

Analytical Report

September 22, 2023

Report to: Kara Haas South32 749 Harshaw Rd Patagonia, AZ 85624

cc: Matt Owens

Bill to: Accounts Payable South32 Hermosa Inc. 2210 E Fort Lowell Road Tucson, AZ 85719

Project ID: 4542440391 ACZ Project ID: L82647

Kara Haas:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on August 23, 2023. This project has been assigned to ACZ's project number, L82647. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L82647. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after September 11, 2025. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

- 91) D.

Sue Webber has reviewed and approved this report.





Project ID:	4542440391
Sample ID:	OUTFALL-2_08182023

# Inorganic Analytical Results

ACZ Sample ID:	L82647-01
Date Sampled:	08/18/23 10:00
Date Received:	08/23/23
Sample Matrix:	Surface Water

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion	M200.2 ICP-MS								08/31/23 7:30	gjl
Total Hot Plate Digestion	M200.2 ICP								08/30/23 11:44	smw
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, dissolved	M200.7 ICP	1	50.6			mg/L	0.1	0.5	09/05/23 15:25	aeh
Copper, dissolved	M200.8 ICP-MS	1	0.00229			mg/L	0.0008	0.002	09/05/23 17:39	jka
Copper, total	M200.7 ICP	1	0.014	В		mg/L	0.01	0.05	09/06/23 21:58	aeh
Lead, dissolved	M200.8 ICP-MS	1	0.00012	В		mg/L	0.0001	0.0005	09/05/23 17:39	jka
Lead, total	M200.8 ICP-MS	1	0.1000			mg/L	0.0001	0.0005	09/01/23 12:22	gjl/scp
Magnesium, dissolved	M200.7 ICP	1	13.7			mg/L	0.2	1	09/05/23 15:25	aeh
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	09/05/23 17:39	jka
Silver, total	M200.8 ICP-MS	1	0.00072		*	mg/L	0.0001	0.0005	09/06/23 9:16	gjl/scp
Zinc, dissolved	M200.8 ICP-MS	1	0.0255			mg/L	0.006	0.015	09/19/23 14:17	jrj
Zinc, total	M200.7 ICP	1	0.148			mg/L	0.02	0.05	09/06/23 21:58	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, Free	D6888-09/OIA-1677-09	1	< 0.003	U	*	mg/L	0.003	0.01	08/25/23 10:01	mrd
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		183			mg/L	0.2	5	09/22/23 0:00	calc

Arizona license number: AZ0102



Inorganic Reference

Report Header	Explanations		
Batch	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)		
MDL	Method Detection Limit. Same as Minimum Reporting Limit un	less omitted or eq	ual to the PQL (see comment #5).
	Allows for instrument and annual fluctuations.		
PCN/SCN	A number assigned to reagents/standards to trace to the manu	Ifacturer's certifica	ite of analysis
PQI	Practical Quantitation Limit Synonymous with the EPA term "r	minimum level"	······································
00	True Value of the Control Sample or the amount added to the S	Spike	
Rec	Recovered amount of the true value or spike added in % (exce	ept for LCSS_mg/	Ka)
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types	
Unner	Upper Recovery Limit in % (except for LCSS_mg/Kg)	1,900	
Sample	Value of the Sample of interest		
Gample	value of the bample of interest		
QC Sample Typ	Des		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution
QC Sample Typ	be Explanations		
Blanks	Verifies that there is no or minimal co	ntamination in the	prep method or calibration procedure.
Control San	nples Verifies the accuracy of the method, i	ncluding the prep	procedure.
Duplicates	Verifies the precision of the instrumer	nt and/or method.	
Spikes/Forti	ified Matrix Determines sample matrix interference	ces, if any.	
Standard	Verifies the validity of the calibration.		
ACZ Qualifiors			
	Analyte concentration detected at a value between MDL and R		ad value is an estimated quantity
ы	Analysis exceeded method hold time. pH is a field test with an	immodiate hold ti	
11	Target analyte response was below the laboratory defined nor	ativo throshold	
	The meterial was applyized for but was not detected above the	alive intestiolo.	pieted volue
0	The appropriated value is either the sample quantitation limit or the	he comple detecti	
	The associated value is either the sample quantitation limit of th	ne sample delecti	
Method Refere	nces		
(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water a	nd Wastes, March	1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorgani	c Substances in E	nvironmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals ir	n Environmental S	amples - Supplement I, May 1994.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.		
(5)	Standard Methods for the Examination of Water and Wastewat	ter.	
Comments			
(1)	QC results calculated from raw data. Results may vary slightly	if the rounded va	lues are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are rep	orted on a dry wei	ght basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as	received" basis.	
(4)	An asterisk in the "XQ" column indicates there is an extended of	qualifier and/or cei	tification qualifier
	associated with the result.		
(5)	If the MDL equals the PQL or the MDL column is omitted, the F	PQL is the reportin	g limit.

https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

REP001.03.15.02

# AZMINING

# ACZ Project ID: L82647

Calcium, dissolv	ved		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573575													
WG573575ICV	ICV	09/05/23 14:21	II230831-3	100		99.68	mg/L	100	95	105			
WG573575ICB	ICB	09/05/23 14:27				U	mg/L		-0.3	0.3			
WG573575LFB	LFB	09/05/23 14:39	II230831-6	67.98753		69.15	mg/L	102	85	115			
L82654-05AS	AS	09/05/23 15:56	II230831-6	67.98753	56.6	123.3	mg/L	98	85	115			
L82654-05ASD	ASD	09/05/23 15:59	II230831-6	67.98753	56.6	123	mg/L	98	85	115	0	20	
Copper, dissolve	əd		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573588													
WG573588ICV	ICV	09/05/23 16:44	MS230712-3	.05		.05374	mg/L	107	90	110			
WG573588ICB	ICB	09/05/23 16:46				U	mg/L		-0.00176	0.00176			
WG573588LFB	LFB	09/05/23 16:48	MS230825-2	.05005		.05354	mg/L	107	85	115			
L82645-04AS	AS	09/05/23 17:33	MS230825-2	.05005	.00192	.04904	mg/L	94	70	130			
L82645-04ASD	ASD	09/05/23 17:35	MS230825-2	.05005	.00192	.05323	mg/L	103	70	130	8	20	
Copper, total			M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573553													
WG573553ICV	ICV	09/06/23 20:45	II230831-2	2		1.934	mg/L	97	95	105			
WG573553ICB	ICB	09/06/23 20:51				U	mg/L		-0.03	0.03			
WG573200LRB	LRB	09/06/23 21:04				U	mg/L		-0.022	0.022			
WG573200LFB	LFB	09/06/23 21:07	II230804-2	.5005		.486	mg/L	97	85	115			
L82665-03LFM	LFM	09/06/23 22:27	II230804-2	.5005	U	.468	mg/L	94	70	130			
L82665-03LFMD	LFMD	09/06/23 22:30	II230804-2	.5005	U	.485	mg/L	97	70	130	4	20	
Cyanide, Free			D6888-09	/OIA-1677	-09								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG572959													
WG572959ICV	ICV	08/25/23 9:15	WI230821-7	.3003		.3014	mg/L	100	90	110			
WG572959ICB	ICB	08/25/23 9:17				U	mg/L		-0.003	0.003			
WG572959LFB	LFB	08/25/23 9:21	WI230821-8	.1001		.0951	mg/L	95	90	110			
L82647-01AS	AS	08/25/23 10:03	WI230821-8	.1001	U	.0952	mg/L	95	90	110			
L82647-01ASD	ASD	08/25/23 10:05	WI230821-8	.1001	U	.107	mg/L	107	90	110	12	20	
Lead, dissolved			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573588													
WG573588ICV	ICV	09/05/23 16:44	MS230712-3	.05		.05246	mg/L	105	90	110			
WG573588ICB	ICB	09/05/23 16:46				U	mg/L		-0.00022	0.00022			
WG573588LFB	LFB	09/05/23 16:48	MS230825-2	.05005		.05534	mg/L	111	85	115			
L82645-04AS	AS	09/05/23 17:33	MS230825-2	.05005	.00014	.04723	mg/L	94	70	130			
L82645-04ASD	ASD	09/05/23 17:35	MS230825-2	.05005	.00014	.05086	mg/L	101	70	130	7	20	

#### AZMINING

#### ACZ Project ID: L82647

Lead, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573435													
WG573435ICV	ICV	09/01/23 11:45	MS230712-3	.05		.05273	mg/L	105	90	110			
WG573435ICB	ICB	09/01/23 11:48				U	mg/L		-0.0003	0.0003			
WG573358LRB	LRB	09/01/23 11:50				U	mg/L		-0.00022	0.00022			
WG573358LFB	LFB	09/01/23 11:52	MS230825-2	.05005		.04976	mg/L	99	85	115			
L82625-01LFM	LFM	09/01/23 11:57	MS230825-2	.05005	.00478	.056	mg/L	102	70	130			
L82625-01LFMD	LFMD	09/01/23 11:59	MS230825-2	.05005	.00478	.05393	mg/L	98	70	130	4	20	
Magnesium, diss	olved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573575													
WG573575ICV	ICV	09/05/23 14:21	II230831-3	100		99.48	mg/L	99	95	105			
WG573575ICB	ICB	09/05/23 14:27				U	mg/L		-0.6	0.6			
WG573575LFB	LFB	09/05/23 14:39	II230831-6	49.99752		50.9	mg/L	102	85	115			
L82654-05AS	AS	09/05/23 15:56	II230831-6	49.99752	10.1	60.32	mg/L	100	85	115			
L82654-05ASD	ASD	09/05/23 15:59	II230831-6	49.99752	10.1	60.32	mg/L	100	85	115	0	20	
Silver, dissolved			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573588													
WG573588ICV	ICV	09/05/23 16:44	MS230712-3	.02		.01888	mg/L	94	90	110			
WG573588ICB	ICB	09/05/23 16:46				U	mg/L		-0.00022	0.00022			
WG573588LFB	LFB	09/05/23 16:48	MS230825-2	.01001		.01021	mg/L	102	85	115			
L82645-04AS	AS	09/05/23 17:33	MS230825-2	.01001	U	.00969	mg/L	97	70	130			
L82645-04ASD	ASD	09/05/23 17:35	MS230825-2	.01001	U	.00977	mg/L	98	70	130	1	20	
Silver, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573537													
WG573537ICV	ICV	09/06/23 8:39	MS230712-3	.02		.0183	mg/L	92	90	110			
WG573537ICB	ICB	09/06/23 8:41				U	mg/L		-0.0003	0.0003			
WG573358LRB	LRB	09/06/23 8:44				U	mg/L		-0.00022	0.00022			
WG573358LFB	LFB	09/06/23 8:46	MS230825-2	.01001		.01025	mg/L	102	85	115			
L82625-01LFM	LFM	09/06/23 8:50	MS230825-2	.01001	.00018	.00904	mg/L	89	70	130			
L82625-01LFMD	LFMD	09/06/23 8:53	MS230825-2	.01001	.00018	.00896	mg/L	88	70	130	1	20	
Zinc, dissolved			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG574595													
WG574595ICV	ICV	09/19/23 14:10	MS230908-1	.05		.0523	mg/L	105	90	110			
WG574595ICB	ICB	09/19/23 14:12				U	mg/L		-0.0132	0.0132			
WG574595LFB	LFB	09/19/23 14:13	MS230912-3	.050015		.0576	mg/L	115	85	115			
L82820-01AS	AS	09/19/23 14:27	MS230912-3	.050015	U	.06	mg/L	120	70	130			
L82820-01ASD	ASD	09/19/23 14:28	MS230912-3	.050015	U	.06	mg/L	120	70	130	0	20	

#### AZMINING

#### ACZ Project ID: L82647

Zinc, total			M200.7 IC	Р									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573553													
WG573553ICV	ICV	09/06/23 20:45	II230831-2	2		1.957	mg/L	98	95	105			
WG573553ICB	ICB	09/06/23 20:51				U	mg/L		-0.06	0.06			
WG573200LRB	LRB	09/06/23 21:04				U	mg/L		-0.044	0.044			
WG573200LFB	LFB	09/06/23 21:07	II230804-2	.50045		.527	mg/L	105	85	115			
L82665-03LFM	LFM	09/06/23 22:27	II230804-2	.50045	U	.511	mg/L	102	70	130			
L82665-03LFMD	LFMD	09/06/23 22:30	II230804-2	.50045	U	.525	mg/L	105	70	130	3	20	



Inorganic Extended Qualifier Report

## South32

ACZ ID

WORKNUM PARAMETER

**METHOD** 

QUAL DESCRIPTION

ACZ Project ID: L82647

No extended qualifiers associated with this analysis



# ACZ Project ID: L82647

Metals /	Analysis
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The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.										
Silver, dissolv	ved M200.8 ICI	CP-MS								
Silver, total	M200.8 ICI	CP-MS								

## Wet Chemistry

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.

Cyanide, Free

D6888-09/OIA-1677-09

South32	ACZ Project ID		L82647
4542440391	Date Received	08/23/20	23 11:20
	Received By	1	
	Date Printed	8	/24/2023
Receipt Verification			
	YE	S NO	NA
1) Is a foreign soil permit included for applicable samples?			Х
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		Х	
4) Are any samples NRC licensable material?			Х
5) If samples are received past hold time, proceed with requested short hold time analy	yses? X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the sa	imples?	Х	
Samples/Containers			
	YE	S NO	NA
8) Are all containers intact and with no leaks?	Х		
9) Are all labels on containers and are they intact and legible?	Х		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and T	Гime? Х		
11) For preserved bottle types, was the pH checked and within limits? $^{1}$	Х		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			Х
14) Are samples that require zero headspace acceptable?			Х
15) Are all sample containers appropriate for analytical requirements?	X		
16) Is there an Hg-1631 trip blank present?			Х
17) Is there a VOA trip blank present?			Х
18) Were all samples received within hold time?	Х		
	NA in	dicates Not A	Applicable

# Chain of Custody Related Remarks

**Client Contact Remarks** 

Shipping Containers

Cooler Id	Temp(°C) Temp Criteria(°C)		Rad(µR/Hr)	Custody Seal Intact?			
6019	1.2	<=6.0	15	Yes			

#### Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.



ACZ Project ID: L82647 Date Received: 08/23/2023 11:20 Received By: Date Printed: 8/24/2023

<sup>1</sup> The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCI preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

	ACZ Labor	ratories, Inc.	L	826	,47	,	СН	AIN	of C	UST	ODY	ſ
	2773 Downhill Drive Steamboat Spri	ngs, CO 80487 (800) 334	4-5493									
	Report to:				740		show	Poad				
	<sub>Name:</sub> Kara Haas		4 K	Address	<u>; 74</u>		5648	Nuau				
	Company: South32		4 - 1-	Pala	<u>jurna,</u> 51	AZ 0	7_173	8				
	E-mail: kara.haas@south32	2.net		Telepho	one: . O	00-94	1-110					
	Copy of Report to:				_						_	
	Name: Matt Owens		4 4	E-mail:	Matt.	Ower	ns1@s	south	32.net			
	Company: South32		JĿ	Telepho	one: 5	20-94	7-173	8				
	Invoice to:											
	Name: Kara Haas			Addres	s: 749	Har	shaw	Road				
	Company: South32			Pata	gonia	, AZ 8	35648					
	E-mail: kara.haas@south32	2.net		Teleph	one: 5	605-9	<u>47-17</u>	38				
	If sample(s) received past holding	time (HT), or if insufficie	ent HT ren	nains to	comple	ete				YES	×	
	analysis before expiration, shall A	CZ proceed with reques	ted short	HT anal	yses?	ed analyse	ns, even if H	T is expired	i, and data v	J ON will be qualit	fied	
	If "NO" then ACZ will contact client for further instruct	ce Monitoring?		Yes			No	×				
	If yes, please include state forms	Results will be reported	to PQL fo	or Color	ado.							
	Sampler's Name: jaime lopez	Sampler's Site Inform	nation	State_/	AZ		Zip coc	le_856	<u>624</u>	Time Z	one_A2	<u> </u>
	*Sampler's Signature:	*i attest tamperi	to the authentic ng with the sam	city and valid ple in anywa	lity of this sa y, is consider	mple. I und red fraud a	lerstand that nd punishabl	e by State L	aw.	ng the time,		
	PROJECT INFORMATION				ANAL	YSES RE	QUESTED	(attach li	ist or use	quote nun	nber)	
	Quote #: STORM-OUTFALL	_2		S.		ST		$\setminus$				
	PO#: 4542440391			aine	SJ	META	щ			$\sim$		/
	Reporting state for compliance test	ing:		out	АЕТА	VED	YANI		<u>с.</u>	22.	Λ	
	Check box if samples include NRC	licensed material?		5	TAL	SOL	EEC		V6	8		
	SAMPLE IDENTIFICATION	DATE:TIME	Matrix	*	10	ö	<u><u> </u></u>					
	Outfall-2_08182023	8/18/23 10:00AM	<u>1 SW</u>	3	×	×	× ×			┝╝╯		님
								增		X		
				<u> </u>		HZ -	띹			KH		
				$\vdash$	띧	브	ᆣᆜ		╞╬			
po			-	<u> </u>				느				
	TC .		_		닏		ᆣᆣ	┝╠	₩₩	┝╞╡	╞╋	
	8:22:23		$\rightarrow$	<b>k</b> -			┼¦┤	╞╬			片片	$\mathbb{H}$
				$\vdash$	┝┝	片片	븝	愲岩	片片	片片	H	
					냮	1¥		⊬∺	┟岩	┝╞╡		H
Š											r (Specif	<b>ل لیے )</b> زv)
	Matrix SW (Surface Water) GV	V (Ground Water) · WW (Was	ste water)	DW (Drin	king wat		(Sludye)	30 (30				, ,
26	REMARKS		_									
·					F.		0.2	2.7	2			
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				Incetor	t on the	rovor	ro cide	of this	000			
	Please r	reter to ACZ's terms & C	ONGINONS	located		RECE	IVED E	3Y:			ATE:T	IME
	RELINQUISHED B						218	_		8	(2)	27
		10.972	77 10	$\sim$			11 11					
	JAIME LOPE 2	8.22	23 10	<u>00                                   </u>	im		N T			01	11:0	20

FRMAD050.06.14.14

White - Return with sample. Yellow - Retain for your records.



Analytical Report

September 13, 2023

Report to: Kara Haas South32 749 Harshaw Rd Patagonia, AZ 85624

cc: Matt Owens

Bill to: Accounts Payable South32 Hermosa Inc. 2210 E Fort Lowell Road Tucson, AZ 85719

Project ID: 4542440391 ACZ Project ID: L82646

Kara Haas:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on August 23, 2023. This project has been assigned to ACZ's project number, L82646. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L82646. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after September 02, 2025. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Mark Mc Noal

Mark McNeal has reviewed and approved this report.





Project ID:	4542440391
Sample ID:	OUTFALL-3_08192023

# Inorganic Analytical Results

ACZ Sample ID:	L82646-01
Date Sampled:	08/19/23 14:04
Date Received:	08/23/23
Sample Matrix:	Surface Water

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion	M200.2 ICP-MS								08/31/23 7:30	gjl
Total Hot Plate Digestion	M200.2 ICP				*				08/29/23 16:25	smw
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, dissolved	M200.7 ICP	1	89.8			mg/L	0.1	0.5	09/02/23 18:39	wtc
Copper, dissolved	M200.8 ICP-MS	1	0.00419			mg/L	0.0008	0.002	09/01/23 18:59	gjl/scp
Copper, total	M200.7 ICP	5	0.075	В		mg/L	0.05	0.25	08/30/23 20:57	aeh
Lead, dissolved	M200.8 ICP-MS	1	0.00025	В		mg/L	0.0001	0.0005	09/01/23 18:59	gjl/scp
Lead, total	M200.8 ICP-MS	2	0.195			mg/L	0.0002	0.001	09/01/23 12:20	gjl/scp
Magnesium, dissolved	M200.7 ICP	1	15.4			mg/L	0.2	1	09/01/23 21:17	aeh
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U	*	mg/L	0.0001	0.0005	09/05/23 17:37	jka
Silver, total	M200.8 ICP-MS	10	0.00198	В	*	mg/L	0.001	0.005	09/06/23 9:14	gjl/scp
Zinc, dissolved	M200.8 ICP-MS	1	<0.006	U		mg/L	0.006	0.015	09/01/23 18:59	gjl/scp
Zinc, total	M200.7 ICP	5	0.354			mg/L	0.1	0.25	08/30/23 20:57	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, Free	D6888-09/OIA-1677-09	1	<0.003	U	*	mg/L	0.003	0.01	08/25/23 9:57	mrd
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		288			mg/L	0.2	5	09/13/23 0:00	calc

Arizona license number: AZ0102



Inorganic Reference

Report Heade	er Explanations						
Batch	A distinct set of samples analyzed at a specific time						
Found	Value of the QC Type of interest						
Limit	Upper limit for RPD, in %.						
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)						
MDL	Method Detection Limit. Same as Minimum Reporting Limit u	nless omitted or eq	ual to the PQL (see comment #5).				
	Allows for instrument and annual fluctuations.						
PCN/SCN	A number assigned to reagents/standards to trace to the man	ufacturer's certifica	ate of analysis				
PQI	Practical Quantitation Limit Synonymous with the EPA term "	'minimum level"	,				
00	True Value of the Control Sample or the amount added to the	Snike					
Rec	Recovered amount of the true value or spike added in % (exc	cent for LCSS_mg/	Ka)				
REC	Relative Percent Difference, calculation used for Duplicate OC		(g)				
Upper	Linner Recovery Limit in % (excent for LCSS_mg/Kg)	J Types					
Sample	Value of the Sample of interest						
Sample	value of the Sample of Interest						
QC Sample T	ypes						
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate				
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank				
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix				
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate				
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank				
ICB	Initial Calibration Blank	MS	Matrix Spike				
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate				
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Pren Blank - Soil				
LCSS	Laboratory Control Sample - Soil	PBW/	Prep Blank - Water				
LCSS	Laboratory Control Sample - Soil	POV	Proping Augustitation Varification standard				
LCSSD	Laboratory Control Sample - Soli Duplicate	FQV					
LCSW	Laboratory Control Sample - Water	SDL	Senal Dilution				
QC Sample T	ype Explanations						
Blanks	Verifies that there is no or minimal co	ontamination in the	prep method or calibration procedure.				
Control Sa	amples Verifies the accuracy of the method,	including the prep	procedure.				
Duplicates	s Verifies the precision of the instrume	ent and/or method.					
Spikes/Fo	ortified Matrix Determines sample matrix interferen	ices, if any.					
Standard	Verifies the validity of the calibration.						
ACZ Qualifier	rs (Qual)						
В	Analyte concentration detected at a value between MDL and I	PQL. The associate	ed value is an estimated quantity.				
Н	Analysis exceeded method hold time. pH is a field test with an	n immediate hold ti	me.				
L	Target analyte response was below the laboratory defined neg	gative threshold.					
U	The material was analyzed for, but was not detected above th	e level of the asso	ciated value.				
	The associated value is either the sample quantitation limit or	the sample detecti	on limit.				
Method Refer	rences						
(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water	and Wastes, Marcl	n 1983.				
(2)	EPA 600/R-93-100. Methods for the Determination of Inorgar	nic Substances in E	Environmental Samples, August 1993.				
(3)	EPA 600/R-94-111. Methods for the Determination of Metals	in Environmental S	Samples - Supplement I, May 1994.				
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.						
(5)	Standard Methods for the Examination of Water and Wastewa	ater.					
Commonte							
(1)	QC results calculated from raw data. Results may yary elight	v if the rounded va	lues are used in the calculations				
(') (2)	a robano balcalatea nom raw data. Results may vary silyilli	norted on a dry wo	inht hasis				
(2)	(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.						
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.							
(3) (4)	Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as	s received" basis.	tification qualifier				
(3) (4)	Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended	s received" basis. qualifier and/or ce	rtification qualifier				
(3) (4)	Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended associated with the result.	s received" basis. qualifier and/or cel	tification qualifier				
(3) (4) (5)	Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended associated with the result. If the MDL equals the PQL or the MDL column is omitted, the	s received" basis. qualifier and/or ce PQL is the reportin	rtification qualifier g limit.				
(3) (4) (5)	Soil, Sludge, and Plant matrices for Inorganic analyses are rep Animal matrices for Inorganic analyses are reported on an "as An asterisk in the "XQ" column indicates there is an extended associated with the result. If the MDL equals the PQL or the MDL column is omitted, the	s received" basis. qualifier and/or cel PQL is the reportin	rtification qualifier ıg limit.				

https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

REP001.03.15.02

#### AZMINING

#### ACZ Project ID: L82646

Calcium, dissolv	ed		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573501													
WG573501ICV	ICV	09/02/23 16:56	II230831-3	100		97.63	mg/L	98	95	105			
WG573501ICB	ICB	09/02/23 17:02				.13	mg/L		-0.3	0.3			
WG573501LFB	LFB	09/02/23 17:14	II230831-6	67.98753		68.92	mg/L	101	85	115			
L82621-01AS	AS	09/02/23 18:15	II230831-6	67.98753	282	341.9	mg/L	88	85	115			
L82621-01ASD	ASD	09/02/23 18:18	II230831-6	67.98753	282	342	mg/L	88	85	115	0	20	
Copper, dissolve	d		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573472													
WG573472ICV	ICV	09/01/23 17:50	MS230712-3	.05		.05178	mg/L	104	90	110			
WG573472ICB	ICB	09/01/23 17:52				U	mg/L		-0.00176	0.00176			
WG573472LFB	LFB	09/01/23 17:54	MS230825-2	.05005		.04871	mg/L	97	85	115			
L82633-03AS	AS	09/01/23 18:34	MS230825-2	.05005	U	.04931	mg/L	99	70	130			
L82633-03ASD	ASD	09/01/23 18:36	MS230825-2	.05005	U	.04876	mg/L	97	70	130	1	20	
Copper, total			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573347													
WG573347ICV	ICV	08/30/23 19:12	II230808-1	2		1.957	mg/L	98	95	105			
WG573347ICB	ICB	08/30/23 19:18				U	mg/L		-0.03	0.03			
WG573144LRB	LRB	08/30/23 19:30				U	mg/L		-0.022	0.022			
WG573144LFB	LFB	08/30/23 19:33	II230804-2	.5005		.513	mg/L	102	85	115			
L82625-03LFM	LFM	08/30/23 20:51	II230804-2	.5005	U	.511	mg/L	102	70	130			
L82625-03LFMD	LFMD	08/30/23 20:54	ll230804-2	.5005	U	.515	mg/L	103	70	130	1	20	
Cyanide, Free			D6888-09	/OIA-1677	-09								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG572959													
WG572959ICV	ICV	08/25/23 9:15	WI230821-7	.3003		.3014	mg/L	100	90	110			
WG572959ICB	ICB	08/25/23 9:17				U	mg/L		-0.003	0.003			
WG572959LFB	LFB	08/25/23 9:21	WI230821-8	.1001		.0951	mg/L	95	90	110			
L82647-01AS	AS	08/25/23 10:03	WI230821-8	.1001	U	.0952	mg/L	95	90	110			
L82647-01ASD	ASD	08/25/23 10:05	WI230821-8	.1001	U	.107	mg/L	107	90	110	12	20	
Lead, dissolved			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573472													
WG573472ICV	ICV	09/01/23 17:50	MS230712-3	.05		.05246	mg/L	105	90	110			
WG573472ICB	ICB	09/01/23 17:52				U	mg/L		-0.00022	0.00022			
WG573472LFB	LFB	09/01/23 17:54	MS230825-2	.05005		.04833	mg/L	97	85	115			
L82633-03AS	AS	09/01/23 18:34	MS230825-2	.05005	U	.05831	mg/L	117	70	130			
L82633-03ASD	ASD	09/01/23 18:36	MS230825-2	.05005	U	.05616	mg/L	112	70	130	4	20	

#### AZMINING

#### ACZ Project ID: L82646

Lead, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573435													
WG573435ICV	ICV	09/01/23 11:45	MS230712-3	.05		.05273	mg/L	105	90	110			
WG573435ICB	ICB	09/01/23 11:48				U	mg/L		-0.0003	0.0003			
WG573358LRB	LRB	09/01/23 11:50				U	mg/L		-0.00022	0.00022			
WG573358LFB	LFB	09/01/23 11:52	MS230825-2	.05005		.04976	mg/L	99	85	115			
L82625-01LFM	LFM	09/01/23 11:57	MS230825-2	.05005	.00478	.056	mg/L	102	70	130			
L82625-01LFMD	LFMD	09/01/23 11:59	MS230825-2	.05005	.00478	.05393	mg/L	98	70	130	4	20	
Magnesium, diss	olved		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573386													
WG573386ICV	ICV	09/01/23 19:34	II230825-1	100		98.25	mg/L	98	95	105			
WG573386ICB	ICB	09/01/23 19:39				U	mg/L		-0.6	0.6			
WG573386LFB	LFB	09/01/23 19:52	II230804-2	49.99752		50.73	mg/L	101	85	115			
L82621-01AS	AS	09/01/23 21:05	II230804-2	49.99752	18.2	68	mg/L	100	85	115			
L82621-01ASD	ASD	09/01/23 21:08	II230804-2	49.99752	18.2	68.16	mg/L	100	85	115	0	20	
Silver, dissolved M200.8 ICP-MS													
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573588													
WG573588ICV	ICV	09/05/23 16:44	MS230712-3	.02		.01888	mg/L	94	90	110			
WG573588ICB	ICB	09/05/23 16:46				U	mg/L		-0.00022	0.00022			
WG573588LFB	LFB	09/05/23 16:48	MS230825-2	.01001		.01021	mg/L	102	85	115			
L82645-04AS	AS	09/05/23 17:33	MS230825-2	.01001	U	.00969	mg/L	97	70	130			
L82645-04ASD	ASD	09/05/23 17:35	MS230825-2	.01001	U	.00977	mg/L	98	70	130	1	20	
Silver, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573537													
WG573537ICV	ICV	09/06/23 8:39	MS230712-3	.02		.0183	mg/L	92	90	110			
WG573537ICB	ICB	09/06/23 8:41				U	mg/L		-0.0003	0.0003			
WG573358LRB	LRB	09/06/23 8:44				U	mg/L		-0.00022	0.00022			
WG573358LFB	LFB	09/06/23 8:46	MS230825-2	.01001		.01025	mg/L	102	85	115			
L82625-01LFM	LFM	09/06/23 8:50	MS230825-2	.01001	.00018	.00904	mg/L	89	70	130			
L82625-01LFMD	LFMD	09/06/23 8:53	MS230825-2	.01001	.00018	.00896	mg/L	88	70	130	1	20	
Zinc, dissolved			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573472													
WG573472ICV	ICV	09/01/23 17:50	MS230712-3	.05		.052	mg/L	104	90	110			
WG573472ICB	ICB	09/01/23 17:52				U	mg/L		-0.0132	0.0132			
WG573472LFB	LFB	09/01/23 17:54	MS230825-2	.050015		.0538	mg/L	108	85	115			
L82633-03AS	AS	09/01/23 18:34	MS230825-2	.050015	U	.0618	mg/L	124	70	130			
L82633-03ASD	ASD	09/01/23 18:36	MS230825-2	.050015	U	.0601	mg/L	120	70	130	3	20	

#### AZMINING

#### ACZ Project ID: L82646

Zinc, total			M200.7 ICI	5									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG573347													
WG573347ICV	ICV	08/30/23 19:12	II230808-1	2		1.932	mg/L	97	95	105			
WG573347ICB	ICB	08/30/23 19:18				U	mg/L		-0.06	0.06			
WG573144LRB	LRB	08/30/23 19:30				U	mg/L		-0.044	0.044			
WG573144LFB	LFB	08/30/23 19:33	II230804-2	.50045		.513	mg/L	103	85	115			
L82625-03LFM	LFM	08/30/23 20:51	II230804-2	.50045	U	.514	mg/L	103	70	130			
L82625-03LFMD	LFMD	08/30/23 20:54	II230804-2	.50045	U	.513	mg/L	103	70	130	0	20	



(800) 334-5493

### South32

# ACZ Project ID: L82646

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L82646-01	NG573537	Silver, total	M200.8 ICP-MS	D5	Sample required dilution. Sample matrix causing internal standards to recover outside method limits.
	WG573144	Total Hot Plate Digestion	M200.2 ICP	DF	Sample required dilution due to high sediment.



# ACZ Project ID: L82646

Metals Ar	nalysis
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The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.					
Silver, dissolved	M200.8 ICP-MS				
Silver, total	M200.8 ICP-MS				

## Wet Chemistry

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.

Cyanide, Free

D6888-09/OIA-1677-09

South32 A	CZ Project ID	L82646		
4542440391	Date Received	08/23/20	23 11:20	
	Received By	1		
	Date Printed	8	/24/2023	
Receipt Verification				
	YE	S NO	NA	
1) Is a foreign soil permit included for applicable samples?			X	
2) Is the Chain of Custody form or other directive shipping papers present?	Х			
3) Does this project require special handling procedures such as CLP protocol?		Х		
4) Are any samples NRC licensable material?			Х	
5) If samples are received past hold time, proceed with requested short hold time analy	vses? X			
6) Is the Chain of Custody form complete and accurate?	Х			
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the sa	mples?	X		
Samples/Containers				
	YE	S NO	NA	
8) Are all containers intact and with no leaks?	Х			
9) Are all labels on containers and are they intact and legible?	Х			
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and T	ïme? X			
11) For preserved bottle types, was the pH checked and within limits? $ ^{1}$	X			
12) Is there sufficient sample volume to perform all requested work?	Х			
13) Is the custody seal intact on all containers?			Х	
14) Are samples that require zero headspace acceptable?			Х	
15) Are all sample containers appropriate for analytical requirements?	Х			
16) Is there an Hg-1631 trip blank present?			Х	
17) Is there a VOA trip blank present?			Х	
18) Were all samples received within hold time?	X			
	NA in	dicates Not A	Applicable	

# Chain of Custody Related Remarks

**Client Contact Remarks** 

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
6019	1.2	<=6.0	15	Yes

#### Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.





ACZ Project ID: L82646 Date Received: 08/23/2023 11:20 Received By: Date Printed: 8/24/2023

<sup>1</sup> The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCI preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

2773 Downhill Drive Steamboa	boratories, In	<b>c.</b> L	82	64 (	r		СНА	IN o	f CUSTOD
Report to:	Springs, CO 80487 (800)	334-5493	3						
Name: Kara Haas									
Company: South32			Add	ress:	749 H	larsh	aw Ro	ad	
E-mail: kara.haas@sout	h32 net		Pa	tago	nia, A	Z 856	48		
Copy of Report to:			Tele	phone	: 505	-947-	1738		
Name: Matt Owens									
Company: South32			E-ma	ail: Ma	att.Ow	/ens1	@sou	th32.r	net
nvoice to:			Tele	phone	520-	947-1	738		
Name: Kara Haas									
Company: South32			Addr	ess: 7	7 <u>49 Ha</u>	arsha	w Roa	ld	
-mail: kara.haas@south	32 not		Pa	tagor	nia, AZ	2 8564	48		
sample(s) received past holdi			Telep	hone:	505-	947-1	738	_	
nalysis before expiration, shal	ACZ proceed with reques	sted shor	emains t HT an	to com	piete				YES 🗵
NO" then ACZ will contact client for further inst	ruction. If neither "YES" nor "NO" is indi	cated, ACZ wi	proceed w	ith the req	r uested analy	/585, even	if HT is expir	red, and dat	
yes, please include state form	nce Monitoring? s. Results will be reported		Yes		]	No	×		
ampler's Name: jaime lope:	Sampler's 9th Inform	TO PQL	for Cold	A 7					
ampler's Signature:	*I attest	to the authen		AZ	sample. I ur	Zip co	ode <u>85</u>	624	Time Zone_AZ
ROJECT INFORMATION	tamperi	ig with the san	nple in anyw	ay, is consi	dered fraud	and punisha	able by State	Law,	ing the time/date/location or
Jote #: STORM-OUTFAL	L3			ANA	LTSES RI	EQUEST	D (attach	list or use	quote number)
D#: 4542440391			ners		ALS		$\mathbb{N}^{-}$		M
porting state for compliance tes			ntaiı	ALS	MET	≝	$  \rangle$		
eck box if samples include NRC	licensed material?		Ŝ	MET	LVED	CYAN			5
SAMPLE IDENTIFICATION	DATE:TIME	Matrix	to #	OTAL	lsso	SEE (			Ø
Outfall-3_08192023	8/19/23 2:04 PM	SW	3					7	
		+						님	분구립구를
				P				井	<u>X님 님 드</u>
		$\square$	$\geq$					岩	뵑님님
	JL 8:22:22					╘	┝╧╡┤	꿁	岩실
		┝──┤			╞	片		/¦	닐사밀나드
		<u>├</u> ──┤		片	片	믬	╘╢	븱	밀모드
		$\square$		H	╞┤	井	-¥1	빌	빌릴달
		├──-f	$\rightarrow \downarrow$	片	╞┤┤	믬	╞╧	븱	<u> </u>
		╞──┤		뇕	╘┤	片	/브		
Matrix SW (Surface Water) · GW	(Ground Water) · WW (Waste V	L Vater) - DM							
MARKS				g water	) · SL (SIL	udge) · S	50 (Soil) ·	OL (Oil)	Other (Specify)
			TT		\$ 20		~		
			9		0.00		->		
						-			
Please refe	er to ACZ's terms & cond	tions loc	ated or	the re	verse	side of	this CC	DC.	
NEEMGOISHED BY:	DATE:TIN	ИE		RE	CEIVE	D BY:			DATE:TIME
MINE LOPEZ	<u>8.22.23</u>	10.0	Van	<u>n</u>		(	ap	T	8/17/1-
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		_						-	

L82646 Chain of Custod



Analytical Report

January 16, 2024

Report to: Kara Haas South32 749 Harshaw Rd Patagonia, AZ 85624

cc: Matt Owens

Bill to: Accounts Payable South32 Hermosa Inc. 2210 E Fort Lowell Road Tucson, AZ 85719

Project ID: 4542440391 ACZ Project ID: L85332

Kara Haas:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on December 27, 2023. This project has been assigned to ACZ's project number, L85332. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L85332. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after January 05, 2026. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Mark McMeal

Mark McNeal has reviewed and approved this report.







 Project ID:
 4542440391

 Sample ID:
 OUTFALL-1\_12232023

# Inorganic Analytical Results

ACZ Sample ID: **L85332-01** Date Sampled: 12/23/23 06:45 Date Received: 12/27/23 Sample Matrix: Surface Water

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion	M200.2 ICP-MS								01/09/24 8:45	gjl
Total Hot Plate Digestion	M200.2 ICP								01/03/24 14:19	smw
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, dissolved	M200.8 ICP-MS	1	0.00336			mg/L	0.0002	0.001	01/15/24 15:05	aps
Arsenic, total	M200.8 ICP-MS	1	0.0145			mg/L	0.0002	0.001	01/11/24 20:09	aps
Cadmium, dissolved	M200.8 ICP-MS	1	0.000506			mg/L	0.00005	0.00025	01/15/24 15:05	aps
Cadmium, total	M200.8 ICP-MS	1	0.00144			mg/L	0.00005	0.00025	01/11/24 20:09	aps
Calcium, dissolved	M200.7 ICP	1	327			mg/L	0.1	0.5	01/16/24 2:21	brc
Copper, dissolved	M200.8 ICP-MS	1	0.00297			mg/L	0.0008	0.002	01/15/24 15:05	aps
Copper, total	M200.7 ICP	1	0.020	В		mg/L	0.01	0.05	01/13/24 2:57	aeh
Lead, dissolved	M200.8 ICP-MS	1	0.00041	В		mg/L	0.0001	0.0005	01/15/24 15:05	aps
Lead, total	M200.8 ICP-MS	1	0.0781			mg/L	0.0001	0.0005	01/11/24 20:09	aps
Magnesium, dissolved	M200.7 ICP	1	74.9			mg/L	0.2	1	01/16/24 2:21	brc
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	01/15/24 15:05	aps
Silver, total	M200.8 ICP-MS	1	0.00043	В		mg/L	0.0001	0.0005	01/11/24 20:09	aps
Zinc, dissolved	M200.8 ICP-MS	1	0.0133	В		mg/L	0.006	0.015	01/15/24 15:05	aps
Zinc, total	M200.7 ICP	1	0.234			mg/L	0.02	0.05	01/13/24 2:57	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, Free	D6888-09/OIA-1677-09	1	<0.003	U	*	mg/L	0.003	0.01	01/05/24 12:20	mrd
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		1120			mg/L	0.2	5	01/16/24 0:00	calc

#### Arizona license number: AZ0102



Inorganic Reference

Report Header	Explanations		
Batch	A distinct set of samples analyzed at a specific time		
Found	Value of the QC Type of interest		
Limit	Upper limit for RPD, in %.		
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)		
MDL	Method Detection Limit. Same as Minimum Reporting Limit un	less omitted or eq	ual to the PQL (see comment #5).
	Allows for instrument and annual fluctuations.		
PCN/SCN	A number assigned to reagents/standards to trace to the manu	Ifacturer's certifica	ite of analysis
PQI	Practical Quantitation Limit Synonymous with the EPA term "r	minimum level"	······································
00	True Value of the Control Sample or the amount added to the S	Spike	
Rec	Recovered amount of the true value or spike added in % (exce	ept for LCSS_mg/	Ka)
RPD	Relative Percent Difference, calculation used for Duplicate QC	Types	
Unner	Upper Recovery Limit in % (except for LCSS_mg/Kg)	1,900	
Sample	Value of the Sample of interest		
Gample	value of the bample of interest		
QC Sample Typ	Des		
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	LRB	Laboratory Reagent Blank
ICB	Initial Calibration Blank	MS	Matrix Spike
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	PBW	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	PQV	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	SDL	Serial Dilution
QC Sample Typ	be Explanations		
Blanks	Verifies that there is no or minimal co	ntamination in the	prep method or calibration procedure.
Control San	nples Verifies the accuracy of the method, i	ncluding the prep	procedure.
Duplicates	Verifies the precision of the instrumer	nt and/or method.	
Spikes/Forti	ified Matrix Determines sample matrix interference	ces, if any.	
Standard	Verifies the validity of the calibration.		
ACZ Qualifiors			
	Analyte concentration detected at a value between MDL and R		ad value is an estimated quantity
ы	Analysis exceeded method hold time. pH is a field test with an	immodiate hold ti	
11	Target analyte response was below the laboratory defined page	ativo throshold	
	The meterial was applyized for but was not detected above the	alive intestiolo.	pieted volue
0	The appropriated value is either the sample quantitation limit or the	he comple detecti	
	The associated value is either the sample quantitation limit of th	ne sample delecti	
Method Refere	nces		
(1)	EPA 600/4-83-020. Methods for Chemical Analysis of Water a	nd Wastes, March	1983.
(2)	EPA 600/R-93-100. Methods for the Determination of Inorgani	c Substances in E	nvironmental Samples, August 1993.
(3)	EPA 600/R-94-111. Methods for the Determination of Metals ir	n Environmental S	amples - Supplement I, May 1994.
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.		
(5)	Standard Methods for the Examination of Water and Wastewat	ter.	
Comments			
(1)	QC results calculated from raw data. Results may vary slightly	if the rounded va	lues are used in the calculations.
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are rep	orted on a dry wei	ght basis.
(3)	Animal matrices for Inorganic analyses are reported on an "as	received" basis.	
(4)	An asterisk in the "XQ" column indicates there is an extended of	qualifier and/or cei	tification qualifier
	associated with the result.		
(5)	If the MDL equals the PQL or the MDL column is omitted, the F	PQL is the reportin	g limit.

https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

REP001.03.15.02

# AZMINING

# ACZ Project ID: L85332

Arsenic, dissolve	ed		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582273													
WG582273ICV	ICV	01/15/24 14:12	MS240109-5	.05		.04933	mg/L	99	90	110			
WG582273ICB	ICB	01/15/24 14:14				U	mg/L		-0.00044	0.00044			
WG582273LFB	LFB	01/15/24 14:16	MS240109-2	.0501		.05021	mg/L	100	85	115			
L85068-01AS	AS	01/15/24 14:47	MS240109-2	.0501	.00062	.05039	mg/L	99	70	130			
L85068-01ASD	ASD	01/15/24 14:48	MS240109-2	.0501	.00062	.04976	mg/L	98	70	130	1	20	
Arsenic, total			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582109													
WG582109ICV	ICV	01/11/24 19:28	MS240109-5	.05		.04868	mg/L	97	90	110			
WG582109ICB	ICB	01/11/24 19:30				U	mg/L		-0.0006	0.0006			
WG581874LRB	LRB	01/11/24 19:31				U	mg/L		-0.00044	0.00044			
WG581874LFB	LFB	01/11/24 19:33	MS240109-2	.0501		.05099	mg/L	102	85	115			
L85285-03LFM	LFM	01/11/24 20:06	MS240109-2	.0501	.00633	.05992	mg/L	107	70	130			
L85285-03LFMD	LFMD	01/11/24 20:08	MS240109-2	.0501	.00633	.05896	mg/L	105	70	130	2	20	
Cadmium, disso	lved		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582273													
WG582273ICV	ICV	01/15/24 14:12	MS240109-5	.05		.051099	mg/L	102	90	110			
WG582273ICB	ICB	01/15/24 14:14				U	mg/L		-0.00011	0.00011			
WG582273LFB	LFB	01/15/24 14:16	MS240109-2	.05005		.051738	mg/L	103	85	115			
L85068-01AS	AS	01/15/24 14:47	MS240109-2	.05005	.000791	.051132	mg/L	101	70	130			
L85068-01ASD	ASD	01/15/24 14:48	MS240109-2	.05005	.000791	.051439	mg/L	101	70	130	1	20	
Cadmium, total			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582109													
WG582109ICV	ICV	01/11/24 19:28	MS240109-5	.05		.048994	mg/L	98	90	110			
WG582109ICB	ICB	01/11/24 19:30				U	mg/L		-0.00015	0.00015			
WG581874LRB	LRB	01/11/24 19:31				U	mg/L		-0.00011	0.00011			
WG581874LFB	LFB	01/11/24 19:33	MS240109-2	.05005		.050366	mg/L	101	85	115			
L85285-03LFM	LFM	01/11/24 20:06	MS240109-2	.05005	.000113	.055573	mg/L	111	70	130			
L85285-03LFMD	LFMD	01/11/24 20:08	MS240109-2	.05005	.000113	.055573	mg/L	111	70	130	0	20	
Calcium, dissolv	ed		M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper_	RPD	Limit	Qual
WG582277													
WG582277ICV	ICV	01/16/24 1:04	II231227-4	100		98.16	mg/L	98	95	105			
WG582277ICB	ICB	01/16/24 1:10				.21	mg/L		-0.3	0.3			
WG582277LFB	LFB	01/16/24 1:23	II240111-3	67.98753		68.95	mg/L	101	85	115			
L85350-01AS	AS	01/16/24 2:40	II240111-3	67.98753	.22	70.09	mg/L	103	85	115			
L85350-01ASD	ASD	01/16/24 2:44	II240111-3	67.98753	.22	71.38	mg/L	105	85	115	2	20	

#### AZMINING

#### ACZ Project ID: L85332

Copper, dissolve	d		M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582273													
WG582273ICV	ICV	01/15/24 14:12	MS240109-5	.05		.05286	mg/L	106	90	110			
WG582273ICB	ICB	01/15/24 14:14				U	mg/L		-0.00176	0.00176			
WG582273LFB	LFB	01/15/24 14:16	MS240109-2	.05005		.05185	mg/L	104	85	115			
L85068-01AS	AS	01/15/24 14:47	MS240109-2	.05005	.00898	.05516	mg/L	92	70	130			
L85068-01ASD	ASD	01/15/24 14:48	MS240109-2	.05005	.00898	.05446	mg/L	91	70	130	1	20	
Copper, total			M200.7 IC	P									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582191													
WG582191ICV	ICV	01/13/24 1:47	II231214-3	2		1.931	mg/L	97	95	105			
WG582191ICB	ICB	01/13/24 1:53				U	mg/L		-0.03	0.03			
WG581533LRB	LRB	01/13/24 2:06				U	mg/L		-0.022	0.022			
WG581533LFB	LFB	01/13/24 2:09	II231214-2	.5005		.499	mg/L	100	85	115			
L85340-01LFM	LFM	01/13/24 3:26	II10XWATER	5.015	U	4.987	mg/L	99	70	130			
L85340-01LFMD	LFMD	01/13/24 3:29	II10XWATER	5.015	U	5.078	mg/L	101	70	130	2	20	
Cyanide, Free			D6888-09	/OIA-1677	7-09								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG581716													
WG581716ICV	ICV	01/05/24 12:10	WI231227-4	.3003		.2997	mg/L	100	90	110			
WG581716ICB	ICB	01/05/24 12:12				U	mg/L		-0.003	0.003			
WG581716LFB	LFB	01/05/24 12:16	WI231227-5	.1001		.1041	mg/L	104	90	110			
L85332-01AS	AS	01/05/24 12:22	WI231227-5	.1001	U	.0999	mg/L	100	90	110			
L85332-01ASD	ASD	01/05/24 12:24	WI231227-5	.1001	U	.1038	mg/L	104	90	110	4	20	
Lead, dissolved			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582273													
WG582273ICV	ICV	01/15/24 14:12	MS240109-5	.05		.05083	mg/L	102	90	110			
WG582273ICB	ICB	01/15/24 14:14				U	mg/L		-0.00022	0.00022			
WG582273LFB	LFB	01/15/24 14:16	MS240109-2	.05005		.05123	mg/L	102	85	115			
L85068-01AS	AS	01/15/24 14:47	MS240109-2	.05005	U	.04949	mg/L	99	70	130			
L85068-01ASD	ASD	01/15/24 14:48	MS240109-2	.05005	U	.05089	mg/L	102	70	130	3	20	
Lead, total			M200.8 IC	P-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582109													
WG582109ICV	ICV	01/11/24 19:28	MS240109-5	.05		.04686	mg/L	94	90	110			
WG582109ICB	ICB	01/11/24 19:30				U	mg/L		-0.0003	0.0003			
WG581874LRB	LRB	01/11/24 19:31				U	mg/L		-0.00022	0.00022			
WG581874LFB	LFB	01/11/24 19:33	MS240109-2	.05005		.04787	mg/L	96	85	115			
L85285-03LFM	LFM	01/11/24 20:06	MS240109-2	.05005	.00421	.05472	mg/L	101	70	130			
L85285-03LFMD	LFMD	01/11/24 20:08	MS240109-2	.05005	.00421	.05395	mg/L	99	70	130	1	20	

## AZMINING

# ACZ Project ID: L85332

Magnesium, diss	olved		M200.7 I	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582277													
WG582277ICV	ICV	01/16/24 1:04	II231227-4	100		100.59	mg/L	101	95	105			
WG582277ICB	ICB	01/16/24 1:10				U	mg/L		-0.6	0.6			
WG582277LFB	LFB	01/16/24 1:23	II240111-3	49.81683		51.54	mg/L	103	85	115			
L85350-01AS	AS	01/16/24 2:40	II240111-3	49.81683	U	52.56	mg/L	106	85	115			
L85350-01ASD	ASD	01/16/24 2:44	II240111-3	49.81683	U	53.52	mg/L	107	85	115	2	20	
Silver, dissolved			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582273													
WG582273ICV	ICV	01/15/24 14:12	MS240109-5	.02		.02057	mg/L	103	90	110			
WG582273ICB	ICB	01/15/24 14:14				U	mg/L		-0.00022	0.00022			
WG582273LFB	LFB	01/15/24 14:16	MS240109-2	.01		.01007	mg/L	101	85	115			
L85068-01AS	AS	01/15/24 14:47	MS240109-2	.01	U	.00928	mg/L	93	70	130			
L85068-01ASD	ASD	01/15/24 14:48	MS240109-2	.01	U	.0093	mg/L	93	70	130	0	20	
Silver, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582109													
WG582109ICV	ICV	01/11/24 19:28	MS240109-5	.02		.01964	mg/L	98	90	110			
WG582109ICB	ICB	01/11/24 19:30				U	mg/L		-0.0003	0.0003			
WG581874LRB	LRB	01/11/24 19:31				U	mg/L		-0.00022	0.00022			
WG581874LFB	LFB	01/11/24 19:33	MS240109-2	.01		.00984	mg/L	98	85	115			
L85285-03LFM	LFM	01/11/24 20:06	MS240109-2	.01	U	.01022	mg/L	102	70	130			
L85285-03LFMD	LFMD	01/11/24 20:08	MS240109-2	.01	U	.0102	mg/L	102	70	130	0	20	
Zinc, dissolved			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582273													
WG582273ICV	ICV	01/15/24 14:12	MS240109-5	.05		.0526	mg/L	105	90	110			
WG582273ICB	ICB	01/15/24 14:14				U	mg/L		-0.0132	0.0132			
WG582273LFB	LFB	01/15/24 14:16	MS240109-2	.050015		.0544	mg/L	109	85	115			
L85068-01AS	AS	01/15/24 14:47	MS240109-2	.050015	.0221	.0737	mg/L	103	70	130			
L85068-01ASD	ASD	01/15/24 14:48	MS240109-2	.050015	.0221	.0735	mg/L	103	70	130	0	20	
Zinc, total			M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582191													
WG582191ICV	ICV	01/13/24 1:47	II231214-3	2		2.018	mg/L	101	95	105			
WG582191ICB	ICB	01/13/24 1:53				U	mg/L		-0.06	0.06			
WG581533LRB	LRB	01/13/24 2:06				U	mg/L		-0.044	0.044			
WG581533LFB	LFB	01/13/24 2:09	II231214-2	.50045		.545	mg/L	109	85	115			
L85340-01LFM	LFM	01/13/24 3:26	II10XWATER	5.0075	U	5.507	mg/L	110	70	130			
L85340-01LFMD	LFMD	01/13/24 3:29	II10XWATER	5.0075	U	5.547	mg/L	111	70	130	1	20	



Inorganic Extended Qualifier Report

## South32

ACZ ID

WORKNUM PARAMETER

METHOD

QUAL DESCRIPTION

ACZ Project ID: L85332

No extended qualifiers associated with this analysis



ACZ Project ID: L85332

Wet Chemistry

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.

Cyanide, Free

D6888-09/OIA-1677-09

ACZ 2773 Downhill Drive	Laboratories, Inc. Steamboat Springs, CO 80487 (800) 334-5493		
South32		ACZ Pr	oject ID

# Sample Re<u>ceipt</u>

South32 ACZ Proj	ect ID:	L85332			
4542440391 Date Rec	eived: 12	2/27/202	3 10:44		
Receiv	ed By:				
Date P	rinted:	12/2	28/2023		
Receipt Verification					
	YES	NO	NA		
1) Is a foreign soil permit included for applicable samples?			Х		
2) Is the Chain of Custody form or other directive shipping papers present?	Х				
3) Does this project require special handling procedures such as CLP protocol?		Х			
4) Are any samples NRC licensable material?			Х		
5) If samples are received past hold time, proceed with requested short hold time analyses?	Х				
6) Is the Chain of Custody form complete and accurate?	Х				
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		Х			
Samples/Containers					
	YES	NO	NA		
8) Are all containers intact and with no leaks?	Х				
9) Are all labels on containers and are they intact and legible?	Х				
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	Х				
11) For preserved bottle types, was the pH checked and within limits? $^{1}$	Х				
12) Is there sufficient sample volume to perform all requested work?	Х				
13) Is the custody seal intact on all containers?			Х		
14) Are samples that require zero headspace acceptable?			Х		
15) Are all sample containers appropriate for analytical requirements?	Х				
16) Is there an Hg-1631 trip blank present?			Х		
17) Is there a VOA trip blank present?			Х		
18) Were all samples received within hold time?	Х				
	NA indica	tes Not Ap	plicable		

#### Chain of Custody Related Remarks

The 'Relinquished By' field on the COC was not completed. The project manager is contacting the client.

#### **Client Contact Remarks**

## Shipping Containers

Cooler IdTemp (°C)Temp<br/>Criteria (°C)Rad (µR/Hr)Custody Seal<br/>Intact?NA408923.8<=6.0</td>15Yes

#### Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.





ACZ Project ID: L85332 Date Received: 12/27/2023 10:44 Received By: Date Printed: 12/28/2023

<sup>1</sup> The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCI preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ Lab	oratories, Inc.		253	32	_	С	HAI	N of	CUS	TOD	Y	
2773 Downhill Drive Steamboat S	orings, CO 80487 (800) 334	4-5493										
Report to:												
Name: Kara Haas	_		Addre	ss: 7	49 Ha	rshav	v Roa	d				
Company: South32		]	Pat	agonia	a, AZ	85648	3					
E-mail: kara.haas@south	32.net	]	Telep	hone:	505-9	47-17	38					
Copy of Report to:												
Name: Matt Owens			E-mail: Matt.Owens1@south32.net									
Company: South32		]	Telephone: 520-947-1738									
Invoice to:												
<sub>Name:</sub> Kara Haas		Address: 749 Harshaw Road										
Company: South32			Patagonia, AZ 85648									
E-mail: sscinvoice@south	32.net	]	Telep	hone:	505-9	47-17	738					
If sample(s) received past holdin	g time (HT), or if insufficie	nt HT re	mains t	o comp	lete				YES	×		
analysis before expiration, shall if "NO" then AG2 will contact client for further instru	ACZ proceed with requests action. If neither "YES" nor "NO" is indicate	ed shori ted ACZ will	t HT and proceed with	alyses? In the real	uted anahe	es, even lf	HT is excire	id, and date	NO			
Are samples for SDWA Compliar	ce Monitoring?	-	Yes			No	×					
If yes, please include state forms	Results will be reported t	to PQL (	ior Colo	rado.	_			-				
Sampler's Name: jaime lopez	Simpler's Site Informa	ation	State_	AZ		Zip co	de_85	624	Time Z	one A	Ζ	
'Sampler's Signature:	tampering	with the sur	upie in anyw	ary, is consid	ered fraud a	nd punishai	in intentions de by State	uy melabeli Law.	ng the time	/nits/locati	on or	
PROJECT INFORMATION				ANA	LYSES RU	QUESTE	) (attach i	list or use	quote nui	nber)		
Quote #: Outfall 1		_	۲¢						$\sim$		•	
PO#: 4542440391	<u>0#: 4542440391</u>				`	k		.1	n"			
Reporting state for compliance test	ling:		l g		ĺ			<u>_</u> W				
Check box if samples include NRC	licensed material?		ō	iffall 1			kγ.	M				
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Matrix SW/Surface Waters Of		1									<u> </u>	
DEMARKS	(Ground Avaler) - AAAA (AASIS A	water) · L	w (Drink	ing Wate	r)·SL(S	iudge) ·	SO (Soil)	) · OL (Oi	i) · Other	(Specify	)	
				_	_				_	-		
Please re	ter to ACZ's terms & conc	ditions I	ocated	on the	revers	e side o	of this (	COC.				
RECINQUISHED BY	DATE:TI	ME			RECEIV	ED BY			DA	TE:TIN	lΕ	
		•	<u> </u>									

White - Return with sample.

Yellow - Retain for your records.

FRMAD050.06.14.14

85332 Chain of Custod



Analytical Report

January 16, 2024

Report to: Kara Haas South32 749 Harshaw Rd Patagonia, AZ 85624

cc: Matt Owens

Bill to: Accounts Payable South32 Hermosa Inc. 2210 E Fort Lowell Road Tucson, AZ 85719

Project ID: 4542440391 ACZ Project ID: L85333

Kara Haas:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on December 27, 2023. This project has been assigned to ACZ's project number, L85333. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L85333. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after January 05, 2026. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Mark Mc Meal

Mark McNeal has reviewed and approved this report.





ACZ	Laboratories, Inc.
2773 Downhill Drive	Steamboat Springs, CO 80487 (800) 334-5493

 Project ID:
 4542440391

 Sample ID:
 OUTFALL-2\_12232023

# Inorganic Analytical Results

ACZ Sample ID: **L85333-01** Date Sampled: 12/23/23 08:00 Date Received: 12/27/23 Sample Matrix: Surface Water

Inorganic Prep										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Total Hot Plate Digestion	M200.2 ICP-MS								01/09/24 8:45	gjl
Total Hot Plate Digestion	M200.2 ICP								01/03/24 14:34	smw
Metals Analysis										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, dissolved	M200.7 ICP	1	249			mg/L	0.1	0.5	01/16/24 2:24	brc
Copper, dissolved	M200.8 ICP-MS	1	0.00141	В		mg/L	0.0008	0.002	01/15/24 15:07	′ aps
Copper, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	01/13/24 3:00	aeh
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	01/15/24 15:07	′ aps
Lead, total	M200.8 ICP-MS	1	0.0146			mg/L	0.0001	0.0005	01/11/24 20:15	aps
Magnesium, dissolved	M200.7 ICP	1	132			mg/L	0.2	1	01/16/24 2:24	brc
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	01/15/24 15:07	aps
Silver, total	M200.8 ICP-MS	1	0.00014	В		mg/L	0.0001	0.0005	01/11/24 20:15	aps
Zinc, dissolved	M200.8 ICP-MS	1	0.821			mg/L	0.006	0.015	01/15/24 15:07	′ aps
Zinc, total	M200.7 ICP	1	0.959			mg/L	0.02	0.05	01/13/24 3:00	aeh
Wet Chemistry										
Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, Free	D6888-09/OIA-1677-09	1	< 0.003	U	*	mg/L	0.003	0.01	01/05/24 12:26	mrd
Hardness as CaCO3 (dissolved)	SM2340B - Calculation		1170			mg/L	0.2	5	01/16/24 0:00	calc

Arizona license number: AZ0102



Inorganic Reference

Report Header	Explanations								
Batch	A distinct set of samples analyzed at a specific time								
Found	Value of the QC Type of interest								
Limit	Upper limit for RPD, in %.								
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)								
MDL	Method Detection Limit. Same as Minimum Reporting Limit un	less omitted or eq	ual to the PQL (see comment #5).						
	Allows for instrument and annual fluctuations.								
PCN/SCN	A number assigned to reagents/standards to trace to the manu	Ifacturer's certifica	te of analysis						
PQI	Practical Quantitation Limit Synonymous with the EPA term "r	ninimum level"	······································						
00	True Value of the Control Sample or the amount added to the S	Snike							
Rec	Recovered amount of the true value or spike added in % (ever	ent for LCSS_ma/	Ka)						
RPD	PPD Polotive Percent Difference, calculation used for Duplicate OC Types								
Upper	Linner Receivery Limit in % (excent for LCSS, ma/Ka)	Турез							
Somelo	Volue of the Sample of interest								
Sample	value of the Sample of Interest								
QC Sample Typ	Des								
AS	Analytical Spike (Post Digestion)	LCSWD	Laboratory Control Sample - Water Duplicate						
ASD	Analytical Spike (Post Digestion) Duplicate	LFB	Laboratory Fortified Blank						
ССВ	Continuing Calibration Blank	LFM	Laboratory Fortified Matrix						
CCV	Continuing Calibration Verification standard	LFMD	Laboratory Fortified Matrix Duplicate						
DUP	Sample Duplicate	I RB	Laboratory Reagent Blank						
ICB	Initial Calibration Blank	MS	Matrix Spike						
ICV	Initial Calibration Verification standard	MSD	Matrix Spike Duplicate						
ICSAB	Inter-element Correction Standard - A plus B solutions	PBS	Pren Blank - Soil						
LCSS	Laboratory Control Sample - Soil	PBW/	Pren Blank - Water						
LCSS	Laboratory Control Sample - Soil Duplicato	POV	Practical Quantitation Varification standard						
LCSSD		FQV							
LUSW	Laboratory Control Sample - Water	SDL	Senal Dilution						
QC Sample Typ	be Explanations								
Blanks	Verifies that there is no or minimal co	ntamination in the	prep method or calibration procedure.						
Control Sam	ples Verifies the accuracy of the method, i	ncluding the prep	procedure.						
Duplicates	Verifies the precision of the instrumer	nt and/or method.							
Spikes/Forti	fied Matrix Determines sample matrix interference	es, if any.							
Standard	Verifies the validity of the calibration.								
ACZ Qualifiers	(Qual)								
В	Analyte concentration detected at a value between MDL and P	QL. The associate	ed value is an estimated quantity.						
Н	Analysis exceeded method hold time. pH is a field test with an	immediate hold ti	me.						
L	Target analyte response was below the laboratory defined neg	ative threshold.							
U	The material was analyzed for, but was not detected above the	level of the asso	ciated value.						
	The associated value is either the sample quantitation limit or the	he sample detecti	on limit.						
Mothod Poferer	100								
(1)	EPA 600/4-83-020 Methods for Chemical Apolycic of Water a	nd Wastes Marek	1083						
(1)	EPA 600/4-03-020. Methods for the Determination of Increase	a Substances, Marci	Environmental Semples, August 1002						
(2)	EPA 600/R-93-100. Methods for the Determination of Motels in		environmental Samples, August 1993.						
(3)	EPA 600/R-94-111. Methods for the Determination of Metals in	1 Environmental S	samples - Supplement I, May 1994.						
(4)	EPA SW-846. Test Methods for Evaluating Solid Waste.								
(5)	Standard Methods for the Examination of Water and Wastewal	er.							
Comments									
(1)	QC results calculated from raw data. Results may vary slightly	if the rounded va	lues are used in the calculations.						
(2)	Soil, Sludge, and Plant matrices for Inorganic analyses are rep	orted on a dry wei	ght basis.						
(3)	Animal matrices for Inorganic analyses are reported on an "as	received" basis.	-						
(4)	An asterisk in the "XQ" column indicates there is an extended of	ualifier and/or cei	rtification gualifier						
	associated with the result.	,							
(5)	If the MDL equals the PQL or the MDL column is omitted the F	QL is the reportin	a limit.						
(-)			5						
For a complete list of ACZ's Extended Qualifiers, please click:									

https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

REP001.03.15.02

# AZMINING

# ACZ Project ID: L85333

Calcium, dissolve	ed		M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582277													
WG582277ICV	ICV	01/16/24 1:04	II231227-4	100		98.16	mg/L	98	95	105			
WG582277ICB	ICB	01/16/24 1:10				.21	mg/L		-0.3	0.3			
WG582277LFB	LFB	01/16/24 1:23	II240111-3	67.98753		68.95	mg/L	101	85	115			
L85350-01AS	AS	01/16/24 2:40	II240111-3	67.98753	.22	70.09	mg/L	103	85	115			
L85350-01ASD	ASD	01/16/24 2:44	II240111-3	67.98753	.22	71.38	mg/L	105	85	115	2	20	
Copper, dissolve	d		M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582273													
WG582273ICV	ICV	01/15/24 14:12	MS240109-5	.05		.05286	mg/L	106	90	110			
WG582273ICB	ICB	01/15/24 14:14				U	mg/L		-0.00176	0.00176			
WG582273LFB	LFB	01/15/24 14:16	MS240109-2	.05005		.05185	mg/L	104	85	115			
L85068-01AS	AS	01/15/24 14:47	MS240109-2	.05005	.00898	.05516	mg/L	92	70	130			
L85068-01ASD	ASD	01/15/24 14:48	MS240109-2	.05005	.00898	.05446	mg/L	91	70	130	1	20	
Copper, total			M200.7 IC	CP									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582191													
WG582191ICV	ICV	01/13/24 1:47	II231214-3	2		1.931	mg/L	97	95	105			
WG582191ICB	ICB	01/13/24 1:53				U	mg/L		-0.03	0.03			
WG581533LRB	LRB	01/13/24 2:06				U	mg/L		-0.022	0.022			
WG581533LFB	LFB	01/13/24 2:09	II231214-2	.5005		.499	mg/L	100	85	115			
L85340-01LFM	LFM	01/13/24 3:26	II10XWATER	5.015	U	4.987	mg/L	99	70	130			
L85340-01LFMD	LFMD	01/13/24 3:29	II10XWATER	5.015	U	5.078	mg/L	101	70	130	2	20	
Cyanide, Free			D6888-09	/OIA-1677	-09								
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG581716													
WG581716ICV	ICV	01/05/24 12:10	WI231227-4	.3003		.2997	mg/L	100	90	110			
WG581716ICB	ICB	01/05/24 12:12				U	mg/L		-0.003	0.003			
WG581716LFB	LFB	01/05/24 12:16	WI231227-5	.1001		.1041	mg/L	104	90	110			
L85332-01AS	AS	01/05/24 12:22	WI231227-5	.1001	U	.0999	mg/L	100	90	110			
L85332-01ASD	ASD	01/05/24 12:24	WI231227-5	.1001	U	.1038	mg/L	104	90	110	4	20	
Lead, dissolved			M200.8 IC	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582273													
WG582273ICV	ICV	01/15/24 14:12	MS240109-5	.05		.05083	mg/L	102	90	110			
WG582273ICB	ICB	01/15/24 14:14				U	mg/L		-0.00022	0.00022			
WG582273LFB	LFB	01/15/24 14:16	MS240109-2	.05005		.05123	mg/L	102	85	115			
L85068-01AS	AS	01/15/24 14:47	MS240109-2	.05005	U	.04949	mg/L	99	70	130			
L85068-01ASD	ASD	01/15/24 14:48	MS240109-2	.05005	U	.05089	mg/L	102	70	130	3	20	

#### AZMINING

#### ACZ Project ID: L85333

Lead, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582109													
WG582109ICV	ICV	01/11/24 19:28	MS240109-5	.05		.04686	mg/L	94	90	110			
WG582109ICB	ICB	01/11/24 19:30				U	mg/L		-0.0003	0.0003			
WG581874LRB	LRB	01/11/24 19:31				U	mg/L		-0.00022	0.00022			
WG581874LFB	LFB	01/11/24 19:33	MS240109-2	.05005		.04787	mg/L	96	85	115			
L85285-03LFM	LFM	01/11/24 20:06	MS240109-2	.05005	.00421	.05472	mg/L	101	70	130			
L85285-03LFMD	LFMD	01/11/24 20:08	MS240109-2	.05005	.00421	.05395	mg/L	99	70	130	1	20	
Magnesium, diss	solved		M200.7 I	СР									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582277													
WG582277ICV	ICV	01/16/24 1:04	II231227-4	100		100.59	mg/L	101	95	105			
WG582277ICB	ICB	01/16/24 1:10				U	mg/L		-0.6	0.6			
WG582277LFB	LFB	01/16/24 1:23	II240111-3	49.81683		51.54	mg/L	103	85	115			
L85350-01AS	AS	01/16/24 2:40	II240111-3	49.81683	U	52.56	mg/L	106	85	115			
L85350-01ASD	ASD	01/16/24 2:44	II240111-3	49.81683	U	53.52	mg/L	107	85	115	2	20	
Silver, dissolved			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582273													
WG582273ICV	ICV	01/15/24 14:12	MS240109-5	.02		.02057	mg/L	103	90	110			
WG582273ICB	ICB	01/15/24 14:14				U	mg/L		-0.00022	0.00022			
WG582273LFB	LFB	01/15/24 14:16	MS240109-2	.01		.01007	mg/L	101	85	115			
L85068-01AS	AS	01/15/24 14:47	MS240109-2	.01	U	.00928	mg/L	93	70	130			
L85068-01ASD	ASD	01/15/24 14:48	MS240109-2	.01	U	.0093	mg/L	93	70	130	0	20	
Silver, total			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582109													
WG582109ICV	ICV	01/11/24 19:28	MS240109-5	.02		.01964	mg/L	98	90	110			
WG582109ICB	ICB	01/11/24 19:30				U	mg/L		-0.0003	0.0003			
WG581874LRB	LRB	01/11/24 19:31				U	mg/L		-0.00022	0.00022			
WG581874LFB	LFB	01/11/24 19:33	MS240109-2	.01		.00984	mg/L	98	85	115			
L85285-03LFM	LFM	01/11/24 20:06	MS240109-2	.01	U	.01022	mg/L	102	70	130			
L85285-03LFMD	LFMD	01/11/24 20:08	MS240109-2	.01	U	.0102	mg/L	102	70	130	0	20	
Zinc, dissolved			M200.8 I	CP-MS									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582273													
WG582273ICV	ICV	01/15/24 14:12	MS240109-5	.05		.0526	mg/L	105	90	110			
WG582273ICB	ICB	01/15/24 14:14				U	mg/L		-0.0132	0.0132			
WG582273LFB	LFB	01/15/24 14:16	MS240109-2	.050015		.0544	mg/L	109	85	115			
L85068-01AS	AS	01/15/24 14:47	MS240109-2	.050015	.0221	.0737	mg/L	103	70	130			
L85068-01ASD	ASD	01/15/24 14:48	MS240109-2	.050015	.0221	.0735	mg/L	103	70	130	0	20	

#### AZMINING

#### ACZ Project ID: L85333

Zinc, total			M200.7 ICI	Ρ									
ACZ ID	Туре	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG582191													
WG582191ICV	ICV	01/13/24 1:47	II231214-3	2		2.018	mg/L	101	95	105			
WG582191ICB	ICB	01/13/24 1:53				U	mg/L		-0.06	0.06			
WG581533LRB	LRB	01/13/24 2:06				U	mg/L		-0.044	0.044			
WG581533LFB	LFB	01/13/24 2:09	II231214-2	.50045		.545	mg/L	109	85	115			
L85340-01LFM	LFM	01/13/24 3:26	II10XWATER	5.0075	U	5.507	mg/L	110	70	130			
L85340-01LFMD	LFMD	01/13/24 3:29	II10XWATER	5.0075	U	5.547	mg/L	111	70	130	1	20	



Inorganic Extended Qualifier Report

## South32

ACZ ID

WORKNUM PARAMETER

METHOD

QUAL DESCRIPTION

ACZ Project ID: L85333

No extended qualifiers associated with this analysis



ACZ Project ID: L85333

Wet Chemistry

The following parameters are not offered for certification or are not covered by AZ certificate #AZ0102.

Cyanide, Free

D6888-09/OIA-1677-09

AGZ 2773 Downhill Drive	Laboratories, Inc. Steamboat Springs, CO 80487 (800) 334-5493	
South32		ACZ Project I

#### 4

South32 ACZ Pro	oject ID:		L85333
4542440391 Date Re	eceived: 12	2/27/202	23 10:44
Rece	ived By:		
Date	Printed:	12/:	28/2023
Receipt Verification			
	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			Х
2) Is the Chain of Custody form or other directive shipping papers present?	Х		
3) Does this project require special handling procedures such as CLP protocol?		Х	
4) Are any samples NRC licensable material?			Х
5) If samples are received past hold time, proceed with requested short hold time analyses?	Х		
6) Is the Chain of Custody form complete and accurate?	Х		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?		Х	
Samples/Containers			
	YES	NO	NA
8) Are all containers intact and with no leaks?	Х		
9) Are all labels on containers and are they intact and legible?	Х		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	Х		
11) For preserved bottle types, was the pH checked and within limits? <sup>1</sup>	Х		
12) Is there sufficient sample volume to perform all requested work?	Х		
13) Is the custody seal intact on all containers?			Х
14) Are samples that require zero headspace acceptable?			Х
15) Are all sample containers appropriate for analytical requirements?	Х		
16) Is there an Hg-1631 trip blank present?			Х
17) Is there a VOA trip blank present?			Х
18) Were all samples received within hold time?	Х		
	NA indica	tes Not Ap	plicable

# Chain of Custody Related Remarks

**Client Contact Remarks** 

#### Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
NA40892	3.8	<=6.0	15	Yes

#### Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.





ACZ Project ID: L85333 Date Received: 12/27/2023 10:44 Received By: Date Printed: 12/28/2023

<sup>1</sup> The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCI preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

2773 Downhill Drive Steamboat S	Dratories, Inc.	L S 4-5493	753	ىر (		С	HAII	N of	CUS	το	)Y
Report to:	unige, ee const (000/334	-0493		_							
Name: Kara Haas			Addre		49 Ha	arshav	w Roa	nd			
Company: South32		1	Pat	adoni	a AZ	8564	8	<u></u>			
E-mail: kara.haas@south:	32.net	1	Telep	hone:	505-9	47-17	738				
Copy of Report to:											
Name: Matt Owens			E-mai	⊢ Mat	t Owe	ens16	ituos	h32 ne	at .		
Company: South32		f	Telep	hone:	520-9	47-17	738	102.110			
Invoice to:					_	_					
Name: Kara Haas			Addro		lQ Ha	rehou	, Poar	- -			
Company: South32	Address: (49 Marshaw Koad										
E-mail: SSCINVOICE@SOUTH			Talan	bana	505_0	47-1	738				
If sample(s) received past holdin	a time (HT), or if insufficier	J ht HT rev	naine •		lete	<u></u>	50		YEe		
analysis before expiration, shall . M "NO" then ACZ will contact client for further instru	ACZ proceed with requeste	ed short	HT and precedent	alyses?	no ug	ice, even If	MT in excer	ed, and data	NO		
Are samples for SDWA Complian	ice Monitoring?		Yes			No	×	,			
f yes, please include state forms	. Results will be reported t	o PQL f	or Colo	rado.	_			_			
Sampler's Name: jaime lopez	Simpler's Site Informa	ition	State_	AZ		Zip co	de 85	624	Time Z	one_A	Z
'Sampler's Signature:	initiation     tempering	me authenti- with the same	orty and vali ple in enywe	aity of this : ny, is consid	ample. I un pred fraud a	derstand th nd punishal	nt intention ble by State	elly mislabeli Law.	ng the time,	data/locati	on or
PROJECT INFORMATION				ANA	YSES RE	QUESTE	D (attach	hst ör usc	quote nur	aber)	
Quote #: Outfall 2			2		$\mathbf{N}$		- 1	Ν			
PO#: 4542440391			aine		$  \rangle$		స			/	
Reporting state for compliance test	ing:		ont	l		k	1				
Check box if samples include NRC	licensed material?		2 C	al 2			Ň				
SAMPLE IDENTIFICATION	DATE:TIME	Matrix	#	ð			3	/			
Outfall-2_12232023	12/23/23 8:00AM	sw	3	X				10			
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	2.23.23										
Matrix SW (Surface Water) - GW	(Ground Water) · WW (Waste W	/ater) · Du	W (Drink								
Matrix SW (Surface Water) · GW REMARKS	(Ground Water) · WW (Waste W	/ater) · Di	W (Drink								
Matrix SW (Surface Water) - GW REMARKS	(Ground Water) · WW (Waste W	/ater) · Du	W (Drink								
Matrix SW (Surface Water) - GW REMARKS	(Ground Water) · WW (Waste W	/ater) · Di	W (Drink								
Matrix SW (Surface Water) · GW REMARKS	Ground Water) · WW (Waste W	/ater) · Di	W (Drink								
Matrix SW (Surface Water) · GW REMARKS	(Ground Water) · WW (Waste W	/ater) · Di	W (Drink								
Matrix SW (Surface Water) - GW REMARKS	(Ground Water) · WW (Waste W	/ater) · Du	W (Drink								
Matrix SW (Surface Water) · GW REMARKS Please re RELINQUISHED BY	fer to ACZ's terms & cond	/ater) · Di	W (Drink								
Matrix SW (Surface Water) · GW REMARKS Please re RELINQUISHED BY	fer to ACZ's terms & cond	itions Ic	W (Drink								
Matrix SW (Surface Water) · GW REMARKS Please re RELINQUISHED BY	fer to ACZ's terms & cond	Vater) · DV	W (Drink								

FRMAD050.06.14.14

White - Return with sample. Yellow - Retain for your records.

Lestad Chain of Custod