0.5	10	0.02	<0.05	0.03	<0.03	0.1	<0.05	<0.2	0.01	<0.5	0.01	<0.2	<0.1
BLANK		1.6	<0.5	<10	0.02	<0.05	<0.03	<0.03	0.1	<0.05	<0.2	<0.01	<0.5	<0.01	0.3	<0.1
BLANK		3.4	<0.5	<10	0.01	<0.05	<0.03	<0.03	<0.1	<0.05	<0.2	<0.01	<0.5	<0.01	0.2	<0.1
BLANK		0.8	<0.5	<10	<0.01	<0.05	<0.03	<0.03	<0.1	<0.05	<0.2	<0.01	<0.5	<0.01	<0.2	<0.1
BLANK		1.0	<0.5	10	<0.01	<0.05	<0.03	<0.03	<0.1	<0.05	<0.2	<0.01	<0.5	<0.01	<0.2	<0.1
BLANK		<0.5	<0.5	<10	<0.01	<0.05	<0.03	<0.03	<0.1	<0.05	<0.2	<0.01	<0.5	<0.01	<0.2	<0.1
BLANK		0.7	<0.5	<10	0.01	<0.05	<0.03	<0.03	0.1	<0.05	<0.2	0.02	<0.5	0.02	<0.2	<0.1
BLANK		2.7	<0.5	<10	0.01	<0.05	<0.03	<0.03	0.3	<0.05	<0.2	<0.01	<0.5	<0.01	<0.2	<0.1
BLANK		0.9	<0.5	<10	0.03	<0.05	0.03	0.03	<0.1	<0.05	<0.2	0.01	<0.5	0.01	<0.2	<0.1
BLANK		1.2	<0.5	<10	0.02	<0.05	<0.03	<0.03	<0.1	<0.05	<0.2	<0.01	<0.5	<0.01	<0.2	<0.1
BLANK		<0.5	<0.5	<10	0.02	<0.05	0.03	<0.03	<0.1	<0.05	<0.2	0.02	<0.5	0.02	<0.2	<0.1
BLANK		0.9	<0.5	<10	<0.01	<0.05	<0.03	<0.03	<0.1	<0.05	<0.2	<0.01	<0.5	<0.01	<0.2	<0.1
Target Range - Lower Bound		<0.5	<0.5	<10	<0.01	<0.05	<0.03	<0.03	<0.1	<0.05	<0.2	<0.01	<0.5	<0.01	<0.2	<0.1
Upper Bound		1.0	1.0	20	0.02	0.10	0.06	0.06	0.2	0.10	0.4	0.02	1.0	0.02	0.4	0.2
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound																
Upper Bound																
BLANK																
BLANK																

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Pr ppm 0.03	ME-MS81 Rb ppm 0.2	ME-MS81 Sm ppm 0.03	ME-MS81 Sn ppm 1	ME-MS81 Sr ppm 0.1	ME-MS81 Ta ppm 0.1	ME-MS81 Tb ppm 0.01	ME-MS81 Th ppm 0.05	ME-MS81 Tm ppm 0.01	ME-MS81 U ppm 0.05	ME-MS81 V ppm 5	ME-MS81 W ppm 1	ME-MS81 Y ppm 0.5	ME-MS81 Yb ppm 0.03	ME-MS81 Zr ppm 2
BLANKS																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound																
Upper Bound																
BLANK		<0.03	<0.2	0.04	<1	0.2	<0.1	0.02	<0.05	0.02	<0.05	<5	<1	<0.5	0.06	<2
BLANK		<0.03	<0.2	<0.03	<1	<0.1	<0.1	<0.01	<0.05	<0.01	<0.05	<5	1	<0.5	<0.03	<2
BLANK		<0.03	0.2	<0.03	<1	0.6	<0.1	<0.01	<0.05	<0.01	<0.05	<5	<1	<0.5	<0.03	<2
BLANK		<0.03	<0.2	<0.03	<1	0.1	<0.1	<0.01	<0.05	0.01	<0.05	<5	1	<0.5	<0.03	<2
BLANK		<0.03	<0.2	<0.03	<1	0.1	<0.1	<0.01	<0.05	<0.01	<0.05	<5	2	<0.5	<0.03	<2
BLANK		<0.03	<0.2	<0.03	<1	<0.1	<0.1	<0.01	<0.05	<0.01	<0.05	<5	1	<0.5	<0.03	<2
BLANK		<0.03	<0.2	0.05	<1	<0.1	0.1	0.01	<0.05	0.01	<0.05	<5	1	<0.5	<0.03	<2
BLANK		<0.03	<0.2	<0.03	<1	<0.1	<0.1	<0.01	<0.05	<0.01	<0.05	<5	1	<0.5	<0.03	<2
BLANK		0.04	<0.2	0.03	<1	<0.1	<0.1	<0.01	<0.05	0.01	<0.05	<5	<1	<0.5	<0.03	<2
BLANK		<0.03	<0.2	<0.03	<1	<0.1	<0.1	<0.01	<0.05	<0.01	<0.05	<5	<1	<0.5	<0.03	<2
BLANK		<0.03	<0.2	0.03	<1	<0.1	<0.1	0.02	<0.05	0.02	<0.05	<5	<1	<0.5	0.05	<2
BLANK		<0.03	<0.2	<0.03	<1	0.1	0.1	<0.01	<0.05	<0.01	<0.05	<5	<1	<0.5	<0.03	<2
Target Range - Lower Bound		<0.03	<0.2	<0.03	<1	<0.1	<0.1	<0.01	<0.05	<0.01	<0.05	<5	<1	<0.5	<0.03	<2
Upper Bound		0.06	0.4	0.06	2	0.2	0.2	0.02	0.10	0.02	0.10	10	2	1.0	0.06	4
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound																
Upper Bound																
BLANK																
BLANK																

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-ICP06 SiO2 % 0.01	ME-ICP06 Al2O3 % 0.01	ME-ICP06 Fe2O3 % 0.01	ME-ICP06 CaO % 0.01	ME-ICP06 MgO % 0.01	ME-ICP06 Na2O % 0.01	ME-ICP06 K2O % 0.01	ME-ICP06 Cr2O3 % 0.01	ME-ICP06 TiO2 % 0.01	ME-ICP06 MnO % 0.01	ME-ICP06 P2O5 % 0.01	ME-ICP06 SrO % 0.01	ME-ICP06 BaO % 0.01	OA-GRA05 LOI % 0.01	TOT-ICP06 Total % 0.01
							BLANKS									
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
BLANK																
Target Range - Lower Bound																
Upper Bound																
BLANK		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
BLANK		<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
BLANK		<0.01	0.01	<0.01	0.02	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
BLANK		<0.01	<0.01	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
BLANK		<0.01	0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
BLANK		<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
BLANK		<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
BLANK		<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
BLANK		<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
BLANK		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
BLANK																
BLANK																
Target Range - Lower Bound																
Upper Bound																
BLANK															-0.01	
BLANK															0.00	
BLANK															0.02	
BLANK															0.00	
BLANK															0.01	
BLANK															0.01	
BLANK															0.00	
BLANK															0.00	
BLANK															-0.01	
Target Range - Lower Bound															<0.01	
Upper Bound															0.02	
BLANK		<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		0.01
BLANK		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-4ACD81 Ag ppm 0.5	ME-4ACD81 As ppm 5	ME-4ACD81 Cd ppm 0.5	ME-4ACD81 Co ppm 1	ME-4ACD81 Cu ppm 1	ME-4ACD81 Li ppm 10	ME-4ACD81 Mo ppm 1	ME-4ACD81 Ni ppm 1	ME-4ACD81 Pb ppm 2	ME-4ACD81 Sc ppm 1	ME-4ACD81 Tl ppm 10	ME-4ACD81 Zn ppm 2	Li-OG63 Li % 0.005
							BLANKS							
BLANK		<0.5	<5	<0.5	<1	<1	<10	<1	<1	<2	<1	<10	<2	
BLANK		<0.5	<5	<0.5	<1	<1	<10	<1	<1	<2	<1	<10	<2	
BLANK		<0.5	<5	<0.5	<1	<1	<10	<1	<1	<2	<1	<10	<2	
BLANK		<0.5	<5	<0.5	<1	<1	<10	<1	<1	<2	<1	<10	<2	
BLANK		<0.5	<5	<0.5	<1	1	<10	1	<1	2	<1	<10	2	
BLANK		<0.5	<5	<0.5	<1	<1	<10	<1	<1	<2	<1	<10	<2	
BLANK		<0.5	<5	<0.5	<1	<1	<10	<1	<1	<2	<1	<10	<2	
BLANK		<0.5	<5	<0.5	<1	<1	<10	<1	<1	<2	<1	<10	<2	
BLANK		<0.5	<5	<0.5	<1	<1	<10	<1	2	<2	<1	<10	<2	
BLANK		<0.5	<5	<0.5	<1	<1	<10	<1	2	<2	<1	<10	<2	
Target Range - Lower Bound		<0.5	<5	<0.5	<1	<1		<1	<1	<2			<2	
Upper Bound		1.0	10	1.0	2	2		2	2	4			4	
BLANK														
BLANK														
BLANK														
BLANK														
BLANK														
BLANK														
BLANK														
BLANK														
BLANK														
BLANK														
BLANK														
Target Range - Lower Bound														
Upper Bound														
BLANK														
BLANK														
BLANK														
BLANK														
BLANK														
BLANK														
BLANK														
BLANK														
BLANK														
Target Range - Lower Bound														
Upper Bound														
BLANK														
BLANK														

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Ba ppm 0.5	ME-MS81 Ce ppm 0.5	ME-MS81 Cr ppm 10	ME-MS81 Cs ppm 0.01	ME-MS81 Dy ppm 0.05	ME-MS81 Er ppm 0.03	ME-MS81 Eu ppm 0.03	ME-MS81 Ga ppm 0.1	ME-MS81 Gd ppm 0.05	ME-MS81 Hf ppm 0.2	ME-MS81 Ho ppm 0.01	ME-MS81 La ppm 0.5	ME-MS81 Lu ppm 0.01	ME-MS81 Nb ppm 0.2	ME-MS81 Nd ppm 0.1
BLANKS																
BLANK																
Target Range - Lower Bound																
Upper Bound																
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671353		54.3	6.7	400	29.9	3.35	2.47	0.66	16.7	2.83	1.3	0.75	2.6	0.36	1.5	5.2
DUP		54.7	6.7	400	30.2	3.44	2.33	0.67	16.9	2.54	1.3	0.79	2.6	0.34	1.5	5.3
Target Range - Lower Bound		51.3	5.9	370	28.5	3.18	2.25	0.60	15.9	2.50	1.0	0.72	2.0	0.32	1.2	4.9
Upper Bound		57.7	7.5	430	31.6	3.61	2.55	0.73	17.7	2.87	1.6	0.82	3.2	0.38	1.8	5.6
V671357																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671384																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671388		993	73.5	10	2.63	7.07	4.59	0.76	20.3	6.28	8.0	1.52	34.9	0.70	22.2	28.6
DUP		1015	74.1	10	2.73	6.95	4.88	0.71	20.2	6.19	8.1	1.52	35.3	0.70	21.7	29.1
Target Range - Lower Bound		953	69.6	<10	2.54	6.61	4.47	0.67	19.1	5.87	7.4	1.43	32.8	0.66	20.7	27.3
Upper Bound		1055	78.0	20	2.82	7.41	5.00	0.80	21.4	6.60	8.7	1.61	37.4	0.75	23.2	30.4

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Pr ppm 0.03	ME-MS81 Rb ppm 0.2	ME-MS81 Sm ppm 0.03	ME-MS81 Sn ppm 1	ME-MS81 Sr ppm 0.1	ME-MS81 Ta ppm 0.1	ME-MS81 Tb ppm 0.01	ME-MS81 Th ppm 0.05	ME-MS81 Tm ppm 0.01	ME-MS81 U ppm 0.05	ME-MS81 V ppm 5	ME-MS81 W ppm 1	ME-MS81 Y ppm 0.5	ME-MS81 Yb ppm 0.03	ME-MS81 Zr ppm 2
BLANKS																
BLANK																
Target Range - Lower Bound																
Upper Bound																
DUPLICATES																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671353		1.03	104.5	1.74	13	68.7	<0.1	0.49	0.34	0.33	0.12	273	3	18.6	2.49	43
DUP		1.01	107.5	1.91	13	69.6	<0.1	0.52	0.34	0.33	0.15	273	4	19.3	2.40	44
Target Range - Lower Bound		0.94	100.5	1.70	11	65.6	<0.1	0.47	0.27	0.30	0.08	254	2	17.5	2.29	39
Upper Bound		1.10	111.5	1.95	15	72.7	0.2	0.54	0.41	0.36	0.19	292	5	20.4	2.60	48
V671357																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671384																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671388		7.93	167.0	6.00	5	32.0	1.7	1.13	21.7	0.70	5.58	<5	2	42.0	4.48	245
DUP		8.16	167.5	6.20	5	31.7	1.7	1.13	22.2	0.67	5.67	<5	2	41.7	4.63	241
Target Range - Lower Bound		7.61	158.5	5.77	4	30.2	1.5	1.06	20.8	0.64	5.29	<5	<1	39.3	4.30	229
Upper Bound		8.48	176.0	6.44	6	33.5	1.9	1.20	23.1	0.73	5.96	10	3	44.4	4.81	257

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-ICP06 SiO2 % 0.01	ME-ICP06 Al2O3 % 0.01	ME-ICP06 Fe2O3 % 0.01	ME-ICP06 CaO % 0.01	ME-ICP06 MgO % 0.01	ME-ICP06 Na2O % 0.01	ME-ICP06 K2O % 0.01	ME-ICP06 Cr2O3 % 0.01	ME-ICP06 TiO2 % 0.01	ME-ICP06 MnO % 0.01	ME-ICP06 P2O5 % 0.01	ME-ICP06 SrO % 0.01	ME-ICP06 BaO % 0.01	OA-GRA05 LOI % 0.01	TOT-ICP06 Total % 0.01
BLANKS																
BLANK		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01		0.01
Target Range - Lower Bound		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Upper Bound		0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02		
DUPLICATES																
ORIGINAL		75.4	15.50	1.17	0.24	0.40	0.04	3.48	<0.01	0.27	<0.01	0.09	<0.01	0.31		
DUP		76.0	15.65	1.18	0.25	0.40	0.06	3.58	<0.01	0.28	<0.01	0.08	<0.01	0.32		
Target Range - Lower Bound		73.8	15.20	1.14	0.23	0.38	0.04	3.43	<0.01	0.26	<0.01	0.07	<0.01	0.30		
Upper Bound		77.6	15.95	1.21	0.26	0.42	0.06	3.63	0.02	0.29	0.02	0.10	0.02	0.33		
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL		86.7	4.51	5.12	0.13	0.29	0.44	1.24	0.01	0.17	0.05	0.01	<0.01	0.02		
DUP		87.2	4.57	5.07	0.13	0.29	0.45	1.31	0.01	0.18	0.05	0.01	0.01	0.02		
Target Range - Lower Bound		84.8	4.42	4.96	0.12	0.27	0.42	1.23	<0.01	0.16	0.04	<0.01	<0.01	<0.01		
Upper Bound		89.1	4.66	5.23	0.14	0.31	0.47	1.32	0.02	0.19	0.06	0.02	0.02	0.03		
V671353		47.4	15.55	16.00	11.20	4.30	1.32	0.43	0.05	0.72	0.53	0.05	<0.01	0.01		
DUP		48.7	16.00	16.35	11.40	4.40	1.35	0.45	0.05	0.73	0.54	0.05	0.01	0.01		
Target Range - Lower Bound		46.8	15.35	15.75	11.00	4.23	1.29	0.42	0.04	0.70	0.51	0.04	<0.01	<0.01		
Upper Bound		49.3	16.20	16.60	11.60	4.47	1.38	0.46	0.06	0.75	0.56	0.06	0.02	0.02		
V671357															0.17	
DUP															0.18	
Target Range - Lower Bound															0.16	
Upper Bound															0.19	
V671384																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671388		77.6	12.15	2.13	0.37	0.47	2.44	5.80	<0.01	0.11	0.03	0.01	<0.01	0.11		
DUP		73.5	11.70	2.04	0.34	0.44	2.34	5.58	<0.01	0.10	0.03	<0.01	0.01	0.11		
Target Range - Lower Bound		73.7	11.60	2.02	0.34	0.43	2.32	5.54	<0.01	0.09	0.02	<0.01	<0.01	0.10		
Upper Bound		77.4	12.25	2.15	0.37	0.48	2.46	5.84	0.02	0.12	0.04	0.02	0.02	0.12		

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-4ACD81 Ag ppm 0.5	ME-4ACD81 As ppm 5	ME-4ACD81 Cd ppm 0.5	ME-4ACD81 Co ppm 1	ME-4ACD81 Cu ppm 1	ME-4ACD81 Li ppm 10	ME-4ACD81 Mo ppm 1	ME-4ACD81 Ni ppm 1	ME-4ACD81 Pb ppm 2	ME-4ACD81 Sc ppm 1	ME-4ACD81 Tl ppm 10	ME-4ACD81 Zn ppm 2	Li-OG63 Li % 0.005
BLANKS														
BLANK														
Target Range - Lower Bound														
Upper Bound														
DUPLICATES														
ORIGINAL														
DUP														
Target Range - Lower Bound														
Upper Bound														
ORIGINAL														0.864
DUP														0.863
Target Range - Lower Bound														0.837
Upper Bound														0.890
ORIGINAL														
DUP														
Target Range - Lower Bound														
Upper Bound														
V671353														
DUP														
Target Range - Lower Bound														
Upper Bound														
V671357														
DUP														
Target Range - Lower Bound														
Upper Bound														
V671384		<0.5	164	<0.5	1	2	30	<1	3	37	3	<10	66	
DUP		<0.5	167	<0.5	1	2	30	<1	1	36	3	<10	66	
Target Range - Lower Bound		<0.5	152	<0.5	<1	<1	20	<1	<1	33	2	<10	61	
Upper Bound		1.0	179	1.0	2	3	40	2	3	40	4	20	71	
V671388														
DUP														
Target Range - Lower Bound														
Upper Bound														

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Ba ppm 0.5	ME-MS81 Ce ppm 0.5	ME-MS81 Cr ppm 10	ME-MS81 Cs ppm 0.01	ME-MS81 Dy ppm 0.05	ME-MS81 Er ppm 0.03	ME-MS81 Eu ppm 0.03	ME-MS81 Ga ppm 0.1	ME-MS81 Gd ppm 0.05	ME-MS81 Hf ppm 0.2	ME-MS81 Ho ppm 0.01	ME-MS81 La ppm 0.5	ME-MS81 Lu ppm 0.01	ME-MS81 Nb ppm 0.2	ME-MS81 Nd ppm 0.1
		DUPLICATES														
V671393	DUP															
	Target Range - Lower Bound															
	Upper Bound															
V671420	DUP															
	Target Range - Lower Bound															
	Upper Bound															
V671422		12.1	5.3	10	70.9	1.73	0.51	0.03	36.6	1.16	0.8	0.24	2.1	0.03	47.2	2.1
	DUP	12.4	5.4	10	76.8	1.64	0.44	<0.03	37.8	1.07	0.7	0.21	2.3	0.05	43.9	2.1
	Target Range - Lower Bound	11.1	4.6	<10	70.1	1.55	0.42	<0.03	35.2	1.01	0.5	0.20	1.6	0.03	43.1	1.9
	Upper Bound	13.4	6.1	20	77.6	1.82	0.53	0.06	39.2	1.22	1.0	0.25	2.8	0.05	48.0	2.3
V671429	DUP															
	Target Range - Lower Bound															
	Upper Bound															
V671435		42.2	8.4	170	1.05	3.75	2.20	0.81	20.2	3.07	1.7	0.82	2.9	0.33	2.4	7.1
	DUP	42.3	7.6	150	1.05	3.37	2.20	0.73	19.0	2.78	1.5	0.72	2.7	0.30	2.3	6.0
	Target Range - Lower Bound	39.6	7.1	140	0.99	3.33	2.06	0.70	18.5	2.73	1.3	0.72	2.2	0.29	2.0	6.1
	Upper Bound	44.9	8.9	180	1.11	3.79	2.34	0.84	20.7	3.12	1.9	0.82	3.4	0.34	2.7	7.0
V671556	DUP															
	Target Range - Lower Bound															
	Upper Bound															
V671557		19.4	40.2	10	196.0	6.95	3.20	0.07	23.9	5.03	1.1	1.23	17.7	0.35	36.9	16.1
	DUP	20.1	34.8	10	202	7.31	3.42	0.08	25.1	4.96	1.2	1.31	15.4	0.36	39.5	14.3
	Target Range - Lower Bound	18.3	35.1	<10	189.0	6.72	3.11	0.04	23.2	4.70	0.9	1.20	15.2	0.33	36.1	14.3
	Upper Bound	21.2	39.9	20	209	7.54	3.51	0.11	25.8	5.29	1.4	1.34	17.9	0.38	40.3	16.1
V671565	DUP															
	Target Range - Lower Bound															
	Upper Bound															

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Pr ppm 0.03	ME-MS81 Rb ppm 0.2	ME-MS81 Sm ppm 0.03	ME-MS81 Sn ppm 1	ME-MS81 Sr ppm 0.1	ME-MS81 Ta ppm 0.1	ME-MS81 Tb ppm 0.01	ME-MS81 Th ppm 0.05	ME-MS81 Tm ppm 0.01	ME-MS81 U ppm 0.05	ME-MS81 V ppm 5	ME-MS81 W ppm 1	ME-MS81 Y ppm 0.5	ME-MS81 Yb ppm 0.03	ME-MS81 Zr ppm 2
DUPLICATES																
V671393																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671420																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671422		0.60	199.5	1.04	699	6.2	93.7	0.30	11.25	0.06	3.20	<5	3	9.7	0.55	5
DUP		0.63	230	1.02	646	6.5	90.3	0.31	13.05	0.06	3.47	<5	4	10.1	0.49	6
Target Range - Lower Bound		0.55	204	0.95	638	5.9	87.3	0.28	11.50	0.05	3.12	<5	2	8.9	0.46	3
Upper Bound		0.68	226	1.11	707	6.8	96.7	0.33	12.80	0.07	3.55	10	5	10.9	0.58	8
V671429																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671435		1.28	16.4	2.35	1	97.1	0.1	0.55	0.29	0.33	0.07	327	2	20.0	2.27	58
DUP		1.20	15.8	2.25	2	90.3	0.3	0.50	0.27	0.29	0.05	306	1	18.5	2.04	56
Target Range - Lower Bound		1.15	15.1	2.16	<1	88.9	<0.1	0.49	0.22	0.28	<0.05	296	<1	17.8	2.02	52
Upper Bound		1.33	17.1	2.45	2	98.5	0.3	0.56	0.34	0.34	0.10	337	2	20.7	2.29	62
V671556																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671557		4.65	1170	5.03	37	10.4	12.3	1.17	19.85	0.47	21.3	<5	3	39.6	2.42	21
DUP		4.01	1255	4.87	40	11.5	10.7	1.19	18.60	0.45	22.6	<5	4	42.8	2.87	22
Target Range - Lower Bound		4.08	1150	4.67	36	10.3	10.8	1.11	18.20	0.43	20.8	<5	2	38.6	2.48	18
Upper Bound		4.58	1275	5.23	41	11.6	12.2	1.25	20.2	0.49	23.1	10	5	43.8	2.81	25
V671565																
DUP																
Target Range - Lower Bound																
Upper Bound																

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-ICP06 SiO2 % 0.01	ME-ICP06 Al2O3 % 0.01	ME-ICP06 Fe2O3 % 0.01	ME-ICP06 CaO % 0.01	ME-ICP06 MgO % 0.01	ME-ICP06 Na2O % 0.01	ME-ICP06 K2O % 0.01	ME-ICP06 Cr2O3 % 0.01	ME-ICP06 TiO2 % 0.01	ME-ICP06 MnO % 0.01	ME-ICP06 P2O5 % 0.01	ME-ICP06 SrO % 0.01	ME-ICP06 BaO % 0.01	OA-GRA05 LOI % 0.01	TOT-ICP06 Total % 0.01
DUPLICATES																
V671393															0.54	
DUP															0.58	
Target Range - Lower Bound															0.54	
Upper Bound															0.58	
V671420																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671422		73.0	16.05	0.44	0.73	0.03	8.27	0.42	<0.01	<0.01	0.03	0.20	<0.01	<0.01		
DUP		73.6	16.20	0.47	0.73	0.04	8.40	0.43	<0.01	0.01	0.03	0.20	<0.01	<0.01		
Target Range - Lower Bound		71.5	15.70	0.43	0.70	0.02	8.12	0.40	<0.01	<0.01	0.02	0.19	<0.01	<0.01		
Upper Bound		75.1	16.55	0.48	0.76	0.05	8.55	0.45	0.02	0.02	0.04	0.22	0.02	0.02		
V671429															0.96	
DUP															0.92	
Target Range - Lower Bound															0.91	
Upper Bound															0.97	
V671435																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671556																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671557		79.0	12.95	1.20	0.74	0.08	4.83	1.90	<0.01	0.04	0.04	0.04	<0.01	<0.01		
DUP		79.3	13.10	1.19	0.73	0.08	4.90	1.93	<0.01	0.04	0.04	0.03	<0.01	<0.01		
Target Range - Lower Bound		77.2	12.70	1.16	0.71	0.07	4.73	1.86	<0.01	0.03	0.03	0.02	<0.01	<0.01		
Upper Bound		81.1	13.35	1.23	0.76	0.09	5.00	1.97	0.02	0.05	0.05	0.05	0.02	0.02		
V671565															0.85	
DUP															0.80	
Target Range - Lower Bound															0.79	
Upper Bound															0.86	

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-4ACD81 Ag ppm 0.5	ME-4ACD81 As ppm 5	ME-4ACD81 Cd ppm 0.5	ME-4ACD81 Co ppm 1	ME-4ACD81 Cu ppm 1	ME-4ACD81 Li ppm 10	ME-4ACD81 Mo ppm 1	ME-4ACD81 Ni ppm 1	ME-4ACD81 Pb ppm 2	ME-4ACD81 Sc ppm 1	ME-4ACD81 Tl ppm 10	ME-4ACD81 Zn ppm 2	Li-OG63 Li % 0.005
		DUPLICATES												
V671393	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671420	DUP	<0.5	5	<0.5	46	31	100	<1	156	<2	41	<10	83	
		<0.5	<5	<0.5	49	31	100	<1	161	<2	42	<10	84	
	Target Range - Lower Bound	<0.5	<5	<0.5	44	29	90	<1	150	<2	38	<10	77	
	Upper Bound	1.0	10	1.0	51	33	120	2	167	4	45	20	90	
V671422	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671429	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671435	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671556	DUP	<0.5	9	1.0	51	18	30	<1	85	8	41	<10	145	
		<0.5	<5	0.7	51	17	30	<1	86	8	42	<10	146	
	Target Range - Lower Bound	<0.5	<5	<0.5	47	16	20	<1	80	6	38	<10	136	
	Upper Bound	1.0	10	1.0	55	19	40	2	91	10	45	20	155	
V671557	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671565	DUP													
	Target Range - Lower Bound													
	Upper Bound													

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Ba ppm 0.5	ME-MS81 Ce ppm 0.5	ME-MS81 Cr ppm 10	ME-MS81 Cs ppm 0.01	ME-MS81 Dy ppm 0.05	ME-MS81 Er ppm 0.03	ME-MS81 Eu ppm 0.03	ME-MS81 Ga ppm 0.1	ME-MS81 Gd ppm 0.05	ME-MS81 Hf ppm 0.2	ME-MS81 Ho ppm 0.01	ME-MS81 La ppm 0.5	ME-MS81 Lu ppm 0.01	ME-MS81 Nb ppm 0.2	ME-MS81 Nd ppm 0.1
							DUPLICATES									
V671591		28.6	7.4	340	1.20	3.38	2.25	0.68	18.1	2.96	1.5	0.79	2.7	0.35	2.2	6.1
DUP		28.2	7.4	340	1.23	3.50	2.19	0.72	18.0	2.82	1.5	0.75	2.8	0.33	2.0	6.0
Target Range -	Lower Bound	26.5	6.5	310	1.14	3.22	2.08	0.64	17.0	2.70	1.2	0.72	2.1	0.31	1.8	5.6
	Upper Bound	30.3	8.3	370	1.29	3.66	2.36	0.77	19.1	3.08	1.8	0.82	3.4	0.37	2.4	6.5
V671592																
DUP																
Target Range -	Lower Bound															
	Upper Bound															
V671601																
DUP																
Target Range -	Lower Bound															
	Upper Bound															
V671626		49.7	10.6	160	2.06	4.98	3.18	0.97	18.1	3.92	2.0	1.05	4.0	0.44	3.0	8.7
DUP		50.9	10.7	170	2.11	5.12	3.08	1.06	19.4	4.25	2.0	1.04	4.0	0.43	3.0	8.7
Target Range -	Lower Bound	47.3	9.6	150	1.97	4.75	2.94	0.93	17.7	3.83	1.7	0.98	3.3	0.40	2.7	8.2
	Upper Bound	53.3	11.7	180	2.20	5.35	3.32	1.10	19.8	4.34	2.3	1.11	4.7	0.47	3.4	9.2
V671628																
DUP																
Target Range -	Lower Bound															
	Upper Bound															
V671637																
DUP																
Target Range -	Lower Bound															
	Upper Bound															
V671660		640	166.5	20	2.63	3.16	1.09	0.74	24.2	4.80	9.7	0.50	79.5	0.06	13.6	59.7
DUP		622	160.5	40	2.51	3.36	1.13	0.66	23.9	4.67	9.4	0.48	75.9	0.04	13.2	57.7
Target Range -	Lower Bound	599	155.0	20	2.43	3.05	1.02	0.64	22.7	4.45	8.9	0.46	73.3	0.04	12.5	55.7
	Upper Bound	663	172.0	40	2.71	3.47	1.20	0.77	25.4	5.02	10.2	0.52	82.1	0.06	14.3	61.7
V671664																
DUP																
Target Range -	Lower Bound															
	Upper Bound															

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Pr ppm 0.03	ME-MS81 Rb ppm 0.2	ME-MS81 Sm ppm 0.03	ME-MS81 Sn ppm 1	ME-MS81 Sr ppm 0.1	ME-MS81 Ta ppm 0.1	ME-MS81 Tb ppm 0.01	ME-MS81 Th ppm 0.05	ME-MS81 Tm ppm 0.01	ME-MS81 U ppm 0.05	ME-MS81 V ppm 5	ME-MS81 W ppm 1	ME-MS81 Y ppm 0.5	ME-MS81 Yb ppm 0.03	ME-MS81 Zr ppm 2
							DUPLICATES									
V671591		1.16	5.3	1.98	1	102.5	0.2	0.52	0.27	0.30	0.08	303	1	19.1	2.05	51
DUP		1.17	5.5	1.98	1	102.5	0.2	0.53	0.25	0.32	0.08	302	1	19.3	2.27	52
Target Range -	Lower Bound	1.08	4.9	1.85	<1	97.3	<0.1	0.49	0.20	0.28	<0.05	282	<1	17.7	2.02	47
	Upper Bound	1.25	5.9	2.11	2	107.5	0.3	0.56	0.32	0.34	0.10	323	2	20.7	2.30	56
V671592																
DUP																
Target Range -	Lower Bound															
	Upper Bound															
V671601																
DUP																
Target Range -	Lower Bound															
	Upper Bound															
V671626		1.64	12.3	3.12	1	123.5	0.2	0.71	0.31	0.43	0.12	348	1	25.5	2.81	71
DUP		1.63	13.3	2.91	1	127.5	0.2	0.73	0.32	0.44	0.11	383	1	26.4	2.83	73
Target Range -	Lower Bound	1.52	12.0	2.83	<1	119.0	<0.1	0.67	0.25	0.40	0.06	342	<1	24.2	2.65	66
	Upper Bound	1.75	13.6	3.20	2	132.0	0.3	0.77	0.38	0.47	0.17	389	2	27.7	2.99	78
V671628																
DUP																
Target Range -	Lower Bound															
	Upper Bound															
V671637																
DUP																
Target Range -	Lower Bound															
	Upper Bound															
V671660		17.80	175.5	9.64	1	157.5	0.7	0.65	45.7	0.09	7.80	30	1	15.2	0.58	373
DUP		17.35	172.0	8.88	1	155.5	0.7	0.65	44.4	0.11	7.85	30	1	15.1	0.58	359
Target Range -	Lower Bound	16.65	165.0	8.77	<1	148.5	0.6	0.61	42.7	0.09	7.38	24	<1	13.9	0.52	346
	Upper Bound	18.50	182.5	9.75	2	164.5	0.8	0.69	47.4	0.12	8.27	37	2	16.4	0.64	386
V671664																
DUP																
Target Range -	Lower Bound															
	Upper Bound															

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-ICP06 SiO2 % 0.01	ME-ICP06 Al2O3 % 0.01	ME-ICP06 Fe2O3 % 0.01	ME-ICP06 CaO % 0.01	ME-ICP06 MgO % 0.01	ME-ICP06 Na2O % 0.01	ME-ICP06 K2O % 0.01	ME-ICP06 Cr2O3 % 0.01	ME-ICP06 TiO2 % 0.01	ME-ICP06 MnO % 0.01	ME-ICP06 P2O5 % 0.01	ME-ICP06 SrO % 0.01	ME-ICP06 BaO % 0.01	OA-GRA05 LOI % 0.01	TOT-ICP06 Total % 0.01
							DUPLICATES									
V671591		48.9	15.80	13.30	12.55	6.45	2.18	0.20	0.04	0.95	0.21	0.07	0.01	<0.01		
DUP		48.2	15.65	13.10	12.20	6.40	2.16	0.19	0.04	0.93	0.20	0.06	0.01	<0.01		
Target Range - Lower Bound		47.3	15.30	12.85	12.05	6.25	2.11	0.18	0.03	0.91	0.19	0.05	<0.01	<0.01		
Upper Bound		49.8	16.15	13.55	12.70	6.60	2.23	0.21	0.05	0.97	0.22	0.08	0.02	0.02		
V671592																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671601															0.79	
DUP															0.81	
Target Range - Lower Bound															0.77	
Upper Bound															0.83	
V671626		48.1	15.30	13.40	11.30	5.83	2.09	0.28	0.02	1.14	0.22	0.09	0.02	0.01		
DUP		48.8	15.35	13.50	11.35	5.89	2.10	0.28	0.02	1.14	0.22	0.08	0.01	0.01		
Target Range - Lower Bound		47.2	14.95	13.10	11.05	5.70	2.03	0.26	<0.01	1.10	0.20	0.07	<0.01	<0.01		
Upper Bound		49.7	15.70	13.80	11.60	6.02	2.16	0.30	0.03	1.18	0.24	0.10	0.02	0.02		
V671628																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671637															0.84	
DUP															0.86	
Target Range - Lower Bound															0.82	
Upper Bound															0.88	
V671660		71.7	14.60	3.02	1.55	0.67	3.40	4.53	<0.01	0.48	0.02	0.22	0.02	0.07		
DUP		70.8	14.45	2.96	1.50	0.66	3.40	4.52	<0.01	0.48	0.02	0.22	0.02	0.07		
Target Range - Lower Bound		69.5	14.15	2.91	1.48	0.64	3.31	4.40	<0.01	0.46	<0.01	0.20	<0.01	0.06		
Upper Bound		73.0	14.90	3.07	1.57	0.69	3.50	4.65	0.02	0.50	0.03	0.24	0.03	0.08		
V671664																
DUP																
Target Range - Lower Bound																
Upper Bound																

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-4ACD81 Ag ppm 0.5	ME-4ACD81 As ppm 5	ME-4ACD81 Cd ppm 0.5	ME-4ACD81 Co ppm 1	ME-4ACD81 Cu ppm 1	ME-4ACD81 Li ppm 10	ME-4ACD81 Mo ppm 1	ME-4ACD81 Ni ppm 1	ME-4ACD81 Pb ppm 2	ME-4ACD81 Sc ppm 1	ME-4ACD81 Tl ppm 10	ME-4ACD81 Zn ppm 2	Li-OG63 Li % 0.005
		DUPLICATES												
V671591	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671592	DUP	<0.5	<5	0.7	58	138	70	<1	196	<2	29	<10	110	
	DUP	<0.5	<5	0.6	59	139	70	<1	194	<2	31	10	110	
	Target Range - Lower Bound	<0.5	<5	<0.5	55	133	60	<1	184	<2	28	<10	103	
	Upper Bound	1.0	10	1.0	62	144	80	2	206	4	33	20	118	
V671601	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671626	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671628	DUP	<0.5	<5	0.9	48	254	60	<1	100	4	43	<10	118	
	DUP	<0.5	<5	0.7	47	255	60	1	108	12	43	<10	121	
	Target Range - Lower Bound	<0.5	<5	<0.5	44	245	50	<1	98	6	40	<10	112	
	Upper Bound	1.0	10	1.0	51	264	70	2	110	10	46	20	127	
V671637	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671660	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671664	DUP	<0.5	5	<0.5	<1	1	740	<1	<1	12	1	10	25	
	DUP	<0.5	<5	<0.5	<1	1	750	<1	1	13	1	10	26	
	Target Range - Lower Bound	<0.5	<5	<0.5	<1	<1	700	<1	<1	10	<1	<10	22	
	Upper Bound	1.0	10	1.0	2	2	790	2	2	15	2	20	29	

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Ba ppm 0.5	ME-MS81 Ce ppm 0.5	ME-MS81 Cr ppm 10	ME-MS81 Cs ppm 0.01	ME-MS81 Dy ppm 0.05	ME-MS81 Er ppm 0.03	ME-MS81 Eu ppm 0.03	ME-MS81 Ga ppm 0.1	ME-MS81 Gd ppm 0.05	ME-MS81 Hf ppm 0.2	ME-MS81 Ho ppm 0.01	ME-MS81 La ppm 0.5	ME-MS81 Lu ppm 0.01	ME-MS81 Nb ppm 0.2	ME-MS81 Nd ppm 0.1
		DUPLICATES														
V671673																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671678																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671695		5.3	3.7	10	3.07	0.53	0.31	0.09	37.4	0.48	0.5	0.11	1.6	0.09	27.1	1.4
DUP		7.2	4.0	10	3.29	0.63	0.30	0.08	39.7	0.50	0.8	0.09	1.7	0.09	41.0	1.5
Target Range - Lower Bound		5.4	3.2	<10	3.01	0.50	0.26	0.05	36.5	0.42	0.4	0.09	1.1	0.08	32.1	1.3
Upper Bound		7.1	4.5	20	3.35	0.66	0.35	0.12	40.6	0.56	0.9	0.12	2.2	0.10	36.0	1.6
V671698		8.0	18.0	10	25.1	4.95	2.52	0.04	22.4	3.13	3.2	0.89	7.3	0.53	12.5	7.8
DUP		8.1	25.2	10	26.4	5.09	2.59	0.04	23.2	3.88	3.2	0.92	10.1	0.59	14.2	10.5
Target Range - Lower Bound		7.1	20.0	<10	24.5	4.72	2.40	<0.03	21.6	3.28	2.8	0.85	7.8	0.52	12.5	8.6
Upper Bound		9.0	23.2	20	27.0	5.32	2.71	0.06	24.0	3.73	3.6	0.96	9.6	0.60	14.2	9.7
V671700																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671703																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671709																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671965		13.0	6.1	40	3.68	2.45	1.39	0.04	29.0	1.04	1.7	0.42	2.4	0.45	43.0	2.6
DUP		8.4	6.0	10	3.48	2.38	1.38	<0.03	26.9	0.89	1.5	0.40	2.2	0.44	39.5	2.2
Target Range - Lower Bound		9.7	5.2	<10	3.39	2.24	1.29	<0.03	26.5	0.87	1.3	0.38	1.7	0.41	39.0	2.2
Upper Bound		11.7	6.9	40	3.77	2.59	1.48	0.06	29.4	1.06	1.9	0.44	2.9	0.48	43.5	2.6

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Pr ppm 0.03	ME-MS81 Rb ppm 0.2	ME-MS81 Sm ppm 0.03	ME-MS81 Sn ppm 1	ME-MS81 Sr ppm 0.1	ME-MS81 Ta ppm 0.1	ME-MS81 Tb ppm 0.01	ME-MS81 Th ppm 0.05	ME-MS81 Tm ppm 0.01	ME-MS81 U ppm 0.05	ME-MS81 V ppm 5	ME-MS81 W ppm 1	ME-MS81 Y ppm 0.5	ME-MS81 Yb ppm 0.03	ME-MS81 Zr ppm 2
DUPLICATES																
V671673																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671678																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671695		0.44	51.4	0.58	1	22.4	4.4	0.11	2.23	0.06	1.51	<5	1	3.5	0.55	11
DUP		0.48	53.9	0.66	1	24.1	6.1	0.11	2.35	0.05	1.63	<5	1	3.4	0.64	18
Target Range - Lower Bound		0.41	49.8	0.56	<1	22.0	4.9	0.09	2.13	0.04	1.44	<5	<1	2.8	0.54	12
Upper Bound		0.51	55.5	0.68	2	24.5	5.6	0.13	2.45	0.07	1.70	10	2	4.1	0.65	17
V671698		2.14	227	3.15	4	10.2	4.8	0.80	10.70	0.46	4.99	<5	1	29.0	3.55	46
DUP		3.02	235	4.19	3	10.8	5.9	0.85	14.25	0.47	5.33	<5	1	30.6	3.83	46
Target Range - Lower Bound		2.42	219	3.46	2	9.9	5.0	0.77	11.80	0.43	4.85	<5	<1	27.8	3.48	42
Upper Bound		2.74	243	3.88	5	11.1	5.7	0.88	13.15	0.50	5.47	10	2	31.8	3.90	50
V671700																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671703																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671709																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671965		0.74	584	0.86	169	9.5	19.9	0.32	4.65	0.30	4.50	<5	1	18.2	3.36	25
DUP		0.69	558	0.95	161	8.2	17.0	0.29	4.58	0.31	4.25	<5	1	16.7	3.13	22
Target Range - Lower Bound		0.65	542	0.83	156	8.3	17.4	0.28	4.33	0.28	4.11	<5	<1	16.1	3.05	20
Upper Bound		0.78	600	0.98	174	9.4	19.5	0.33	4.90	0.33	4.64	10	2	18.8	3.44	27

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-ICP06 SiO2 % 0.01	ME-ICP06 Al2O3 % 0.01	ME-ICP06 Fe2O3 % 0.01	ME-ICP06 CaO % 0.01	ME-ICP06 MgO % 0.01	ME-ICP06 Na2O % 0.01	ME-ICP06 K2O % 0.01	ME-ICP06 Cr2O3 % 0.01	ME-ICP06 TiO2 % 0.01	ME-ICP06 MnO % 0.01	ME-ICP06 P2O5 % 0.01	ME-ICP06 SrO % 0.01	ME-ICP06 BaO % 0.01	OA-GRA05 LOI % 0.01	TOT-ICP06 Total % 0.01
								DUPLICATES								
V671673															0.39	
DUP															0.38	
Target Range - Lower Bound															0.37	
Upper Bound															0.40	
V671678																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671695		72.6	17.95	0.34	2.09	0.01	7.66	0.84	<0.01	<0.01	0.01	0.05	<0.01	<0.01		
DUP		70.1	17.40	0.36	2.01	0.01	7.40	0.80	<0.01	<0.01	0.01	0.05	<0.01	<0.01		
Target Range - Lower Bound		69.6	17.20	0.33	1.99	<0.01	7.33	0.79	<0.01	<0.01	<0.01	0.04	<0.01	<0.01		
Upper Bound		73.1	18.15	0.37	2.11	0.02	7.73	0.85	0.02	0.02	0.02	0.06	0.02	0.02		
V671698																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671700																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671703		63.9	18.00	4.97	2.59	1.79	6.04	1.60	0.01	0.24	0.09	0.16	<0.01	<0.01		
DUP		63.6	18.05	5.05	2.58	1.80	6.03	1.60	0.01	0.24	0.09	0.15	0.01	<0.01		
Target Range - Lower Bound		62.1	17.55	4.87	2.51	1.74	5.87	1.55	<0.01	0.22	0.08	0.14	<0.01	<0.01		
Upper Bound		65.4	18.50	5.15	2.66	1.85	6.20	1.65	0.02	0.26	0.10	0.17	0.02	0.02		
V671709															0.38	
DUP															0.36	
Target Range - Lower Bound															0.35	
Upper Bound															0.39	
V671965		79.1	13.25	0.99	0.45	0.04	5.71	1.32	0.01	<0.01	0.29	0.03	<0.01	<0.01		
DUP		79.3	13.30	0.92	0.44	0.03	5.76	1.33	<0.01	<0.01	0.29	0.03	<0.01	<0.01		
Target Range - Lower Bound		77.2	12.95	0.92	0.42	0.02	5.58	1.28	<0.01	<0.01	0.27	0.02	<0.01	<0.01		
Upper Bound		81.2	13.60	0.99	0.47	0.05	5.89	1.37	0.02	0.02	0.31	0.04	0.02	0.02		

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-4ACD81 Ag ppm 0.5	ME-4ACD81 As ppm 5	ME-4ACD81 Cd ppm 0.5	ME-4ACD81 Co ppm 1	ME-4ACD81 Cu ppm 1	ME-4ACD81 Li ppm 10	ME-4ACD81 Mo ppm 1	ME-4ACD81 Ni ppm 1	ME-4ACD81 Pb ppm 2	ME-4ACD81 Sc ppm 1	ME-4ACD81 Tl ppm 10	ME-4ACD81 Zn ppm 2	Li-OG63 Li % 0.005
		DUPLICATES												
V671673	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671678	DUP													0.624
	Target Range - Lower Bound													0.624
	Upper Bound													0.603
														0.645
V671695	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671698	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671700	DUP	<0.5	<5	<0.5	<1	<1	10	<1	2	26	2	10	10	
	Target Range - Lower Bound	<0.5	<5	<0.5	<1	1	20	<1	1	29	2	10	11	
	Upper Bound	<0.5	<5	<0.5	<1	<1	<10	<1	<1	24	<1	<10	8	
		1.0	10	1.0	2	2	20	2	2	31	3	20	13	
V671703	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671709	DUP													
	Target Range - Lower Bound													
	Upper Bound													
V671965	DUP													
	Target Range - Lower Bound													
	Upper Bound													

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Ba ppm 0.5	ME-MS81 Ce ppm 0.5	ME-MS81 Cr ppm 10	ME-MS81 Cs ppm 0.01	ME-MS81 Dy ppm 0.05	ME-MS81 Er ppm 0.03	ME-MS81 Eu ppm 0.03	ME-MS81 Ga ppm 0.1	ME-MS81 Gd ppm 0.05	ME-MS81 Hf ppm 0.2	ME-MS81 Ho ppm 0.01	ME-MS81 La ppm 0.5	ME-MS81 Lu ppm 0.01	ME-MS81 Nb ppm 0.2	ME-MS81 Nd ppm 0.1
		DUPLICATES														
V671972	DUP															
	Target Range - Lower Bound															
	Upper Bound															
V671981	DUP															
	Target Range - Lower Bound															
	Upper Bound															
V671983	DUP															
	Target Range - Lower Bound															
	Upper Bound															
V671991	DUP	5.0	5.7	10	13.05	1.22	0.37	<0.03	35.0	0.96	0.2	0.16	2.1	0.04	83.4	2.4
		4.9	5.3	30	13.20	1.18	0.31	<0.03	36.1	0.94	<0.2	0.13	1.9	0.04	102.5	2.3
	Target Range - Lower Bound	4.2	4.7	<10	12.45	1.09	0.29	<0.03	33.7	0.85	<0.2	0.13	1.4	0.03	88.1	2.1
	Upper Bound	5.7	6.3	30	13.80	1.31	0.39	0.06	37.4	1.05	0.4	0.16	2.6	0.05	97.8	2.6
ORIGINAL	DUP															
	Target Range - Lower Bound															
	Upper Bound															
ORIGINAL	DUP															
	Target Range - Lower Bound															
	Upper Bound															

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

ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-MS81 Pr ppm 0.03	ME-MS81 Rb ppm 0.2	ME-MS81 Sm ppm 0.03	ME-MS81 Sn ppm 1	ME-MS81 Sr ppm 0.1	ME-MS81 Ta ppm 0.1	ME-MS81 Tb ppm 0.01	ME-MS81 Th ppm 0.05	ME-MS81 Tm ppm 0.01	ME-MS81 U ppm 0.05	ME-MS81 V ppm 5	ME-MS81 W ppm 1	ME-MS81 Y ppm 0.5	ME-MS81 Yb ppm 0.03	ME-MS81 Zr ppm 2
DUPLICATES																
V671972																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671981																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671983																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671991		0.71	1095	1.02	46	4.4	32.6	0.24	3.74	0.05	1.43	<5	1	6.6	0.45	3
DUP		0.63	1115	0.87	41	4.5	38.3	0.23	3.65	0.04	1.27	<5	1	6.1	0.37	2
Target Range - Lower Bound		0.61	1050	0.87	40	4.1	33.6	0.21	3.46	0.03	1.23	<5	<1	5.5	0.36	<2
Upper Bound		0.73	1160	1.02	47	4.8	37.3	0.26	3.93	0.06	1.47	10	2	7.2	0.46	4
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-ICP06 SiO2 % 0.01	ME-ICP06 Al2O3 % 0.01	ME-ICP06 Fe2O3 % 0.01	ME-ICP06 CaO % 0.01	ME-ICP06 MgO % 0.01	ME-ICP06 Na2O % 0.01	ME-ICP06 K2O % 0.01	ME-ICP06 Cr2O3 % 0.01	ME-ICP06 TiO2 % 0.01	ME-ICP06 MnO % 0.01	ME-ICP06 P2O5 % 0.01	ME-ICP06 SrO % 0.01	ME-ICP06 BaO % 0.01	OA-GRA05 LOI % 0.01	TOT-ICP06 Total % 0.01
		DUPLICATES														
V671972																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671981															0.46	
DUP															0.43	
Target Range - Lower Bound															0.42	
Upper Bound															0.47	
V671983																
DUP																
Target Range - Lower Bound																
Upper Bound																
V671991		73.3	15.55	0.57	0.39	0.03	6.05	3.13	<0.01	<0.01	0.04	0.04	<0.01	<0.01		
DUP		73.9	15.65	0.63	0.39	0.03	6.06	3.14	<0.01	<0.01	0.03	0.03	<0.01	<0.01		
Target Range - Lower Bound		71.8	15.20	0.58	0.37	0.02	5.89	3.05	<0.01	<0.01	0.02	0.02	<0.01	<0.01		
Upper Bound		75.5	16.00	0.63	0.41	0.04	6.22	3.22	0.02	0.02	0.05	0.05	0.02	0.02		
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																
ORIGINAL																
DUP																
Target Range - Lower Bound																
Upper Bound																

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

Sample Description	Method / Analyte / Units / LOR	ME-4ACD81 Ag ppm 0.5	ME-4ACD81 As ppm 5	ME-4ACD81 Cd ppm 0.5	ME-4ACD81 Co ppm 1	ME-4ACD81 Cu ppm 1	ME-4ACD81 Li ppm 10	ME-4ACD81 Mo ppm 1	ME-4ACD81 Ni ppm 1	ME-4ACD81 Pb ppm 2	ME-4ACD81 Sc ppm 1	ME-4ACD81 Tl ppm 10	ME-4ACD81 Zn ppm 2	Li-OG63 Li % 0.005
							DUPLICATES							
V671972		<0.5	<5	<0.5	<1	1	80	<1	2	28	3	10	37	
DUP		<0.5	<5	<0.5	<1	4	70	<1	<1	28	3	10	36	
Target Range - Lower Bound		<0.5	<5	<0.5	<1	<1	60	<1	<1	25	2	<10	33	
Upper Bound		1.0	10	1.0	2	4	90	2	2	31	4	20	40	
V671981														
DUP														
Target Range - Lower Bound														
Upper Bound														
V671983														0.614
DUP														0.573
Target Range - Lower Bound														0.574
Upper Bound														0.613
V671991														
DUP														
Target Range - Lower Bound														
Upper Bound														
ORIGINAL		<0.5	<5	0.6	30	21	10	1	52	3	38	<10	140	
DUP		<0.5	<5	<0.5	32	21	10	<1	54	3	39	10	143	
Target Range - Lower Bound		<0.5	<5	<0.5	28	19	<10	<1	49	<2	36	<10	132	
Upper Bound		1.0	10	1.0	34	23	20	2	57	4	41	20	151	
ORIGINAL		9.9	<5	<0.5	<1	2	10	<1	3	3	<1	<10	8730	
DUP		9.9	<5	<0.5	<1	2	10	<1	4	3	<1	<10	8430	
Target Range - Lower Bound		8.9	<5	<0.5	<1	<1	<10	<1	2	<2	<1	<10	8150	
Upper Bound		10.9	10	1.0	2	3	20	2	5	4	2	20	9010	

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

ALS Canada Ltd.

2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218
www.alsglobal.com/geochemistry

To: **AVALON ADVANCED MATERIALS INC.**
130 ADELAIDE ST. W, SUITE 1901
TORONTO ON M5H 3P5

Finalized Date: 17-SEP-2017
Account: OPG

Project: 0518

QC CERTIFICATE OF ANALYSIS TB17180529

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Processed at ALS Thunder Bay located at 645 Norah Crescent, Thunder Bay, ON, Canada

Applies to Method:			
CRU-31	CRU-QC	LOG-21	LOG-23
PUL-31	PUL-QC	SPL-21	SPL-21X
SPL-21Xd	WEI-21		

Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.

Applies to Method:			
Li-OG63	ME-4ACD81	ME-ICP06	ME-MS81
ME-OG62o	OA-GRA05	TOT-ICP06	